Thai Health 2015

Institute for Population and Social Research, Mahidol University
Thai Health Promotion Foundation
The National Health Commission Office

Health Frauds

When Health is Commoditized, Drugs Become Profit-Making Tools.

11 ASEAN Health Indicators
10 Health Issues
4 Outstanding Accomplishments for Health

Cataloguing in Publication Data

Thai Health 2015: Health Frauds: When Health is Commoditized, Drugs Become Profit-Making Tools /
Institute for Population and Social Research, Mahidol University. ——1st ed. — Nakorn Pathom:
Institute for Population and Social Research, Mahidol University, 2015
(Publication / Institute for Population and Social Research, Mahidol University ; no. 452)

ISBN 978-616-279-777-4

1. Economic policy. 2. Southeast Asia--Economic integration. 3. Drugs. 4. Narcotics. 5. Commercial policy.
6. Quackery. 7. Quacks and quackery. I. Mahidol University. Institute for Population and Social Research. II. Series.

WA590 T364 2015

Translated by: Paisarn Likhitpreechakul
Edited by: Andrew Jonathan Hall
Graphics for Indicators Part: Sukanya Phomsap
Layout Design: Facebook.com/bantaisoidesign

Publisher: Institute for Population and Social Research, Mahidol University
Thai Health Promotion Foundation
National Health Commission Office of Thailand (NHCO)

Printed: Ban Tai Soi Design
First published 2015 : 2,000 copies

Institute for Population and Social Research, Mahidol University
999 Phuttamonthon Sai 4, Salaya, Phuttamonthon, Nakhon Pathom 73170, Thailand
Telephone +66 2 441 0201 Fax +66 2 4419333
Website: http://www.ipsr.mahidol.ac.th
Website: http://www.thaihealthreport.com

Thai Health Promotion Foundation (Thai Health)
99/8, Soi Ngamduplee, Thung Maha Mek,Sathorn, Bangkok 10120, Thailand
Phone +66 2 343 1500 Fax +66 2 343 1501
Email : InterRelations@thaihealth.or.th

National Health Commission Office of Thailand (NHCO)
3rd Floor, 88/39, Tiwanon 14 Rd., Mueang District, Nonthaburi 11000 Thailand.
Tel +66 2832 9000 Fax +66 2832 9001

Thai Health 2015

Preface

Thai Health 2015 is in its twelfth edition. Last year was a year of tremendous political, economic and social changes for Thailand. Thai Health assumes a role to record the outstanding situations of the past year for the benefit of posterity. These are: 1.The 2014 coup d'état: Breaking the political impasse, 2. Life hanging on a bear thread: Lack of Safety in Thai public transport, 3. Garbage and toxic waste management: a new national agenda?, 4. Ebola and cross-border disease management, 5. Surrogacy and what Thai society needs to know, 6. New drug legislation. Who wins? Who loses?, 7. Health Areas and Discontent: Holding the Public Victims, 8. Chiangrai earthquake, community impact and problem management, 9. Border Economic Zones: Two sides of the coin, and 10. Violent Crime: Thorn in the flesh of Thai tourism

2015 is also a year for ASEAN economic integration, making it an appropriate time for Thai Health to focus our health index section on ASEAN to examine different dimensions of the region relating to population, health, society, economy, the environment, changes in health behaviours and health systems.

For the special feature story, Thai Health takes on the issue of “Health frauds”, highlighting strategies to sell drugs through marketing and selling hope, exposing the subtle tricks used by drug companies to change healthy people into “sick” people or turn beauty into a commodity. This section will hopefully provide the public with a different perspective to consider before choosing a health related product or service.

The Thai Health working group would like to thank our readers for your continuous support and sincerely hope that Thai Health 2015 will be as useful to you all and also a pleasure to read as were previous editions.

Thai Health Working Group

March 2015

11 ASEAN Health Indicators

Contents

10 Outstanding Situations in the Year 2015

Special Issue for the year

Health Frauds

Four Outstanding Accomplishments for Health

Appendix

Citation:

Thai Health Project.2015. Title of article. In Thai Health Report. (page number).
Nakorn Pathom: Institute for Population and Social Research, Mahidol University.

Citation Example

Thai Health Project.2015. ASEAN: Unity in Diversity. In Thai Health 2015. (page 10-11).
Nakorn Pathom: Institute for Population and Social Research, Mahidol University.

11 ASEAN
Health Indicators

11 ASEAN Health Indicators

Despite seeming similarities, the ten ASEAN countries possess vast diversity in their social, economic, political, cultural or environmental characteristics. For this reason, the development of healthcare systems, universal health coverage and "healthy ASEAN lifestyles" remains a challenge.

To mark the historical milestone as the ASEAN Economic Community (AEC) becomes a reality, ThaiHealth 2015 presents "11 ASEAN health indicators" to reflect health-related situations, directions and trends of ASEAN people. This section discuss ASEAN health behaviour and health determinants factors that pose multidimensional opportunities and challenges within the region, as well as healthcare system development issues, particularly health financing and public health resources, and health inequality among the different ASEAN countries.

With a combined 9% of the global population, ASEAN is a unique regional grouping with great diversity amongst its members. However, it is estimated that in 20 years, all ASEAN countries will become aging societies whilst Thailand and Singapore will become super-aged societies where more than 20% of the country's population is 65 years old or older.

Although life expectancy has overall increased in all ASEAN countries, reflecting improved physical health, there is a vast difference between wealthier and poorer countries. In some countries, the average number of years with bad health remains high. Infectious diseases, maternal and child health and malnutrition remain health concerns amongst poorer countries, even as non-communicable diseases also increase.

As for mental health, working-age ASEAN people are more vulnerable to mental health problems than children and the elderly. Although the 2013 World Happiness report ranked Singapore and Thailand as ASEAN's two happiest countries, WHO's 2014 data shows that they also have the highest rates of self-inflicted mortalities.

Tobacco and alcohol consumption, unhealthy diet and physical inactivity are important health risk factors for morbidity and mortality from non-communicable diseases within ASEAN. The development of a mechanism to monitor and evaluate the impact of these risk factors, as well as establishment of a "sin tax" fund, should be considered by member countries which do not yet have such measures in place.

The vast social and economic inequality and differences among the ten ASEAN member states pose development challenges for ASEAN members, especially those in the middle and low income categories. More than one third of the ASEAN population live in cities as urbanisation continues to intensify, leading to concerns about congestion and changing urban lifestyles as well as health impacts due to changes in physical environment and the climate.

Concerning health financing, four countries (Singapore, Brunei, Malaysia and Thailand) have already established universal health coverage systems to protect their populations from excessive health expenses. Some countries continue to face healthcare personnel shortages as well as qualitative and quantitative limitations in producing healthcare personnel. The expected increase in the movement of healthcare professionals within and to outside of ASEAN should be monitored and discussed within a collaborative framework. Health inequity continues to be a problem in several countries, especially in the areas of access to primary healthcare, maternal and child care and basic services such as clean water and basic public health services.

Under the idea of "one vision, one identity, one community" in post-2015 ASEAN, health-related challenges will become more complex and dynamic. Regional level collaboration should be based on sustainable development in economic, social, cultural and environmental issues with the key objective to promote health and quality of life for every person in the region.

1 ASEAN: Unity in Diversity

The merging of ten member states will make ASEAN a powerful economy and one of the world's richest biodiversity.

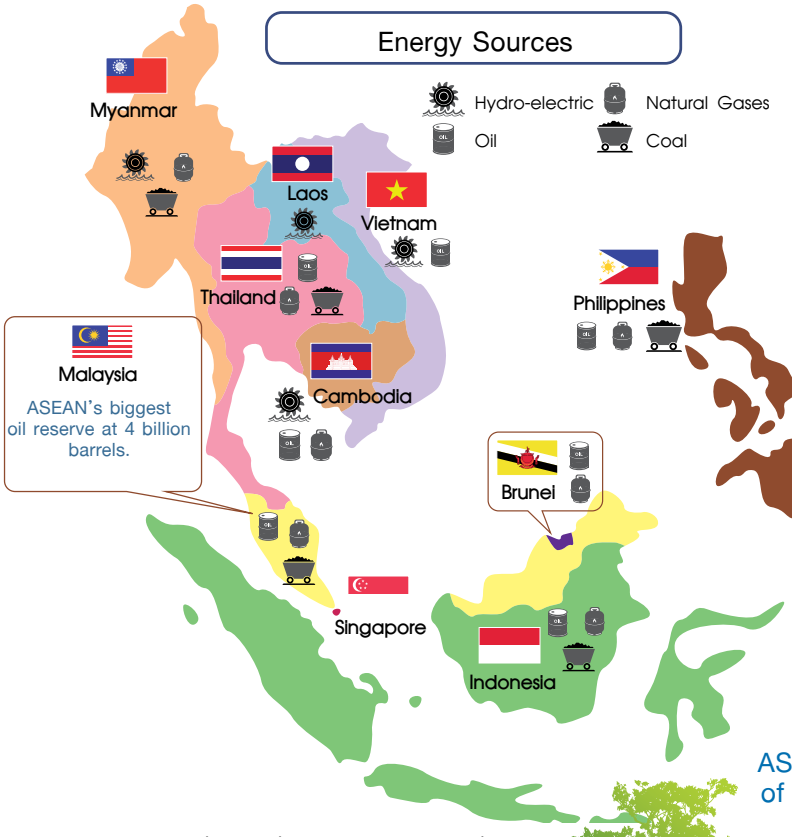
With a combined area of more than 4.43 million square kilometers, ASEAN is culturally and linguistically diverse. Rather than this diversity being a weakness, the different stages of economic development and different political systems of member states are the region's strength which allows collective developments in labour, trade, investment and cultural exchange. This in turn promotes and supports development opportunities.

Asian Diversity

Country	Area (Km^2)	Religion[1]	Main ethnic groups	Political system
Brunei	5,765	Muslim Buddhist Christian	Malay 66% Chinese 11%	Absolute Monarchy
Cambodia	181,035	Buddhist	Khmer 90%	Democracy
Indonesia	1,860,360 (Largest in ASEAN)	Muslim Christian	Javanese 41% Sundanese 15%	Democracy
Laos	236,800	Buddhist	Laotian 55% Khmou 11%	Socialist
Malaysia	330,252	Muslim Buddhist Christian	Malay 50% Chinese 23% Indigenous 11%	Democracy
Myanmar	676,577	Buddhist Christian Muslim	Bamar 68%	Democracy (Military dictatorship until 2011)
Philippines	300,000	Christian Muslim	Tagalog 28% Cebuano 13%	Democracy
Singapore	714 (Smallest in ASEAN)	Buddhist Christian Muslim Hindu None	Chinese 77% Malay 14%	Democracy
Thailand	513,120	Buddhist Muslim	Thai 75% Chinese 14%	Democracy (Military Government)
Vietnam	331,051	Buddhist Christian	Viet 86%	Socialist

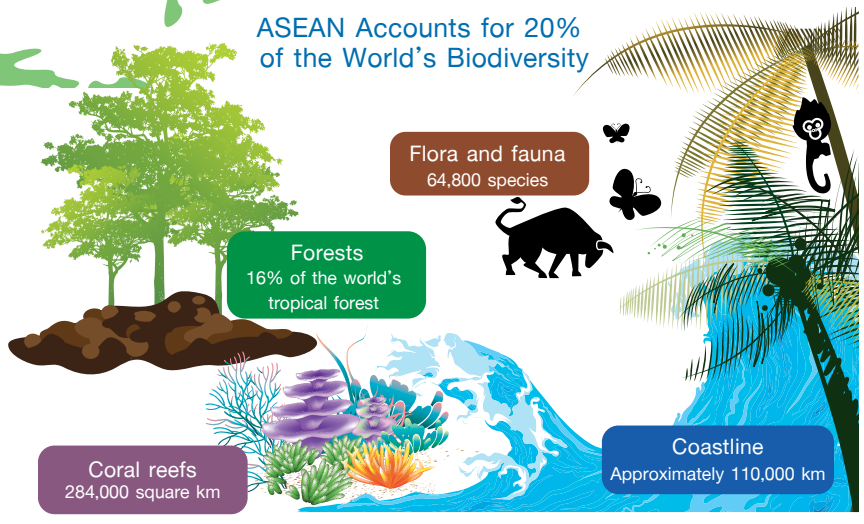
Source: World Development Indicators Database, World Bank 2014

1. Brunei and Myanmar data from United Nations Statistics Division 2014
2. 2011 data



ASEAN owns ample energy sources to guarantee energy security. ASEAN members also possess a wealth of natural resources: coal, oil, natural gases and precious metals in Indonesia, minerals in Laos, oil and natural gases in Myanmar as well as lumber and minerals in Cambodia. This wealth will allow ASEAN countries to trade energy amongst themselves once a common ASEAN electrical grid is established.

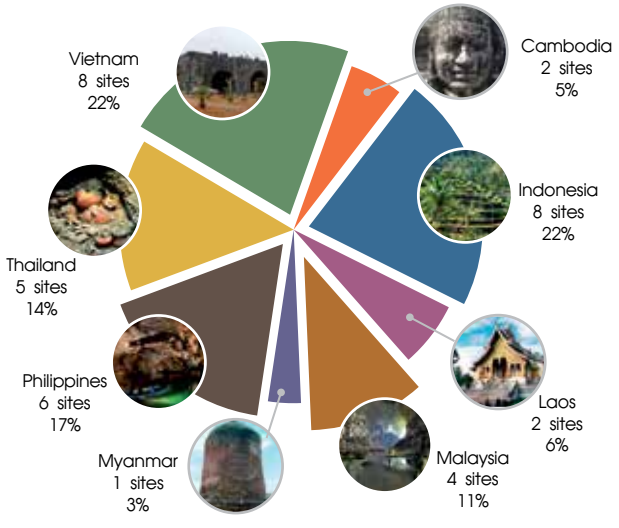
Located in the tropics and blessed with abundant flora and fauna from the forests to coastal areas, ASEAN is home to unparalleled biodiversity accounting for 20% of the world's species. However, urbanization is increasingly encroaching on and threatening the habitats of endangered species.



Source: ASEAN and biodiversity, Ministry of Natural Resources and Environment 2015

ASEAN's social and cultural diversity makes for an interesting mix. Islam, Buddhism, Christianity, Hinduism and Confucianism co-exist in the ten member countries where 13 official languages are spoken. Despite their different cultures, the member countries also have commonalities such as the water-splashing traditional New Year shared by the four countries in the Mekong sub-region. Racially diverse Singapore also displays harmony despite the lack of national costume or a national language.

ASEAN's 36 World Cultural Heritage Sites



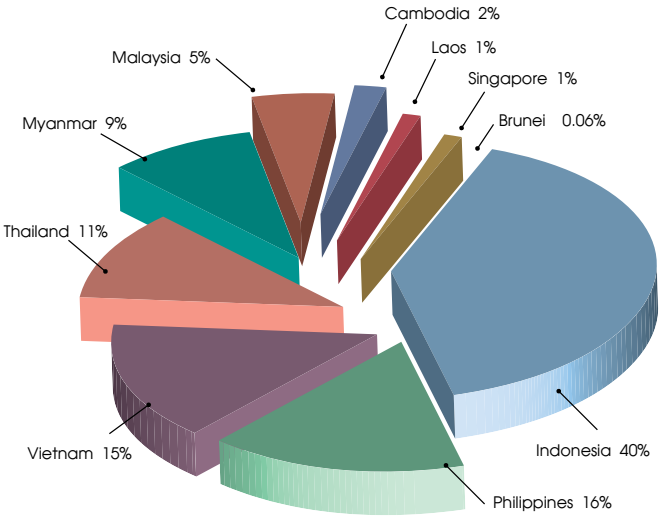
2 ASEAN Population

In 20 years, all ASEAN countries will become ageing societies (more than 7% of the population is 65 or older) while Thailand and Singapore will become super-aged societies (more than 20% of the population is 65 or older).

To compensate for the ageing population, the shrinking workforce must improve in quality in order to reduce dependency on government welfare.

With a combined population of over 600 million people, ASEAN accounts for 9% of the world population. While half are Indonesians, the other half spreads across other countries, with the least populous Brunei accounts for less than 1%. One indicator which shows the population trend is the reproductive rate (average number of children born by one woman throughout the reproductive age of 15-49) which has decreased in all ASEAN countries, especially Singapore and Thailand. With fewer babies being born and improved longevity, the proportion of the elderly will increase.

ASEAN Population has reached 632 million people in 2015



Note: Medium Fertility Assumption, 2010-2100

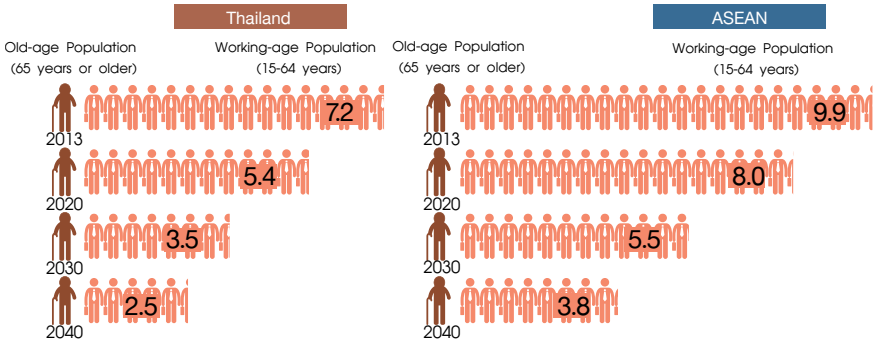
Source: World Population Prospects: 2012 revision

Total Fertility Rate

Country	1965-1970[1]	2005-2010[1]	Projected in 2014[2]
Brunei	5.59	2.11	1.82
Cambodia	6.22	2.8	2.66
Indonesia	5.57	2.19	2.18
Laos	5.98	3.02	2.9
Malaysia	5.21	2.72	2.58
Myanmar	6.1	2.08	2.18
Philippines	6.54	3.27	3.06
Singapore	3.65	1.25	0.8
Thailand	5.99	1.63	1.5
Vietnam	7.38	1.89	1.85

Source: 1 Jones, G.W. 2013 analysis from United Nations Population Division 2010
2 Asian Development Bank 2014 Indicator

Old-age Support Ratio

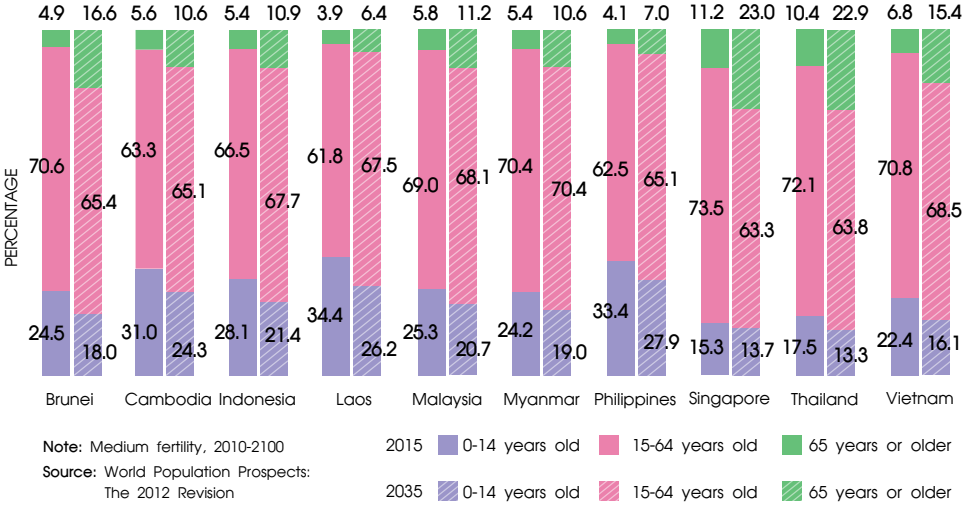


Old-age Support Ratio = Working-age Population (15-64 years) / Old-age Population (65 years or older)

Source: Jongjit Ritthirong, Suthida Chuanwan, Pramote Prasartkul. 2013

In 20 years, all ASEAN countries will become ageing society, and will one by one become aged societies (more than 14% of the population is 65 or older). The old-age dependency ratio (the ratio of older dependents to the working population aged 15-64) will decrease from 7.2 in 2013 to 2.5 in 2040. Singapore's and Thailand's workforce will shoulder more burden to support old-age population than in other ASEAN countries.

Population by Age Group 2015 and 2035



Note: Medium fertility, 2010-2100
Source: World Population Prospects: The 2012 Revision

Demographic shifts are the most visible in Singapore, Thailand, Brunei and Vietnam with shrinking proportions of working-age population. Thailand's proportion of working-age population will drop from 72.1% in 2015 to 63.8% in 2035 while the proportion of aged population will rise from 10.4% to 22.9% over the same period.

Labor and skill development will enhance the capacity of the shrinking Thai workforce and turn them into quality skilled workers who can support the country's next stage of economic development as an aged society.

The Population of Southeast Asia

Country	2010	2015	2020	2025
Indonesia	240,676,000	255,709,000	269,413,000	282,011,000
Philippines	93,444,000	101,803,000	110,404,000	119,219,000
Vietnam	89,047,000	93,387,000	97,057,000	99,811,000
Thailand	66,402,000	67,401,000	67,858,000	67,900,000
Myanmar	51,931,000	54,164,000	56,125,000	57,650,000
Malaysia	28,276,000	30,651,000	32,858,000	34,956,000
Cambodia	14,365,000	15,677,000	16,947,000	18,120,000
Laos	6,396,000	7,020,000	7,651,000	8,253,000
Singapore	5,079,000	5,619,000	6,057,000	6,334,000
Brunei	401,000	429,000	454,000	478,000
ASEAN Total	596,017,000	631,860,000	664,824,000	694,732,000

Note: Medium fertility Assumption, 2010-2100
Source: World Population Prospects: The 2012 Revision

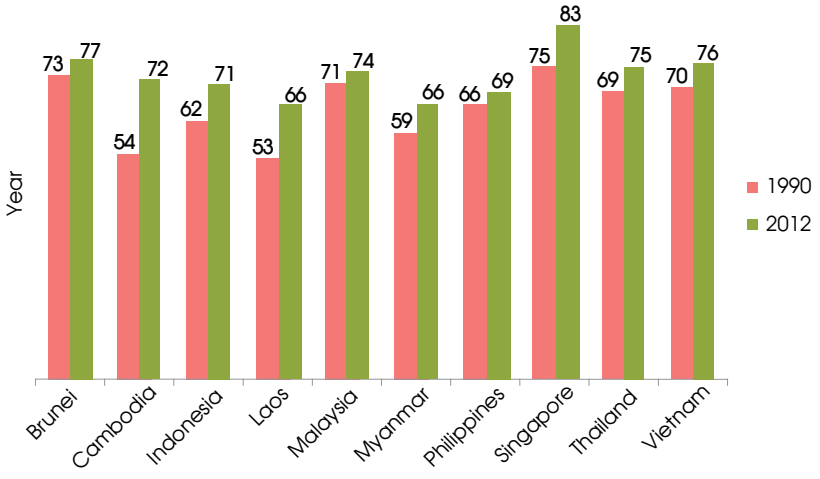
3 Physical Health

In addition to having the highest life expectancy at birth of 83 years, Singaporeans also have 76 years of healthy life expectancy.

Over the past 20 years, ASEAN has seen great improvement in the physical health of its population. Life expectancy has increased in every member country. The population in wealthier countries are more likely to have higher life expectancy than their poorer counterparts.

At 83 years, Singaporeans have the region's highest life expectancy at birth. Although life expectancy at birth is 66 years in Laos and Myanmar and this remains low, it is a significant improvement on previous rates.

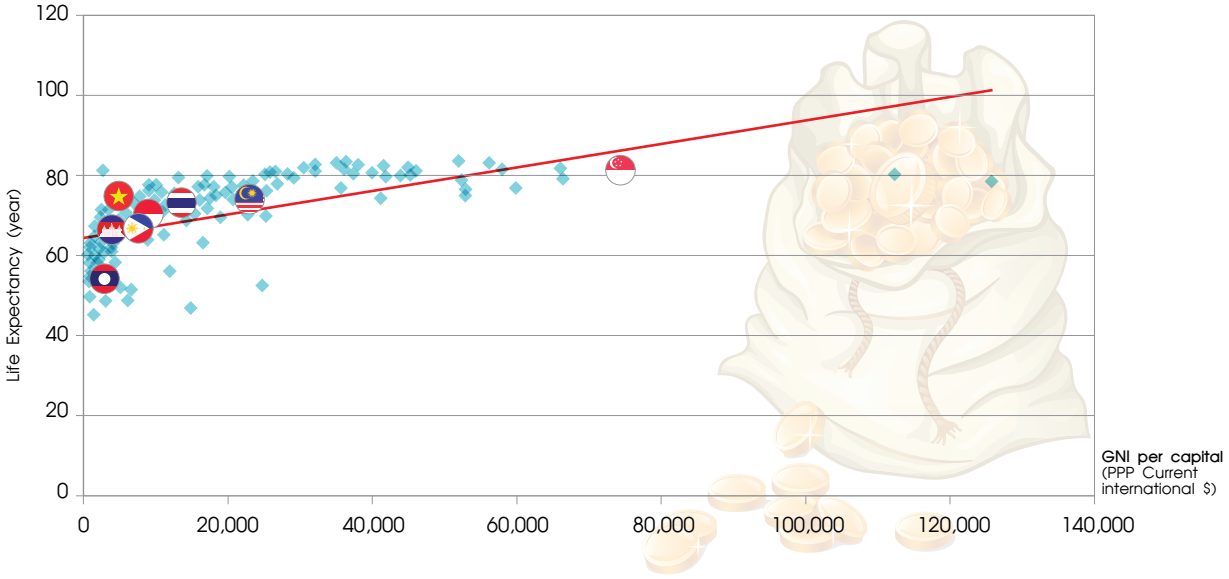
Life Expectancy at Birth in 1990 and 2012



Source: World Health Statistics 2014, World Health Organisation (WHO)

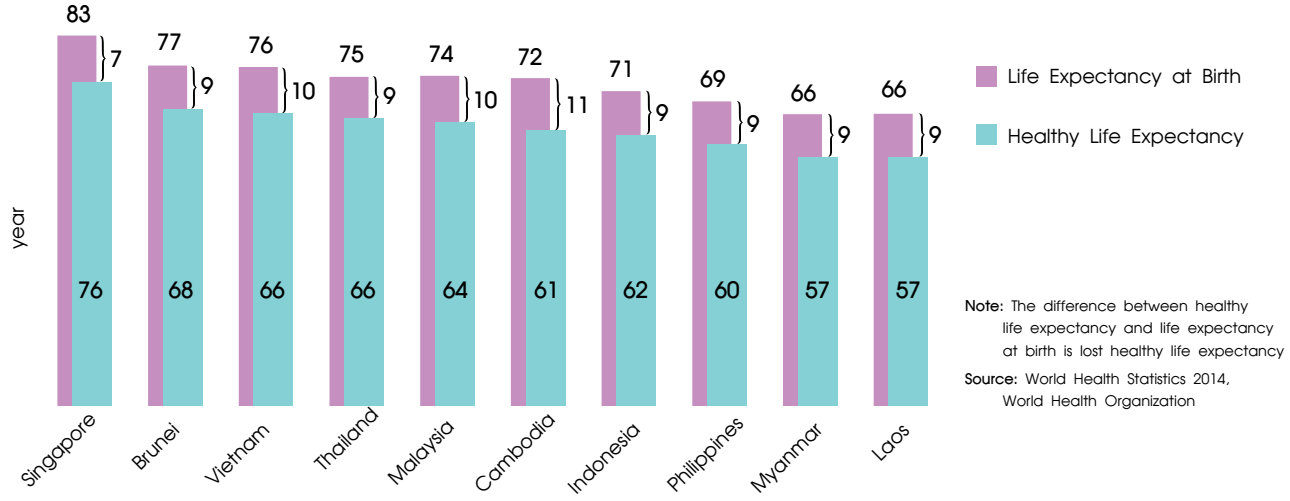
However, longevity doesn't necessarily mean good health as some years may be spent bedridden with diseases. Health is therefore better measured by average "healthy life expectancy".

Life Expectancy in Comparison to Per Capita Income, 2012



Source: World DataBank 2012, The World Bank

Life Expectancy at Birth and Healthy Life Expectancy, 2012

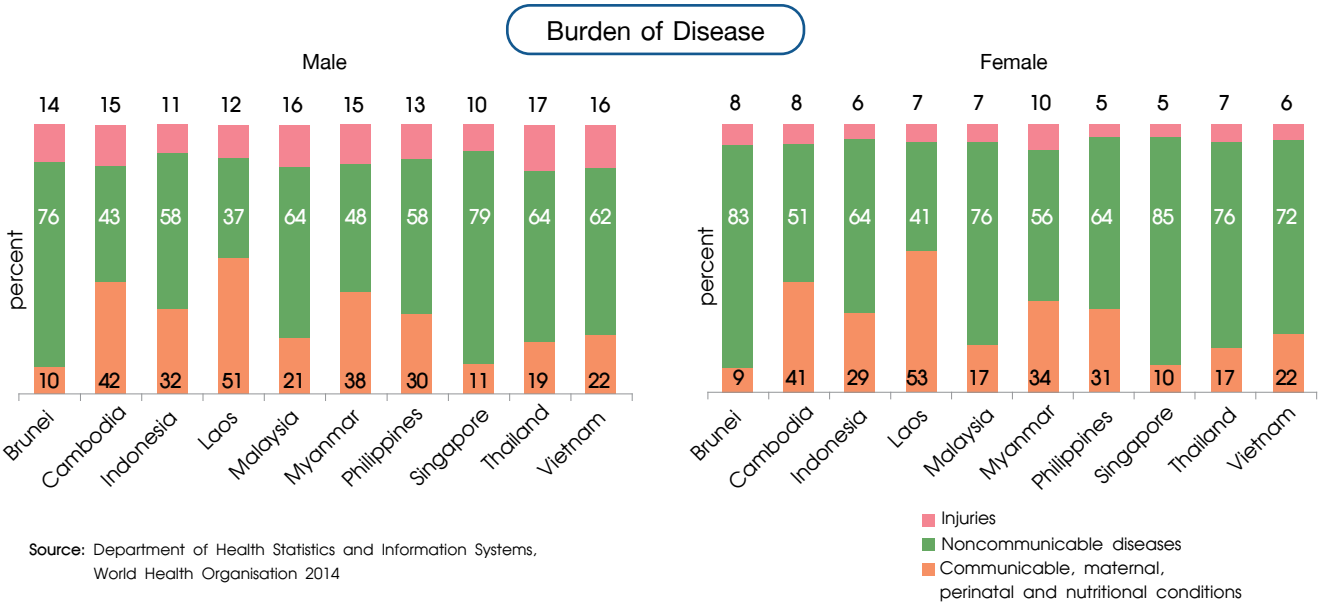


Note: The difference between healthy life expectancy and life expectancy at birth is lost healthy life expectancy

Source: World Health Statistics 2014, World Health Organization

Within ASEAN, Singaporeans have the longest healthy life expectancy of 76 years with only 7 years of bad health also the region's shortest. Although Cambodians have made big gains over the past 20 years, their life expectancy remains comparatively short. Cambodians also have the longest period of bad health in ASEAN at 11 years.

Burden of Disease



Source: Department of Health Statistics and Information Systems, World Health Organisation 2014

In poorer countries, the causes of illnesses continue to be communicable diseases and maternal, perinatal and nutritional conditions. When combined, these illnesses cause more than half of the illnesses among all Laotian men and women. On the contrary, the main causes of illnesses in more developed countries such as Singapore, Brunei and Thailand are non-communicable diseases such as heart disease, diabetes and hypertension.

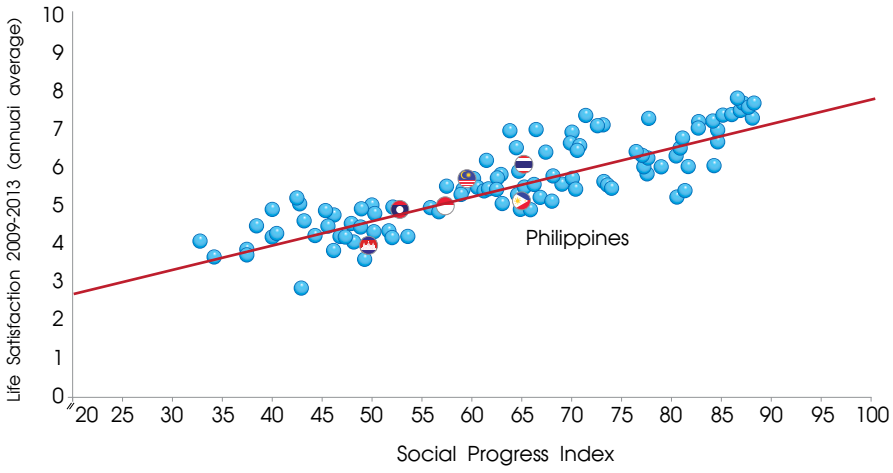
4 Mental Health

Thais are the second happiest people in ASEAN with a happiness score of 6.4, but they also have the second highest rate of self-inflected deaths. (17 per 1,000)

Mental health is a vital component of health. Working-age population (15-59 years) tend to suffer more mental illnesses and deaths than children and the elderly.

