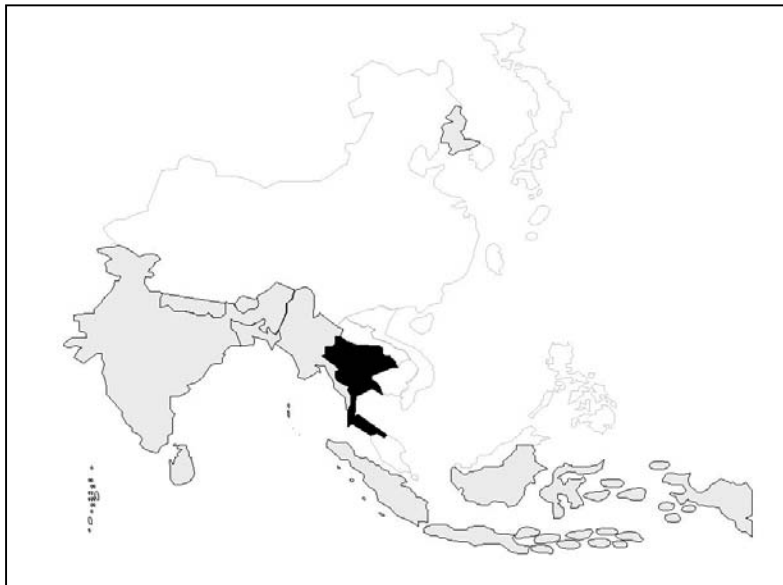


COUNTRY HEALTH PROFILE

THAILAND



SECTION 1: TRENDS IN POLICY DEVELOPMENT

In March 1996, an important political and administrative change took place in Thailand with the decentralization of authority to 2760 local Tambon Administrative Organizations, along with delegation of financial authority. During these organizational reforms, the health policy of the government had continued to emphasize on extending service coverage to all population groups so as to efficiently respond to peoples' needs. Policies also promote the role of women in all spheres of development.

SECTION 2: TRENDS IN SOCIOECONOMIC DEVELOPMENT

2.1 Economic trends

During the pre-1997 period, Thailand enjoyed a period of economic boom, averaging 7.8% GDP growth per year. Following the economic crisis of 1997, the economy plunged into negative growth, but is now well on its way to recovery.

2.2 Demographic trends

The population of Thailand was 60.6 million in 2000. The annual population growth rate had decreased from 1.14% per annum in 1994 to 0.8% in 2001. The proportion of the population in the 0-15 years age group had decreased, while the proportions in the working age (15-59) and older (60 years and above) age groups have shown an increase. The infant mortality rate (IMR) was 21.5 per 1000 live births in 2001, the total fertility rate (TFR) was estimated at 1.8 in 2001, and life expectancy at birth was estimated at 74.9 years for females and 69.9 years for males in 2001. The urban population is increasing, with an estimated 34.72% of the population living in urban areas in 2000.

2.3 Social trends

In 1995, the rate of compulsory educational enrolment was 97.7% and grade seven enrolment 93.66%. The adult literacy rate was 93.8% in 1995. However, despite these achievements, an analysis of the educational structure of the working population in 1996 revealed that 81% were still at primary education level or below, and most were unskilled.

2.4 Food supply and nutritional status

In 1999, the prevalence of low birth weight (less than 2500 grams) was 8.1%. The prevalence of underweight in schoolchildren was 11.3% in 1998. Surveillance and survey data revealed that 4.24% of schoolchildren had evidence of iodine deficiency disorders (IDDs) and 15% of children under five years had anaemia. Among pregnant women, the incidence of anaemia was 13.4% (1995). Measures to deal with protein-energy malnutrition (PEM), IDD and anaemia have been included in the 7th National Plan of Action.