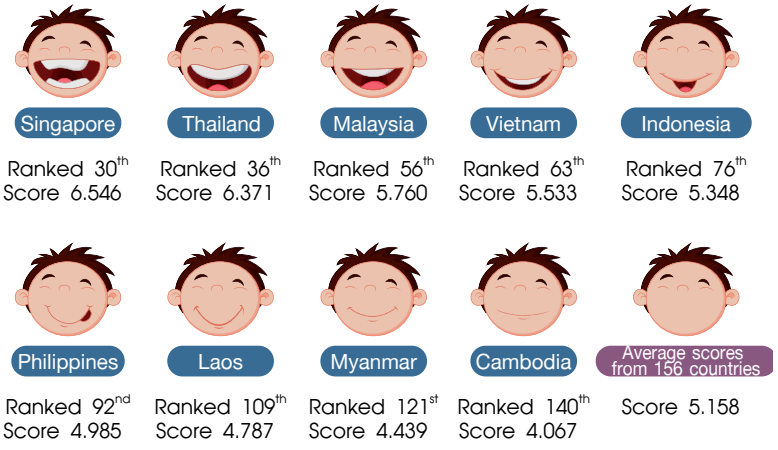
Complementing physical health, mental health is an important aspect of health. Life satisfaction is an indicator of good mental health. Life sastisfaction levels generally correlate with social progress indexes. People in countries with higher social progress indexes tend to have more life sastisfaction.

Life Satisfaction and Social Progress Index



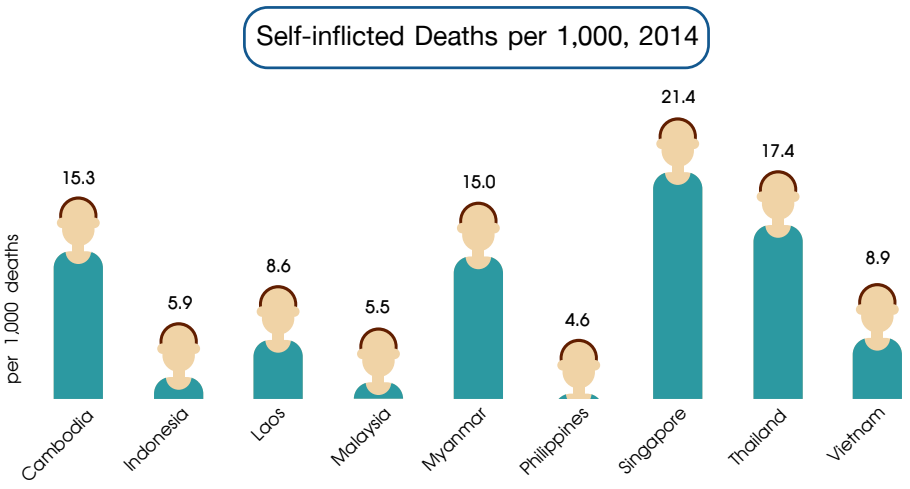
Source: Social Progress Index 2015

Ranking of Happiness in ASEAN 2010 - 2012



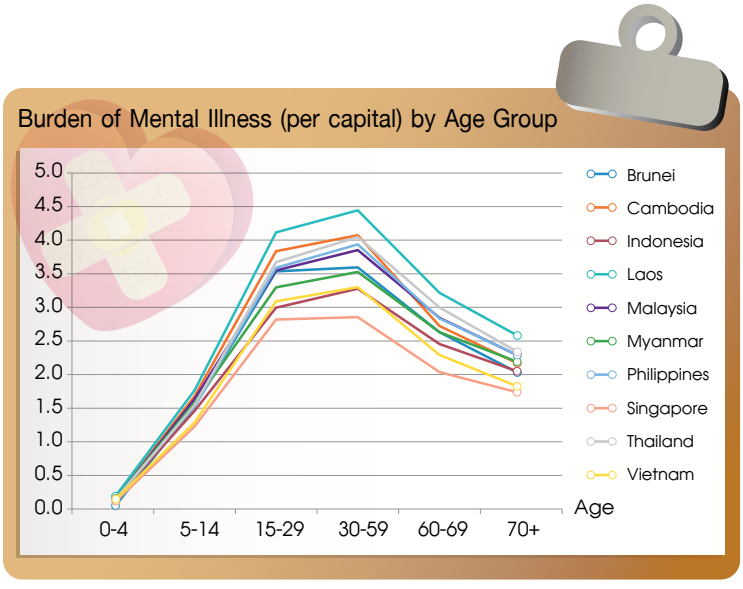
Source: World Happiness Report 2013

Happiness is a component of good mental health. Within ASEAN it's the case that Singapore, Thailand, Malaysia, Vietnam and Indonesia have higher happiness scores than the world average. Thailand stands at the 36th in the world ranking and second place within ASEAN. However, Singapore and Thailand also have the region's highest rates of self-inflicted deaths at 21 and 17 per thousand, respectively.



Source: Department of Health Statistics and Information Systems, World Health Organization (WHO) 2014

Related to work-related stress and responsibilities in life, mental diseases affect working-age populations more than other groups. This is the opposite situation for bodily diseases which affect children and the elderly more than working-age population.



Note: Mental disease burden in each age group divided by the number of population in that age group.

Source: Department of Health Statistics and Information Systems, World Health Organization (WHO) 2014

Mental Health Personnel and Services Years 2006 - 2010

	Number of psychiatrists per 10,000 Population	Number of psychiatric beds per 10,000 population
Brunei	<0.05	1.0
Cambodia	<0.05	<0.05
Indonesia	<0.05	-
Malaysia	0.1	1.8
Myanmar	<0.05	-
Philippines	<0.05	-
Singapore	0.3	4.2
Thailand	<0.05	1.3
Vietnam	0.1	1.8

Source: World Health Statistics 2014, World Health Organization (WHO)

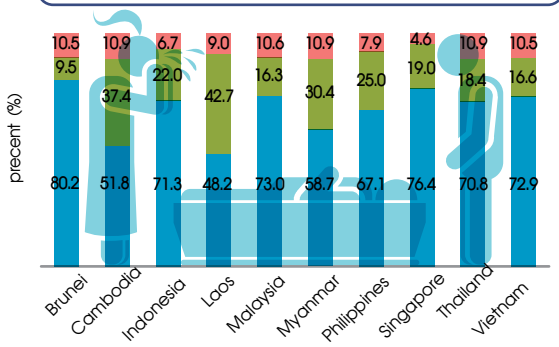
Within ASEAN, Singapore, Malaysia and Vietnam are best equipped for psychiatric care considering the numbers of psychiatrist and psychiatric beds per capita.

5 Health Behaviours

Indonesians have the highest smoking rate whilst Thais drink more heavily than their ASEAN counterparts and Malaysians have the highest rate of obesity.

Alcohol, tobacco and obesity due to unhealthy diets and physical inactivity are silent threats against ASEAN populations. In every country, monitoring and prevention of these risk behaviours is needed.

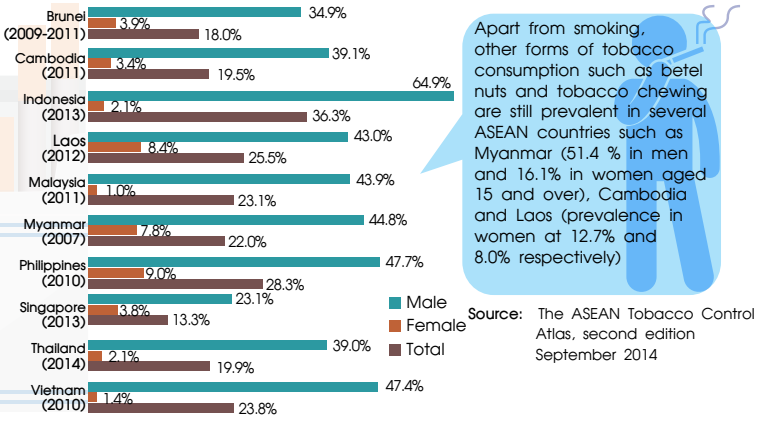
Causes of Death 2012



Source: World Development Indicator 2012, The World Bank

The increase in illnesses and deaths from chronic non-communicable diseases are mainly caused by unhealthy behaviours. ASEAN's smoking rates are high, especially among men. Indonesia, the only ASEAN nation which has yet to ratify the WHO Framework Convention on Tobacco Control, seems to face the greatest challenges for this issue as more than one third of the population aged 15 and above are smokers. In some countries, public spaces such as restaurants and buses or even inside the house are risk areas for secondhand smoking.

Prevalence of Smoking among Population Aged 15 and Over

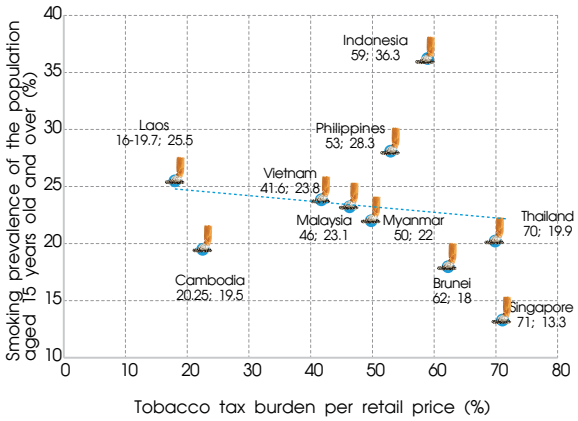


Apart from smoking, other forms of tobacco consumption such as betel nuts and tobacco chewing are still prevalent in several ASEAN countries such as Myanmar (51.4 % in men and 16.1% in women aged 15 and over), Cambodia and Laos (prevalence in women at 12.7% and 8.0% respectively)

Source: The ASEAN Tobacco Control Atlas, second edition September 2014

Source: Tobacco Taxes and Prices in ASEAN: An Overview (May 2014), Southeast Asia Initiative on Tobacco Tax (SITT) of the Southeast Asia Tobacco Control Alliance (SEATCA)

Prevalence of Smoking in Comparison to Tobacco Tax Burden per Retail Price



Note: Prevalence data for Smoking: Thailand (2014), Singapore, Indonesia (2013), Laos (2012), Cambodia Malaysia (2011), Brunei (2009-2011), Philippines Vietnam (2010), Myanmar (2007)

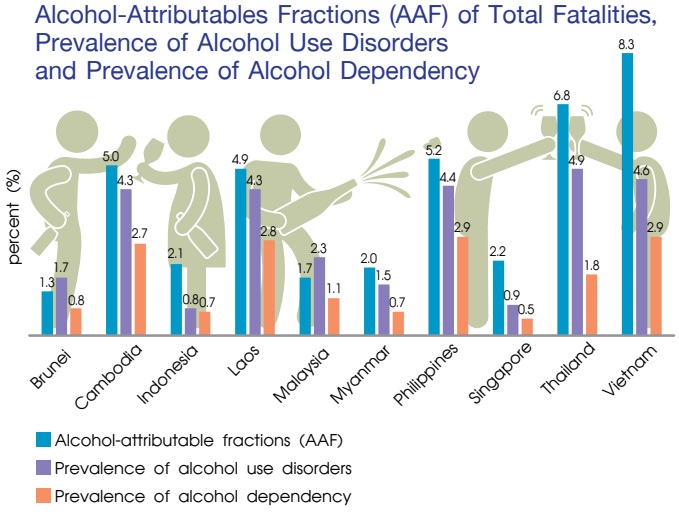
Source: Tobacco Taxes and Prices in ASEAN: An Overview (May 2014), Southeast Asia Initiative on Tobacco Tax (SITT) of the Southeast Asia Tobacco Control Alliance (SEATCA)

Laotians drink more alcohol per capita than their counterparts in other ASEAN countries (slightly more than Thais) but Thai drinkers are the heaviest drinkers in ASEAN, consuming the equivalent of 23.8 liters of pure alcohol per head per year. The problem is reflected in Thailand's prevalence of alcohol use disorders the region's highest. Vietnam is another country where the problem needs to be closely monitored as the country has the region's highest alcohol-attributable mortality rate and alcohol dependency rate.

Funds/Organizations Established for the Purpose of Health Promotion and Tobacco Control

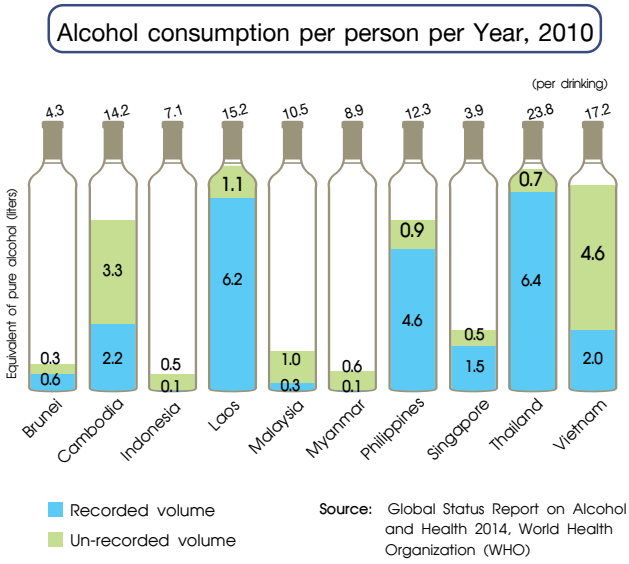
	Foundations/funds by source of funding	Year estab-lished	Total funding/tax rate
Sin Taxes			
สสส	Thai Health Promotion Foundation	2001	120-130 million US dollars (2013-4) from 2%, incrementa of excise taxes paid by manufacturers and importers of alcoholic beverages and tobacco products
	Lao PDR Tobacco Control Fund	2013	2.1 million US dollars (Public Health Ministry's 2014 estimate) from 2% tax of sales profit plus 200 kip per pack
	Vietnam Tobacco Control Fund	2013	Approximately 4.3 million US dollars (2013-5) from 1% excise tax (effective from 1 May 2013). To be increased to 1.5% and 2% in May 2016 and 2019 respectively
Ministry of Public Health's budget			
Health Promotion Board	Singapore Health Promotion Board	2001	136 million US dollars (2014)
	Health Promotion Centre, Ministry of health Brunei	2008	560 million US dollars (2013-2014)
Government reserves			
MySihat	Malaysian Health Promotion Board (MySihat)	2006	3.08 million US dollars (2013)

ที่มา: The ASEAN Tobacco Control Atlas, second edition September 2014



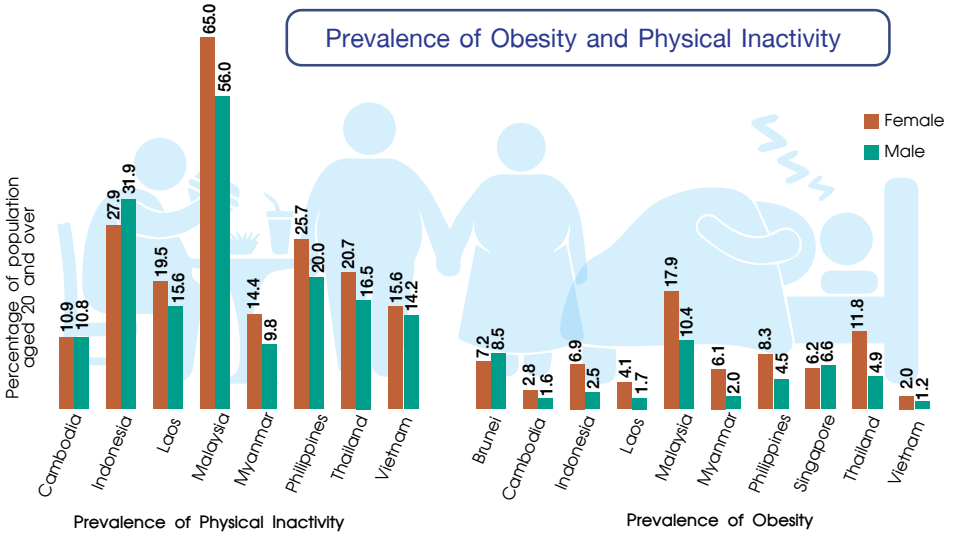
Note: Prevalence as percentage of population aged 15 and over (2010), AAF as percentage of fatalities from all causes (2012 estimate)

Source: Global Status Report on Alcohol and Health 2014, World Health Organization (WHO)



Source: Global Status Report on Alcohol and Health 2014, World Health Organization (WHO)

Within ASEAN, Malaysia has the highest prevalence of obesity. Obesity is principally caused by inappropriate eating behaviours and physical inactivity. More Malaysians–both male and female–are found afflicted by this latter problem than their counterparts in other ASEAN countries.



Note: 2008 data; Obesity = body mass index ≥ 20 kg./m2

Source: Obesity data: World Health Statistics 2014; Physical inactivity data: Non-communicable Diseases: Country Profiles 2011

Other Health Behaviuors

	Brunei	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
Percentage of teen mothers (15-19 years old) (2012)[1]	2.30	4.43	4.83	6.50	0.57	1.21	4.68	0.60	4.10	2.90
Prevalence of HIV+ population (% of population aged 15-49) (2012)[1]	na	0.80	0.40	0.30	0.40	0.60	0.10	na	1.10	0.40
Estimated fatalities from road accidents (per 100,000 population) (2010)[3]	na	17	18	20	25	15	9	5	38	25

The lowest fertility with a TFR of 0.8 in Singapore. Thailand ranks second after Singapore with 1.5 TFR but have the high percentage of teen mother.

Almost three quarters (73.8%) of deaths by road accidents in Thailand involve motocycles.

Source: 1 World Development Indicator
3 The World Fact Book, Central Intelligence Agency

In addition to alcohol consumption, smoking, unhealthy diet and physical inactivity, ASEAN countries and especially Thailand should pay attention to other health behaviours also such as teen sex and unwanted pregnancy, accident-prone road behaviors and HIV/AIDS prevention.

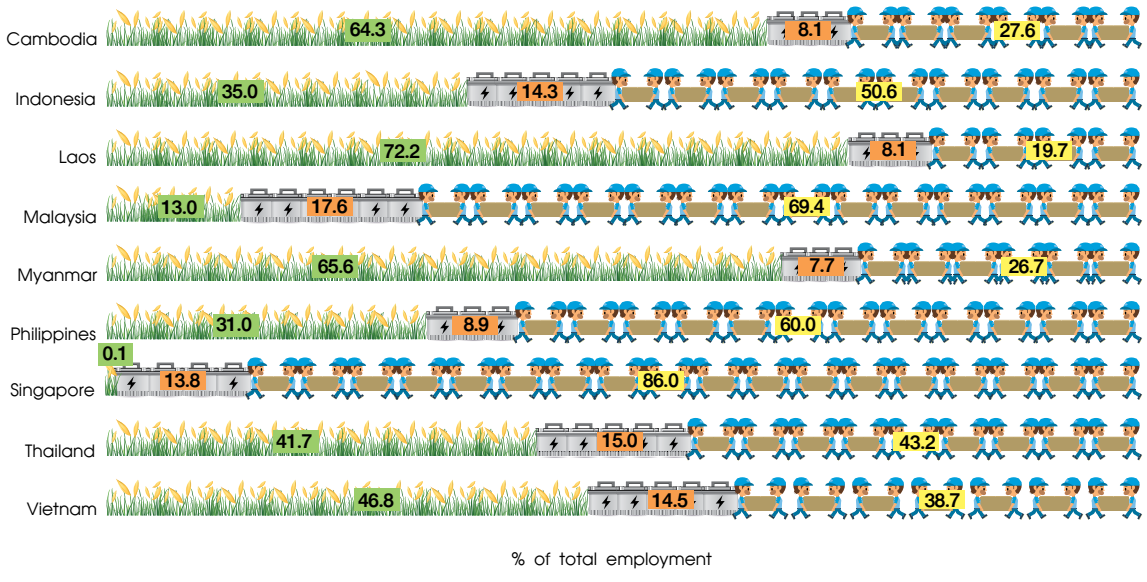
Each country must implement measures to help its population to prevent, reduce, refrain from and quit unhealthy behaviours as well as create and develop mechanisms to monitor and mitigate their harmful consequences.

6 Economic and Social Development

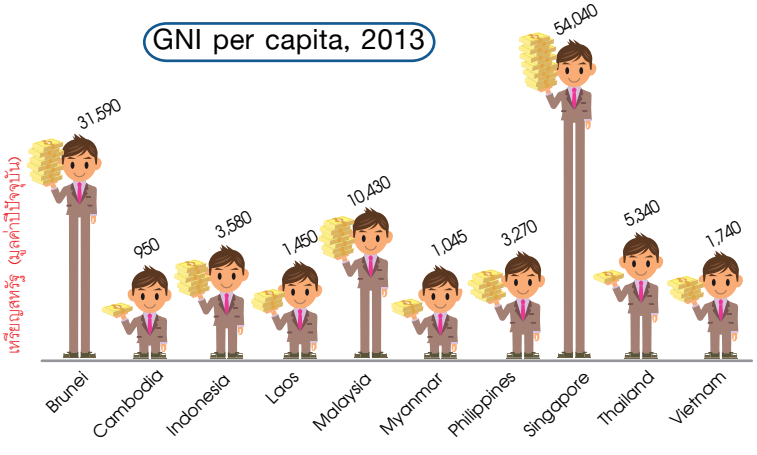
The per capita income gap between the richest and poorest ASEAN countries is as wide as 50 times

The different levels of economic and social development amongst ASEAN member countries results in unequal development of infrastructure and human resources including education, health and poverty eradication. This pose a great challenge to all ASEAN countries and requires collaborated solutions for the progress of the whole region.

Economic Structure by Employment Sector, 2013



Note: 2000 data for Myanmar; 2010 data for Laos
Source: World Development Indicator 2014, The World Bank



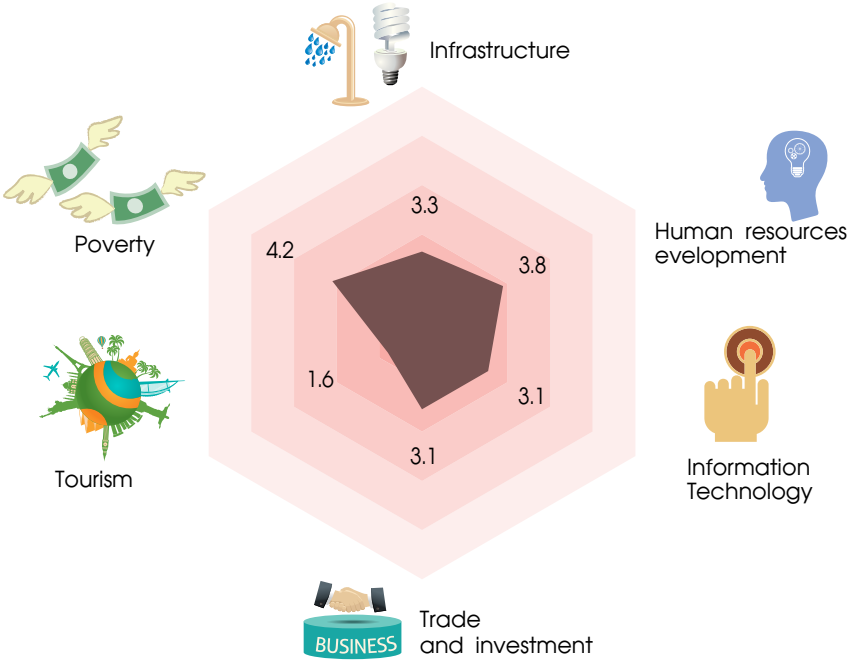
Note: 2009 data for Brunei; Myanmar data is estimated GNI per capita of low-income countries at 1,045 dollars or less.
Source: World Development Indicator 2014, The World Bank

According to the World Bank's criteria, the ten ASEAN member countries can be classified into four groups by per capita income. High-income countries (Singapore and Brunei), upper-middle-income countries (Malaysia and Thailand), lower-middle-income countries (Indonesia, Philippines, Vietnam and Laos) and low-income countries (Cambodia and Myanmar). This vast gap is partly due to different economic structures. Countries with high and middle income levels have high proportion and rapid expansion of employ-

ment in the service and industrial sectors whilst the majority (approximately two-thirds) of employment in low-income countries is in the agricultural sector.

Poverty and human resource development problems remain an important development gap in CLMV countries (Cambodia, Laos, Myanmar and Vietnam) whilst income inequity continues to beset development in developing countries, especially Malaysia, a country with the largest income gap between the richest and the poorest. In addition, access to clean water and development of transportation infrastructure are urgent development issues in Laos and Cambodia with a limited proportion of paved roads and a large section of the population who still have no access to clean drinking water.

Narrowing Development Gap Indicators (NDGIs)
of CLMV and in comparison to other ASEAN members, 2012



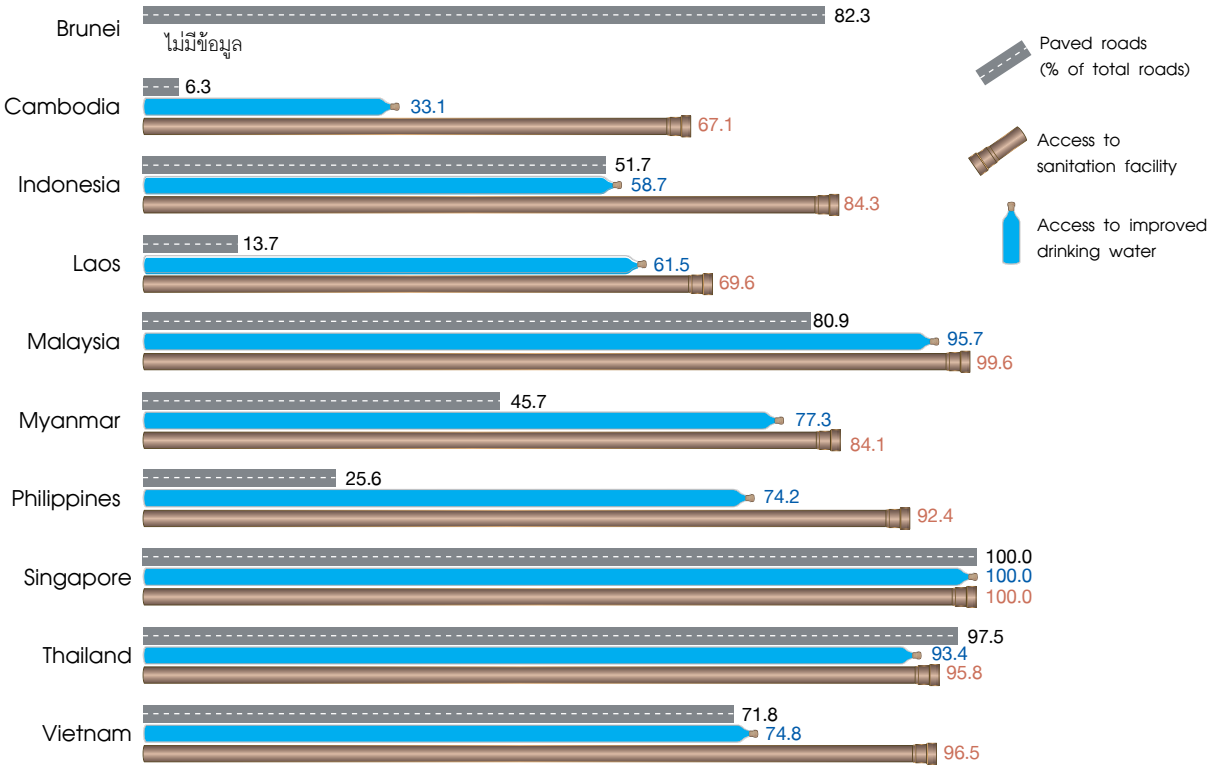
Note: NDGIs are proposed by the OECD Development Centre as indicators for monitoring the progress of the efforts in reducing economic and social development gaps between CLMV and other ASEAN members. Each NDGIs has a score between 0 (no development gap) and 10 (widest development gap). NDGIs have been evaluated in 2005, 2011 and most recently 2012.
Source: Economic Outlook for Southeast Asia, China and India 2014, Beyond the Middle Income Gap, 2014

Poverty and Income Distribution

	Cambodia	Indonesia	Laos	Malaysia	Philippines	Thailand	Vietnam
Percentage of population earning less than 1.25 US dollars per day	18.6	16.2	33.9	0.0	18.4	0.4	16.9
Percentage of population earning less than 2.00 US dollars per day	49.5	43.3	66.0	2.3	41.5	4.1	43.4
Proportion in national income of income earned by Q5	44.5	46.0	44.8	51.5	49.7	46.7	43.4
Proportion in national income of income earned by Q1	7.9	7.3	7.6	4.5	6.0	6.8	7.4
Q5 / Q1 (2008-2011)[1]	5.6	6.3	5.9	11.3	8.3	6.9	5.9
GINI Index; 0-100[2]	31.8	38.1	36.2	46.2	43.0	39.4	35.6

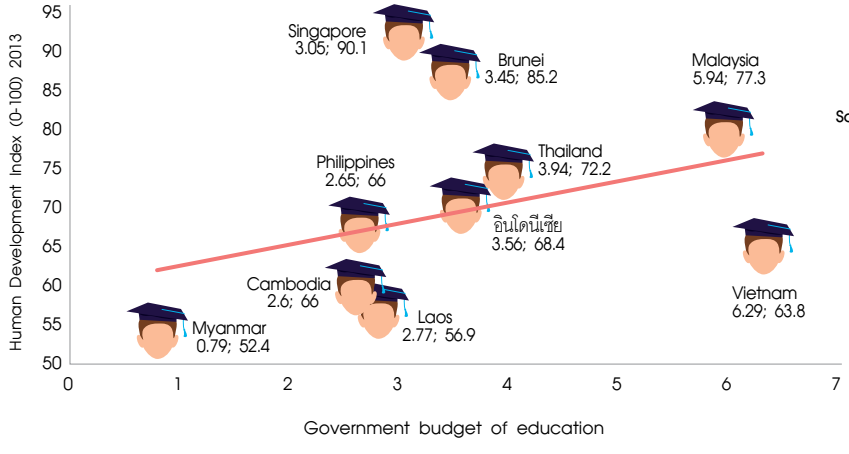
Note: No data for Brunei, Myanmar and Singapore.
[1] 2011 data for Indonesia: 2010 data for Thailand; 2009 data for Cambodia, Malaysia and Philippines; 2008 data for Laos and Vietnam;
[2] 2012 data for Laos Philippines and Vietnam, 2011 data for Cambodia and Indonesia, 2009 data for Malaysia, 2007 data for Thailand.
Source: World Development Indicator 2014, The World Bank

Roads, access to Sanitation Facility and Improved Drinking Water



Note:
1. Paved roads data from 2011 (Except Cambodia, Philippines and Laos (2009); Thailand (1999); Vietnam (2013)), World Development Indicators. In the case of Thailand, 2013 data from the Department of Highways and Department of Rural Roads shows that 95.2% of Thailand's 115,077 kilometers of roads are paved roads.
2. Data for access to sanitary facility and improved drinking water are 2011 estimates from The World Fact Book, Central Intelligence Agency

Education Budget and Population Quality



Source: Government budget for education 2009-2013 from World Development Indicators, except for Thailand's 2013 data from the National Economic and Social Development Board's Social and Quality of Life database; 2013 Human Development Indexes from Human Development Report 2014: Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience

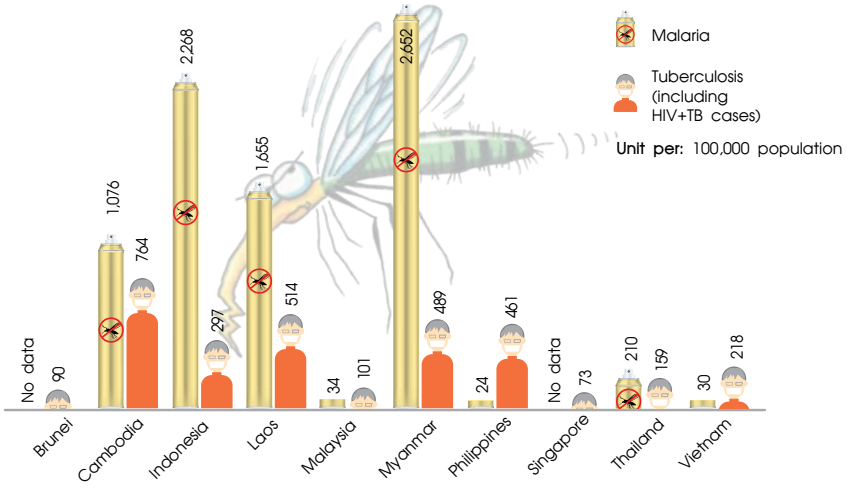
The human development index remains low in several ASEAN countries. Investment in education, especially by the government, will continue to play an important role in human development. Within budgetary constraints and financial capability, these concerned countries, including Thailand, must improve the quality and efficiency of their education systems also.

7 The Environment and Urbanisation

36% of the ASEAN population live in 235 cities. In 15 years, the proportion of the urban population will rise to 43%, or 93 million more urban dwellers.

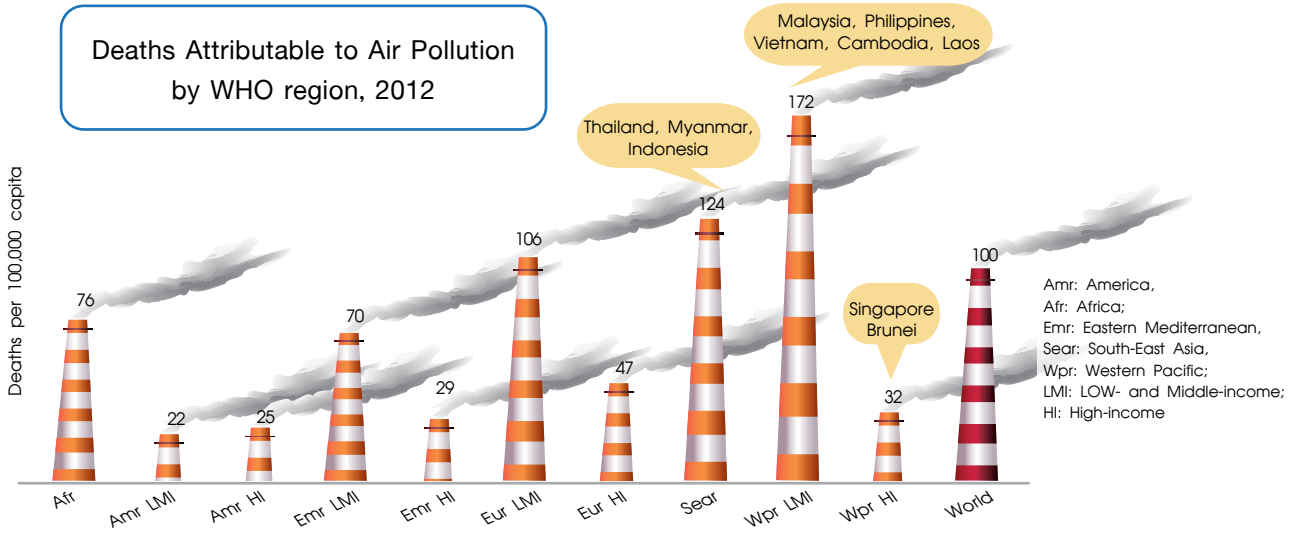
Located in the tropics, ASEAN has 45% of its area covered by forests. However urbanisation, with its associated development and changes in natural and social environments, creates important health factors. These factors are opportunities and challenges for ASEAN to address.

Numbers of Malaria and Tuberculosis Cases, 2012



Note: 1) Estimates of malaria cases from World Malaria Report 2013
2) Tuberculosis data from WHO Tuberculosis Country Profiles:
Source: World Health Organization (WHO) 2013

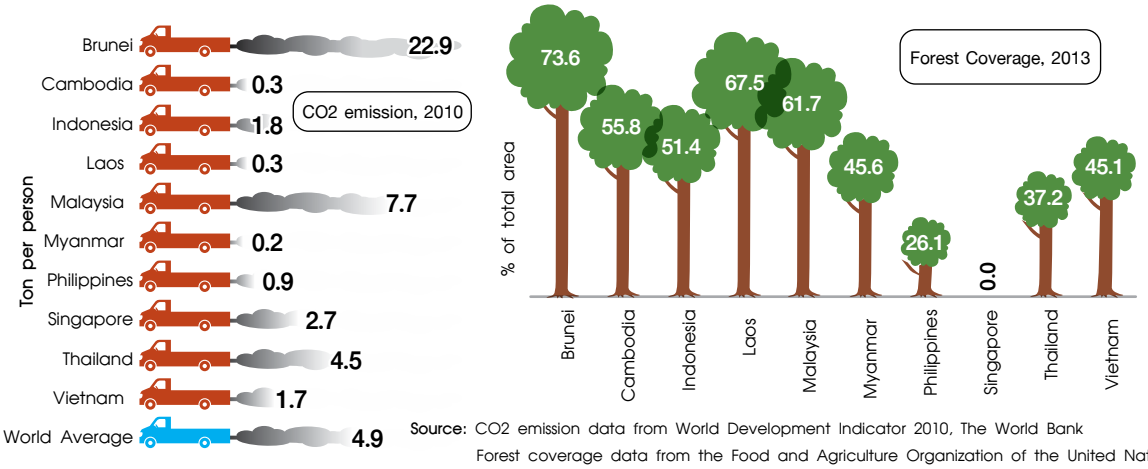
Deaths Attributable to Air Pollution by WHO region, 2012



Note: Air pollution consists of household and ambient air pollution.
Source: WHO, 2012. Burden of disease from Household Air Pollution for 2012

Due to its tropical geography and climate, the ASEAN region experiences the second highest prevalence of malaria after Africa. Despite abundance of forests–more than half of the total area in Brunei, Laos, Malaysia, Cambodia and Indonesia-pollution, especially air pollution, is an important health

CO2 Emission and Forest Coverage

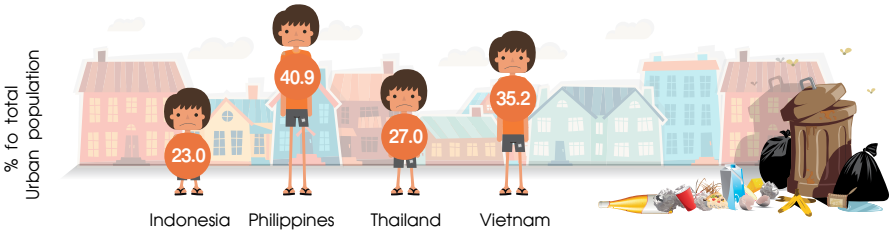


Source: CO2 emission data from World Development Indicator 2010, The World Bank
Forest coverage data from the Food and Agriculture Organization of the United Nations

problem as the region has a significantly higher pollution-related mortality rate than other regions in the world. In addition, greenhouse gas emission is high in some countries, particularly in Brunei and Malaysia, where CO2 emission exceeds the global average.

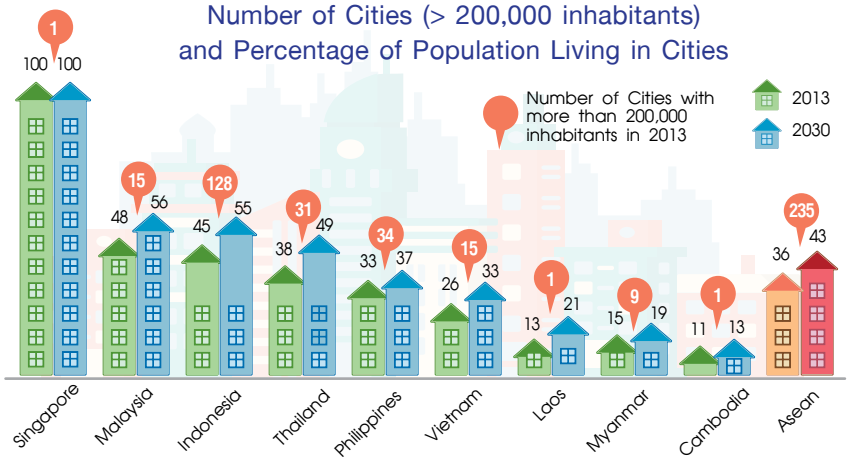
It is estimated that in 2030, 43% of the ASEAN population will live in cities. Urban expansion rates are high in middle-income countries–Indonesia, Philippines, Thailand and Vietnam with the highest numbers of cities (with more than 200,000 inhabitants). However, increased urbanisation doesnot guarantee better health or quality of life. In 2009, more than one third of urban dwellers in the Philippines and Vietnam and approximately a quarter of those in Thailand and Indonesia live in slums where hygiene and sanitary conditions are hard to control. In order to avoid the "double burden of diseases", ASEAN also needs to pay attention to control of infectious diseases such as Tuberculosis, health promotion and prevention of non-communicable diseases which are on the rise due to urban lifestyle.

Percentage of Urban Population Living in Slums in Four Middle-income Countries, 2009



Source: Slum residence Data by country, 2014

Number of Cities (> 200,000 inhabitants) and Percentage of Population Living in Cities



Source: McKinsey Global Institute. 2014. "Southeast Asia at the crossroads: Three paths to prosperity"

8 Health Financing

Thailand is one of four ASEAN countries with Universal Health Coverage. Three quarters of total health expenditure comes from the public sector

The population in some ASEAN countries still face great financial risks from healthcare expenditure. These countries need to formulate and implement policies to ensure an equitable and efficient Universal Health Coverage programme.

Universal Health Coverage (UHC) in ASEAN

Group 1 UHC already in place

- **Singapore**: UHC established in 1965 under government welfare system. Savings programmes such as Medisave, Medishield and Medifund
- **Brunei**: UHC established as national welfare system.
- **Malaysia**: UHC established in the 1990s with services provided and funded by the government.
- **Thailand**: Established in 2002, the UHC operates under three programmes: Universal Health Coverage Scheme, Social Scheme and Civil Servant Medical Benefits Sccheme.

Group 2 Target year set for UHC

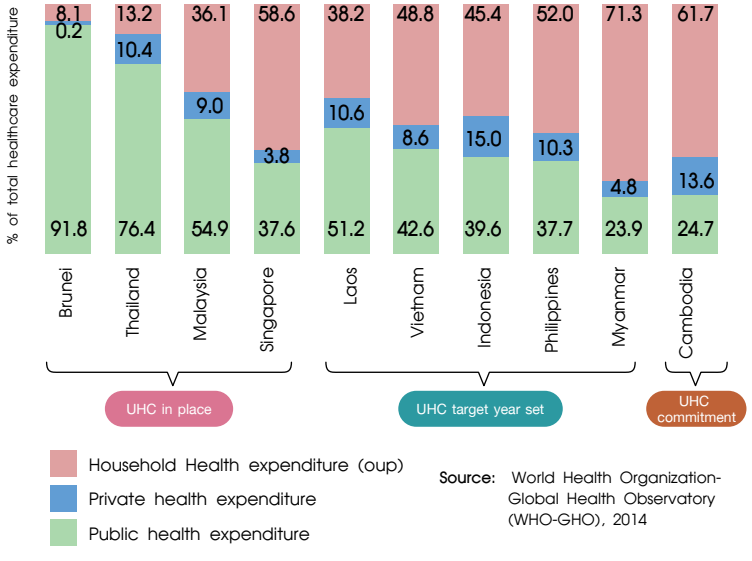
- **Philippines**: UHC aimed for 2016
- **Indonesia**: UHC aimed for 2019
- **Vietnam**: Aims to cover 80% of population in 2020
- **Laos**: UHC aimed for 2020
- **Myanmar**: UHC aimed for 2030

Group 3 Strong commitment to achieve UHC

- **Cambodia**: Expressing strong commitment to achieve UHC and strengthen supporting health services.

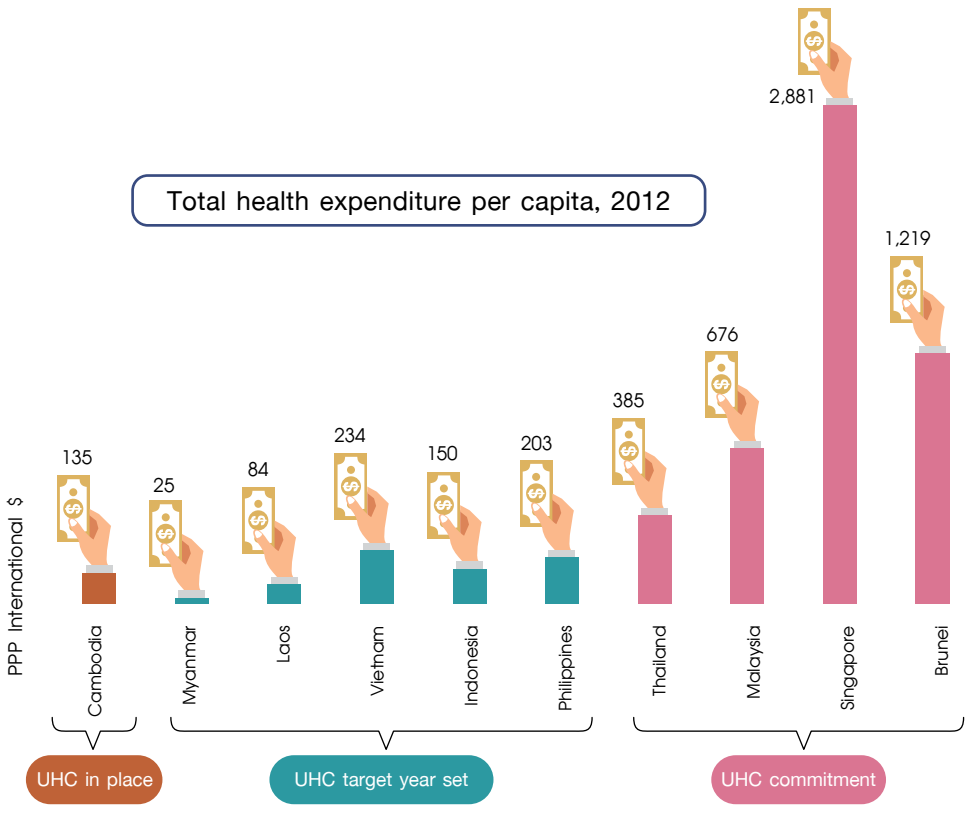
Source: Adapted from "Universal Health Coverage for 2.1 Billion Populations: Lessons Learned from ASEAN Plus Three Countries": ASEAN Plus Three, The UHC Network, 2014

Proportion of healthcare expenditure, 2012

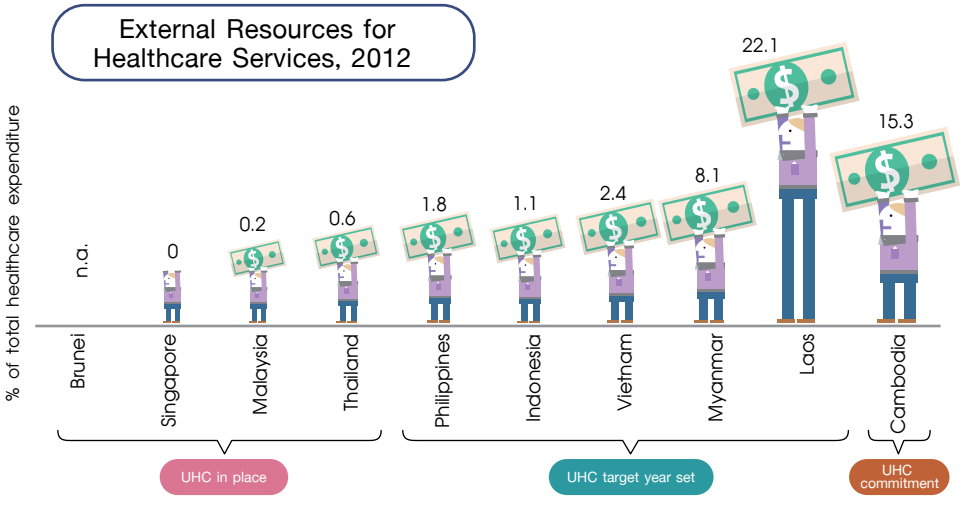


Source: World Health Organization-Global Health Observatory (WHO-GHO), 2014

The ten ASEAN countries can be categorized into those with universal health coverage (UHC) already in place (Singapore, Brunei, Malaysia and Thailand); those which have set a target year to achieve UHC (Indonesia, Philippines, Vietnam, Laos and Myanmar); and finally those which have expressed a strong commitment to UHC although a target year has not been set (Cambodia).



Source: Global Health Observatory 2014, World Health Organization



Source: World Health Organization- Global Health Observatory (WHO-GHO), 2014

The population living in countries with UHC in place clearly have better protection against health expenditure than those living in countries without UHC, as the proportion of out-of-pocket expenditure is significantly lower in the former than the latter. In Brunei and Thailand, the proportion of health expenditure paid by the government is as high as 91.8% and 76.4% respectively. Singapore's health system, on the other hand, promotes the use of a personal savings system called MediSave to cover health expenditure. As a result, the proportion of health expenditure paid by the households is as high as 58.6%.

Budgetary constraints are the most important obstacle to the implementation of UHC, especially in low-income countries including Laos, Cambodia and Myanmar. In these countries, although per capita health expenditure is low, the proportion of out-of-pocket payments expenditure is larger. These governments also rely on external resources for a significant part of their health financing.

9 Health Resources

Thailand comes at number 7 in ASEAN with capacity to produce physicians per capita. There are shortages in health personnel in Thailand.

With low capacity to produce new personnel, some ASEAN countries suffer a shortage of healthcare personnel. In addition, the brain drain problem poses new challenges in addressing this shortage.

Health personnel density is an important indicator of healthcare quality. Most ASEAN countries suffer a shortage of health personnel, with the exception of Singapore, Brunei and Malaysia. Cambodia, Indonesia, Laos and Myanmar have lower health personnel density than the WHO minimum of 22.8 per 10,000 population, while Thailand is only slightly above the minimum.

Within ASEAN, Singapore and Malaysia have the highest capacity to produce physicians per capita while Thailand comes at number 7 in the region with 2 doctors and 12 nurses per 100,000 population per year. The Philippines has the highest capacity in the region to produce nurses, although many graduates leave the country to work abroad.

Health Personnel Density (per 10,000 population)

	Physicians	Nurses and midwives	Dentists	Pharma-cists
	2006-2013			
Brunei	15.0	77.3	2.3	1.2
Cambodia	2.3	7.9	0.2	1.0
Indonesia	2.0	13.8	1.0	1.0
Laos	1.8	8.8	0.4	1.2
Malaysia	12.0	32.8	3.6	4.3
Myanmar	6.1	10.0	0.7	-
Philippines	-	-	-	8.9
Singapore	19.2	63.9	3.3	3.9
Thailand	3.9	20.8	2.6	1.3
Vietnam	11.6	11.4	-	3.1

Source: World Health Statistics 2014, World Health Organization (WHO)

Capacity to Produce Health Personnel (per 100,000 population)

	Year	Per 100,000 population		
		Physicians	Nurses	Midwives
Brunei	2010	4	38	3
Cambodia	2008	3**	4**	4**
Indonesia	2008	2	15	4
Laos	2007	1	11	0
Malaysia	2008	8	34*	No longer produced
Myanmar	2005	1	4	2
Philippines	2007	4	78	5
Singapore	2010	8	32	No longer produced
Thailand	2010	2	12	No longer produced
Vietnam	2008	4	1^	-

Source: Kanchanachitra et al. 2011, Lancet
Note: *2009 data^ Nurses and midwives ** Only in public sector.

In addition Singapore, Brunei, Malaysia and Thailand are well-equipped with health infrastructures and medical technology measuring from the numbers of hospitals, beds and equipment such as radiotherapy equipment, computed tomography scanners and mammography units.

Health infrastructures and technologies

	Hospitals (per 10,000 population)	Hospital beds (per 10,000 population)	Computed tomography units (per 1,000,000 population)	Radiotherapy units (per 1,000,000 population)	Mammography units (per 1,000,000 females aged 50-69)
	2013	2006–2012	2013	2013	
Brunei	1.4	28	7.2	-	91.9
Cambodia	0.6	7	1.2	0.1	-
Indonesia	0.4	9	-	0.1	-
Laos	2.2	15	0.7	0.0	0.0
Malaysia	0.5	19	6.4	1.4	86.7
Myanmar	0.6	6	0.1	0.1	0.7
Philippines	1.8	5	1.1	0.2	13.1
Singapore	0.5	20	8.9	3.5	127.6
Thailand	1.8	21	6.0	1.0	27.9
Vietnam	-		-	0.4	-

Source: World Health Statistics 2014, World Health Organization (WHO)

Movement of ASEAN Health Personnel

	Immigration	Emigration
Brunei	+++	0
Indonesia	0	++
Malaysia	++	+
Philippines	0	++++
Singapore	++++	+
Thailand	0	+

Source: Kanchanachitra et al. 2011, Lancet

	Median availability of selected generic medicines (%)		Median consumer price ratio of selected generic medicines	
	Public	Private	Public	Private
	2001-2009			
Indonesia	65.5	57.8	1.8	2.0
Malaysia	25.0	43.8	-	6.6
Philippines	15.4	26.5	6.4	5.6
Thailand	75.0	28.6	2.6	3.3

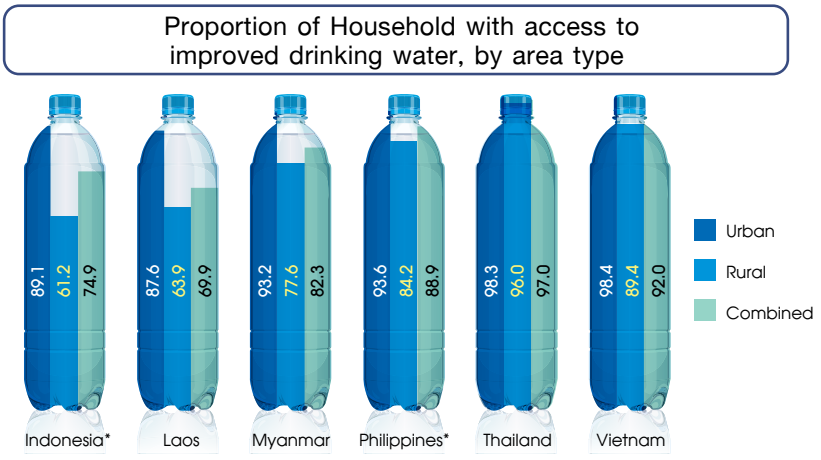
Source: World Health Statistics 2014, World Health Organization (WHO)

However, health resources, especially human resources, have high mobility. Some countries such as the Philippines produce personnel to be employed abroad, while others such as Singapore and Brunei attract personnel from other countries. It will be interesting to see how ASEAN's free labour movement will affect the distribution of health personnel density across the region.

10 Health Equity

In several ASEAN countries, there is unfair access to basic healthcare services such as childbirth attended by skilled health personnel. In Laos for example, only 11% of the poorest women have access to this service in comparison to 91% among the richest.

Access to basic healthcare services and having good health is a right that every person in a country is equally entitled to. However, health inequities are apparent in ASEAN with a high level of inequity in resources distribution. In Thailand, the density of physicians and nurses in urban areas is higher than in other ASEAN countries.



Note: *proportion of households with access to improved drinking water

Source: Indonesia -DHS 2012, Laos -MICS 2011, Myanmar -MICS 2009-2010, Philippines -DHS 2009, Thailand-MICS 2012, Vietnam -MICS 2011

Antenatal care and childbirth attended by skilled health personnel are basic health services for pregnant women and one of the indicators of the Millennium Development Goals (MDGs). At present, Cambodia, Laos, Myanmar and the Philippines are still far from the goal of universalizing these services, especially for the poorest populations. In Laos, only 23% of the poorest women have had at least one antenatal care visits comparing to 92% among the richest.

Proportion of Pregnant Women with at least One Antenatal Visit, by Household Income

Country	Data source	Q1	Q2	Q3	Q4	Q5	All income levels
Cambodia	DHS 2010	78.8	85.6	92.1	95.1	98.5	89.1
Indonesia	DHS 2012	86.9	95.8	97.7	99.0	99.4	95.7
Laos	MICS 2011	22.9	42.1	62.0	77.1	91.7	54.2
Myanmar	MICS 2009-2010	70.7	77.7	82.9	92.6	97.4	83.1
Philippines	DHS 2013	88.5	96.3	96.7	99.4	98.6	95.4
Thailand	MICS 2012	97.1	98.1	97.9	97.7	99.7	98.1
Vietnam	MICS 2011	78.4	96.2	97.2	99.2	99.1	93.7

Note: Q1 = the poorest 20%, and Q5 = the richest 20%)
DHS = Demographic and Health Survey
MICS = The Multiple Indicator Cluster Survey

Percentage of Childbirths Attended by Skilled Health Personnel, by Household Income

Country	Data source	Q1	Q2	Q3	Q4	Q5	All income levels
Cambodia	DHS 2010	48.7	63.7	74.5	86.5	96.7	71.0
Indonesia	DHS 2012	57.5	81.8	89.7	93.2	96.6	83.1
Laos	MICS 2011	10.8	23.9	45.0	64.3	90.7	41.5
Myanmar	MICS 2009-2010	51.0	63.5	68.7	82.7	96.1	70.6
Philippines	DHS 2013	42.2	71.0	83.8	92.4	96.2	72.8
Thailand	MICS 2012	98.4	99.6	100	99.7	99.9	99.6
Vietnam	MICS 2011	71.9	96.3	99.6	99.6	99.2	92.9

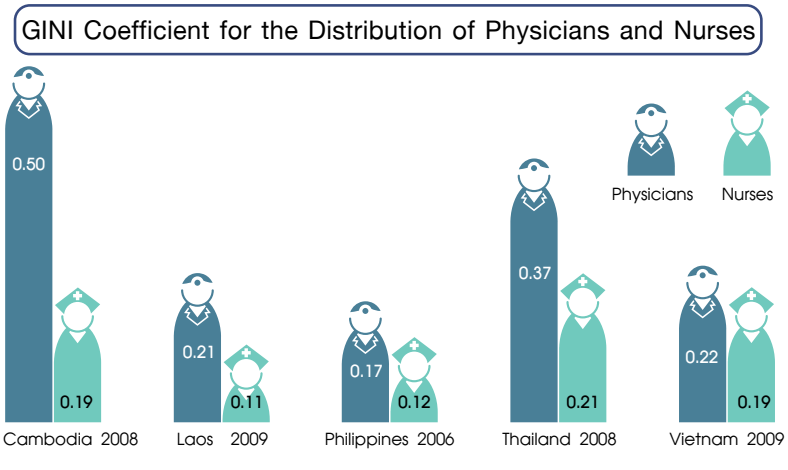
Note: Q1 = the poorest 20%, and Q5 = the richest 20%

In addition, inequity can also be seen in the health of children populations. 14% of children under 5 years old in Thailand's poorest households are underweight compared to only 4% in the richest households.

Percentage of Children under 5 years old who are Underweight by Household Income

Country	Data source	Q1	Q2	Q3	Q4	Q5	All income levels
Cambodia	DHS 2010	35.4	32.6	27.8	24.6	15.9	28.3
Laos	MICS 2011	36.5	29.6	25.2	19.4	12.1	26.6
Thailand	MICS 2012	13.5	10.0	10.2	7.0	3.7	9.2
Vietnam	MICS 2011	20.6	11.3	13.9	8.5	3.1	11.7

Note: Q1 = the poorest 20%, and Q5 = the richest 20%)
DHS = Demographic and Health Survey
MICS = The Multiple Indicator Cluster Survey



Note: GINI coefficient indicates the inequity in resource distribution with a value between 0 (absolute equality) and 1 (absolute inequality). The closer the coefficient to 1, the higher inequality.
Source: Kanchanachitra 2011, Human Resources for Health in Southeast Asia, Lancet

Access to improved drinking water is another indicator of health equity, especially between rural and urban populations. In Indonesia, 89% of urban households have access to improved drinking water compared with 61% in rural areas

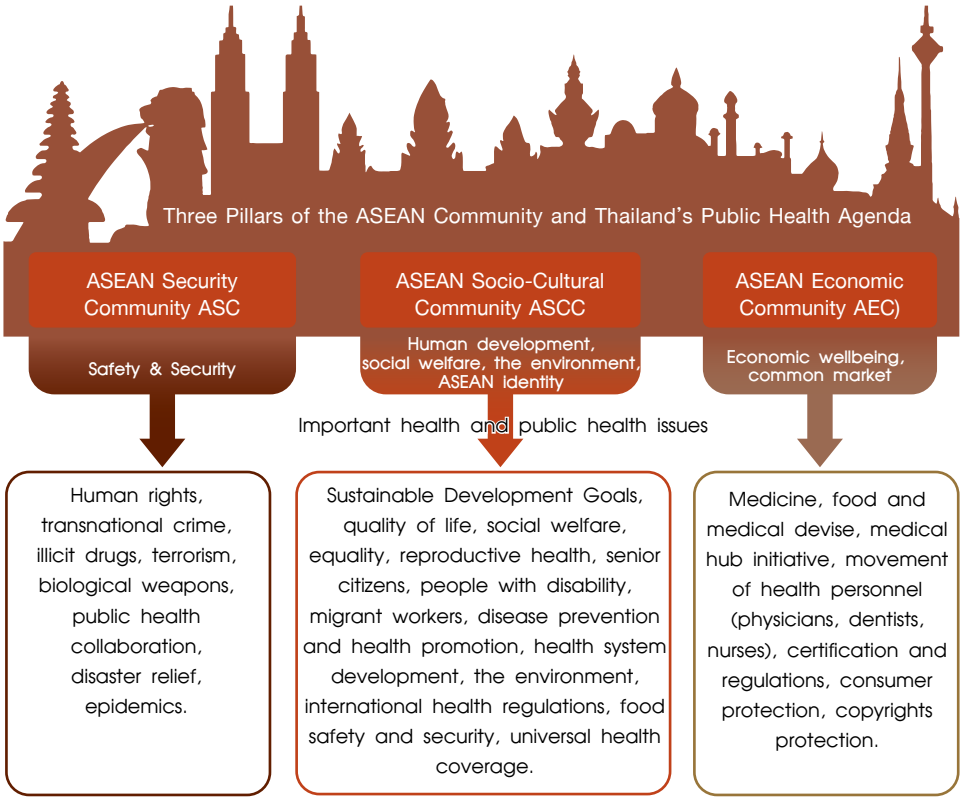
Health inequities therefore remain a major challenge to be addressed by ASEAN.

11 ASEAN and Health Challenges

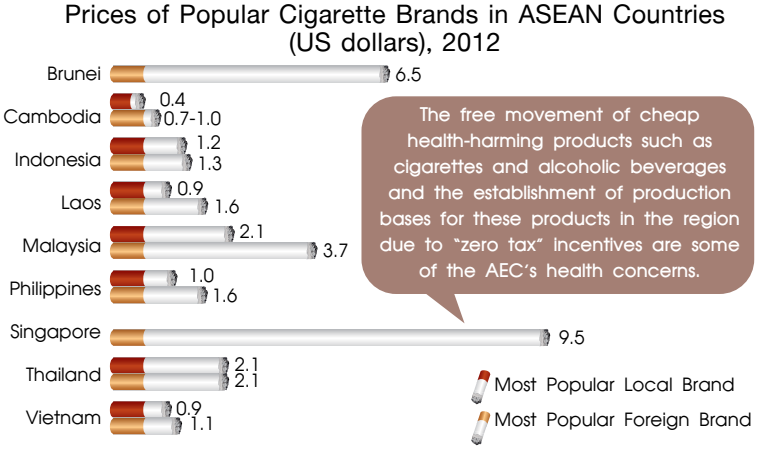
The intra-region movement of the ASEAN population has increased from 3.3 million people in 2000 to 6.5 million in 2013.

To address the challenges of "Health in the Post-2015" and the ASEAN community, member countries must strengthen their health systems, improve health financing systems, implement Universal Health Coverage for essential services as well as promote integrative public policies which are conducive to health and other health factors.

The road to a unified ASEAN community (under the three pillars of Economic Community, Security Community and Socio-Cultural Community) is littered with health challenges. Some are the result of domestic changes such as aging, urbanisation, migration, increased mortality and morbidity from non-communicable diseases due to changes in lifestyles. Others are a result of the ASEAN community such as free labour movement including that of health personnel, cross-border patient movement and trade liberalisation (which may increase the movement of health-



Source: Lecture entitled "Thailand and ASEAN Community: Smarting up about the ASEAN community" delivered by Dr. Suwat Kittidilokkul, Bureau of Policy and Strategy director on 20 May 2013.

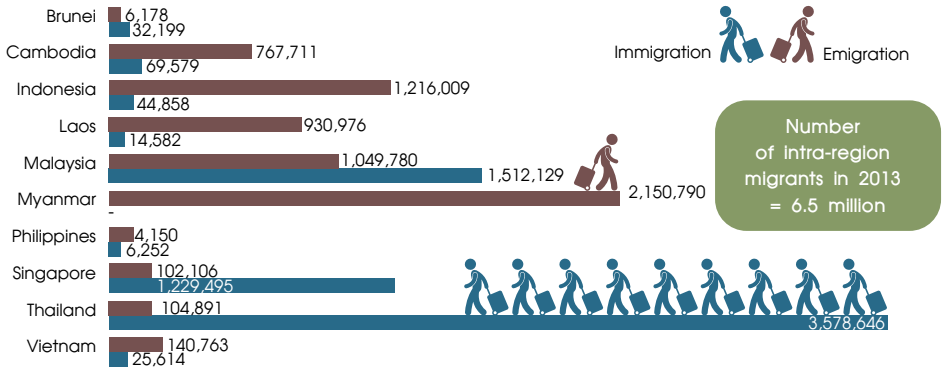


Source: Tobacco Taxes and Prices in ASEAN: An Overview (May 2014), Southeast Asia Initiative on Tobacco Tax (SITT) of the Southeast Asia Tobacco Control Alliance (SEATCA)

related goods particularly medicines and medical devices as well as health-harming products such as cigarettes and alcoholic beverages.)