2.5 Lifestyle

The move towards industrialization and urbanization has resulted in changes in lifestyles. A study in Bangkok revealed that 42% of those over 15 years consumed fast foods and that only about 25% took regular exercise. Consumption of alcohol and tobacco are on the increase, with 22.8% of the population aged 15 years and above being regular smokers (1993). Suicide rates have increased in the Bangkok metropolis, as have sex-related crimes. The government's response has been to promote healthy lifestyles, especially sports and exercise, together with a series of campaigns launched against tobacco consumption.

SECTION 3: HEALTH AND ENVIRONMENT

3.1 General protection of the environment

Air pollution is on the rise, particularly in Bangkok, due to vehicular and industrial emissions. The Chao Phraya River, the main artery of Thailand, is fast turning into a source of pollution. Traffic noise exceeds permissible levels while industrial noise pollution has become a major cause of hearing impairment. The Bangkok metropolis, though stretched, manages to collect 90% of solid waste, but provincial cities face solid waste problems, 80% lacking adequate space for disposal. The 7th Economic and Social Development Plan (1992-1996) provided guidelines to deal with water, air and noise pollution, solid waste, and toxic substances.

Food consumption behaviour has changed from home food to cooked or semi-cooked food prepared outside the home. A survey revealed that only 25% of restaurants in the municipal areas of 12 provinces were hygienic. Thailand is in the process of formulating policies on national food safety in addition to implementing the provision of the International Commission on Food Exports (CODEX).

Research studies have identified seven occupational diseases in the workplace (lead poisoning, silicosis, byssinosis, asbestosis, pesticide poisoning, solvent poisoning and hearing loss due to excessive noise levels). At present the Ministry of Labour and Social Welfare is standardizing safety plans for all operations and industrial plants nationwide.

3.2 Water supply and sanitation

In 2000 it was reported that 92.7% of households had adequate, safe drinking water (five litres per person per day), and 97.7% had sanitary latrines and were using them.

SECTION 4: HEALTH RESOURCES

4.1 Human resources for health

The MOPH produces about 8,000 professional nurses and auxiliary personnel annually in various categories. However, the number of health personnel produced is still inadequate, especially for deployment at health centre level (tambon/subdistrict level). According to the staffing pattern (1995-1997), each health centre is supposed to have five staff members, but in reality, the average is only three, with wide regional disparities, the lowest being in the North East followed by the North. Community participation and support are obtained through 610,321 village health volunteers (VHVs) at village level and 14,283 VHVs in urban communities. Regarding medical and health personnel, particularly doctors, dentists, pharmacists and nurses, the shortages are serious due to maldistribution, resignations and transfers. The number of physicians was 18,140 and population per physician 3,341 in 1999. Nurses per 10,000 population was 16.17 (1999).

4.2 Financial resources for health

Health expenditure in Thailand over the past 20 years shows a rising trend. This particularly true of the private sector. In 1998, total health expenditure (THE) was 3.9% of GDP. Public expenditure formed 61.4% of THE. Per capita public health expenditure was \$44. During the period 1993-1996 public expenditure on health (PHE) increased following the expansion of health facilities to cover all tambons and districts. During the 8th National Plan (1997-2001), the investment budget declined as greater emphasis was laid on human resource development. Thailand also has several health insurance and security schemes covering various segments of the population. A medical services

welfare scheme for the poor and the disadvantaged, covering 25 million or 41.4% of the population, is intended to ensure equitable access to health care for the disadvantaged.

4.3 Physical infrastructure

Thailand has a health care delivery system comprising 92 regional/general hospitals (1996), 707 community hospitals at district level (1996), and 9559 health centers at subdistrict and village level (1999). In addition, a network of 61,432 rural community PHC centers (1996), 808 urban community PHC centres, and 51,737 village public address towers provide community support. Despite this impressive infrastructure hierarchy, the referral system remains weak. It also suffers from maldistribution of personnel. In 1999 the number of hospital beds was 135,303, and beds per 10,000 population 22.3. However, there is wide disparity across the regions with the highest availability in Bangkok.