The challenges for the entire ASEAN community and each individual member country can be met with closer collaboration amongst all ten member countries, despite their different contexts, to achieve the Sustainable Development Goals (SDGs) of universal health and well-being of the entire ASEAN population by strengthening the region-wide healthcare system and ensuring fair, efficient and sustainable health financing.

Stock of ASEAN's Intra-Regional Migration, 2013



Source: United Nations (Department of Economic and Social Affairs) International migrant stock: By destination and origin

Proposed key indicators are mortality rates of mothers, infants and children under 5 years, HIV/AIDS, malaria, tuberculosis and other infections, premature deaths from non-communicable diseases, road accidents, pollution and contamination, illicit drug use, harmful alcohol consumption, access to reproductive health and Universal Health Coverage.

Sustainable Development Goals: SDGs

Goal 1. End poverty in all its forms everywhere	Goal 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	Goal 3. Ensure healthy lives and promote well-being for all at all ages	Goal 4. Ensure inclusive and equitable quality education and promote life-long learning opportunities for all
Goal 5. Achieve gender equality and empower all women and girls	Goal 6. Ensure availability and sustainable management of water and sanitation for all	Goal 7.Ensure access to affordable, reliable, sustainable, and modern energy for all	Goal 8. Promote Sustained, Inclusive and Sustainable Economic Growth, Full and Productive Employment and Decent Work for All
Goal 9. Build resilient infra-structure, promote inclusive and sustainable industrializa-tion and foster innovation	Goal 10. Reduce inequality within and among countries	Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable	Goal 12. Ensure sustainable consumption and production patterns
Goal 13. Take urgent action to combat climate change and its impacts	Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degrada-tion and halt biodiversity loss	Goal 16. Promote peaceful and inclusive societies for sustain-able development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development			

Source: Indicators and a Monitoring Framework for Sustainable Development Goals-Launching a data revolution for the SDGs (Revised working draft for consultation 16 January 2015)

Citation:

Thai Health Project.2015. Title of article.In Thai Health 2015. (page number).
Nakorn Pathom: Institute for Population and Social Research, Mahidol University.

10

Outstanding Situations
in the Year 2015

1 The 2014 coup d'état: Breaking the political impasse

Well-known for its yellow and red shirts, Thailand's political conflict, ongoing for almost a decade between those supporting political parties aligned with the ex-PM Thaksin Shinawatra and those opposing the so-called Thaksin regime, again exploded into violence and led to a new turning point in 2014. For months after the government of Yingluck Shinawatra, Thaksin's sister, proposed the amnesty bill in November 2013, continuous wave of opposition poured onto the Bangkok's street and in many parts of the country. The government crackdowns resulted in casualties and finally led the National Council for Peace and Order (NCPO) to take power to end the protracted conflict. The NCPO then established the National Legislative Assembly (NLA), the cabinet and the National Reform Council (NRC) to draw up legal frameworks and restructure the political system, as well as to outline a framework for the country's governance and national reform through a new constitution, expected to be completed in 2015.

Public health network and the PDRC

An amnesty bill introduced in 2013 that would pardon many past corruption and criminal cases added fuel to anti government fire, resulting in months long massive street protests by an estimated one million people, the biggest in recent Thai history. Protesters came from all walks of life and included farmers, government officials, daily-wage earners, the middle class, students, academicians, politicians, actors, activists, NGOs and the general public, led by the **People's Democratic Reform Committee** (**PDRC**). Remarkably, among the most influential protestors were professional groups including the network of healthcare personnel from the Ministry of Public Health, hospitals and the rural doctors group, as well as nurses, health officials and hospital executives.

The main reason that healthcare and public health personnel joined the anti government protests with signs put up in hospitals across the country was not only to demonstrate their strong opposition against the amnesty bill but also to show their dissatisfaction at the Minister of Public Health, Dr Pradit Sinthawanarong, for his controversial policies, including the pay for performance initiative. In addition, these professionals also disagreed with policies which could drive doctors away from public hospitals into the arms of private hospitals to support the government's "medical hub" policy. When Dr Pradit issued an order to forbid public health personnel from joining government protests and other political activities, defiance was intensified.

NCPO and the 2014 coup d'état

A six month long conflict from late 2013 to early 2014 severely paralyzed Thailand to the point that some feared the country would become a failed state. The Pheu Thai government did not have authority to govern the country nor to give orders to armed forces. In addition, acting Prime Minister Yingluck Shinawatra was removed from office by the Constitutional Court over the illegal transfer of Thawil Pliensri, the former National Security Council Secretary General. As protests dragged on, a police crackdown on protesters resulted in injuries and deaths on February 18th 2014, and the demand for the military to step in became louder. Finally, the military under the leadership of General Prayut Chan-o-cha, Army Commander, declared martial law across the country on May 20th. Two days later, the General called a meeting with participants from seven factions consisting of the Democratic Party, Pheu Thai Party, the Senate, red shirt leaders, People's Democratic Reform Committee (PDRC) leaders, the Government and the Election Commission in order to find solutions to the conflict. The General provided five topics to work on, namely: 1) reform first or election first; 2) issues to be put to a referendum; 3) an outsider prime minister; 4) a provisional government established by the Senate; and 5) ending the protests by all parties.

After the parties failed to reach an agreement, General Prayuth seized power in the name of the National Council for Peace and Order (NCPO). The General and the other commanders of the armed forces went on live television to announce their reasons for the coup d'état, including an intention to end conflicts and to achieve reconciliation as well as to conduct political, economic, social and other reforms to ensure fairness to all parties.[1]

The NCPO then issued an order summoning hundreds of politicians, protest leaders, business-men and conflict parties to report themselves to the NCPO for the purpose of "attuning their attitudes". Some were detained in military barracks for a period of time whilst others were released immediately. In addition, the NCPO also shut down satellite television channels which had been used by the colour shirts factions to mobilize followers and prohibited the media from criticizing NCPO's works or reporting on anything that might have an impact on security in order to ensure peace and order. Consequently the NCPO organised "returning happiness to the people" activities and announced a three-stage roadmap for the return to democracy.

The three-stage roadmap to elections

General Prayuth announced a three-stage roadmap for the administration of the country. The first stage involved control of administrative power to achieve reconciliation within three months, through the establishment of "reconciliation centers" in Bangkok and other conflict areas. The one-year second stage aimed to enact a provisional constitution, establish the National Legislative Assembly, appoint an interim prime minister, set up a cabinet and draft a constitution, as well as to establish a National Reform Council. Once the situation returned to normal, the third stage, namely elections, could take place.

The first stage of the roadmap to form a government took the NCPO three months as immediate problems had to be solved, including violence where weapons were being shot at protesters. Reconciliation activities has to be organized, and social problems be solved such as the unregulated transport system including motorcycle taxis and vans, and other issues related to migrant workers, organized crimes, reclaiming encroached forest land, and the falling prices of agricultural produces[2] (which also involved paying farmers who were left uncompensated by the previous government's rice-pledging scheme).

Finally, the NCPO established a new government led by General Prayuth himself as the Prime Minister as well as the chief of NCPO. Eleven NCPO leaders joined the 33 cabinet positions including the Prime Minister under the provisional

constitution. Prior to that, the 200-member NLA was also filled with 105 soldiers and 11 policeman. Most importantly, the provisional constitution guaranteed the continuation of the NCPO, and Section 44 gave power to the NCPO chief to issue any order to ensure national security with legislative, administrative and judiciary powers.

From roadmap to national reform

Anti-Yingluck protesters demanded wide-ranging reforms on political, economic and social issues such as corruption, electoral reforms, energy reforms and education. These demands compelled the NCPO to include national reforms in the provisional constitution and establish the National Reform Council (NRC) in charge of national reforms in 11 areas. These included areas in politics, administration, law and the justice system, local administration, education, economy, energy, public health and the environment, the media and social issues.

The NRC plays an important role in guiding the drafting of the new constitution by specifying key issues in the constitution such as mechanisms to prevent populist policies from harming the economy, mechanisms to prevent undermining of the fundamental principles of the constitution and the drives for reforms in many areas. Deputy Prime Minister Wissanu Krea-ngam, who led the provisional constitution drafting effort, said that the constitution was the fountainhead of five streams, namely the NLA, the cabinet, the NRC, the constitution drafting commission and the NCPO. These five streams would come together or join forces so that a coup d'état event "would not be wasted".[3]

The issues which drew the most public interest for reforms included energy and education reforms. Whilst some of the public thought that energy policies must aim to protect the interests of energy users, the public and consumers, others felt they should aim to serve the country's economic development. Rosana Tositrakul from the Energy Reform Watch said that key to energy reform was the elimination of corruption and reform of the right to energy use. Regarding education reform, General Prayuth issued an urgent policy to the Ministry of Education to put more emphasis on history, Thainess and worship of national heroes, as well as to address the problem of tutorial schools, those who are hired to do homework, and to change the image of vocational schools, by cultivating the twelve values such as patriotism, preservation of Thai traditions, sacrifice, patience, public-mindedness, democracy with constitutional monarchy and the sufficiency economy.

Laying a constitutional foundation for reconciliation

The main issues closely followed by all political groups was the political reform through promulgation of a new constitution by the constitution drafting committee led by Professor Bowornsak Uwanno, secretary general of the King Prajadhipok's Institute. The committee set up 10 sub-committees to lay the constitutional framework with consideration of various sets of recommendations including measures to prevent domination of the government by capitalist interests, direct election of the Prime Minister and the cabinet, and an amnesty to all people involved in the political protests. The committee also laid down important principles on reconciliation and reforms to reduce inequality.

Meanwhile, the NLA proposed a constitutional framework drawn from recommendations submitted by 16 committees and commissions including allowing citizens to directly file complaints to the court on corruption in the government sector, no statutory limits for corruption cases, prohibition of politicians who have been convicted or corrupted from taking public office, and allowing independent candidates to run for Parliament. In addition, several civil society groups such as the health network, ethnic groups, labour groups, consumer groups and local administrative organization groups also submitted recommendations to the NRC.

The drafting committee had a timeframe of 120 days from December 20th 2014 to draft a new constitution by incorporating opinions from the NRC, the cabinet, the NCPO and the NLA. The committee was expected to complete the new constitution draft by April 17th 2015.[4] Deputy Prime Minister Wissanu Krea-Ngam made a recent projection that these procedures would be completed and the election would take place in February 2016.[5]

On reconciliation, Bowornsak hoped that reforms would solve two key questions, namely how to reconcile and break away from old conflicts and how to reduce inequality and increase social fairness. He said, "Like in the Buddha's teaching, reforms can emerge out of undemocratic processes just as the pure lotus flower can arise out of mud."[6]

Yingluck impeached and banned for five years

In early 2015, another political milestone signified the end of impunity for politicians. On January 23rd 2015, the NLA voted to impeach former Prime Minister, Yingluck Shinawatra, for dereliction of duty and allowing damage from the rice-pledging scheme to continue. This was in line with the decision of the National Anti-Corruption Commission (NACC) which stated that Yingluck's deliberate abuse of power was in violation of Article 178 of the Constitution and Article 11 (1) of the State Administration Act BE 1991, for failure to control the damage caused by the rice-pledging scheme.

The NACC submitted a fact-finding report for the impeachment of Yingluck to the NLA chairperson. The NLA voted 190 to 18 with eight abstentions and three disqualified votes to impeach Yingluck and banned her from politics for five years. On the same day, the NLA voted not to impeach Nikhom Wairatchaphanit, former President of the Senate and Somsak Kiatsuranont, former House Speaker, on charges of abuse of power and violation of the constitution for their involvement in the proposed amendments provision to make the Senate a fully elected body. The two politicians were spared the same fate of a five-year ban that Yingluck suffered.[7]

Conclusion

The 2014 coup d'état was considered successful in breaking the political impasse, and ending violence, including the attacks on protesters which led to many casualties. The second stage of the roadmap is now more challenging because it involves laying down foundations and strategies for national reforms. What remains to be seen is whether these reforms will be successful and whether they can lead the country out of conflict, whether the new constitution will eliminate corruption and vote buying, strengthen the check and balance against politicians and political parties, and also importantly prevent the domination of money in politics. If not, the people's uprising and the ensuing reforms would be in vain and the coup d'état that has cost the country dearly will be wasted. After the next election, the country may then just be led back into the same vicious cycle of one political crisis after another.

Civil society must continue its important role in driving forward reforms. Raising public awareness and civil society participation must continue under a military government where political gathering is restricted. Civil society must continue to provide opinions through different mechanisms such as the NLA and the NRC. Meanwhile, the strengthening of communities and coalition building among groups from different localities can build momentum to bring fundamental changes to the society and economy. The civil movement and networks that have emerged and continued for more than half a year is another forward step in strengthening civil society, connecting different levels of networks and benefiting civil society development in the long run.

2 Life hanging on a bear thread: Lack of Safety in Thai public transport

Public transport is a government subsidized infrastructure whose low fares are intended as incentives for public use in addition to convenience, cost-effectiveness and energy conservation. However, Thailand's public transport such as trains, buses and ferries leave much to be desired. Although some aspects are bearable, others are beyond the pale, especially in relation to safety. The tragic incident on July 6th 2014 when a 13 year old girl was assaulted and killed on a train was one of the worst incidents to rock the State Railway of Thailand in its 117 year[1] history and sent a shock wave throughout the country. The incident reflected the serious problems plaguing Thai public transport in relation to the safety of life and property of passengers. Although some dangers such as accidents are beyond control, others are caused by the personnel whose duty is to serve fellow passengers. This section will categorize problems by types of transport.

Trains

Trains are vehicles used to transport a large number of goods and people to their destinations at the same time. However, because of the high capacity and considerably long journeys, security measures to ensure safety throughout the journey is not easy. The lack of caution in screening employees aboard trains also contributes to crime. Wanchai Saengkhao, a cleaning staff member of an outsourced company who assaulted a 13-year-old passenger on a sleeping car of train no. 174 from Suratthani to Bangkok, confessed that he had taken drugs and beer after leaving the departure station with his friends aboard the train and became under the influence of these intoxicants. After raping the victim whilst his friend was on the watch, he threw the girl through the window between Wangpong and Khao Tao stations in Pranburi District of Prachuab Khirikhan Province, resulting in her death.

Even after Wanchai was sentenced to death for the multiple charges made against him, while his friend Natthakorn Chamnan was sentenced to 4 years imprisonment for abetting the crime, the fear over the incident remained because the perpetrator was given his job aboard the train through his relative, a high-ranking employee of the State Railway of Thailand.

Another train incident happened on August 5th 2014 when the Hat Yai railway police received a report from Thung Song railway police that there was a theft in the middle of the night on the special train no. 37 from Bangkok to Sungai Kolok. Nine out of 32 passengers in the air-conditioned sleeper car no. 10 lost ten mobile phones and a total of 70, 000 baht in cash. Almost all passengers said that they felt drowsy and had been drugged.[2] On August 16th 2014, the police arrested 19 year old Usman or Somnuek Adam who confessed that he travelled in the same car and stole the belongings of other passengers before leaving them with 21 year old Abdullah Saha, his friends who is still at large. Somnuek insisted that he did not drug his victims. This was confirmed by urine tests of the passengers and examination of bed linen used in the car in which nothing unusual was found.

These two incidents clearly showed the lack of safety in train travel caused by train employees and fellow passengers. In addition, accidents also happen when trains collide with other vehicles because many railway–road intersections lack barriers. The following table highlights some train accidents in the past five years including derailment and collisions with cars, vans, tracks and pickups.[3]

Accidents involving trains between August 2010 and October 2014

Date	Train	Type of accident	Location of accident	Casualties and damages
19 Aug 2010	Special Train no. 36 Butterworth-Bangkok	Collision with car	Hatyai, Songkhla	2 deaths
13 Oct 2010	Air-conditioned diesel train no. 78 Udon Thani-Bangkok	Derailment	Near Tha Phra station, Khon Kaen	9 injured
10 Jul 2011	Special express train Sila At-Bangkok	Collision with six-wheeled vehicle	Ta Khlee, Nakhon Sawan	1 death and more than 20 injured
19 Aug 2012	Tourist train no. 910 Namtok-Bangkok	Collision with car	Near Ngew Rai, Nakhon Pathom	4 deaths
18 Oct 2012	Local train no. 410 Sila At-Phitsanulok	Collision with pickup	Muang District, Phitsanulok	3 seriously injured
3 Mar 2013	Train no. 4040 Thonburi-Namtok	Collision with van	Muang District, Kanchanaburi	6 injured
30 Oct 2014	Ordinary train no. 415 Nakhon Ratchasima-Nongkhai	Collision with truck	Nong Kung rail-road intersection, near Samran station, Chaiyaphum	5 deaths and many injured. Three cars in the train damaged.

Buses

Public buses including air-conditioned buses, city buses and vans with one or two drivers responsible for each leg of the trip. Although carrying fewer passengers, buses are more varied and often cheaper and more convenient as they reach far more destinations than trains. Lack of safety in bus travel can be caused by many factors but the most common in recent years is carelessness of the drivers as well as lack of vehicle checks, drink driving and driver's sleep deficiency. These happen particularly on long distance air-conditioned buses leading to accidents and losses of lives and property.

These incidents often occur during long weekend or important holidays in the form of bus wreckages around sharp bends. As bus owners tend to increase the number of services around these times to meet the demand, selection processes for drivers become lax and the number of drivers per leg is often reduced to shift drivers and buses without regular drivers. Drivers therefore tend to be more tired and short in concentration. According to the Foundation for Consumers' Consumers Rights Protection Center, there were in total 301 accidents involving public buses and taxis with 417 deaths and 4, 660 injuries between October 1st 2011 and November 22nd 2013.[4]

http://www.thairath.co.th/media/NjpUs24nCQKx5e1HUZEkiVUjyrBmsxz0VCZJF1utmaU.jpg

Motor accidents between October 2011 and November 2013

Type of vehicles	Number of accidents	Number of injuries	Number of deaths
Vans	96	719	134
Air-conditioned buses	88	2006	146
Chartered tourist buses	45	1108	66
Long-distance non-air-conditioned buses	24	452	19
City buses	23	91	28
Company buses	20	279	18
Taxis	5	5	6
Total	301	4660	417

Ferries

Even though there are statistically fewer ferry accidents then road accidents, dangers can happen due to drink driving, sleep deficiency or inexperienced captains. Other reasons that may cause a ferry to capsize are too many passengers or unbalanced passenger loads, but these can be prevented and controlled. What cannot be controlled are water currents and undersurface rocks. The captain must concentrate and solve any problems which may arise with utmost care.

Solutions

As discussed above, Thai public transport is plagued with two types of dangers, namely those from employees and fellow passengers and those from accidents beyond control. For the first type of dangers, related agencies must lay down measures to increase safety. For example, the State Railway of Thailand has launched "ladies and children" carriages on some routes since August 1st 2014. These cars are designed with pink colour and all train employees including cleaners, vendors and the railway police are female. Only female passengers are allowed in these carriages with the exception of boys not more than 10 years old and no taller than 150 cm accompanying a female adult passenger. This initiative has been met with a good public response as can be seen from the nearly full occupancy.

Likewise, Nakhonchai Air, a well-known bus company, has initiated the "ladies' zone" for single female passengers in some of its buses from August 7th 2014. The ladies zone seats are located in the third row of every bus. There are three NCA Gold class seats and four NCA first-class seats on twelve pilot routes, namely, Bangkok-Khon Kaen, Bangkok-Mahasarakham, Bangkok-Nongbualamphu, Bangkok-Udonthani, Bangkok-Nong Khai, Bangkok-Burirum, Bangkok-Surin, Bangkok-Srisaket, Bangkok-Ubonratchathani, Bangkok-Uttaradit, Bangkok-Chiangmai and Bangkok-Chiangmai.

Conclusion

One of the biggest challenges facing Thai transport systems is the safety of life and property of passengers. Relevant agencies and service providers must continue to improve the quality of service and minimize accidents as well as to strengthen measures to keep out criminals. Passengers must take precautions for their own safety and property by remaining vigilant and also inform officials when encountering suspicious persons, things or activities. If something unusual happens, passengers should remain calm and find ways to avoid danger and protect themselves appropriately for their own safety and the safety of others.

3 Garbage and toxic waste management: A new national agenda?

On March 16th 2014 the Praksa dump site burst into flames for the first time, sending pungent toxic smoke over the surrounding area densely populated with many communities as well as more remote districts of Sumut Prakarn and Bangkok. Authorities evacuated more than a thousand families from the area which was declared an emergency disaster zone.[1] It took firemen, first responders and volunteers eight days to control the fire. The dumpsite burst into flames twice more soon after, causing concerns to nearby inhabitants.As a result, questions on sustainable waste management were raised against the government, local administrations and communities across the country.

The plume from the massive Praksa fire extended over Muang and Bang Phlee districts of Samut Prakan province and some districts of Bangkok and stretched north for more than 20 kilometers. It could be seen from the satellite image of the Geo-Informatics and Space Technology Development Agency (GISTDA).The authority declared the 1-km radius area adisaster zone.[2] More than a thousand people sought treatment for nose, throat and eye irritations, including many severe cases. According to the Pollution Control Department (PCD), many toxic compounds such as sulphur dioxide, carbon dioxide, formaldehyde, carbon monoxide, dioxin (carcinogens) and volatile

organic compounds were found to exceed standard limits and could cause death if exposed to high concentration.[3] In addition, toxic waste and its burnt residues washed by water cannons made-waste water more contaminated. If left untreated, such pollutants can contaminate public water sources and underground water, causing further water pollution.[4]

The Praksa fire negatively impacted on the physical and mental health of the population and caused damages tobusinesses in the area. Around 2,000 people collectively filed civil and administrative cases against the dumpsite's owner and management as well as relevant government agencies and private entities demanding that the dumpsite operation be shutdown and the area's ecology rehabilitated.[5] The incident also alerted other communities across the country to re-examine waste management problems and demand improvement, as this site was only one of the country's 15 dumpsite fires in 2014, the majority of which happened in the Central region.

Thailand's collectivewaste higher than 100 Baiyoke Towers

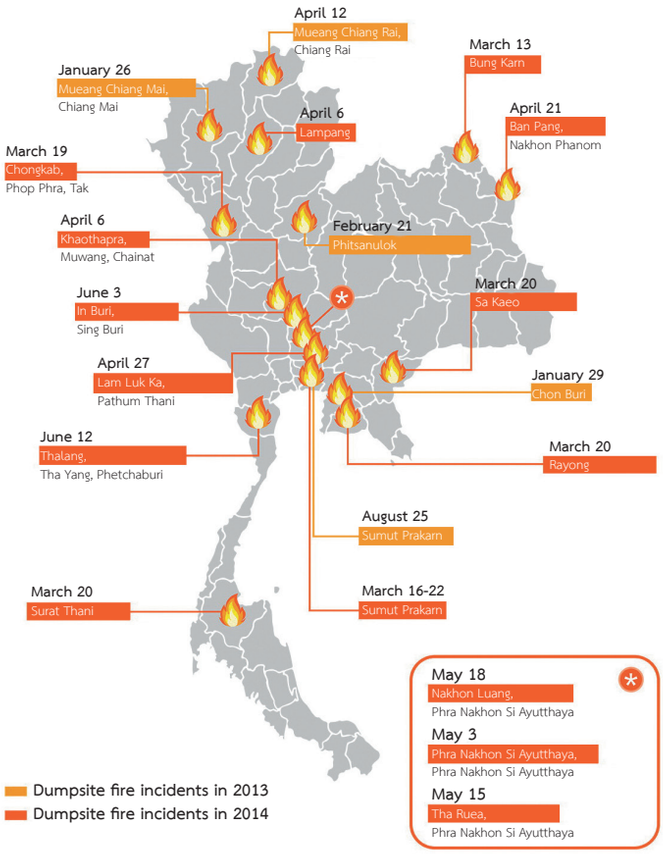
In 2013, PCD reported a total of 27 million tonnes of solid waste across Thailand, an increase of 2 million from the previous year. Only 27% of this amount was properly disposed of and another 19% reused or recycled. However, 26% was not properly disposed of and 28% was left uncollected.

At present, there are 2,490 solid waste dumpsites in Thailand, 466 (19%) of which are sites with proper waste management whilst 2,024 (81%) are

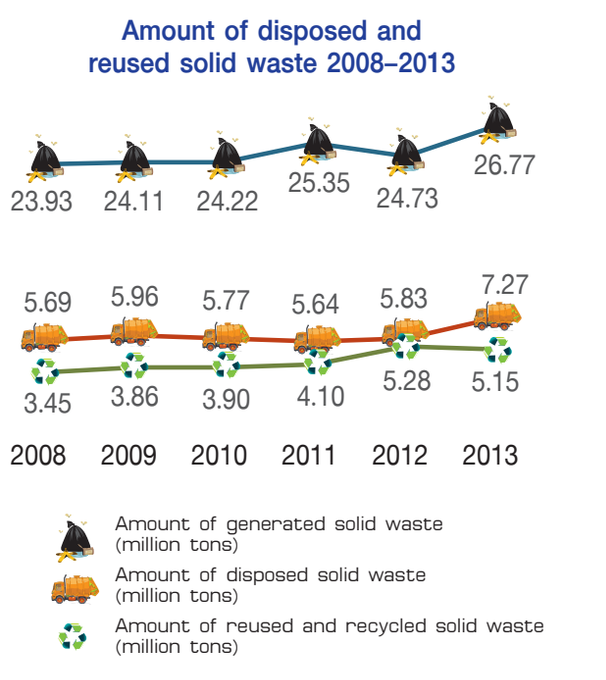
GISTDA satellite image showing the smoke from Praksa dumpsite fire.

Source : GISTDA

15 Dumpsite fire incidents in 2014 according to EARTH survey.



Source: Thaipublica



Source: "Situation, problems and policy proposal for solid waste management", Department of Pollution Control.[7]

sites with improper disposal such as open dumpsites or open-air burning sites. The amount of undisposed solid waste in Thailand amounts to 19.9 milliontonnes, equivalent to 103 Baiyoke II Towers on top of one other. Alarmingly, industrial waste has also been dumped together with municipal waste, making it very hazardous if not properly disposed of.

Illegally dumped industrial waste in municipal dumpsites

Municipalities[8] are in charge of collecting and disposing household waste by hygienically burying it at dumpsites. However, many dumpsites are not properly managed. For example, many do not sort garbage orinstall protective linings and protection system against fire and animal foraging. Some abandoned areas have been used to dump community waste and industrial waste without any authority taking responsibility.

Nattapon Nattasomboon,director general of the Department of Industrial Works (DIW), said that Thailand has more than 44.8 milliontonnes of industrial waste of which 42 tonnes is non-hazardous and 2.8 tonnesis hazardous. However, DIW received transportation slips for only twelve million tonnes of non-hazardous waste and one milliontonnes of hazardous waste, leaving the remaining amounts unaccounted for. Hence there is a lot of industrial waste being dumped, especially in the Eastern region.[9]

Penchom Saetang, director of Ecological Alert and Recovery Thailand (EARTH), said that the foundation is in the process of drafting a peoples' bill on pollutant release and transfer register, aimed as a tool to address illegal dumping of hazardous material. This bill was conceived in a 1992 Environmental Summit where world leaders made a resolution to highlight the importance of

pollutant release and transfer register (PERTR). This kind of legislation is already in place in forty industrialized countries and ten developing countries, including Thailand.[10]

Thiwa Taeng-orn, ananalyst monitoring industrial waste problems in the Eastern region, attributed the cause of the problems to lack of accountability, sheer negligence or vested interest of the authorities in chargeand insufficient numbers of dumpsites. According to DIW, there are approximately 130,000 factories in Thailand generating millions of tonnes of toxic waste per year whilst there are only four industrial dumpsites with a combined area of less than 1,000 rais.[11]

Community collaboration needed for waste management

Thara Buakhamsri, advocacy director of Greenpeace Southeast Asia, said that community solid waste and industrial/toxic waste tend to be dumped together in Thailand'swaste management chain. Communities themselves also generate toxic waste such as electronics parts. What the open dumpsites and dumpsitefires reveal is that Thai society's wasteful consumption will impact against our communities as it exceedsgarbage disposal capacities.[12]

Over the past five to ten years, an average Thai person generates a rather high amount of garbage at 1-1.5 kilogrammes every day. While in some less developed countries the rates may be as high as 1.6-1.7 kg per person per day, developed countries have much lower rates at 0.6-0.7 kg per person per day. This is because developed countries such as in Europe aim at 50% reuse and recycling compared to Thailand with less than 10% out of the 85% of solid waste which can be reused or recycled, says Associate Pro fessor DrPisut Painmanakul from the Environmental Engineering Department, Chulalongkorn School of Engineering.[13]

For garbage management in Thailand, Wichien Jungrungruang, PCD director general, said that solid waste management must be made a national agenda. The key framework and strategies needed include to build and promote a recycling society with a system to reuse product parts and packaging, coordinate waste management efforts of local administrations, convert waste to energy, conduct research and development of new technologies and build public-private partnerships. All these processes must involve all sectors including government and private sectors.[14]

Waste managementas NCPO's national agenda

General Dapong Rattanasuwan, Minister of Natural Resources and Environment, said that the NCPO recognised the importance of municipal waste problems that must be urgently addressed. NCPO has made waste management a national agenda and assigned this ministry to coordinate with related agencies to draft a guideline to address garbage and toxic waste problems, resulting in a roadmap approved by NCPO on August 26th 2014. PCD has proposed a three-phase plan.

- Short term (6 months): disposal of old garbage in six provinces namely Nakhon Pathom, Ayutthaya, Saraburi, Lopburi, Samut Prakarn, and Pathumthani. Burying or converting waste into

http://www.dailynews.co.th/imagecache/670x490/cover/599424.jpg

http://www.komchadluek.net/media/img/size_photo_slide/2015/02/13/ghdkeb7fb6cjc6b5h7aa8.jpg

electricity in five pilot provinces, namely Nontha-buri, Bangkok, Phuket, Chiangrai and Songkla. Fifteen similar waste to energy plants will be constructed across the country.[15]

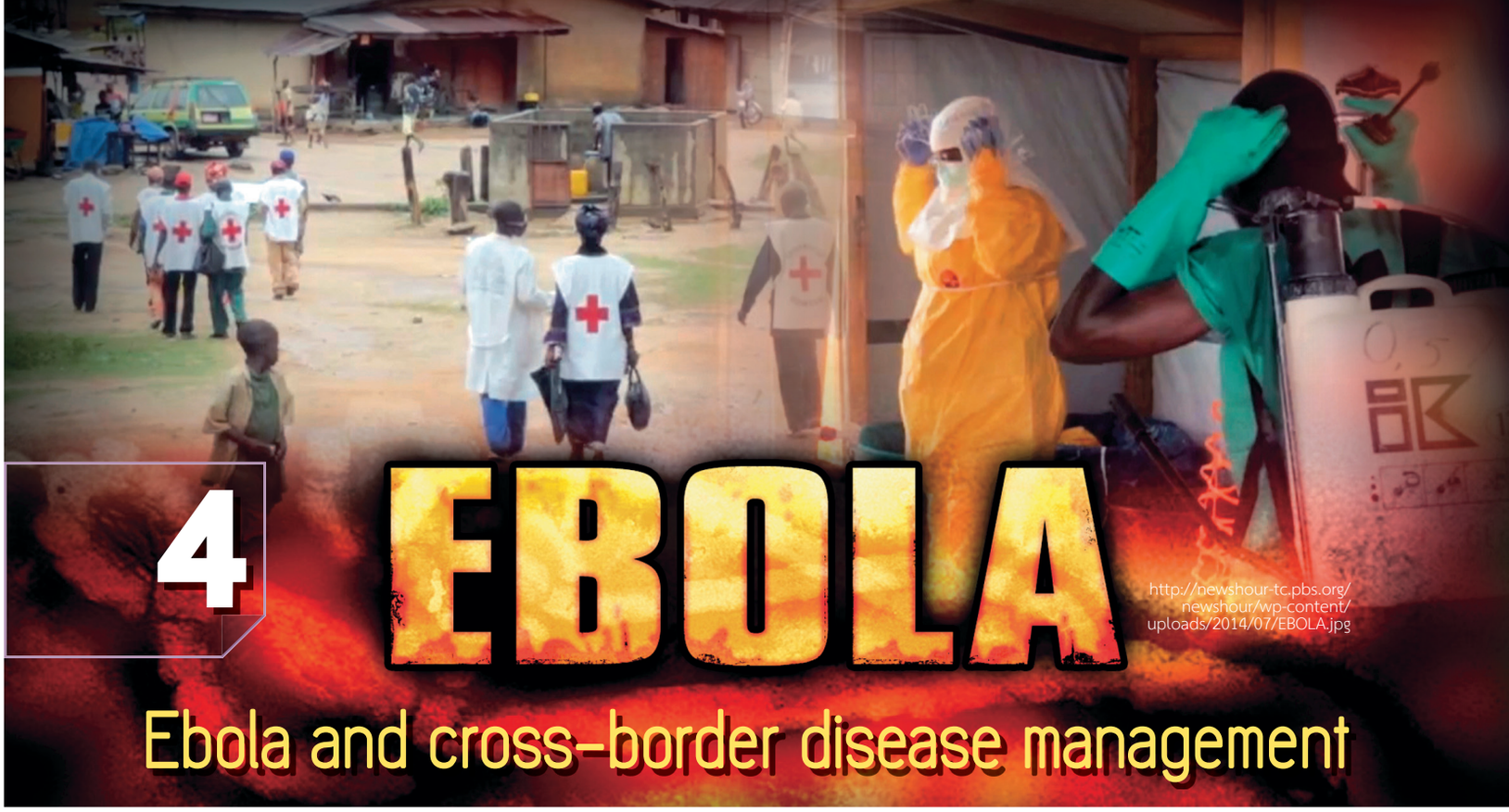
- Medium term plan: aiming to address the problem of old garbage in 20 provinces, at least one solid waste disposal center and one community toxic waste collection center will be established in each province.

- Long term plan: A solid waste management center to disposeof solid waste in combination disposal and waste-to-energy conversionas well as a toxic waste collection center will be establishedin each of the remaining 46 provinces.[16]

On the occasion ofThai Environmental Day (December 4), with the theme“Clean City. Happy Citizens”,PM General Prayut Chan-o-cha said that the government and NCPO recognised the importance of solid and toxic waste management and aimed to address the problem by making solid waste management a national agenda with requested collaboration for all sectors. The public could contribute by reducing, reusing and recycling. While the government promulgates laws to ensure proper garbage management, the industrial sector must comply by properly disposingof toxic waste to ensure safe environment and sustainable society for future generations.[17]

Conclusion

The problem of amassing garbage is turning into a serious health and environmental crisis, of which the Praksa fire is only the tip of the iceberg. It is now time for all sectors to collaborate and address thesechallenges holistically. First, each individual must sort garbage whilst communities must address garbage problems systematically with participation of the government, private, community and civil society sectors. Government agencies must conduct their duty with accountability and efficiency. In the future, the draft law on pollutant release and creating a transferring register will be important steps forward.



4 EBOLA

Ebola and cross-border disease management

http://newshour-tc.pbs.org/newshour/wp-content/uploads/2014/07/EBOLA.jpg

The recent Ebola outbreak is one of the worst epidemicsin modern history causing many morbidities and mortalities in West Africa, where 71% of the population was affected. As a result, public health agencies around the world raised their levels of preparedness and conducted rigorous Ebola surveillance in their own countries.

Years-spanning Ebola epidemic

This outbreak began in Guinea in August 2013 before quickly spreading into neighboring countries. In February 2015, WHO reported widespread epidemics in Guinea, Liberia and Sierra Leone. Limited infections were also reported in Nigeria, Senegal, Spain, USA and Mali.[1] The reason for widespread epidemics in Africa was remoteness and lack of access to health services that caused difficulties in controlling the disease. In addition, cultural factors such as touching, cleaning and kissing the dead also contributed to the spread of the virus.

Another challenge was the unpreparedness of public health agencies in those countries including lack of personnel, lack of knowledge on how to handle the disease and lack of appropriate equipment. All of these factors jeopardized the safety of local public health officers as well as foreign doctors, such as Dr Modupeh Cole, who caught the virus while caring for crashing patients at Connaught Hospital in Sierra Leone.[2] August 2014, WHO reported that 10% of the fatalities from Ebola were healthcare workers. As of March 2015, 839 healthcare workers had been infected by the virus of which 491 died.[3] In Sierra Leone alone more than 200 healthcare workers died, including eleven of the country's 300 or so doctors.[4]

WHO and disease control measures

As the world panicked at Ebola'sspread into Western countries such as the US and Spain in 2014, WHO on Voice of America proposed Ebola control measures on September 10th 2014 with the first goal to control the virus in the five countries with limited infections and then extend the control to other countries with widespread epidemics.

In West Africa, healthcare workers raised awareness among villagers about the routes of transmission and avoidance of certain cultural factors that fuelled transmission. DrMarianne Ngoulla, ECOWAS public health advisor, said that villagers organized and nominated leaders to coordinate awareness raising in their communities. Female staff were assigned to go from door to door to educate the women in the community so that they shared the knowledge with their family members. When all community members had a common understanding, it was hoped that this would result in effective prevention and appropriate care for patients.

UNICEF also played an important role in Ebola control by mitigating the impacts on children, families and communities. In October 2014, UNICEF raised $200 million globally to stop the Ebola epidemic through the distribution of 1,300 tonnes of personal protective equipment, hygienic utensils and necessary medicines to Guinea, Liberia and Sierra Leone. UNICEF also collaborated with the local authority in helping children, families and communities impacted by Ebola virus by fostering children orphaned or abandoned due to Ebola.

In addition to international NGOs, many countries also sent public health officers to work in the epidemic areas. For example, the United Kingdom set up patient care centers in Sierra Leone, while China did the same in Liberia. However, insufficient numbers of healthcare workers continued to be a problem.

These measures helped contain Ebola virus from spreading to other areas in West Africa. Nevertheless the impact of the endemic was large. As of March 1st 2015, 11,466 people had been infected with 3,546 deaths in Sierra Leone. 9,249 people had been infected with 4,117 deaths in Liberia. 3,219 had been infected with 2,129 deaths in Guinea. Fortunately, the incidence of new infections now seems to be on the decline since the end of 2014.[5]

Thailand and Ebola

Alerted to the possibility of Ebola's spread into the country, Thailand conducted Ebola surveillance measures on travelers from epidemic areas at land, water and airport checkpoints. It also collaborated with the US Center of Disease Control in five areas, namely:1) exchanging experiences on working with Ebola; 2) training of personnel and procurement of test kits for field work; 3) increasing the speed in detecting the Ebola virus; 4) providing PPEs to prevent infection; and 5) disseminating daily situation reports by the Bureau of Epidemiology.

Dr Supamit Chunsuttiwat, of the Department of Disease Control (DDC), said the Ebola virus has an incubation period of two to 21 days but it can remain as long as two months. It can be transmitted through bodily fluids such as blood, nasal discharge and sweat as well as from the belongings of infected persons.[6] Dr Apichai Mongkol, director general of the Department of Medical Sciences (DMS), said that Thailand had procured bio-molecular test kits with 90% accuracy from China and Germany and also had level-three biosecurity laboratories which could test for dangerous microbes. In addition, Thailand could offer help to other countries in terms of drug and vaccine development.

Moreover, Thailand research agencies also had experiences with research on Ebola virus as Professor Emeritus Dr Wanpen Chaicumpa and Siriraj Hospital team have developed antibodies against Ebola hemorrhagic disease from a protein in the human immune system. Once injected into the body, the antibody contains the virus and allows the body functions to quickly recover. The research team travelled to the United States on November 16th 2014 to test the antibodies against live Ebola virus in alevel 4 biosafety laboratory. If the antibody's effectiveness against Ebola virus is proven to be satisfactory, it will put to use with Ebola patients in West Africa.

On the home front, Thailand's surveillance measures were put to test when on September 1st 2014, a 24-years-old Thai woman arrived from Guinea with a temperature of 38.8°C as well as symptoms consistent with Ebola infection such as sore throat and runny nose. She was immediately transferred for special treatment by the public health authority and her blood sent to test for Ebola virus at the laboratories of the DMS and Chulalongkorn School of Medicine. In addition, a DDC disease investigation teamwas sent to work with the Provincial Public Health Office tomonitor the conditions of the patient's close relatives who were, however, found to be healthy and Ebola free.

Another incident which caused alarms was the arrival on November 13th 2014 of a 31-years-old tourist from Sierra Leone. Thought to be infected by the public health official stationed at the Suvarnabhumi airport checkpoint, he wastransferred for more thorough investigation at the Bureau of Communicable Diseases (BCD), Ministry of Public Health. Found to be uninfected, he was released with the condition that he reported to the health authority again in 21 days. When, on November 16th the tourist turned off his mobile phone and disappeared, BCD reported his disappearance to the police to track him down. When he was found at the airport on November 25th without anysymptoms of Ebola infection, the tourist was fined for violation of disease control regulations (not more than 2,000 baht) before being allowed to leave the country.

Thailand and cross-border disease control

Thailand has many experiences of epidemics, of which the most well-known are the avian flu epidemics of 2004-2008. During the epidemic, MOPH in collaboration with the Ministry of Agriculture and Cooperatives, Ministry of Natural Resources and Environment, DDC, as well as provincial health offices, conducted surveillance of sick poultry and birds especially in provinces with previous history of avian influenza, as well as in border areas with high volumes of poultry transportation.

In addition, Thailand is also familiar with other cross border diseases such as malaria, elephantiasis, tuberculosis, SARS, influenza and HIV/AIDS which have high incidences in border areas due to the high mobility of people. Moreover, re-emerging diseases such as foot-and-mouth disease,multi drug-resistant tuberculosis and some previously controlled diseases such as pertussis, diphtheria and malariaare now again on the rise. As a result, DDChas strengthened its control measures on people entering and leaving the country to prevent the spread of disease in Thailand.

To control potential for the spread of diseases after the 2015 AEC integration, DDC has implemented measures consistent with international regulations and agreements and the following framework:

1) Implement the 2005 International Health Regulations on surveillance, prevention and control of diseases and public health threats.

2) Develop a master plan for the ASEAN social and cultural community

3) Prepare the 11th National Economic and Social Development plan (2012-2016) emphasising the sufficient economy, balanced development and human-centered development in all dimensions to prepare for impacts from domestic and international changes

4) Develop a strategic framework for Thailand's integration into the AEC on quality of life development, social protection and security promotion strategies

http://www.matichon.co.th/news-photo/matichon/2014/08/act01130857p1.jpg

5) Develop MOPH strategies for AEC preparedness and a master plan to address border area public health problems (2012-2016) emphasising collaboration with neighboring countries in developing and enhancing capabilities to prevent and control deceases as twin cities

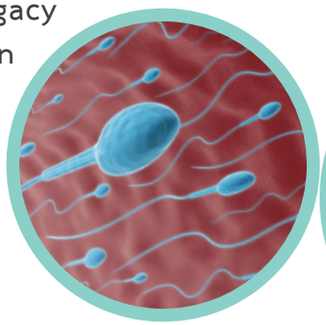
- between Thailand and Laos, namely, Chiangrai Bo Keo, Nan-Xayaburi, Mukdaharn-Savannakhet, Nongkhai-Vientianne and Ubonratchathani-Champasak.
- between Thailand and Cambodia, namely, Srakaeo-Banteay Meanchey, Chantaburi-Battambang/Pailin, and Trat-Koh Kong.
- between Thailand and Myanmar, namely, Chiangrai-Tachilek, Tak-Meawadee and Ranong-Kaw Thaung.

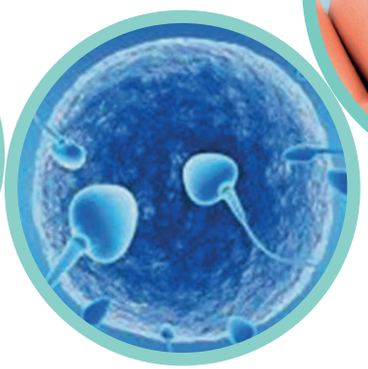
Conclusion

Ebola is an epidemic with large social and economic impacts on the West Africa populations. Although the control of the virus was successful in some countries, some remote areas in West Africa without access to medical service remain at risk with new cases of infection. All countries must therefore remain vigilant against the virus as well as other epidemics.Thai public health agencies were effective in conducting surveillance on Ebola virus and other cross-border diseases as well as monitoring individuals with possible infections. However, globalisation and increased mobility of people and goods remains a risk that Thailand and related authority must adapt to and plan for, as well as extend collaboration with neighboring countries to ensure effective control of epidemics.

5 Surrogacy and what Thai society needs to know

In some Asian jurisdictions, including China and Taiwan, surrogacy is illegal due to moral concerns. This is particularly true in the case of commercial surrogacy because use of women's bodies is considered forbidden for commercial purposes. On the other hand, because of its lack of a surrogacy law, Thailand has seen increasing surrogacy arrangements involving foreigners as the instances that made headlines in 2014.





Surrogacy in Thailand

Until recently,Thai society had not paid much intention to surrogacy as most Thais considered it a remote issue. However, in 2014 surrogacy made the headlines with two high-profile cases. In the first case, an Australian couple were accused of abandoning their biological child because of brain abnormality, leaving the surrogate to care for the baby. However, the couple claimed they were not aware that the surrogate refused to have an abortion after the fetus was diagnosed with the problem. In another case, a young single Japanese millionaire hired fifteen women to carry fetuses born from his sperm. The number of surrogates and fetuses involved raised a suspicion that he may have immoral or criminal intentions such as human trafficking in mind. These two incidents made surrogacy a hot topic amongst lawyers and child rights protection activists, begging the question whether it was time that Thailand enacted a law on commercial surrogacy.

Meaning and types of surrogacy

Surrogacy refers to a pregnancy carried by a woman with the help of assisted reproductive technology for someone who wants to have a child with a pre-pregnancy condition that the baby will belong to the latter. Technology assisted reproduction is used by people with infertility or pregnancy problems in order to have children with their or their partner's genetic material. As with "test tube babies", after the fertilization of an egg with a sperm, the fertilized egg is implanted in the womb until the pregnancy is carried to term. These advanced technologies benefit people with fertility problems who can afford the high costs. In some countries such as Sweden, the state welfare system allows couples with infertility problems to receive at least one free IVF service.

The difference between surrogacy and "test tube babies" is that in surrogacy the zygote will be implemented not in the uterus of the egg's owner but that of another woman. The implant can be done in two ways. The first is to artificially fertilize the surrogate's egg with the sperm of the male client in the laboratory. This normally happens in the case that theclient's wife has abnormal eggs or is infertile. As a result, the surrogate will be biologically related to the child because she is the owner of the egg.

The other way is to fertilize the female client's egg with donor sperm or the male client's sperm with donated eggs in the laboratory and implant the zygote in the uterus of the surrogate. This 'gestational' surrogacy is considered true surrogacy because the surrogate is not biologically related to the baby and is often the method employed by gay couples, single people or heterosexual couples of which the wife cannot get pregnant or is infertile.

Regarding the purpose ofsurrogacy, there are two typeswith a large grey area in between. "Altruistic surrogacy" happens when a woman volunteers to carry the pregnancy without any compensation because of her empathy to those who cannot have their own children. The couple pays for all expenses including medical services, expert fees and the care of the surrogate until delivery and the surrogate is often related to the couple.

"Commercial surrogacy" on the other hand is when a woman is paid for the pregnancy by an agency which arranges the whole process from seeking desirable surrogates, procuring eggs or sperms, hiring IVF experts, caring for the surrogate from implant until delivery as well as the legal process to transfer the parental rights to the client.

Commercial surrogacy in Thailand

A blood related family unit with father, mother and child is an ideology that has long been propagated in Thai society. The desire to have children who are biologically-related to oneself or a loved one has driven infertile and gay couples or even single persons to technologically assisted reproduction. Currently, Thailand has many IVF doctors making the country one of Asia and the world's centers for technologically assisted reproduction.

A number of Thai women also agree to carry pregnancy with the idea that it is a compassionate act while also one that is compensated with a substantial amount of money.Thai surrogates receive around US$13,000 or 400,000 baht for surrogacy or about 340,000 baht if contracted through an agency, most of which are foreign owned. Payments will be made according to a contract. Once a pregnancy is confirmed, the client will make monthly payments of about 12,000 to 13,000 baht to the surrogate for monthly expenses until delivery. The remaining amount of about US$9,400 will be paid after delivery, divided into two payments. The first, 20 days after delivery and the second after the legal transfer of parental rights. In the case of pregnancy complications such as miscarriage or fetal death in the first 5 to 6 months of pregnancy, the surrogate will still be paid around US$7, 000.

Moreover, the client will also have to pay US$ 4,500 to the agency, in addition to doctor fees and other expenses such as medical supplies, eggs, prenatal care and assistance to take the surrogate to ANC appointments. Before pregnancy, the surrogate will receive a payment of about 6,000 baht for every implant session. The surrogate who agrees to remain in the clinic for about 10 days to

ensure successful implant will also be compensated 7,000 baht for her time. However, if the surrogate does not want to stay in the clinic, some agency may pay 5,000 baht.[1]

Relevant laws

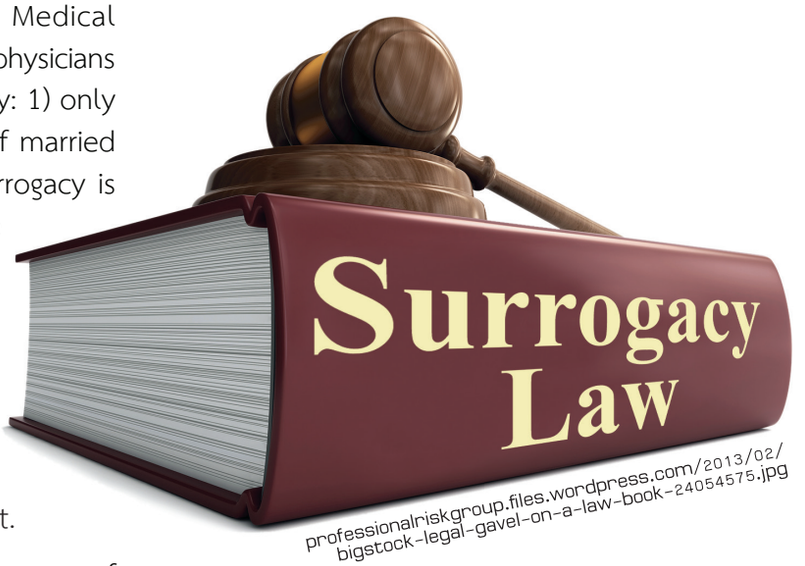
Some countries such as India, Russia, Ukraine and South Africa as well as some US states legally allow commercial surrogacy whilst others such as Australia, UK, Canada (except Quebec), some US states, Israel, New Zealand, Portugal, Denmark, Hungary, Belgium and the Netherlands allow only non-commercial surrogacy. Some have laws against both types of surrogacy such as Sweden, France, Finland, Spain and Switzerland as well as some US states.

However, the majority of countries don't have any surrogacy laws. Although Thailand doesn't have surrogacy laws per se, Medical Council Regulation No. 21/2002[2] requires physicians to comply with three conditions, namely: 1) only zygotes fertilised by sperms and eggs of married couples are allowed; 2) commercial surrogacy is prohibited; 3) the surrogate must be blood-related to one of the married couple. If physicians wish to offer other services such as using donor sperm or eggs, or in case the couples do not have relatives to act as surrogate, permission from the Royal Thai College of Obstetricians and Gynaecologists must be sought.

At present, Thailand is in the process of promulgating as urrogacy law, namely, the draft bill on the protection of children born from assisted-reproductive technology, proposed by the Ministry of Social Development and Human Security. Drafted in 2010, this law has caused concerns that it may conflict with current social reality.

Firstly, commercial surrogacy and itsarrangement is considered to be against morality and ethics. As a result, the punishment provision in Article 3 of the above mentioned Medical Council Regulations is applied to individuals or groups who violate the provision. It should be noted that by definition commercial surrogacy refers to the carrying of pregnancy by a blood-unrelated women for remuneration as well as the advertisement or arrangement for such but does not include medical services offered by physicians for commercial purposes at high costs.

Secondly, the bill aims to control rather than prevent and protect women from rights violation because it punishes and violates the women's rights to their own bodies. However, laws aiming to control and persecute in this fashion never worked for Thai society in the past. For example, the Act to Prevent and Suppress Prostitution or



professionalriskgroup.files.wordpress.com/2013/02/bigstock-legal-gavel-on-a-law-book-24054575.jpg

the Criminal Code section criminalising abortion failed to eradicate prostitution and abortion. Instead, the law allowed corruption by law enforcement officers who sought bribes from those who violated the law and increased oppression and exploitation and human rights violations of women whilst precluding them from health rights protection.

Thirdly, although the bill aims to protect the rights of children born from assisted reproductive technology from falling victim to human trafficking or becoming under the care of unfit persons, the law also abolished the right to parenthood of the birth mother granted under the current Civil and Commercial Codes by giving exclusive parental rights to the biological parents. The law effectively ignored the bond between a surrogate and the baby and precluded the child's right to choose his or her parents. A truly democratic law would also allow the surrogate to decide whether the child knows about the surrogacy.

Fourthly, this law was drafted under heteronormativity and the ideology of perfect heterosexual family with father and mother. It allows only legally married heterosexual couples to access assisted reproductive technologies and barred others including single people and same-sex couples.

Conclusion

It is now time for Thailand to have a surrogacy law which takes into account the rights of all parties including those of the child, those who want to have children whether infertile opposite-sex couples, same sex couples or single people, surrogates and physicians who provide the services. In order to ensure that a lawis balanced, relevant and responsive to social changes, the law should not be conservative in nature or impinge on the human rights of various groups.

Considering that radication of commercial surrogacy by criminalization is impossible due to the near universal desire to have children, such prohibitive laws will only drive surrogacy underground and makes it more complicated, exploitative and difficult to control. Although surrogacy is prone to ethical and human rights concerns and may create legal headaches for stakeholders, if Thai society can develop a surrogacy law that aims to protect human rights rather than to persecute and suppress, the risks will be systematically managed and not swept under the carpet like in the case of prostitution and abortion.

6 New drug legislation. Who wins? Who loses?

To repeal the outdated Drug Act BE 2510 (1967), which was last amended in 1987 and is increasingly irrelevant to current situations, the Ministry of Public Health (MOPH) proposed a draft bill which has already been reviewed by the Council of State (CoS).[1] However, the draft was met with wide opposition from within public health circles, resulting in media reports and advisory seminars to inform the public on the implications of the draft bill.

Features of the draft bill

The MOPH saw the necessity for a new Drug Act in order to protect public safety and respond to current situations. The proposed draft bill has the following key features:

1. Drug issues become a national agenda item. The National Drug Committee is chaired by the Prime Minister. There are additional committees to oversee the overall drug situations as well as specific drug categories.

2. Patented drugs must disclose patent information and price structure.

3. "Operators" play a complementary role to ensure a more comprehensive operation under supervision of licensed practitioners.[2]

4. An increase in overall penalties for violations, including imprisonment for violations of drug advertisement prohibitions.

5. Allows authorities to demand that advertisers correct wrongful drug advertisements and publicly disseminate this information at the expenses of advertisers.

6. Increases civil liability for damages to consumers.

Pharmacist network's opposition

As one of the most vocal groups, the Pharmacy Council organised activities to voice their opposition against the draft, which would allow non-pharmacists to exploit and benefit from producing, selling and importing drugs. In a letter submitted to the NCPO[3] on August 7th 2014, the council laid out its main objection to the draft in three specific areas as follows:

1. Classes of drugs: the draft allegedly allows non specialists to prescribe and dispense drugs without a pharmacist's supervision and this may jeopardize consumer safety. The draft also does not follow an international classification

system which categorizes drugs into prescription-only, pharmacy-dispensing and publicly available common drugs.

2. Mixing: the draft allegedly allows non-pharmacists to mix drugs without the specialised knowledge of methods, ingredients and processes which may compromise drug stability and shelf life or cause precipitation or even formation of unanticipated compounds. This may also lead to secret drug formulation which can endanger users.

3. Repackaging: the draft allegedly allows non-pharmacists to repackage drugs without knowledge of the repackageability and use of appropriate containers to ensure effectiveness, stability and non-contamination.

The pharmacist network also submitted a petition with more than 7, 600 signatures to the Thai FDA on October 9th 2014 demanding that they are consulted before the draft is submitted to the Cabinet.[4]

Civil society position

Civil society groups agreed that the Drug Act BE 1917 should be updated to protect public health and safety.On January 19th 2012, Assistant Professor Dr Niyada Kiatyingangsulee, on behalf of the Health and Development Foundation, Drug Study Group, Drug System Monitoring and Development Centre and allies,submitted a people's draft (version 19.01.55)[5] together with 10,565 endorsing signatures to a Parliament spokesperson. The draft prescribed protection against unethical drug advertisement and promotion, measures to promote public access to essential drugs and capacity building for relevant officials.[6]

After the coup, the Secretariat of the House of Representatives informed that the provisional Constitution BE 2014 (1971) did not allow public proposed legislation and therefore the people's draft could not be considered.[7] However, the draft's backers submitted a letter to the Prime Minister and NCPO chief to endorse the draft. Later, the Office of the Prime Minister replied in a letter that the matter had been forwarded to the Ministry of Public Health.[8]

Conflict and resolution

The FDA tried to resolve the conflicts surrounding the draft bill by inviting the pharmacist network to a consultation to revise the CoS draft andorganised ahearing with other stakeholders and civil society representatives on 24th October 24 2014.[9] The FDA secretary general then submitted recommendations from the regional public hearings to the Minister of Public Health on October 29th 2014.[10] The ministry then submitted all related documents to the Cabinet secretary based on the seven key areas raised in the statement of the pharmacist network, as shown in the table below.[11] Meanwhile, the Law Reform Commission also organised a consultation with related agencies and stakeholders on November 21st 2014 and published its opinions on its website.[12]

Conclusion

Although there is a need to reform the Drug Act to increase regulatory efficiency and responsiveness to current situations, the proposed draft, despite its regulatory improvements, may compromise the safety of the population and needs to be revised before going into effect. All stakeholders will keep a watch on the Cabinet resolution and the National Legislative Assembly vote to see how much of civil society recommendations are reflected in the final legislation.

Recommendations from Civil Society

Issues	Council of State version	Pharmacist network demands	Civil society recommendations
1. Classes of drugs	- Drugs are classified into prescription only, pharmacy dispensing and common household drugs.	- Drugs are classified into prescription only, controlled, and common household drugs (in accordance with the Ministerial announcement, relevant practitioners should not be named in the legislation)	- Drugs are classified into specially controlled, dangerous and common household drugs (as in the 1967 Act)
2 Exempts practitioners from applying for a license for producing, selling or importing modern medicine, Thai traditional medicine and alternative medicine (Art 24), animal medicine (Art 60) and pharmaceutical chemicals, semi-instant pharmaceutical chemicals, biopharmaceutical products and herbal pharmaceutical products (Art 87)	- Allows registered drug formulas to be mixed in accordance with scientific principles without need for a license - Allows practitioners to repackage drugs under certain situations - Allows practitioners to sell drugs under certain situations	- Allows mixing according to pharmaceutical principles. - Deletes the clause on different professional groups because each must follow laws regulating their professions - Replaces "repackage" with "re-dispense" - Practitioners can "dispense" but not "sell" drugs. - Deletes the clause allowing practitioners to sell drugs in retails outlets, to prevent unauthorized outlets	- Deletes the clause allowing mixing and repackaging by non pharmacists without specifying the qualifications of relevant practitioners, (because itamounts to license exemption and allowing the production, sale and importation of sub standard drugs, jeopardizing drug quality, efficiency, stability, andconsumer safety.)
3. Allows non-specialists to operate and control drug businesses	- Allows practitioners of Thai traditional medicine to produce Thai traditional and alternative drugs - Allows veterinarians to produce biopharmaceutical products for animals - Allows persons trained on production of veterinarian medicine with herbal ingredients to produce or import alternative medicine for animals - Allows Bachelor of Science degree holders to produce pharmaceutical chemicals and biopharmaceutical products	- Eliminates "practitioners of Thai traditional medicine" from the drug-manufacturing process which, at the industrial level, requires specialists - NOT allowing veterinarians to produce biopharmaceutical products for animals - NOT allowing persons trained on production of veterinarian medicine with herbal ingredients to produce or import alternative medicine for animals - NOT allowing Bachelor of Science degree holders to produce pharmaceutical chemicals and biopharmaceutical products	- NOT allowing veterinarians to produce biopharmaceutical products for animals - NOT allowing persons trained on production of veterinarian medicine with herbal ingredients to produce or import alternative medicine for animals - NOT allowing Bachelor of Science degree holders to produce pharmaceutical chemicals and biopharmaceutical products - NOT allowing medical practice licensees to produce herbal pharmaceuticals

Issues	Council of State version	Pharmacist network demands	Civil society recommendations
4. Review and renewal of drug registration (Art 46, 51)	- No review of drug registration Only one renewal required after five years, regardless of problems.	- Increases measures to review drug registration Renewal required every five years for periodical update and data examination	- Increases measures to review drug registration Renewal required every five years for periodical update and data examination
5. Drug advertisements, treatment against serious illnesses (Art 143)	- No prohibition against advertisements of prescription-only or practitioner dispensing drugs.	- Clear prohibition against advertisements of prescription only or practitioner dispensing drugs (to avoid misunderstanding that these can be advertised.)	- Adds criteria, methods and conditions on promotional and advertising activities. Requires information for extension of license and public dissemination. - Drug representatives must be pharmacists - Prohibition against public advertisements of dangerous or specially controlled drugs.
6. Prohibition against set drugs	- Prohibits sales of drugs by dividing from manufactured package by authorized vendors, operators or practitioners at retails drug outlets	- Retains Art 75 bis in the 1967 Act, prohibiting sales of set drugs	- Prohibits sales of both set drugs and drugs divided from manufactured package (which jeopardises drug quality) - Replaces “authorized vendors, operators or practitioners” with “anyone”
7. Civil liability for practitioners (Art 159) and administrative penalties	- Practitioners who don’t fall under those who “produce, sell or import drugs” don’t have civil liability for drug harms No administrative penalties	- Practitioners who don’t fall under those who “produce, sell or import drugs” DO have civil liability for drug harms - Proposed administrative penalties	- Proposed civil liability and administrative penalties

7 Health areas and discontent: Holding the public victims

The disputebetween the Ministry of Public Health (MOPH) and the National Health Security Office (NHSO) onthe national health security budget over the past several years has burst out into open conflict and confrontation after the MOPH campaigned for the "health area" policy between 2012 and 2014.

In order to solve problems of operational losses faced by many hospitals, MOPH permanent secretary Dr Narong Sahamethapat continued to advocate for the establishment of "health areas" across the country with the role to allocate budget to hospitals, thereby replacing the NHSO's direct per-head payment to hospitals. This active move by MOPH and the continued attack against the NHSO caused a wide rift between the two organisations and raised concerns that this may compromise the efficiency of health services provided to millions of clients who may be affected by the proposed changes in health budget allocation system.

Service package: good in principle

The "health area" policy started its life with Dr Narong's "seamless service" proposal, also known as a"service package", provided to Dr Pradit Sinthawanarong, then Minister of Public Health in the previous Yingluck government. According to Dr Narong, today's compartmentalised health system caused patients to be concentrated in large hospitals such as regional and provincial hospitals. MOPH therefore proposed a reorganisationof the country's public health system into twelve "health areas"[1] consisting of of 5-6 provinces. The "service

pack" in the health areas could pool resources to address the problems of physician shortage, patient concentration and long waits for services.

Dr Pradit stated that patients will receive better services without a long wait when resources including facilities, personnel, hospital beds, operating theatres and medical equipment are pooled and doctors can travel to provide services at community hospitals. In addition, consolidating drug purchases across hospitals will benefit from the economy of scale to reduce costs and stocks whilst drug depos situated across the country could replenish drugs when hospital stocks are low and increase the country's drug security.[2]

Theoretically, the "service pack"is a sound policy. However, Dr Pradit also wanted to change the current budget allocation system by abolishing the per head payments and salaries for physicians and other healthcare personnel paid by NHSO directly to hospitals. Instead, the budget will be allocated to the twelve health areas, each chaired by an MOPH inspector.[3]

This idea was strongly opposed by the Rural Doctor Group because they claimed that the policy was not subjected to hearings from all stakeholders. Led by Dr Kriangsak Watcharanukulkiat, the group dressed in black in protest and threatened to submit a letter to the then Prime Minister Yingluck Shinawatra demanding a new Minister of Public Health.[4]

From "service pack" to "health areas"

As widespread criticisms against the "service pack" intensified, Dr Narong turned this idea into "health areas," with frequent mentions of changes in the budget allocation system. However, political conflicts near the end of the Yingluck government forced the policy to be put on hold.

The health area policy pushed by Dr Narong through Dr Pradit retains the "service pack" idea's key features of resource pooling. However, this package also appoints the MOPH inspectors as CEOs of the health areas and establishes "area health boards" as the main steering mechanism.

This area health board will comprise the NHSO regional office, a "provider board" headed by the MOPH inspector and a "regulator board" headed by senior medical officers. Although the last two actors appear to be independent from each other, they are both under the MOPH.[5] As a result, the Ministry was widely seen as trying to wrest power away from the NHSO back into its own hands.

Another issue that was abone of contention in these developments was the attempt to change NHSO's resource management as the health area policy called for consolidation of fourteen existing funds into four large funds.[6] Although this would increase the ease of management, many feared it would have negative impacts on fund beneficiaries.

After the coup d'état, Dr Narong continued to push the health area idea further and called for the allocation of funds to health areas which would then distribute them to hospitals. The MOPH also advocated collapsing NHSO's funds into four main areas, namely:1)out-patient; 2) in-patient; 3) prevention and promotion; and 4) Article 41 compensation funds. The funds for high-costs diseases would also be consolidated into one fund,[7] This idea caused many organisations to oppose the health area idea.