4.4 Essential drugs and other supplies

The essential drugs list in Thailand as revised in 1996 contains just 372 items. This contrasts sharply with about 20,000 products actually available in the market. Promoting the rational use of drugs has been far from easy in the face of a highly competitive drug industry with massive sales promotion aimed at both providers and the public. The MOPH has achieved some success through a "No Trade Name Hospital Project". There is a rising trend in drug consumption, with an annual rate of increase of about 23%.

4.5 International partnerships for health

Thailand continues to engage in bilateral partnerships for developing health, particularly with the Japan, Australia, Germany and Sweden as well as the European Union (EU) and the seven ASEAN countries. It also collaborates with WHO and other UN agencies. As a donor country, Thailand supports health system development in Laos, Myanmar, Vietnam, Cambodia and Nepal.

SECTION 5: DEVELOPMENT OF THE HEALTH SYSTEM

5.1 Health policies and strategies

Since the post Alma Ata period, when Thailand adopted the goal of HFA and PHC as its key approach, the relevant policies and strategies have endured with little modification. Some relatively new legal enactments pertaining to tobacco consumption, medical services for the disabled, the environment and local administration, when implemented, could have positive effects on health. The 8th Development Plan has introduced as its cultural theme the concept of human-centered development. The proposed National Health Act is heralded as a leap-forward path to reform. It is envisaged to become a health constitution that would usher in conditions, systems and structures that would be conducive to health system reform.

5.2 Intersectoral cooperation

Intersectoral coordination is strongly visible during planning. Basic minimum needs data, which are revised every five years, are used for intersectoral and other planning purposes.

5.3 Organization of the health system

At the community level, the MOPH has supported VHVs and the community to establish community PHC centres for the provision of basic services, disease prevention and health promotion. At central

level, the Bureau of Health Policy and Planning and a training institute are responsible for health manpower development.

5.4 Managerial process

In the management process, particularly in the area of monitoring and control, the MOPH has delegated authority to Regional Inspectors General who act on behalf of the Permanent Secretary for Public Health.

5.5 Health information system

The Health Statistics Division is the information centre of MOPH. The ministry encourages the use of health information at all levels of management and is in the process of developing an on-line computerized information system linking all the provinces.

5.6 Community action

Decision-making and management authority has been decentralized to the community level. The Tambon Administrative Organizations are responsible for disease prevention and the basic health services provision.

5.7 Emergency preparedness

Health offices including hospitals are responsible for developing emergency plans with clear practical guidelines. They are expected to have periodic rehearsals to test the effectiveness of implementation.

5.8 Health research and technology

Thailand has established a Health Systems Research Institute as a specialized agency. The MOPH has also developed policies for provincial health offices to support their staff in the conduct of research studies and training in research methodology.

SECTION 6: HEALTH SERVICES

6.1 Health education and promotion

Signaling an epidemiological transition, communicable diseases, with the exception of HIV/AIDS, have been on the decline, while diseases and conditions related to social, environmental and behavioral factors are on the increase. Therefore, the 8th Plan (1997-2001) has identified major strategies addressing issues related to health behaviour, disease prevention and control, and health promotion. Thus, more budgetary resources are now available for health education and promotion, though still inadequate. The MOPH is also short of personnel with expertise in health education and public relations. MOPH makes maximal use of the media (television, radio and print media) on campaigns for specific health issues.

6.2 Maternal and child health/family planning

The Department of Health gives high priority to reduce maternal and infant mortality. Since 1990, the rates have shown further declines. The maternal mortality ratio (MMR) was 13.2 per 100,000 live births (2000) and the infant mortality rate 21.5 per 1000 live births (2001). The commonest cause of maternal death is haemorrhage followed by toxemia of pregnancy and sepsis. In 1996 the coverage with four antenatal visits was 83.4% and the coverage of deliveries attended by health personnel or trained TBAs was 94.5% (1999). The percentage of low-birth-weight infants was 8.1% in 1999. The national contraceptive prevalence rate (CPR) is 72.2% (2001) with the CPR in the Southern Region

being the lowest. Currently, following the International Conference on Population and Development (ICPD), reproductive health policies are being reviewed by the National Family Planning Committee.