Opposition to health area policy

The policy to give budget allocation powers to health areas was met with widespread opposition. As this power would be held by the

MOPH as both service provider and procurer, concerned that service quality and clients may suffer.

Based on the sixth National Health Assembly resolution that health system reform must be addressed not by one sector but with collaborative efforts of all sectors, the National Health Commission concluded that the centralisation of power in the hands of the MOPH could not be a solution and may even cause further conflicts.[8]

Certain civil society groups such as the "People's Health Systems Movement" have expressed their opposition to the health area policy. These groups said that the MOPH failed to disclose details on how health areas would distribute allocated budget to service units, whether it would be be per capita, or what criteria it would be based on. This may lead to inappropriate budget allocations.

In addition, groups feared that the collapse of the funds for chronic and high-cost diseases into a per-head payment would lead to a hesitation to provide services to patients with these diseases. Another reason for opposition was that these ideas not only failed to comply with the National Security Act but also could affect service providers as well as 49 million clients.[9]

Former TDRI president Dr Ammar Siamwalla said: "I think universal health coverage is good already. To abolish it is unimaginable and politically impossible. The question is how to improve it. We must admit that after the universal coverage, the MOPH's investment budget has greatly shrunk, affecting its capability to provide services. The government must augment this budget. This led to a proposal to decrease per-head payments and disagreement between MOPH and NHSO. In my view, the main issue is not who holds the money, but how to provide optimal services with maximum benefit to the people."[10]

Recently, the NHSO, which had been keeping a low profile, started to respond to allegations through the media. In a press conference, the NHSO stated that the MOPH permanent secretary made false allegations against NHSO management by misleadingly using information out of context, with the aim totake charge of budget allocation and undermine the principles of the National Health Security Act.[11]

Put on hold

The conflict between MOPH and NHSO deteriorated as Dr Narong continued to criticize NHSO's alleged inefficiency as the cause of hospitals operational losses. He also issued an order forbidding Provincial Public Health offices from joining meetings with NHSO, until the latter agreed to transfer the 2015 budgets to health areas. Dr Narong's activities put pressure on the Minister of Public Health Dr Rachata Rachatanawin who, as chair person of the NHSO board, on December 8th 2014 issued as NHSO resolution to allocate a budget for the second quarter of 2015 directly to the service providers as before. This rationale was that it was too soon to allocate budgets in the way proposed by Dr Narong.

Dr Rachata also assigned Dr Kanit Saengsuphan, another NHSO board member, to "explore" the proposed budget allocation policy by making "virtual accounting" in two areas and to submit the results to the board in one month.[13]

As for the accusation of NHSO inefficiency leading to hospital losses, Dr Rachata set up a committee led by Dr Yuth Potharamik, former deputy permanent secretary for health, and consisting of members from the MOPH office of Permanent Secretary and the NHSO. However, Dr Yuth resigned from his position at the first meeting because the MOPH members boycotted this meeting claiming that they had already given all information and the meeting served no purpose.

Although Dr Rachata sent a signal that he would not push ahead with the health security system reform, as proposed by Dr Narong, the latter continued to advocate the reformand build support. The resulting coordination failure between the two organisations forced the Prime Minister to issue an order to transfer Dr Narong to the Office of the Prime Minister. This provoked protests among the MOPH personnel, many of whom gathered to give moral support to Dr Narong.

To be continued

The health area policy was born amid the dispute between MOPH and NHSO on the budget allocation role and allocation methods. Part of the problem was caused by the insufficient per head payments which led to operational losses in many hospitals. However the other part of the problem is caused by divergent opinions on the roles in budget allocation among key public health agencies.

In addition, the management of different funds is another area of conflict which remains. The transfer of Dr Narong may help calm the conflict on the surface, but it doesn't solve the fundamental problems lying underneath. Reforming the National Security System to increase efficiency as well as increasing per-head budget is necessary to ensure that the right to access healthcare will truly be protected.

8 Chiangrai earthquake, community impact and problem management

The 6.3 magnitude earthquake that hit Chiangrai on May 5th 2014 could be felt across much of the Northern region of Thailand, in some parts of the Northeastern region and even in Bangkok's high rise buildings. Triggered by the movement of the Phayao fault line, the earthquake and more than 1,200 aftershocks[1] caused damage to houses, schools, hospitals, businesses, historic sites and roads in Chiangrai whilst affecting people in Chiangmai, Phayao, Nan, Phrae, Lampang and Kamphaeng Phet. On May 12th, the Chiangrai Earthquake Committee concluded that the earthquake killed one person and damaged 8,935 buildings in 609 villages, 50 sub-districts and 7 districts throughout the province.[2] The earthquake also inevitably caused panic amongst communities in the Northern region, as well as those living in and near fault zones.

Image of damage caused by the May 5th earthquake

http://www.oknation.net/blog/hothothot/2014/05/05/entry-1

Earth trembling in Chiangrai

According to an initial calculation, the 6.3 scale Chiangrai earthquake that shook the ground at 6:08 pm on May 5th had its epicenter in Sai Khao sub district, Pan district in Chiangrai, with a depth of seven kilometers and Level VIII intensity on the Mercalli scale. However, after further analysis, the Earthquake Surveillance Bureau pinned the epicenter eight kilometers furtheraway at Chom Mok Kaew subdistrict, Mae-Lao district, at a depth of two kilometers. This shallow earthquake was felt in many parts of the Northern region of Thailand in Chiangrai, Chiangmai, Lampoon, Lampang, Nan and Phayao provinces, as well as in Loei and Nongkhai provinces in the Northeastern region. It was also felt in some high-rise buildings in Bangkok, as it was located on soft ground layers of Earth that can amplify seismic activities by three to four times. The earthquake killed one person and injured more than 100. It also caused widespread damage to buildings and other structures, as well as created changes in terrestrial features such as crevices, sunken grounds and underground water seeping onto surfaces.[3]

The damage to Chiangrai's RongKhun Temple caused by the earthquake

https://dpmcr.wordpress.com

Thailand's fault zones

According to the Department of Mineral Resources (DMR), Thailand has about a dozen active fault zones. These can be classified by the direction of their alignment/movement into northeast-southwest, northwest-southeast and north-south.[4] The majority of the fault lines are in the northern and western parts of the country,including the Mae Chan-Mae Ing, Mae Tha, Thoen, Phayao, Pua, Uttaradit, Srisawat fault zones.

Thailand's Fault Zones	
Fault Zones	Provinces
Mae Chan–Mae Ing	Chiangrai, Chiangmai
Mae Hong Son	Mae Hong Son, Tak
Moei	Tak, KamphaengPhet
Mae Tha	Chiangmai, Lampoon, Chiangrai
Thoen	Lampang, Phrae
Phayao	Lampang, Chiangrai, Phayao
Pua	Nan
Uttaradit	Uttaradit
Chedi Sam Ong	Kanchanaburi, Ratchaburi
Srisawat	Kanchanaburi, UthaiThani
Phetchabun	Phetchabun
Ranong	Prachuap Khiri Khan, Chumpon, Ranong, Phang-Nga
Klong Marui	Surat Thani, Krabi, Phang-Nga

Impact on communities and problem management

In addition to casualties, the Chiangrai earthquake caused extensive damages to government buildings, schools, hospitals, business buildings and infrastructure impacting also on electricity, water, telecommunication and roads. As a result, a large number of people were deprived of housing and basic necessities such as water, food

Fault Zones Map

http://www.dmr.go.th/images/active_fault-2012_table.pdf

and electricity. Many camped outside their houses or lived in fear of aftershocks as rumourss pread about cracks in dams, for example the Mae Suai dam.

The DMR, other government agencies and private organizations immediately dispatched units to provide help to rehabilitate affected areas including providing food and other necessities, materials for house repairs such as cement, ceiling insulators and floor tiles as well as financial support. Volunteers also assisted with examination and repair of buildings, roads and other structures, including cleaning up collapsed buildings and providing psychological support.[5]

Preparing for future earthquakes

With a possibility of future earthquakes in the northern and other regions of Thailand, a high level of preparedness amongst government agencies, private sector and the general public

http://fanthai.com/?p=99647

http://image.bangkokbiznews.com/media/images/size5/2014/05/06/5k-agh8ajbg7kbkibag986.jpg

is needed to avoid more serious disasters. To increase preparedness, the Department of Disaster Prevention and Mitigation formulated a preparedness policy for before, during and after earthquakes. Every province in the active fault zones must have a prevention and management plan for earthquake damages and building collapses including risk assessment, compilation of a list of at-risk villages and communities as well as dissemination of knowledge to the public on safety measures in time of such events.

The Meteorological Department and the DMR should review lessons learnt from the recent earthquake as well as disseminate knowledge to the public on the causes and probabilities of and appropriate measures against earthquakes. When an earthquake strikes, government agencies and local administrations should conduct risk assessment of infrastructure, roads, bridges, government offices, temples, historic sites, schools and other building in their areas of responsibility, examine the safety of large constructions such as billboards and dams, as well as give warnings to those living in landslide-prone areas. If high risks are identified, the population in these such areas should be immediately evacuated and given temporary shelter.[6]

Conclusion

Although Thailand has many responsible government agencies with master plans and action plans for earthquakes, seismic activities cannot be predicted with accuracy. Individuals must be knowledgeable, prepared and remain calm when earthquakes happen to ensure their own safety. Relevant agencies must use measures to ensure that buildings are constructed to required earthquake-resistant standards,especially in earthquake-prone areas, disseminate information to the public and maintain preparedness to prevent and mitigate the disaster whilst rehabilitating victims.

9

Border economic zones: Two sides of the coin

As the integration of Southeast Asian nations into the ASEAN Economic Community takes effect at the end of 2015, member countries are churning out policies to promote economic activities and links within the region, especially between neighboring countries, to facilitate trade, investment and movement of capital, labour, technology and manufacturing projects.

A Similarly Thailand, under the Prayut Chan-o-cha administration, issued a Special Economic Zone (SEZ) policy to increase the country's competitiveness and counter migration of foreign investment due to the country's increasing costs of production. To be established in the border areas with Laos, Myanmar, Cambodia and Malaysia,[1] these areas will differ from the Special Economic Zones previously established in the Eastern Seaboard as the latter has better supervision over the movement of goods and labourand better control of its impacts due to its location within the country.

SEZs in Thailand

The world's first SEZs were established around tax-exempted ports to promote trade. Later, they were established by developing countries to encourage trade and manufacturing in areas with favourable physical characteristics and potentials. In addition, tax and non-tax incentives were given to attract foreign investment and increase local employment in these areas. Most SEZs in ASEAN focus on industries with low-skilled labour and export-oriented processing industries.[2]

Until now, Thailand has established SEZs through Board of Investment (BOI) policies under the Investment Promotion Act BE 2520 (1977).[3] On the other hand, border SEZs are being established in accordance with the Asian Development Bank (ADB)'s action plan and financial support to develop an "economic corridor" connecting SEZs in the Mekong subregion together with infrastructures, as well as a transport system to link SEZs to ports, distribution points and destination markets.[4]

Such SEZ policy gained prominence under the NCPO, which held meetings of the Policy Committee on Special Economic Zone Development, chaired by the Prime Minister himself. The SEZ committee approved the establishment of SEZs in five areas, namely Tak Province's Mae Sot District, Sa Kaew Province's Aranyaprathet District, Trat Province's border area, Mukdahan Province's border area and Songkhla Province's Sadao District (including Sadao and Padang Besar border check-points).[5] On Jan 19th 2015, the Prime Minister signed into effect the establishment of SEZs in 36 sub-districts of ten districts in the above mentioned provinces, covering a total area of 1.83 million rais.[6]

SEZ development

The purpose of SEZ establishment, according to the SEZ committee,[7] is to attract foreign direct investment, increase the country's competitiveness, promote economic growth in the regions to reduce inequality and elevate quality of life and address national security issues. SEZs will have the advantage of: 1) investment-related benefits; 2) one-stop services; 3) exemptions on the use of migrant labour; and 4) infrastructure development and customs benefits. Each SEZ will focus on are aappropriate economic activities. For example, the Mae Sot SEZ will be a hub for labour intensive industries whilst Sadao SEZ will be a transportation and logistics center.

The other side of the coin

The establishment of an SEZ is aimed to promote border area trade, which totaled 924.2 billion baht in 2013, 51.4% from the Thai-Malay border.[8] Thailand also hopes to use SEZs to attract migrant workers from neighbouring countries to address labour shortages as the country becomes

an ageing society,[9] as well as solve the challenge of irregular migrants, human trafficking and city congestion that allegedly results from labour migration.

Regardless of benefits, SEZs pose challenges which are rarely discussed by the SEZ committee, especially concerning health and public health impacts, questions on personal legal status and human trafficking. The SEZ policy,despite its extensive impact, also suffers from a lack of public participation.

1) Personal legal status and human trafficking

Personal legal status issues are chronic challenges along Thailand's borders. SEZ establishment may pave the way to a faster and more systematic solution to this challenge although the opportunity can be wasted by inefficiency in implementation.

Many people who live and move across border areas are migrant workers and their dependents whilst others are those omitted from past civil registration surveys or those who straddled the area before the borders were demarcated, designated as "people with registration status problems"[10] by the Strategic Plan to Resolve Personal Legal Status and Rights BE 2005. There is concern that the SEZ may further complicate this situation as it is known that apart from ad hoc management, the Thai State does not have a long-term plan to systemically solve these challenges.

In its effort to address issues of undocumented migrant workers, the NCPO made an announcement to allow employers and businesses to register undocumented employees and apply for work permits at "one stop service"[11] centers from July 2nd to October 31st 2014.[12] However, only 1,626,235 migrants and 92,560 dependents were registered. As it is estimated that there are more than three million migrant workers (documented or undocumented)[13] in Thailand, many more migrants remain unregistered. Without proper management, the SEZ's relaxed regulations ondaily migrant workers will likely compound the challenge of undocumented migrants.

The registration of undocumented migrants and issuance of work permits constitute a part of the attempt to solve the challenges. After registration into the civil registration system (Tor. Ror. 38/1),[14] migrants are expected to go through anationality verification process (NV) to obtain temporary passports and visas for temporary residence in Thailand. However, efforts to resolve personal legal status remain compartmentalised. In 2013, the number of undocumented migrants who undertook the NV process totaled 847,130.[15] At present, it is not known how many of these nationality-verified migrants have returned to their countries after visa expiration. In addition, many children of migrants became stateless/nationality-less as Thailand lacks clear approaches to deal with their legal status. Establishing SEZs with the aim to attract migrant registration may complicate the challenge, leaving the country with more undocumented migrants who do not wish to return to their origin countries and prone to human trafficking and exploitation by brokers.


http://www.mol.go.th/sites/default/files/024.JPG

2) Public health and health insurance

The MOPH was charged with providing health security to migrants and dependents by selling health insurance cards aimed at undocumented migrants whose NV process is pending and migrant workers in informal sectors such as fisheries, domestic work and agriculture. Migrant workers who enter the country legally, on the other hand, are expected to be enrolled in the Social Security System (SSS).[16]

However, the number of migrant workers enrolled in the Social Security System after the NV process is lower than expected due to many reasons.[17] For example, employers or the workers themselves want to avoid paying monthly contributions into the system. The MOPH addressed this problem by selling health insurance cards only to those who did not fall within the SSS criteria. However, because of its status as a ministerial announcement rather than as legislation, implementation is ad hoc and limited.

It remains unclear how the migrant worker health insurance system will change after the SEZ establishment. As health insurance cards (with duration of 3 months, 6 months and one year) only target work permit holding migrants, questions remain how health insurance can be imposed on daily migrants in the SEZs and which of the two neighboring countries will be responsible for migrant worker health insurance.

As a result of an ease in commuting, many daily migrant workers already make use of Thailand's healthcare services along the border without health insurance, resulting in burdens on local hospitals. For example, Ranong hospital provides free healthcare to many Myanmar patients from Kawthaung at its own expenses of more than twenty million baht per year.[18] Without clear health insurance measures for SEZs, border hospitals will be increasingly burdened to provide healthcare to migrant workers. On the other hand, if these workers cannot access healthcare, the health of

http://www.thaihealth.or.th/data/content/24921/cms/e_befgmnoqtx89.jpg

the local population may be jeopardized due to impact of epidemics and re emergent diseases.

Although SEZs will also allow Thais to invest and work across the border in neighboring countries, the Thai government however lacks a clear policy on health insurance for Thais in such situations. Thailand should study examples from other ASEAN countries such as the Philippines, which requires all out-bound Filipino workers and their dependents to insure themselves in the Overseas Filipinos Programme (OFP).[19] Similar to Thailand's SSS, this requires insurers and the government to make contributions into the programme whilst insurers get reimbursement from OFP for their healthcare expenses. This is an issue that the SEZ subcommittee on labour, health and security should not overlook.

3) Environment, occupational health, public participation

Although the Office of the Prime Minister's Regulation on Special Economic Zones BE 2013 established a framework for SEZs, the regulation is heavier on procedure rather than the substance. It should also be noted that there is no representation of civil society in any of the SEZ subcommittees. Utmost care should therefore be taken in the implementation of SEZ policies to ensure sustainability, harmony with local way of life and responsible use of resources. Thailand already has too many painful lessons on the negative impacts of development on the environment and communities, including industrial pollution in Map Ta Phut and from the Mae Moh coal mine and power plant, cadmium contamination in Mae Sot rice fields and heavy metal contamination in Lampoon Province.[20]

In principle, the law requires that large projects with potentially large impacts on the community must undergo an environmental health impact assessment (EHIA) with public hearings and stakeholder consultations.[21] The report must be subjected to approval by a panel of experts and the Environment and Health Independent Committee to reaffirm the community rights, in accordance with the 2007 Constitution. In practice however, many challenges remain. For example, this report is often so technical that it is inaccessible to the public; three public hearings are organised only to meet the requirement without meaningful dialogue with the local community; and acreage or manufacturing power of the project is reduced to stay just under the threshold to duck the EIA/EHIA requirements.[22] As a result, SEZ establishment must consider issues of environment impact and public participation challenges to ensure care, appropriateness and effectiveness in sustainable development.[23]

Conclusion

Thailand has expedited the establishment of SEZs to promote economic development and facilitate AEC integration. However, the projects should be implemented with care to avoid negative impacts such as undocumented migrants, personal legal status problems, human trafficking, health insurance challenges, public participation issues and environmental challenges. If not the case, SEZs will become another 'crisis' compounding existing social and public health problems.

10 Violent crime: Thorn in the flesh of Thai tourism

The late night cry for help of two British tourists murdered on Koh Tao, Surat Thani on September 15th 2014 focused worldwide attention on the lack of safety, life and property of tourists in Thailand.

Only two days after the murder, the British newspaper The Daily Mailfocused its headline on news regarding perils of traveling to Thailand. According to the UK Foreign Ministry, since 2009, eleven Britons have been murdered, eleven cases of rape and eight cases of assaults against British citizens have been reported and 267 Britons have been taken to hospital in Thailand.

Koh Tao case focuses attention on crime against tourists

The Koh Tao incident and subsequent international news reports on crimes committed against tourists in Thailand inevitably brought negative attention to Thailand's tourism industry, casting doubts on the government's security measures and inefficient law enforcement which left several cases of violent crimes unsolved and perpetrators unpunished.

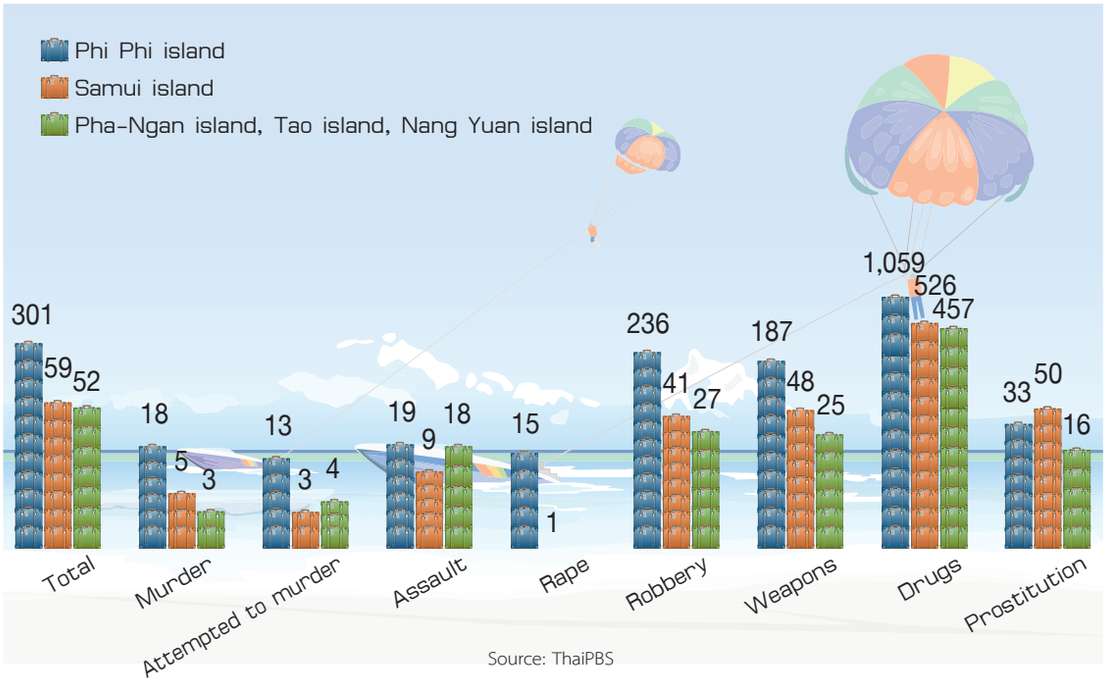
Because of the delayin apprehending the Koh Tao perpetrators, CNN and The Mirror began to exposure other unsolved cases of crime against foreign tourists in Thailand over the past several years to warn tourists of the dangers of traveling in Thailand. These include the 2013 fatal assault against an American tourist and his son in Krabi,[1] the murder of a young British man on Koh Pha-Ngan's Hat Rin beach on New Year's Eve 2012,[2] the robbery and murder of an Australian travel agency owner in Phuket,[3] the rape of a Dutch model at Krabi's Ao Nang,[4] the alleged framing and blackmail against an Australian tourist by the Thai police as exposed by the Australian media and the impunity of a Thai car driver who ran over an Australian tourist on a motorbike. Countless cases of assaults, robberies, scams, pickpocketing, graband runsas well as credit card frauds that happen to tourists in popular destinations such as Koh Samui, Phuket, Chiangmai, Pattaya and Krabi also added to the negative image of Thailand's tourism industry.

Phi Phi island: twenty-five cases per month

According to the TV channel Thai PBS, twenty-five cases of crime per monthon average were reported to local police on the popular Koh Phi Phi in the twelve months between October 1st 2013 and September 30th 2014, whilst around five cases per month were reported on Koh Samui, Koh Pha-Ngan, Koh Nang Yuan and Koh Tao. Alarmingly, the rates of apprehension reached almost two thousand drugs-related cases, more than 300 robbery cases, 26 murder cases and 16 rape cases (see Figure 1). Many of these violent crimes can easily lead to fatalities.

The police force in charge of the area confirmed that these island destinations have higher crime rates than on the mainland. One reason may be because tourists around the world are attracted to the area's crime-prone activities, particularly the Full Moon Party, which is known for heavy drinking and which is susceptible to drugs, violence and prostitution.

Figure 1: Crime rates on tourist island



Source: ThaiPBS

However, the question remains why these problems have not been adequately addressed, despite the fact that these are world-famous destinations withrich natural resources that attract tourists from around the world. How has the government ignored these problems for so long that they have now become deeply rooted?

Social networks and increased crime awareness

The Koh Tao murder and similar past incidents which also involved Thai tourists made Thai society more conscious about violent crimes against tourists. Intense discussion and speculation took place in many fora, especiallyonsocial networks where many searched for information on investigations and shared their opinions. Many social networkers, both Thai and foreign, questioned security measures in the area and the transparency of the police investigation. The due justice process for the accused was also questioned, as it was suspected that those who were actually responsible for the murder may have been mafia figures controlling the area who used their influence to cover their tracks. Whether this speculation is correct or not, it's undeniable that there is a criminal element infesting the local tourist industry.

Mafia and crime in Thai tourism

In order to gain maximum profit from the lucrative tourist industry, many Thai and foreign entrepreneurs and investors have exploited legal loopholes or even used illicit power to violate the lawin order to gain advantage over competitors. Some have obtained exclusive concessions and monopolies to exploit natural resources or encroach upon prohibited areas in forests, mountains, water sources, beaches or islands and turned them into tourist facilities. These illegal activities have led to the emergence of the "tourism mafias" in famous tourist destinations such as Phuket, Pattaya, Chiangmai and the Southern islands. This is a problem of national importance waiting to be addressed by the government.[5]

These “tourism mafias”, especially foreign gangs, have caused extensive problems to tourists and communities, leading to increased local opposition. In early 2014, a group of taxi owners, local entrepreneurs and some locals demanded that the Government deal with the “foreign mafias with Thai fronts”, especially those from Russia, Korea and China, who take away jobs, intimidate tourists and conduct illegal activities. After field investigation bythe then Tourism and Sports Minister Somsak Purisrisak and Department of Special Investigation Chief Tharit Pengdit with the Phuket Governor, Police Commander and Tourist Police, the “Operational Center for the prevention and suppression of tourism mafia” was established to solve these challenges. However, concrete actions are still lacking.

After the 2014 coup, the NCPO issued measures to restore “order” at seaside tourist attractions such as Pattaya, Koh Lan, Bang Saen and Hua Hin by regulating landscapes and businesses including hotels, restaurants, beach chairs, vehicles-for-hire and others who may take advantages of tourists. In addition, the Ministry of Interior ordered all provincial administrations to strengthen security measures to ensure safety of tourists and locals. However, it is clear that such “order” works only with Thais whilst the foreign mafia gangs with large capitals and extensive business networks continue “business as usual” to violate law and order. This has sowed doubt amongst civil society groups whether such measures are effective in solving challenges.

NCPO and tourism stimulus

The Ministry of Tourism and Sports, the Tourism Council of Thailand and the Association of Thai Travel Agents have all expressed concerns about the negative impacts of violent crimes on the Thai tourism industry.Meanwhile, the global economic slump and the announcement of countrywide martial law also contributed to low numbers of tourists since 2014. As a result, the military government under PM Prayuth Chan ocha initiated a stimulus package to promote tourism, including for example the exemption of visa fees for Chinese and Taiwanese tourists between August and October 2014.

Where next?

Tourism mafias have spread and now have sunken roots at local and national levels, dominating the tourism industry and related businesses including tour agencies, real estates, restaurants, hotels, resorts, pubs, bars, vehicles-for hires and rent-a-car companies. This has resulted inmonopolies, low-quality services and exploitation as well as threats and actual assaults aiming at the lives and properties of tourists. This will eventually lead to lack of tourist confidence and negative impacts on Thai tourism. If the industry, as the country’s top earner, faces a downturn because tourists choose to spend their money elsewhere, this will also impact on the country’s economy as a whole. When this happens, it will be difficult to recover this image and regain tourist confidence. Ensuring the safety of tourists and dealing with tourism mafias must be immediately addressed to tackle different forms of crime and exploitation against tourists.

Four Outstanding Accomplishments for Health

Traditional doctor Nan Insom honored

The 65-year-old Nan Insom Sittitan, village wiseman and traditional doctor from Lampoon Province's Pa Puay village, was named "2014 outstanding traditional doctor" in the health category by the local wisdom development committee. Expert in all branches of Lanna folk medicine including physiotherapy, herbal therapy and ritual therapy, Nan has written extensively on Thai traditional medicine, "toksen" massage, physiotherapy and ritual therapy with the knowledge of traditional treatments for more than 34 conditions including seizures, hemorrhoids, postmenopausal symptoms, hypertension, paralysis, tendon pain, spinal disc pain, skin cancerand hair loss, as well as use of insect repellant. He has also written compendiums on Lanna traditional medicine, herbal plants in Lampoon province, food therapy, disease etiology and treatment manuals for "mahengkud", "sannibat and "pid". In addition, Nan has also devoted his time at the sub-district hospital and Provincial Public Health Office as well as helped establish the Northern folk medicine network in 17 provinces.

Herbs in national drug list

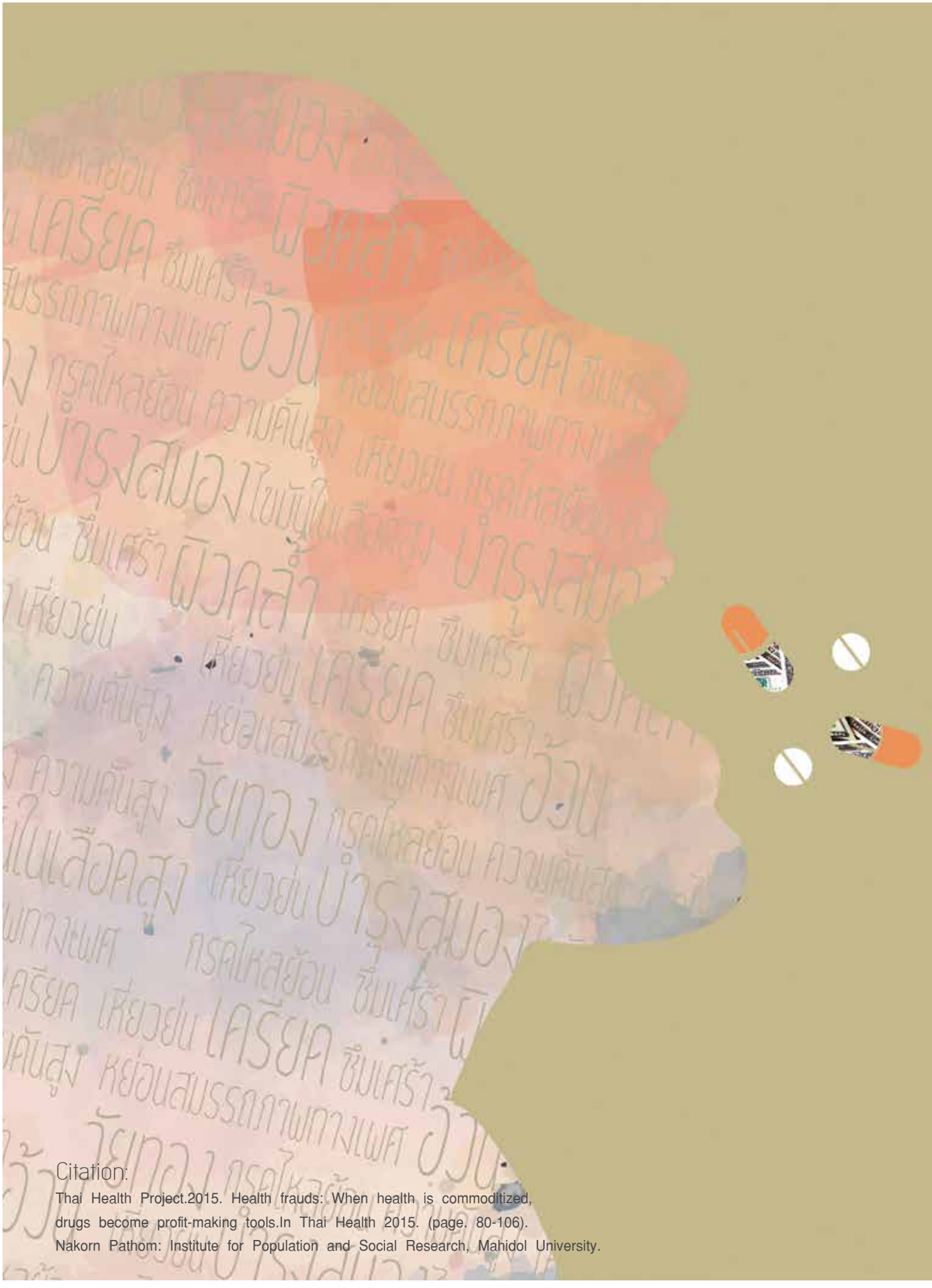
The Minister of Public Health, Dr Ratchata Ratchatanawin, announced a policy to promote the use of herbal medicine by including them in the national drug list. Setting an example to other developing countries, Thailand's Ministry of Public Health, under the then minister Dr Sem Pringphuankaew, implemented a national drug list in 1981 with the aim to promote self-reliance through a distribution of high-quality drugs, particularly for primary healthcare, at affordable prices as well as rational drug use and domestic production. At present, more than 800 modern drugs and 71 herbal medicine in the national drug list are used in the national health security scheme, social security scheme and civil servant benefits scheme.

A golden year for Thai athletes

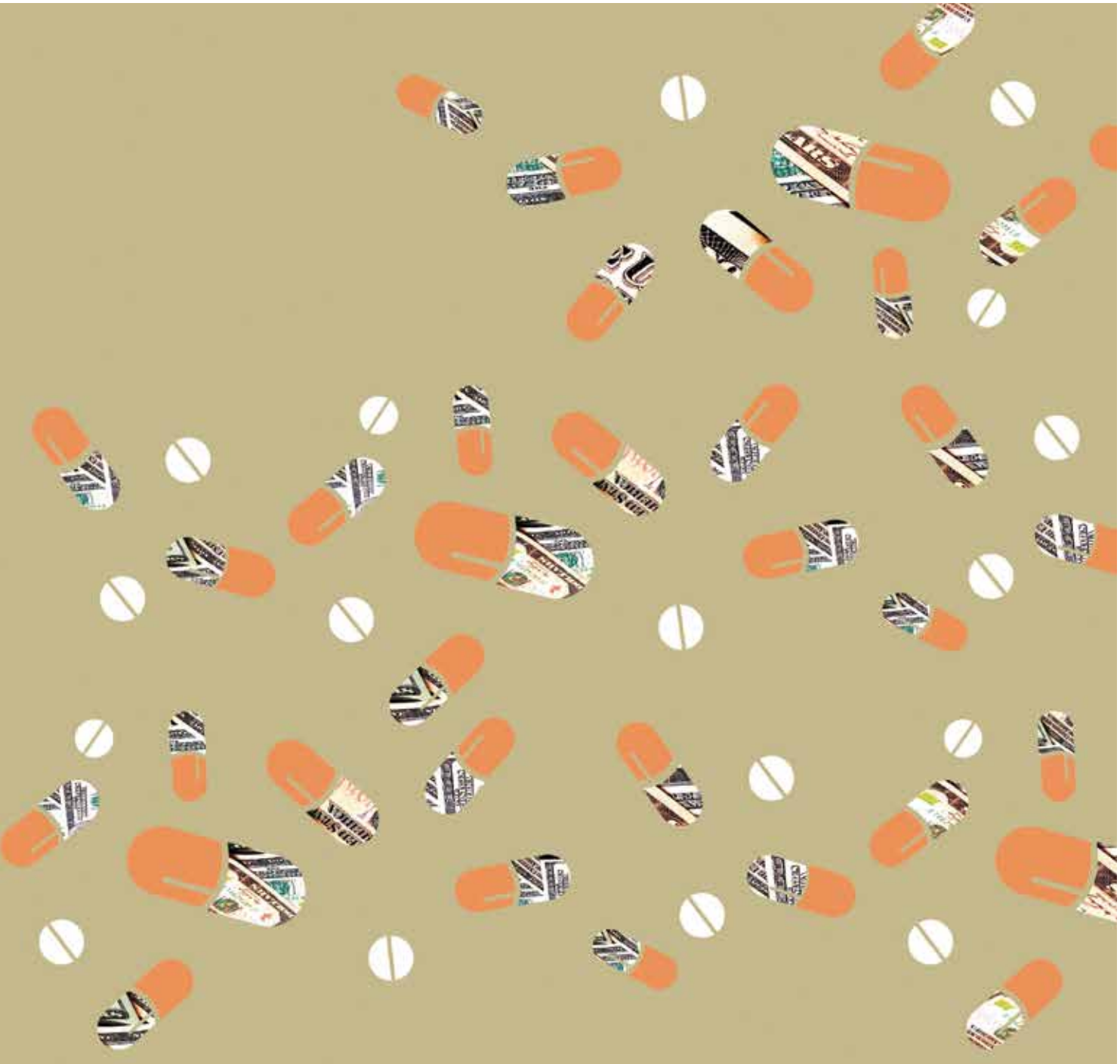
2014 turned out to be a golden year for Thai athletes who won more medals than any other Southeast Asian country and the sixth highest in Asia in the 17th Asian Games and the Asian Para Games, held in Incheon, South Korea between September 19th and October 4th 2014 and October 18th to October 24th respectively. Among the 12 gold, 7 silver and 28 bronze medals won in the Asian Games, the biggest wins were from Sepak-Takrawin which Thailand won all four available medals, followed by two gold medals in cycling. Other gold medals were received for golf, taekwondo, tennis, bowling, boxing and yachting. In the Paragames, Thailand won 21 gold, 39 silver and 47 bronze medals from several sports such as track and field, boccia and wheelchair racing. In addition, the Thai national football team also made fans very happy when they won the biannual 2014 AFF Suzuki Cup, Asia's top football championship, in December.

Thai guitarist won international competition

Twenty-seven-year-old Ekachai "Bird" Jearakul, Thai guitarist and graduate from Mahidol University School of Music and the University of Salzburg, made Thailand proud by becoming the first Asian to win the 2014 GFA International Guitar Competition in California, one of the world's toughest and largest competitions of its kind. After winning this prestigious prize, he was invited to perform at the prestigious Carnegie Hall and was set for a world tour in 2015. Previously Bird has won the top prize at the 2012 Yamaha Thailand Music Festival, second prize at a competition in Heinsburg, Germany in 2013 as well as performed for Princess Galyani Vadhana.



Citation:
Thai Health Project.2015. Health frauds: When health is commoditized, drugs become profit-making tools.In Thai Health 2015. (page. 80-106). Nakorn Pathom: Institute for Population and Social Research, Mahidol University.



Health frauds

When health is commoditized,
drugs become profit-making tools.

Source: Byrd, 2013.

Health Frauds

When health is commoditized, drugs become profitmaking tools.

Commoditizing health

In our capitalistic world dominated by currency and consumerism, all necessities of life have become goods to be sold and purchased. In addition to daily products, many other things have also been commoditized including health, love, friendship, happiness and even goodness, beauty and enlightenment.

In the past, healthcare used to be based on humanitarianism and the ideological aim to relieve people from suffering and illnesses whilst monetary concerns were secondary. As society converted to capitalism with the market as the main driving force and profits as the ultimate goal, health-related ideas and practices also changed. Health as a commodity is not only sold and bought in the market but is also something to invest in and richly profit from.

Once health is turned into a product, it can be infiltrated by marketing gimmicks at every opportunity from investment in research and development (R&D) of a new drug or technology to the invention of new health products and services. All of these processes are aimed at the ultimate goal of profit.

While medical research used to be born out of curiosity, desire for fame and aspiration to solve life's problems, as capitalism grew the intellectual property rights (IPR) system was developed to protect inventions. More and more research now comes under the influence of this capitalist system.

The impact from health commoditization are wide-ranging. Although expensive drug prices and medical fees are obvious to consumers, other

impacts on the health system can be complex and hard for society to discern. The question is that if we cannot eliminate capitalism from health, what measures can be undertaken to balance the commodity and humanitarian aspects of health, what kind of rules, organizations and agencies function to protect consumers and how can Thailand's health system cope with this rising tide of capitalism?

This article deals with several health frauds which many people are unaware of. These are marketing tricks to sell as many health related products as possible be it drugs, technologies, services or food supplements to not only sick people but also healthy people who want to take care of their health or who have been made to feel "abnormal".

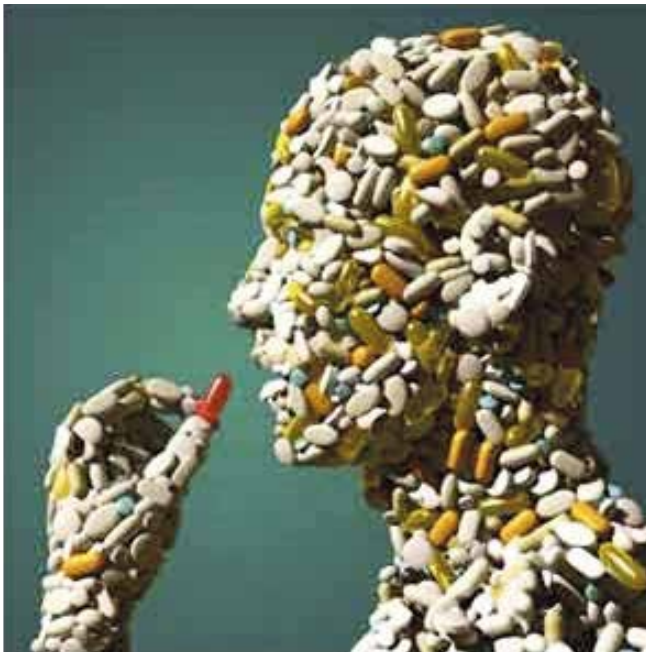
Many of these health frauds are related to drugs. This article relies mainly on examples abroad as lessons Thailand can learn from. Many of the impacts of these health frauds can also be felt in Thailand as most new drugs, as well as those for hard to treat illnesses, are manufactured in and imported from these countries.

Other health frauds are related to the unnecessary and inappropriate use of health related technologies, food supplements, cosmetic products and cosmetic medicine, of which are fast growing businesses.

The final part of the article addresses the role of the media, increasingly being questioned, as to whether such media serves to educate the public or to advance the interest of these health frauds.

Selling Sickness

If you were a drug manufacturer, how would you choose between healing patients with a fair return to your business or selling your drugs for maximum profits? Whatever the answer is, different



Source: http://prensamex.mx/page/23/

reasons can be provided. This article isn't aimed at dictating what is right or wrong but is meant to help make decisions whether there should be a line drawn between drugs as humanitarian goods and drugs as commercial products, and where that line should be drawn.

Changed perspectives on health and drugs

Large pharmaceutical companies in the US and Europe try to convert us into believing that drugs are primarily goods that can large profits while healing properties are secondary. To achieve this goal, these "Big Pharma" do everything to expand the drug market. The best way to do this is to turn everyone regardless of gender, age or health status into a 'drug popper'. More than 30 years ago, Henry Gadsden, Merck's CEO, said that he had always dreamed about selling drugs to everyone including the healthy so that his company would amass large revenue.

But how to do that?

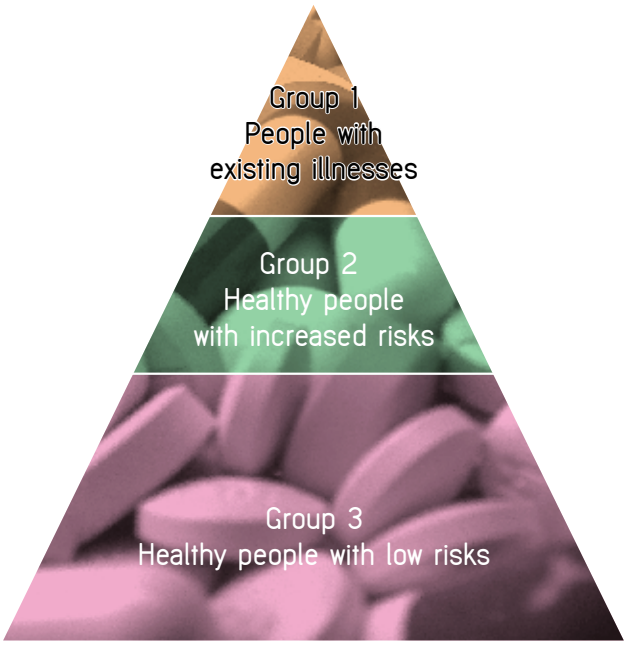
Drug companies know better than anyone

that people normally turn to drugs only when they feel sick. These customers however make up only a small population compared to healthy people. Targeting only sick people therefore limits market reach. In order to sell more drugs, marketers need to expand their market to include healthy people.

A basic marketing strategy is to change the public perspectives on health and illnesses by sowing seeds in the minds of healthy people that they harbour some kind of threat or a ticking time bomb waiting to explode to convince them that the mild problems in their daily life are serious illnesses that require treatments. Most importantly, the public must be convinced that these risks, threats or mild conditions can be cured or treated with drugs. 'Big Pharma' therefore targets all population groups regardless of health status. (See Figure 1)

For those with existing illnesses or Group 1, drug companies only have to continue aggressive marketing campaigns with physicians, practitioners and the public. Those in Group 2 (healthy people with increased risks) and Group 3 (healthy people with low risks) on the other hand require investment to make them "sick" or perceive sickness or threat and so as to make them believe that drugs can help them avoid sickness. These strategies can be complex but are done by "creating diseases".

Figure 1: Big Pharma targets all population groups regardless of health status



Creating New Diseases

In her book *The Truth about the Drug Companies: How they deceive us and what to do about it*[1], Dr. Marcia Angell M.D., a lecturer at Harvard University and former editor-in-chief of the New England Journal of Medicine, revealed the tricks modern drug companies use to sell drugs. She wrote "Once upon a time, drug companies promoted drugs to treat diseases. Now it is often the opposite. They promote diseases to fit their drugs." (Page 88).

[1] The Thai version of this book is translated by Wichai Chokewiawat et al. (The referenced page numbers in this article are from the Thai version.)

In 2003, *Reuter Business Insight* made a forecast that if drug companies could create "new disease markets" they would make new earnings record of billions of dollars. The report suggested that one strategy to achieve this is to change perceptions about common conditions, natural changes or mild illnesses into diseases which require or are worth treating. The report concluded that the future belonged to companies that invest in disease creation.

Two years later, a US study by Ray Moynihan and Alan Cassel as published in the book "*Selling Sickness: How the World Biggest Pharmaceutical Companies are Turning Us All into Patients*" and other similar studies in Australia and Europe suggested that the pharmaceutical industry is using tricks to turn the healthy into sick people as described in *Reuter Business Insight*. Such tricks used include:

1. Turning vague mild conditions into diseases requiring treatments. These include social anxiety disorder (SAD), pre-menstrual dysphoric disorder and sexual dysfunction.

2. Turning natural physiological change into sickness. Baldness among middle-age men was turned into a disease threatening mental health, quality of life work and social relationships. Hormonal changes in post-menopausal women were turned into disease for all women which, if left untreated, would lead to many diseases such as osteoporosis.

3. Changing risk factors into diseases themselves by re-definition. For example, "normal" ranges of cholesterol level and blood pressure which are potentially but not the only risks factors for heart diseases and strokes were lowered so that healthy people would fall under treatment criteria.

Once upon a time, drug companies
promoted drugs to treat diseases.
Now it is often the opposite.
They promote diseases to fit their drugs.

Source: Applbaum, 2006

Turning a risk factor into an illness: the case of cholesterol

By itself, cholesterol is not a sworn enemy to be eradicated. In fact, it is an essential component of life. Although scientific evidence shows that high cholesterol levels are associated with increased risk of heart failure and strokes, it is less certain what cholesterol level is considered a risk for otherwise healthy people. What is generally accepted is that cholesterol levelsare butone of the factors that increase the risk of heart failure and strokelater in life. Other risk factors includehypertension and diabetes, likely more important contributors than cholesterol. However, the reason cholesterol is given more attention generally is because it can be treated with drugs.

Over the past 20 years, what is considered a "high" cholesterol level has been constantly adjusted downwards by expert committees. As a result, people who were otherwise once healthy came within the range ofpersons with "high" cholesterol levels. For example, a 2001 revision put 34 million additional Americans in the category of persons with high cholesterol levels. Another revision in 2004 added another 40 million among those who should take medication. Although there are no numbers on how these changes affected the Thai population, it is certain the changes increased the total number of Thai people in this category because Thai medical experts meekly follow their American counterparts.

Several members of the expert committee that made these revisions allegedly have financial ties with the companies that produce cholesterol drugs, causing suspicions that those companies may have influenced the revision. In any case, the newly defined "disease" quickly caused worldwide concerns and turned anti-cholesterol drugs into bestselling drugs, grossing more than 25 billion dollars per year.

Although those with very high cholesterol levels may benefit from taking drugs, such aggressive "treatment" of healthy people will yield more harm than benefit. This is because drug use distracts attention from the root cause of the disease as people are misled into believing that they can avoid heart disease and stroke by taking anti-cholesterol drugs alone. The fact is thata balanced diet, active non-sedentary lifestyle, regular exercise and refraining from smoking are more effective, cheaper and safer ways to prevent diseases than taking drugs.

Note: At present, what is considered normal cholesterol level is below 200 mg/dl, but the high-density lipoprotein (HDL) and low-density lipoprotein (LDL) must also be considered. The normal HDL value should exceed 35 mg/dl and LDL lower than 135 mg/dl.

Source: Moynihan and Cassel, 2002.

Disease-creating alliance

Vince Parry, a New York-based marketing guru, gave an interview in the filming of *Selling Sickness*, produced by Paradigm Pictures, that drug companies needed to collaborate with medical experts to "frame new perceptions about diseases and conditions" and to link them to the drugs they manufacture.

Indeed, drug companies follow processes that Parry described. Disease creation would not be possible without collaboration from medical experts who play an important role as "allies". These experts are hired as consultants and lecturers, sponsored for their academic activities, which are required for all US physicians, and showered with gifts by drug companies.

In addition to conducting research, medical experts also define what constitutes a disease to be treated and how these disease are treated through the board of specialty consisting of medical experts in that field. In practice, some of these experts have ties with drug companies which makes the public wonder whether such conflict of interest influences their professional decisions, which in theory should be strictly neutral. For example:

- For the revision of the definition of cholesterol levels ten years ago, eight of nine experts on a board were found to have been hired to lecture, consult or conduct research for eight of the Big Pharma (Pfizer, Merck, Bristol-Meier-Squibb, Novartis, Beyer, Abbott, Astra Zeneca and Glaxo-Smith-Klein). One of them had received payments from ten drug companies.
- In a 1999 psychiatric conference in Boston to define female sexual dysfunction, 18 out of 19 experts had financial or other ties to 22 drug companies. The conference itself was sponsored by eight companies.

For the general public, it is unusual that physicians who define diseases and recommend drugs for treatments are hired or paid by the manufacturers. But those in the know are familiar with this kind of conflict of interest. Although it's possible that some experts may be able to maintain their objectivity despite being hired by drug companies, how many of them are there who can actually maintain such objectivity? And can these voices withstand the power of vested interests? These are questions that are not easily answered.

Drug- peddling tricks

The pharmaceutical industry is worth hundreds of billions of dollars. About ten years ago, the United States drug market alone was worth 200-billion dollars, or about half of the global drug market. This is not only because of increased demand but also a result of demand exaggeration and marketing strategies. For a period of over twenty years before 2003, the pharmaceutical industry ranked as the most profitable industry in the United States. Although the industry has now been overtaken by others, it remains one of the top-grossing industries because both US and European Big Pharma use subtle tricks in their business practices from manufacturing to marketing. The following are some of the key tricks:

R&D of new drugs with a future

The success of a drug fraud begins with the research and development (R&D) of new drugs. Like other industries, the drug industry makes investment decisions based on a product's projected ability to monopolize the market and provide foreseeable profits.

And how to maximize the profits with R&D? It must be drugs which interest those with high-purchasing power or a large number of people or drugs which can be sold at high prices to consumers who have no other choice.

What has been revealed for some time now is that Big Pharma invests in the R&D of drugs for diseases which are prevalent among the rich such as cancer and heart disease as well as produces "lifestyle drugs" which address hypercholesterolemia, hypertension, obesity, hair losses, wrinkles, sexual dysfunction, short concentration, insomnia and irregular bowel movement. Such drugs are considered drugs "with a future" because the users are rich and the market is conducive for long-term profitability. Big Pharma allegedly puts 90% of its investment into the R&D of these drugs.

On the other hand, these companies invest little in the R&D of drugs for diseases prevalent among the poor such as infectious diseases and epidemic illnesses in tropical Asia, Africa and Latin American. The main reason is that most of these potential patients are poor and have low purchasing-power. Ebola is a clear recent example. Although the hemorrhagic fever broke out 40 years ago there had been no R&D investment in the disease by the Big Pharma because it was contained within Africa's low-income countries.

But drug companies' most subtle trick, which can be imperceptible to the public, is the creation of new diseases to fit the drugs that they invest in. With collaboration from medical experts, the companies builds medical interest and credibility to attract the attention of rich health-conscious consumers to expand its market.

The success of such tricks can be measured by the stratospheric sales volume of lifestyle drugs. For example, Pfizer's anti-cholesterol drug Lipitor has gained unprecedented popularity and a record sales of more than ten billion dollars per year.

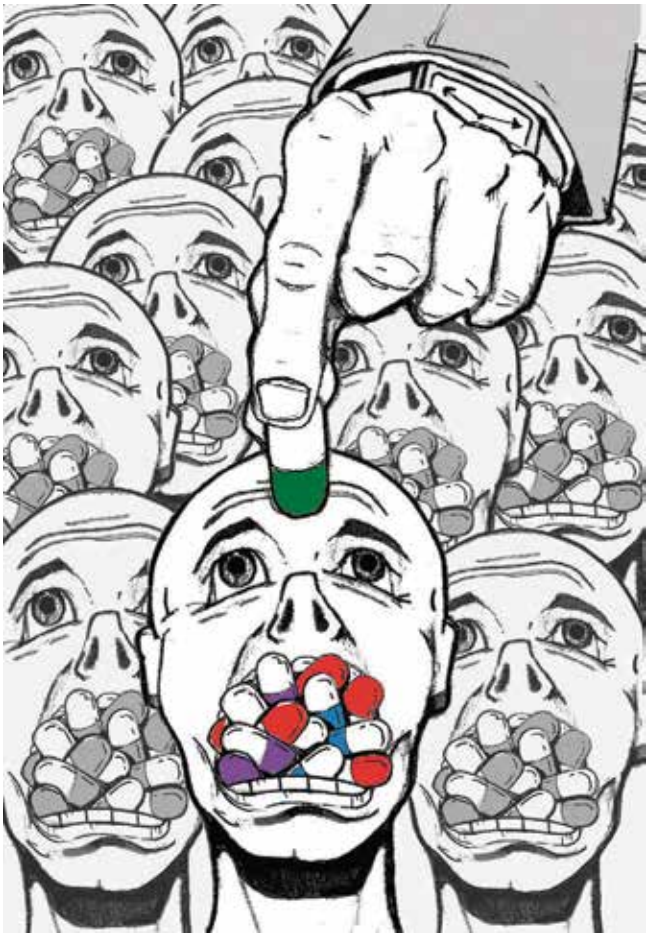
High prices, high profits

The pharmaceutical industry is highly lucrative. In 2002, Fortune magazine reported that the top ten pharmaceutical companies had a combined profits of 35 billion dollars, more than the other 490 companies' combined profits of 33 billion. These high profits result from many factors, one of which is the fact that their drugs, particularly newly developed drugs, are expensive or made to be expensive.

Over the past twenty years, drug prices in the US have skyrocketed so high that millions of Americans, especially the elderly, have trouble accessing these drugs. Many individuals resort to travelling to buy cheaper drugs in Canada or Mexico, or ordering these drugs from European vendors through the internet. Meanwhile, developing and low-income countries also suffer the high prices of essential drugs such as anti-HIV, anti-cancer or heart disease drugs effectively preventing their populations' access to these drugs and increasing budgetary burdens thus causing public health problems.

Although drug companies increasingly come under fire for extortion and racketeering, they defend themselves with the claim that they have made big high-risk investments in the R&D of these drugs and need the revenues for investing in developing new drugs. Although the claim sounds reasonable, there are many hidden truths that beg further question of this response.

The truth is although drug companies' R&D budgets are high, they pale in comparison to what these companies spend on marketing and management. Dr. Angell pointed out that the R&D investments of the top ten pharmaceutical companies amount to only 11% of their 1990 revenues and only 14% of 2000 revenues. However, marketing and management expenses, which amounted to 36% of revenue or more than triple R&D investments in 1990, make up the largest proportion of the costs then, as it does now.



Source: Moynihan and Henry, 2006 (Illustration: Anthony Flores)

New or me-too drugs?

As an entirely innovative drug can monopolize the market, it would seem logical that drug companies should devote their resources to their R&D. However, that is not actually the case. Drug companies often claim that the R&D of new drugs involves a lot of money, time and risks. However, what they conveniently omit to say is that they more often make minimal investment to develop "new" patentable drugs.

Although rarely known to the public, in most R&D processes drug companies rarely start from zero. They often begin with active ingredients already identified by basic researches of government research bodies such as the National Institutes of Health, university laboratories or biotechnological research units. As the bulk of the research has already been paid for by taxpayers, drug companies only need to invest in clinical trials on humans with the active ingredients. Although the expenses are high, they pale in comparison to the amount used in basic research. Drug companies cannot therefore claim sole credit for investment in the R&D of new drugs.

Given the amount of money and time involved in the R&D of new drugs, most drug companies prefer to invest in the so-called 'me-too' drugs which are not innovative drugs but modified versions of existing drugs. These companies then recycle one or more successful

Development of New Drugs

The development of a new drug consists of two processes, research and development. The first involves basic research to build a body of knowledge about the targeted disease and its burden. Next is the identification of a substance that can treat the disease. This can be done by computerized molecular modeling, using known molecules or extracting molecules from animal or plant products for laboratory synthesis, and then testing these molecules in tissue cells. This step, if successful, will identify some lead molecules promising enough to be further developed. But the chance that these lead molecules will end up as drugs is very low, perhaps only a few chances in a thousand or ten thousand.

In the United States, most basic research is conducted by researchers in scientific institutes or academic bodies such as the National Institutes of Health (NIH), universities and biotechnological research institutes and is funded in the most part by the government financed through taxation. Most drug companies choose not to invest in this step because it involves an enormous budget, possibly decades of time and high risk.

The second part of drug development processes can be divided into four steps. First is to test the lead molecule from the research processon laboratory animals for efficacy and safety. If successful, the second step is to test the safety of the drug on a small group of human subjects. If this stage is positive, then the third step is to test the drug on a large group of human subjects to find the optimal and safe dosage. If successful, then the registration process can take place. Once a drug is approved, the fourth step is a study to monitor the drug's efficacy and safety throughout its use. This step allows awareness and management of unexpected side effects of long-term use or on populations with specific genetic characteristics.

If the tested drug fails any of these steps or yields an unacceptable result, all the money invested will be lost. Even if the drug has already entered the market, it wouldbe withdrawn if found to have severe side effects. A study showed that from clinical trial to marketing, a new drug may cost an average of 868 million dollars, with a wide range of costs from 0.5 billion to 2 billion dollars, depending on drug type.

Source: Wichai Chokewiwat et al, 2006. Adams and Branter, 2006.

drugs with or without patent by modifying them in some way such as forms (oral or intravenous), indications (daily or weekly) or increased benefits and then file for a new patent.

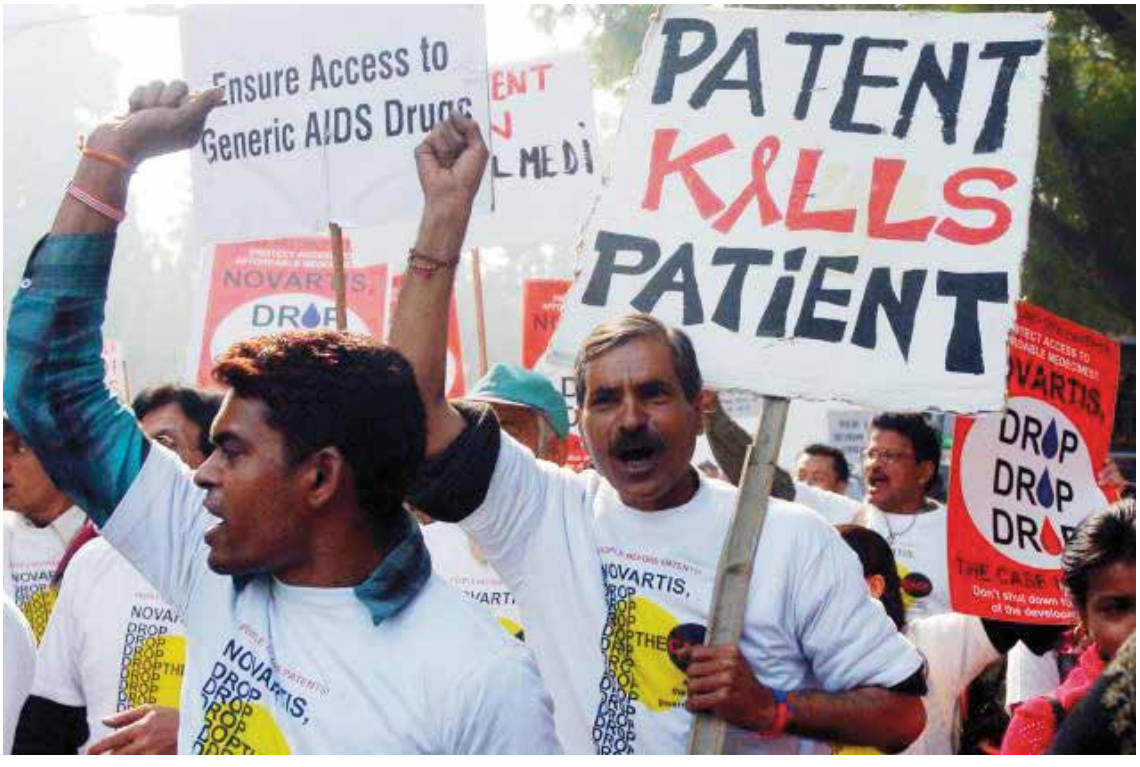
According to the FDA as quoted in *The Truth about Drug Companies*[2], out of the 415 new drugs approved between 1998 and 2002, only 14% (58 drugs) were considered innovative while 9% were old drugs which were sufficiently modified for FDA approval and the other 77% were me-too drugs. The numbers for Thailand were almost identical. According to the patent application data between 1992 and 2002, 72% of the 2,444 applications were for me-too drugs.

The time and investment in development of me-too drugs is a fraction of R&D for new drugs because this process doesn't involve intensive research. All that is needed for this development is a clinical trial to confirm additional properties to be patented. Although the result is not an innovative drug, the returns from monopolization are not different.

One can conclude that the claims by drug companies that new drugs are expensive because of the high R&D investment is just an excuse to protect their own interests.

Shielding drug prices

In theory, high drug prices are not a result of high demand but of low supply and more importantly monopolization. However, monopolization would be impossible if other drug companies also manufactured the same drug to compete in the market. The only thing that stops such



Source: TML Daily, December 2, 2011 (Internet Edition)

[2] Translated from "The Truth about the Drug Companies: How they deceive us and what to do about it" by Marcia Angell (2005). Translated to Thai by Dr. Wichai Chokewiwat et al.

companies from doing this is the patent system which plays a protective role in drug manufacturing and marketing at the same time.

Patent refers to the right of protection in accordance with relevant laws on monopoly to manufacture and market products. A patent is given by a government as a reward to those who have conducted research and developed new innovation to benefit humankind. The international patent standard gives a protection period of twenty years from the day of filing. Most member states of the World Trade Organization (WTO) have this system in place.

Patented drugs are called "original drugs". Drug patents are given to only new drugs that are significantly different from existing drugs whether in structure, property, usage or form. In principle, the patent approval for new drugs or inventions must be subjected to strict examination by relevant agencies.

In the United States, drug monopolization can be classified into two types:

1. Monopoly under patents issued by the US Patent and Trademark Office (USPTO). Although this office used to have a strict examination and approval process for patent applications, the relaxation of the process after 1980 has led to the situation where almost any drug characteristics can be patented be it new indications, forms, formulations or colors. This allows drug companies to extend the patent period as long as possible with the so-called 'ever-greening' patents.

2. Monopoly under the US Food and Drug Administration (FDA). After a drug has been approved, the FDA allows a five-year monopoly period for drugs with new molecules, seven years for orphan drugs (those with less than 200,000 expected users) and three years for previously approved drugs that have been modified in structure and form to qualify as "new" drugs.

Patents are without a doubt gold mines for drug companies. In principle, after a drug patent expires, other companies can manufacture identical drugs for the market. These so-called "generic drugs" create competition which results in drastically reduced prices. Unsurprisingly, the patent holder of an original drug will do anything within its power to extend the patent or maintain monopoly as long as possible by exploiting legal loopholes. The main methods to do this are:

1. Modifying the original drugs so that they appear "new" in order to extend the patent by at least three years.
2. Filing for different patents for different characteristics of each drug with staggered expirations of months or years so that when one patent expires others still remain valid to allow a period for extension. If another company violates the patent, the patent holder can sue the offending company and get a 30-months automatic extension.
3. Testing the existing drugs in children, which allows 6-months monopoly extension, regardless of whether it was designed to be used in children to begin with.
4. "Redressing" the original drugs whose patents are about to expire so that they appear as different drugs, and file for patents.

By using these tricks, drug companies can extend their monopoly and keep cheap generic versions off the market and the prices of their original drugs high.

Since the WTO's origin in 1995, patented drug monopoly is no longer limited to the country of manufacture and country of patent approval but to all WTO member states (160 countries as of June 2014) through the framework of the Trade-Related Aspects of Intellectual Property Rights (TRIPS), which was created at the same time as the WTO.

WTO and drug monopoly

Since the WTO's origin in 1995, patented drug monopoly is no longer limited to the country of manufacture and country of patent approval but to all WTO member states (160 countries as of June 2014) through the framework of the Trade-Related Aspects of Intellectual Property Rights (TRIPS), which was created at the same time as the WTO.

TRIPS requires that all WTO member states protect all patented inventions including drugs in their own countries, regardless of country of origin, with a period of 20 years for monopoly on reproduction and sales. Member states can set their own national standards higher than TRIPS but in that case the interests of foreigners must be treated at the same level as those of nationals.

Drug patents under TRIPS keep drug prices high and impact access to drugs of populations in developing and low-income countries. When these countries use their sovereign power to manufacture or import patented essential drugs such as anti-HIV drugs to sufficiently serve their population, they run into disputes with the patent-holding Big Pharma. For example, South Africa and Brazil were sued by Big Pharma for breaching patents.