6.3 Immunization

The expanded programme on immunization (EPI) is a priority programme of the MOPH. It has managed to maintain high levels of coverage. In 2000, the coverage for infants under one year was as follows: BCG 100%, DPT3 94.6%, OPV3 94.8%, measles vaccine 88.1%, hepatitis B vaccine 93.4%. The coverage of pregnant women with two doses of tetanus toxoid (TT) was 76.3%. However, some isolated population groups (hill tribes and migrating workers) remain under-served.

6.4 Prevention and control of locally endemic diseases

The overall prevalence rate for leprosy had declined significantly to 0.5 per 10,000 population in 1996. Following this, the 8th plan had targeted to reduce leprosy prevalence in every province and district to less than 1 per 10,000 population. The tuberculosis (TB) infection rate among all age groups was 29.47% (third national TB survey 1991/92). The number of TB patients registered for therapy stabilized at 45,000 in 1995. With the spread of HIV/AIDS, the TB cure rate has come down among the sputum positives. Drug resistance is also rising. In 1996, Thailand introduced DOTS (directly observed treatment, short course) for TB patients. Malaria is still a major concern with 856 deaths (rate 1.4 per 100,000 population) reported in 1995 and a morbidity rate of 2.01 per 100,000 population reported for the same year. Migrant workers along the Thai/Burmese and the Thai/Cambodian borders add to the difficulties in malaria control operations. Lymphatic filariasis is still an important health problem in certain areas of Thailand. Control activities have been integrated into the local health services.

6.5 Treatment of common diseases and injuries

There are a number of programmes and activities for the treatment of common diseases. These are based on the standard management procedures laid down by WHO or by national consensus. Improved referral systems are being developed and the concept of self-care actively promoted.

SECTION 7: TRENDS IN HEALTH STATUS

7.1 Life expectancy

Life expectancy at birth has increased over the past two decades to reach 69.9 for males and 74.9 for females (2001). There is much regional variation, with the highest life expectancy in the Bangkok metropolis and the lowest in the North East.

7.2 Mortality

The infant mortality rate (IMR) appears to be significantly underreported at 21.5 per 1000 live births. A more realistic estimate would be around 25. The MMR also appears to be grossly underreported. Of the communicable diseases, pneumonia is the leading cause of death in children under five years with 16.72 deaths per 100,000 in 1994. Overall, acute diarrhoea is an important cause of mortality, with 1.56 deaths per 100,000 children under five years. In recent years, malaria has declined as an important cause of mortality, with only 856 deaths reported in 1995. Tuberculosis related mortality has also shown a declining trend from 1990 to 1994. Of the noncommunicable diseases, cardiovascular disease (CVD) is the leading cause of mortality with 51,936 deaths reported in 1994. Cancer, diabetes mellitus and road traffic accidents are also major causes of mortality. AIDS would emerge as a serious cause of mortality in the future.

7.3 Morbidity

Among the communicable diseases, the main contributor to morbidity is acute respiratory infections, followed by diarrhoea. HIV infection rates among young military recruits and pregnant women is reportedly declining, perhaps reflecting a similar trend in the general population. However, transmission among certain high-risk groups, such as intravenous (IV) drug users, does not appear to be coming down. Morbidity from malaria and leprosy has significantly declined, as has the morbidity from vaccine-preventable diseases of childhood.

NCD related morbidity is rising in Thailand, while micronutrient deficiency is still significant. Goitre rate among children aged 6-14 was 4.24%; iron deficiency anaemia in pregnant women was 13.4%. Vitamin A deficiency was mainly confined to the Southern provinces. NCDs such as ischaemic heart disease, hypertension and diabetes are becoming major causes of morbidity, though the picture is blurred by incompleteness of data.

7.4 Disability

A survey on health and social welfare conducted in 1991 revealed 1,057,000 disabled people in Thailand (1.8% of the population). In rank order, physical or locomotor disability was first (47.03%), followed by visual (14.88%) and hearing (11.70%) impairments. Other causes included mental, behavioural and learning problems.

SECTION 8: OUTLOOK FOR THE FUTURE

8.1 Overall assessment and strategic issues

Thai people's overall health status has improved during the past two decades, according to the major health indicators. However, there are certain issues that need to be addressed in order to consolidate these gains. Some of the concerns include special services for the increasing number of older persons, behavioural and lifestyle issues that relate to noncommunicable diseases as well problem areas such as substance abuse and road traffic accidents. The management of health resources, particularly human resources, inequalities in health service delivery, and disparities in the allocation of resources are also issues of concern.

8.2 Futures vision

A number of health areas and issues require urgent attention in the near future. These include international cooperation for health, legal measures for health protection and promotion, particularly relating to macro-economic policies, industry and trade, intersectoral cooperation for health, and the integrated prevention of noncommunicable diseases.

8.3 Proposed strategies

Based on its vision for the future and the current health status, Thailand has formulated national health development strategies for the next two decades. These strategies fall under the following broad headings:

- Improvement in efficiency and capacity of the health care system with better health care financing and management, and more public and private sector mix in health care provision
- More effective promotion of healthy lifestyles and prevention of disease programmes
- Improvement in public health programmes and further decentralization of health management

- Revision of legislation and administrative regulations where needed and their enforcement
- Better use of surveillance data and health information
- Development and appropriate utilization of health care technologies
- Promotion and development of partnerships for health with other countries, UN agencies and international organizations

Country reported Data for Basic Health Indicators

| Indicator | Latest available data | Year | Source | Remarks |
|---|-----------------------|------|--------|--------------------|
| Population and Vital Statistics | | | | |
| Total population (in thousands) | 60,607 | 2000 | 1 | Census 2000 |
| Population density (persons per sq km) | 118.1 | 2000 | 1 | |
| Sex ratio (males per 100 females) | 97.0 | 2000 | 1 | |
| Population under 15 years (%) | 25.7 | 2000 | 1 | Country update |
| Population 60 years and above (%) | 9.4 | 2000 | 1 | Country update |
| Crude birth rate (per 1000 population) | 14.0 | 2001 | 6 | |
| Crude death rate (per 1000 population) | 6.0 | 2001 | 6 | |
| Natural (population) growth rate (%) | 0.8 | 2001 | 6 | |
| Total fertility rate (per woman) | 1.8 | 2001 | 3 | Country update |
| Urban population (%) | 34.7 | 2000 | 6 | Country update |
| Socioeconomic Situation | | | | |
| Gross national product per capita (US\$) | 1,847.10 | 1998 | 3 | |
| Adult literacy rate (%) | 93.8 | 1995 | 3 | 15 years and above |
| Prevalence of low birth weight (weight <2500 grams at birth) (%) | 8.1 | 1999 | 9 | Updated by country |
| Prevalence of underweight (weight-for-age) in children <5 years of age (%) | 11.33 | 1998 | 3 | In school children |
| Environment | | | | |
| Population with safe drinking water available in the home or with reasonable access (%) | 92.7 | 2000 | 1 | Updated by country |
| Population with adequate excreta disposal facilities available (%) | 97.7 | 2000 | 1 | |
| Health Resources | | | | |

| Indicator | Latest available data | Year | Source | Remarks |
|---|-----------------------|------|--------|--------------------|
| <i>Facilities</i> | | | | |
| Number of hospital beds | 135,303 | 1999 | 2 | Updated by country |
| Population per hospital bed | 455 | 1999 | 2 | - do - |
| Hospital beds per 10,000 population | 22.3 | 1999 | 2 | - do - |
| Number of health centres | 9,559 | 1999 | 2 | - do - |
| <i>Human resources</i> | | | | |
| Number of physicians | 18,140 | 1999 | 2 | Country update |
| Population per physician | 3,341 | 1999 | 2 | - do - |
| Physicians per 10,000 population | 2.99 | 1999 | 2 | - do - |
| Nurses per 10,000 population: Professional nurses | 16.17 | 1999 | 2 | Country update |
| <i>Budgetary resources</i> | | | | |
| Total Expenditure on Health (THE) as % of Gross Domestic Product (GDP) | 3.9 % | 1998 | 8 | |
| Public Expenditure on Health (PHE) as % of Total Expenditure on Health (THE) | 61.4 % | 1998 | 8 | |
| Private Expenditure on Health (PvtHE) as % of Total Expenditure on Health (THE) | 38.6 % | 1998 | 8 | |
| Public Expenditure on Health (PHE) as % of General Government Expenditure (GGE) | 13.3 % | 1998 | 8 | |
| Social Security Expenditure on Health (SSHE) as % of Public Expenditure on Health (PHE) | 8.3 | 1998 | 8 | |
| Tax funded Health Expenditure (TaxFHE) as % of Public Expenditure on Health (PHE) | 91.6 | 1998 | 8 | |
| External Resources for Health (Ext Res HE) as % of Public Expenditure on Health (PHE) | 0.1 % | 1998 | 8 | |
| Private Insurance for Health Risks (Pvt ins HE) as % of Private Expenditure on Health (PvtHE) | 15 % | 1998 | 8 | |
| Out-of-Pocket Spending on Health (OOPS) as % of Private Expenditure on Health (PvtHE) | 84.8 % | 1998 | 8 | |

| Indicator | Latest available data | Year | Source | Remarks |
|--|-----------------------|------|--------|---------------------------------|
| Per capita Total Expenditure on Health (THE) at official Exchange rate (X-Rate per US\$) | 71 | 1998 | 8 | |
| Per capita Public Expenditure on Health (PHE) at official Exchange rate (X-Rate per US\$) | 44 | 1998 | 8 | |
| Per capita Total Expenditure on Health (THE) in international dollars (int'l \$) | 197 | 1998 | 8 | |
| Per capita Public Expenditure on Health (PHE) in international dollars (int'l \$) | 121 | 1998 | 8 | |
| Health Services | | | | |
| Pregnant women attended by trained personnel during pregnancy (%) | 83.4 | 1996 | 9 | Updated by country |
| Deliveries attended by trained personnel (%) | 94.5 | 1999 | 9 | Country update |
| Infants attended by trained personnel (%) | 89.6 | 1995 | 4 | |
| Women of childbearing age using family planning (%) | 72.2 | 2001 | 6 | |
| Infants reaching their first birthday that have been fully immunized against diphtheria, tetanus, and whooping cough (%) | 94.6 | 2000 | 10 | Country update |
| Infants reaching their first birthday that have been fully immunized against poliomyelitis (%) | 94.8 | 2000 | 10 | Country update |
| Infants reaching their first birthday that have been fully immunized against measles (%) | 88.1 | 2000 | 10 | Country update |
| Infants reaching their first birthday that have been fully immunized against tuberculosis (%) | 100 | 2000 | 10 | Country update |
| Women that have been immunized with tetanus toxoid (TT) during pregnancy (%) | 76.3 | 2000 | 10 | TT2 + booster Country update |
| Health Status | | | | |
| Life expectancy at birth (years): Male | 69.9 | 2001 | 6 | |
| Female | 74.9 | 2001 | 6 | |
| Infant mortality rate (per 1000 live births) | 21.5 | 2001 | 6 | |

| Indicator | Latest available data | Year | Source | Remarks |
|--|-----------------------|------|--------|----------------|
| Under-five mortality rate (per 1000 live births) | 31.4 | 1999 | 9 | Country update |
| Maternal mortality ratio (per 100,000 live births) | 13.2 | 2000 | 2 | Country update |

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