The TRIPS revision under the Doha Declaration (endorsed by WTO members in 2003) allows developing and low-income countries to use compulsory licensing (CL) to manufacture or import cheap versions of patented drugs. Thailand also has used CL to manufacture anti-HIV, heart-disease and cancer drugs. Although permitted under TRIPS, the measure was strongly opposed by the US and the EU. However, even developed countries themselves such as the US and Canada have also used compulsory licensing to manufacture essential drugs.

Targeting physicians

Marketing has become the most important part of selling a product in a very competitive market. Without sufficient investment in marketing, a product has a good chance of failing regardless of its quality. It is not surprising therefore that some products may have much higher marketing expenses than in R&D.

Like other products, drugs also have marketing expenses. However, drug companies never reveal these budgets in details apart from as total budgets in "marketing and management" categories. It is estimated that in 2001, member companies of the Pharmaceutical Research and Manufacturers of America (PhRMA) spent a combined amount of 54 billion dollars in this category of expenses, or 30% of their 179 billion dollars combined net income, which is much more than the R&D expenses of 25 billion dollars (14%).

Drug marketing has two related parts. The first is direct marketing to physicians, hospitals and other healthcare facilities to promote sales while the other is through supporting "academic activities" to "educate" physicians. Both methods have the same goal of familiarizing doctors to the drugs produced by the company so that they would prescribe them to patients who, in turn, become familiar with the drugs and their trade names. In addition, advertisements are also used to reach the public.

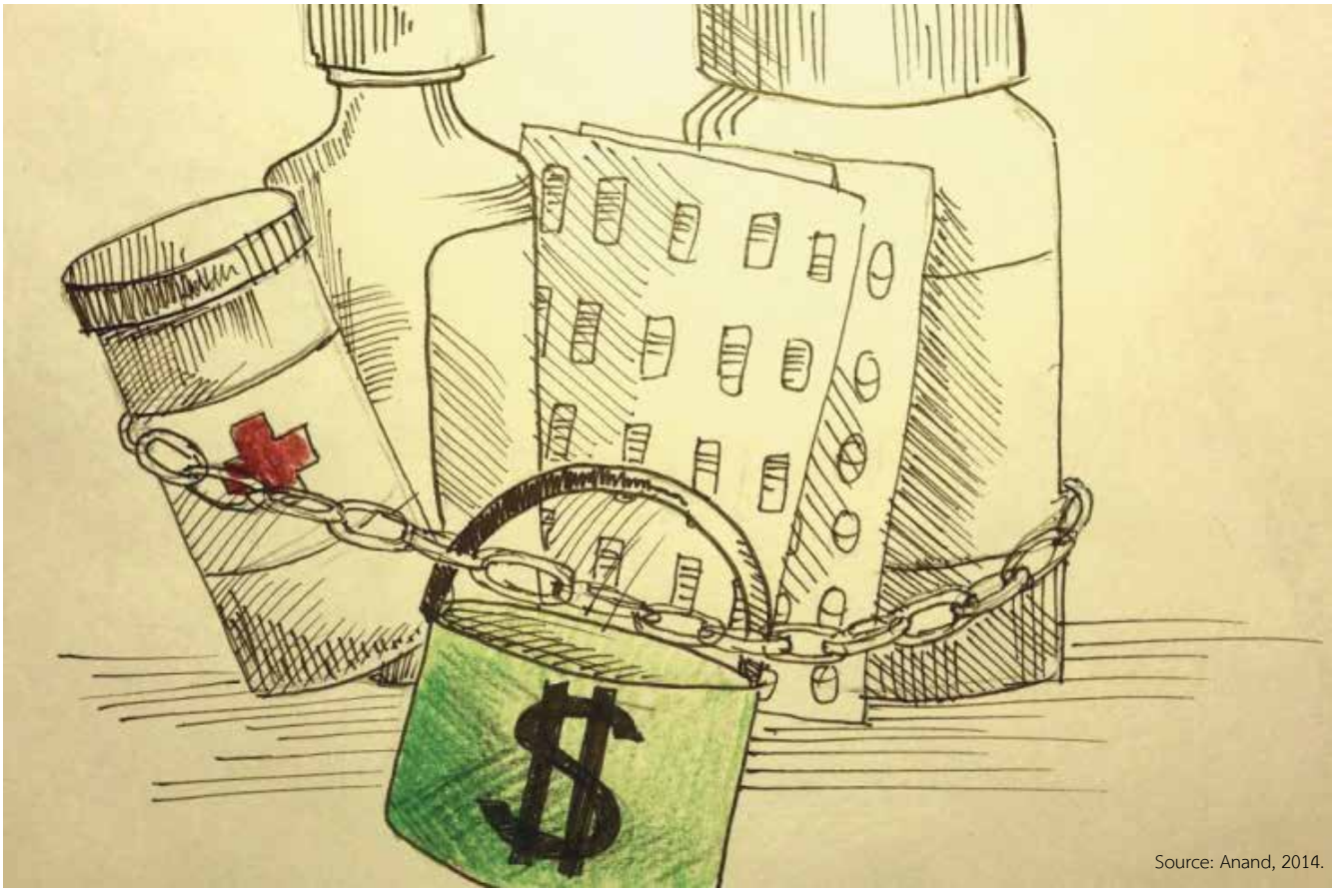
As doctors play a key role in prescribing drugs to patients, marketing strategies aimed at doctors are very effective. One trick is to give free drug samples to doctors to familiarize them to the drug. In addition, drug companies also "make friends" with doctors by showering them with presents such as office equipment noticeably labeled with company symbols or name of drugs or treating them to dinner at high-end restaurants. The 3 F's (flattery, food and friendship) are well known among drug sales representatives to buy the good will of doctors.

According to *The Truth about the Drug Companies*, in 2001Big Pharma spent about 11 billion dollars in the form of sample drugs given to doctors in hospitals and clinics across the United States. The companies also employed some 88,000 sales representatives or approximately one sales rep per 5 to 6 doctors. These drug companies claimed that they paid these drug representatives, also known as detailers, only 5.5 billion dollars in salary but this is estimated to be much lower than the real payments made. These sales representatives will try to set up appointments with doctors to advertise the benefits of their drugs or hang around the office of doctors who have the authority to procure drugs for the hospitals. Dr. Angell said, "There is no way to exaggerate how much a part of some doctors' daily lives drug reps have become."

As for academic supports, drug companies provide support to many activities such as funding research (which of course shed positive light on their drugs) as well as academic events which doctors must take part in such as lectures, seminars and conferences as well as annual specialist conferences. Drug companies often claim that these supports are provided purely for academic purposes with no strings attached. However, for those in the business, this is hard to believe. It's estimated that marketing disguised as academic supports provided to doctors and their professional organizations in the United States is worth 35 billion dollars per year.

Marketing through academic support also hits two birds with one stone. First, it allows drugs to be advertised to doctors for non FDA approved usage. In general, FDA approves marketing of new drugs for specific use in accordance with its leaflet. Drug companies cannot advertise their drugs as a cure-all. However, the law does not prohibit doctors from prescribing drugs for off label symptoms. If drug companies can convince doctors to prescribe their drugs for symptoms other than those approved by FDA, their sales volume will increase. The best way to do this is through academic activities which are not legally considered as marketing or promotional activities. Drug companies can use these opportunities to highlight the results of studies which they have planned and supported or raise the profile of their drugs through lectures by influential doctors they have hired as consultants.

Secondly, marketing through academic support allows drug companies the opportunity to



Source: Anand, 2014.

give unlimited "presents" (whether in cash or in kind) to doctors without breaking anti-kickback laws. Although giving doctors commission for prescribing drugs is illegal, supporting academic activities such as research funding and support to register and participate in academic lectures or specialist conferences, or even payments for food and entertainment during such events, are not considered unethical as the guideline only stipulates that "Manufacturers shall consider whether the funding is for the honest purpose of research and education."

As doctors must constantly keep abreast of the knowledge in their field through reading journals, attending lectures and participating in conferences. In the United States, this is considered so vital that continuous learning is a requirement for renewal of medical licenses. Every year therefore there is a large number of events of this nature (said to be more than 300,000 per year) and they are supported by drug companies whether through the organization of events to each doctor's individual participation or cleverly infusing doctors with subtle promotion to promote their vested interests.

This kind of marketing is very effective. Studies in the United States show that the prescription of drugs from sponsor companies significantly increases after the events that they support.

There is no clear data in Thailand on promotional activities disguised as "support" to doctors, medical schools and medical organizations. But as many Big Pharma companies have offices in all parts of the world including Thailand, it would be highly unusual if the aforementioned marketing tricks are not already being practiced here.

Although these tricks may not be as intense or as well known to the public, those in the business including drug companies, doctors, medical schools and nursing schools will be well-placed to answer how prevalent they are and whether or how much these marketing activities influence doctors' drug prescription activities.

Advanced technology: how necessary?

Modern medical technology can be advanced to the point of being miraculous. Some technology allows doctors to see internal parts of patients as though with clairvoyance allowing more accurate and convenient diagnosis. It's not a surprise therefore that both public and private healthcare facilities make use of such technologies, as can be seen by their increasing numbers in Bangkok and other provinces. (See Table 1). This growth reflects increased demands both on the parts of service providers and clients but it may also reflect business competition, especially in the private sector which possess the majority of equipment such as CT scanners, MRI scanners and mammography machines.

These technologies no doubt bring healthcare benefits. But it is difficult to say whether their use in Thailand is driven purely by medical needs or other reasons. The WHO reports that inappropriate use of medical technology accounted for up to 40% of usage globally. Although statistics for Thailand are not available, misuse is believed to be relatively high because of intense competition among private hospitals in the healthcare business which is worth billions of dollars.

The question therefore is whether we can draw the line between the use of technology based on medical needs and inappropriate use due to non-medical reasons, as well as consider who can make that call.

What needs? Whose needs?

Users of medical technologies can be classified into two groups: patients under doctor's care and health-conscious healthy people. The two groups differ in both their reasons and needs for advanced medical technologies.

Table 1: Key Medical Equipments and Distribution, 2012

Medical equipment	Total number	Bangkok	Other provinces	Total		Note
				Public	Private	
1. CT scanners(1)	496	161 (32.5)	335 (67.5)	178 (35.9)	318 (64.1)	2012
2. MRI scanners(1)	93	47 (50.5)	46 (49.5)	34 (36.6)	59 (63.4)	2012
3. ESWL machines(2)	111	32 (28.8)	79 (71.2)	84 (75.7)	27 (24.3)	2010
4. Mammogram machines(1)	404	149 (36.9)	255 (63.1)	175 (43.3)	229 (56.7)	2012
5. Ultrasound machines(2)	2,516	486 (19.3)	2,030 (80.7)	1,906 (75.8)	610 (24.2)	2010

Notes: (1) Bureau of Radiography and Medical Equipment, Department of Medical Sciences.
(2) Medical resources report, Bureau of Policy and Strategy.

Source: Bureau of Policy and Strategy, Office of Permanent Secretary, Ministry of Public Health, 2013. Numbers in ( ) are percentage.

The first group make use of advanced technology under a doctor's direction for the purpose of accurate diagnosis and for lack of cheaper better options. Although perhaps reasonable, it is hard to say up to what point advanced technologies are absolutely needed because each patient is different. In addition, monetary incentive for doctors must be taken into account when considering whether the use of technology is purely for medical reasons.

Let's consider these scenarios.

First scenario: two patients come to the doctor with the same symptoms of intermittent vertigo/loss of balance although with different purchasing powers. One is in a low-income group whilst the other is a civil servant who can claim full reimbursement from a health benefit scheme. After careful history taking and physical examination, the doctor diagnoses that symptoms are related to brain functions and orders an MRI. This expensive procedure will cause financial difficulty to the first patient even though it can be considered necessary.

Second scenario: Two patients come to the doctor with the same symptoms as above, and both have similar purchasing powers. After examination, the doctor diagnoses that the symptoms are likely caused by blood pressure and anemia rather than brain functions although the latter is not ruled out and orders drugs for blood pressure and anemia for both patients. In addition, he also order an MRI scan at a private facility, which he happens to be financially associated, for fast and accurate diagnosis.

Almost two thirds of MRI are undertaken in private healthcare facilities, reflecting the competition to attract clients.

Was MRI necessary and without other alternatives in the second scenario? This is a difficult question to answer. From the perspective of the doctor, the decision can be justified but the justification also leaves room for possible conflicts of interest.

As for the second group, most are healthy but also health-conscious and have purchasing power. The use of advanced technology is mainly to serve the desire to take care of health and prevent diseases. Health consciousness and advertisements by health facilities or verbal persuasion from friends and families lead to increased service seeking behavior. This shift from treatment to prevention leads to more competition among private health facilities to invest in advanced technology, as shown in Table 1, and more advertisements targeting this healthy group of people. The following ad is one example:

> *"Towards the future of health care. Anyone can use MRI to take care of health without seeing a doctor. Our MRI technology is convenient, accurate*

and radiation-free, provided with JCI-certified world-class standards. Suitable for all health lovers who want to prevent illness before they get sick. Now available at ... (name of health-care facility)"

This advertisement on the website of an MRI facility also presents a comprehensive list of symptoms as criteria for a MRI scan. The symptoms are so wide-ranging that it seems everyone should get a scan if they want to stay healthy, including family history of brain aneurism or strokes, involuntary jerking of arms or legs, incontinence and sexual dysfunction. The fees are different from organ to organ but almost all are tens of thousands of baht.

As with other technologies, medical technologies are expensive. Although useful, these technologies also come with at least three limitations, as follows:

Firstly, expensive price tags limit access for the majority of people. Those who can benefit from them are those with high purchasing powers or have the right health benefit packages. These group of people are already a privileged group in society.

Secondly, as with drugs, the use of technology gives the illusion that health depends on drug use rather than healthy behavior.

Thirdly, the question of efficiency and cost-effectiveness arises. Advanced technologies are not guaranteed to prevent or control disease as they too have limitations. For example, the HPV vaccine can prevent only certain strains of human papilloma virus so it does not give 100% protection against cervical cancer. However, the vaccine campaign does not provide information on alternatives to prevent cancer such as safe sex and Pap smears, which provides maximum benefits in the prevention and control of cervical cancer.

The health consciousness trend is a good opportunity for educating the public on how to take care of one's health without relying on advanced technologies which are expensive and inaccessible to most. For healthy persons, the best way to take care of one's health is frequent self-examination which needs little professional help.

Although some attempts at such education exist, these are still few and far in between and include the "health periodic checkup" project (www.mycheckup.in.th) initiated by the Health Intervention and Technology Assessment Program (HITAP) and the Preparation before Checkup project by the National Health Commission. These kinds of projects are aimed at educating the public on physical checkups and should be promoted and accessible to all populations in all areas to prevent them from falling prey to the propaganda of health checkup businesses and paying for exorbitant services that they do not actually need.

Selling Hope and Belief

Today's medicines can be divided into three categories: 1) modern medicine based on scientific knowledge and technology; 2) traditional medicine based on traditional and folk knowledge such as Thai traditional medicine and folks medicine; and 3) alternative medicine such as detoxification.

Although modern medicine is the mainstream healthcare system, it has its own shortcomings especially ineffectiveness against certain illnesses and inaccessibility to some populations. These shortcomings lead some people to turn to folk

and alternative medicine in the belief that their illnesses will be cured. The imprecise nature of traditional and alternative medicines and the lack of effective control can easily lead to health frauds, especially when coupled with the use of superstition to defraud the gullible.

The case of Ms. Sornwan Sirisuntharin, better known as Aunt Cheng, is a case in point. Exploiting regulatory loopholes, the 72-years-old produced and advertised the FDA-unapproved "panacea juice" and "diamond eye drops" on cable TV channels. Many have fallen prey to this and some even lost their eyes before a complaint was filed to the police against her. As a result, she was apprehended by the Consumer Protection Police and the FDA on several charges and subsequently sentenced to jail.

Even though the Drug Act BE 2510 (1967) prescribes guidelines on traditional remedies as well as punishments for violations, the FDA lacks manpower to ensure effective enforcement. The Consumer Protection Office as well as other health-related NGO's are no different. The only solution is to educate the public on drugs and health maintenance so that they do not buy into these charlatans who sell hopes and beliefs.

Health Supplement Products

The health consciousness trend also exponentially expanded the market for food supplements, beauty products and cosmetic medicine mainly among the middleclass and the younger generation with high purchasing powers. In 2014, the market for food supplements was worth 39 billion baht. The numbers from the Thai Direct Selling Association also show a constant growth in the food supplement market with the direct-sales volume for these products accounting for 40% of total direct sales in 2013. The Media Agency Association of Thailand reported that the value of advertisements for food supplements was four billion baht in 2013, a 15% growth from the previous year, making it amongst the top ten industries in term of advertisement expenses. In addition, the market for beauty products and cosmetic medicine was worth more than 20 billion baht.

Health supplement products can be divided into three main groups: supplements for the body, brain and beauty.

Brain and Body Supplements

What the health supplement industry continues to tell us every day is that our daily food intake may not be nutritious enough to sustain good health. As a result, we are told that everyone should take one or more food supplements which come in many forms for all gender and age groups such as "healthy" drinks, vitamins and tonics.

One segment of health supplement products with the most intense competition is the "healthy drinks" segment. Some come in the forms of "herbal" drinks while others claim to supplement nutrition which consumers may not obtain from daily diet. These include chicken soup, swift nest drink and "nutritious" extracts from Lingzhi mushrooms, ginseng, prunes and chlorophyll.

Although these products claim to fulfill the body's dietary needs, studies have shown that they contain much less nutrition than advertised. For example, a swift nest drink was advertised as 100% swift nest but found to contain only 1% bird nest. The product was found to contain less calories than an egg and a protein equivalence of two peanuts.

Another "healthy" drink was claimed to contain fibers to promote bowel movements but found to contain only 1-2% fiber or about one gram per 100 milliliters, much less than the 25 grams daily requirement. On the other hand, studies have shown that drinking 8 to 10 glasses of water per day and eating fibrous vegetables and fruits are the best way to promote bowel movements.

"Brain-nourishing" food supplements often claim "wonder" ingredients such as peptides, amino acids and vitamins. The problem is there is no proof that these substances improve brain function. In addition, these substances can be readily found in a daily diet if consumed in a balanced manner.

Peptides are simply short-chained proteins which are the results of normal protein digestion. Most importantly, improved brain function is not a result of food supplements but practices and skill building.

In the same way as drugs, food supplements should be taken only when necessary. Inappropriate or unnecessary use such as excessive consumption can be detrimental to health. Most people are not aware of this fact and are deceived by the food supplement industry. Moreover, the fact that most people don't take balanced diets and are not sure if they obtain enough nutrition from daily food intake allows the food supplement business to thrive among healthy people.

Advertising can mislead people to think that one can stay healthy and become mentally sharp by regularly taking food supplements. The truth is health and smartness depends on balanced diet, regular exercise, adequate rest, avoidance of risk factors and brain practices.

Good body can be made, but ...

Today's advanced technology can change one's body in almost unlimited ways. Skin whitening, nose-bridge heightening, eyelid crease surgery, breast augmentation, liposuction, chin chiseling, dental bracing, wrinkle removal and many other procedures can now help improve one's appearance.

The emphasis on good body shapes make the "beauty food" business amongst one of the fastest growing businesses. Over the past 4 to 5 years, apart from cosmetics, another product which was heavily advertised as promoting good body shape was the "collagen drinks". However, most people are not aware that collagen naturally constitutes one third of the body's protein playing

the role of strengthening body tissues and filling underneath the skin giving it a smooth appearance.

As one gets older, the skin becomes sagging and wrinkled because of collagen degeneration. However, drinking collagen beverages doesn't guarantee that the contained collagen will migrate to the desired area. The best, cheapest and safest way to improve skin appearance is drinking 8-10 glasses of water per day, balanced diets and regular exercise. This is the open secret for healthy skin.

Weight loss drugs are another product used by the younger generation without appropriate knowledge. They are divided into 2 types: 1) those acting on the central nervous system to curb appetite; and 2) those blocking fat absorption in the digestive tract. A set of "diet pills" usually consists of the following:

1) Appetite-curbing drugs which have side effects such as insomnia, headaches, dry mouth, palpitation and nausea.
2) Diuretic drugs to increase urine production resulting in quick weight loss.
3) Antacids to reduce gastric juice in the stomach. Although this has no direct effect on weight loss, it is used to reduce side effects of appetite-curbing pills.
4) Thyroid hormone to increase metabolism, although it poses severe side effects and risks to the heart and vascular system such as palpitation, tiredness and weakness in the thighs.
5) Heart rate reducing drugs to counter the side effect of the appetite-curbing drugs which have their own side effects such as tiredness, fatigue, low heart rates, dizziness and low blood pressure.
6) Sleeping pills to counter the insomnia caused by appetite-curbing drugs.

These diet pills are not only ineffective for losing weight but also harmful because they all have severe side effects, as we have heard in the case of a celebrity who met a premature death due to liver failure caused by herbal weight loss pills. Moreover, diuretic drugs reduce weight by eliminating water in the body but may result in loss of mineral balance causing fainting, loss of consciousness or heart failure. More importantly, weight is likely to return after stopping diuretics.

The emphasis on body shape has become so extreme that many, especially young women, the main target group of beauty products, are willing to overlook health and safety. The attitude of looking good "at all costs" has led to unforeseen

health consequences such as disfigurement and even deaths in some cases, as headlined in the news.

People in the younger generation who feel inferior about their body and appearance may gamble on their precious health for improved outer appearances thus forgetting that "inner beauty" or their mental health together with physical health together actually brings everlasting happiness.

Health advertisement: education or distortion?

With intense competition among health products and services, advertisement has become indispensable for product promotion without which companies cannot survive in the market. As a result, manufacturers put in an enormous amount of money into advertising. According to the Advertising Association of Thailand, in a single month of January 2015, the values of advertisement in the mainstream media was 9, 528 million baht (compared with 8,179 million baht in 2014). Health advertisements can be done in two ways: 1) direct advertisement with a message openly aimed at consumers; and 2) indirect advertisement disguised as health information.

Indirect or disguised advertisement is usually used for dangerous, controlled or prescription drugs which cannot be openly advertised to consumers under the Drug Act BE 2510. Drug companies therefore use other channels to shield them from regulatory agencies which are already held back by lack of manpower and outdated law, not to mention that some officials are actually bribed to ignore violations or shield them from prosecution.

Advertising channels

The channels for advertising drugs can be classified into: 1) mainstream media; and 2) new media.

The mainstream media include radio, television and print media which have grown in number recently, especially for radio and television, allowing more channels for all forms of advertisement. Television channels come as free television and subscription based cable television which number hundreds, some of which are specifically for advertisement. Health businesses have traditionally relied on mainstream media as an advertisement channel.

The internet is the platform for the new media which includes Facebook and blogs which can be accessed by computers, tablets and smart phones. The advantage of the new media is individualized direct advertisement to consumers which also allows interaction with entrepreneurs. Recently, many entrepreneurs have flocked to this type of channel which comes with the ease and convenience of an e-commerce system.

Blogging, as one kind of new media, is often used to advertise or "review" products on the internet. Bloggers, who are usually well-known personalities, are often paid by the product owners to review their products. Some upload videos on YouTube channels that can be followed by their fans. This kind of marketing is effective in attracting consumers in a fast and far reaching manner. Studies found that consumers trust blogger reviews more than traditional advertisements because they relate to bloggers as fellow "consumers".

A survey conducted in ten provinces between June and September 2014 by the Consumer Network in Radio and Television Enterprises project in collaboration with the National Broadcasting and Telecommunications Commission found that 29 out of 33 radio stations (88%) illegally advertised 103 unapproved health-related products, 54 of which were food supplements, 35 drugs, 13 cosmetics and 1 healthcare facility.

It is obvious that consumption of substandard and exaggeratedly advertised health products can negatively affect consumers but the severity of the problem has not been properly studied apart from occasional news reports and complaints filed to the responsible agencies. In 2003, the FDA's Health Products Monitoring Center received 1,236 complaints, 584 of which were related to food products, 264 to drugs and the rest concerning cosmetics, medical equipment, narcotics and hazardous materials, etc. The most common nature of complaints include exaggerated advertisements followed by the sale of unauthorized drugs, sales of drugs without pharmacists and sales of expired drugs.

Although it has been long recognized that the existing legislation on advertisement of drugs and health products (the Drug Act BE 2510) is outdated, movement to replace the law only started last year. (Read related article on p. 57)

Media propaganda

Media is power. Media is a goldmine. It's undeniable that the media has become an indispensable necessity of life.

Thailand's mainstream media channels – television, radio, newspapers and magazines – have greatly multiplied in number in recent years. Due to the new media policy, the number of free TV channels has increased from 6 to 48. Although the number of cable TV operators remain few, they offer hundreds of channels, depending on the subscription package,to more than two million households.

According to the 2010 National Statistics Bureau data, there were 526 radio channels (AM and FM combined), excluding 6,513 community radio channels. The number of newspapers remain constant but magazines have mushroomed into hundreds of titles. In addition, there are countless printed media in the form of leaflets, posters and roadside billboards. Some of these mainstream media earn the majority of their revenues from advertisement.

Another kind of media that has grown astronomically is a new media in the form of websites, Facebook or blogs which can be accessed through a computer, a smart phone or a tablet. This type of media is used for sending and receiving information as well as advertising. In recent years, internet advertising has become ubiquitous due to its advantage of speed and accessibility. In addition, users can directly interact with advertisers, allowing a channel for direct e-commerce. Although Thailand had a low internet penetration in 2009 (33% among those living within municipalities, 15% among those living outside municipalities) the rate has greatly increased and will continue to do so for many years to come.

Source: (partially) National Statistics Bureau, 2010.

As it becomes increasingly difficult to regulate drug and health product advertisement, it is no longer sufficient to rely on government agencies as the FDA or the Consumer Protection Board as well as health-related NGOs have constraints that limit them from effectively addressing the problem. Civil society and communities themselves therefore must take an active monitoring role. However, in order to do so effectively these communities must be empowered with health literacy to be able to see through advertising tricks and determine appropriate actions.

Conclusion

This article demonstrates that, like other dimensions of life, health is being encroached upon by capitalism and consumerism which not only change the public perceptions on health but also many health related aspects including drugs and services. These changes can be summarized in that "Health has been commoditized into a product whose ultimate goal is profit."

Now that health is commoditized the meanings of drugs, health products, technologies and services have also changed. These are no longer connected to humanitarian values as before but to the prices that consumers have to pay and the profits to be made by entrepreneurs. It's no wonder that many tricks are used to achieve this materialistic goal including:

1. Exaggeration on the importance of drugs (which can be sold) so that the public overlook health behaviors which are the more important factor for health.
2. Setting astronomical prices on new drugs which bear no relation to the costs, as a result of monopolization.
3. Development of new drugs for diseases of wealthy consumers rather than for those in poor regions to promote health equality
4. Unethical drug marketing targeting those in medical profession
5. Selling "health" to healthy people with diverse health products
6. Exaggerated advertisement of drugs, health products and services without giving balanced information and education to consumers.

As a results of the commoditization of health, the following effects can be seen:

1. Expensive drugs and health services which hinder the access by low-income populations and affect their health.
2. Increased medical expenses from the high costs and unnecessary use which burdens many developing and low-income countries
3. Overemphasis on drug use even for mild symptoms caused by natural changes. This has increased reliance on drugs and over-looking of positive health behaviors. Advertisement of food supplements also mislead people to think that taking the products is all that is needed to stay healthy
4. Exaggerated advertisement of drugs, food supplements, beauty products and health services which can cost money, health and even lives.

To address these challenges at their root cause, one must address capitalism in the health system. But it is difficult to see how this can be done because we live in a world where capitalism has pervaded all aspects of life including education, culture and religion. The more realistic approach is to find a way to deal properly with capitalism.

The exact approaches are still in need of development but the following should be considered:

1. Education - provide proper and adequate health education to the public on how to take care of health, how to use health products and services appropriately and cost-effectively, how to access health information and how to make informed decisions. Educational institutes, health related agencies and the media must play their respective roles in this matter.
2. Knowledge building and management to empower the public and increase awareness on health situations as well as to develop new proposals for the public, practitioners and policy makers. Health professional organizations must be able to provide support to the public at least in the form of accurate and balanced information without letting conflict of interest get in the way. These organizations should focus especially on drugs, health products and advanced technological services and issue guidelines on the proper and necessarily use of such as well as strictly regulates the ethical and scholarly conducts of practitioners.
3. Empowerment and strengthening-the public, consumers groups, health practitioners, the media, academics and politicians must be empowered and strengthened to become more aware and knowledgeable about health related issues, able to make informed decisions on the proper and cost effective use of health products and services and to efficiently monitor and regulate all health-related sectors. The national health security system and the health technology assessment system must be strengthened to promote appropriate and cost-effective use of drugs, health products and services.
4. Updating and effective enforcement of relevant legislations especially on exaggerated advertisement of drugs, food supplements, beauty products and services. Strictly regulating health services to protect consumers without hindering public access to drugs and services.
5. Economic, monetary and financial measures such as tax incentives should be used in the area of health security to ensure equitable access to services and reduce inequality as much as possible.

These approaches have already been put to use by several agencies such as the Thai Health Promotion Fund, the National Health Office, the National Health Security Office, the Health Systems Research Institute, the Health Intervention and Technology Assessment Program and other agencies in the Ministry of Public Health. However, these efforts still fall short in the face of capitalism. For Thai society, there is still much work to be done.

References

11 "Asean Health" Indicator

1. ASEAN: Unity in Diversity

Ministry of Natural Resources and Environment. 2015. *ASEAN and Biodiversity*. Retrieved 1 February 2015, from http://www.aseangreenhub.in.th/envinat-ac/en/savetheworldsection/12-savetheworld

The World Bank. 2014. *World Development Indicators Database*. Retrieved 22 December 2014, from http://data.worldbank.org/data-catalog/world-development-indicators

UNESCO, *World Heritage Centre*. 2015. Retrieved 8 January 2015, from World Heritage List. http://whc.unesco.org/en/list/

2. ASEAN Population

Jongjit Rittirong, Sutthida Chuanwan, and Pramote Prasartkul. 2013. *Population Ageing in ASEAN*. In Suchada Thaweesit, Malee Sanpuwan, and Suthida Chuanwan (Editor). Annual Population Conference 2013: Population and Social In ASEAN Challenge and Opportunity. pp. 3-22 Bangkok: Tula Press.

The World Bank. 2011. *The Migration and Remittances Facebook 2011*. Washington DC: The World Bank.

United Nations. 2013. *World Population Prospects*: The 2012 Revision. New York: UN.

3. Physical Health

The World Bank. 2012. *World Databank 2012*. Retrieved 15 September 2014, from http://databank.worldbank.org/data/home.aspx

World Health Organization (WHO), Department of Health Statistics and Information Systems. 2014. *Health Statistics and Information Systems*. Retrieved 22 October 2014, from www.who.int/healthinfo/global_burden_disease/en/

World Health Organization (WHO). 2014. *World Health Statistics 2014*. Geneva: WHO.

4. Mental Health

John Helliwell, Richard Layard, and Jeffrey Sachs (Editors). 2013. *World Happiness Report 2013*. NY: Sustainable Development Solutions Network.

The Social Progress Imperative. 2014. *Social Progress Index 2014*. n.p.

World Health Organization (WHO), Department of Health Statistics and Information Systems. 2014. *Health Statistics and Information Systems*. Retrieved 22 October 2014, from www.who.int/healthinfo/global_burden_disease/en/

World Health Organization (WHO). 2014. *World Health Statistics 2014*. Geneva: WHO.

5. Health Behaviors

The World Bank. 2012. *World Databank 2012*. Retrieved 15 September 2014, from http://databank.worldbank.org/data/home.aspx

Southeast Asia Initiative on Tobacco Tax (SITT) of the Southeast Asia Tobacco Control Alliance (SEATCA). 2014. *Tobacco Taxes and Prices in ASEAN: An Overview (May 2014)*. Retrieved 29 September 2014, from http://seatca.org/dmdocuments/ASEAN%20Tobacco%20TaxPrice_Summary_May14%20Final.pdf

Southeast Asia Initiative on Tobacco Tax (SITT) of the Southeast Asia Tobacco Control Alliance (SEATCA). 2013. *ASEAN Tobacco Tax Report Card (May 2013)*. n.d.

The Southeast Asia Tobacco Control Alliance (SEATCA). 2014. *The ASEAN Tobacco Control Atlas (Second edition) September 2014*. Bangkok: SEATCA.

World Health Organization (WHO). 2014. *Global Status Report on Alcohol and Health 2014*. Geneva: WHO.

6. Economic and Social Development

Department of Highways and Department of Rural Roads. 2011. *Responsibility Distant of Department of Highways and Department of Rural Roads*. Retrieved September 2011, from http://vigportal.mot.go.th/portal/site/PortalMOT/stat/index6URL/

Organisation for Economic Co-Operation and Development (OECD). 2014. *Economic Outlook for Southeast Asia, China, and India 2014: Beyond the Middle Income Gap*. n.d.

The World Bank. 2014. *World Development Indicators Database*. Retrieved 22 December 2014, from http://data.worldbank.org/data-catalog/world-development-indicators.

The World Fact Book, Central Intelligence Agency. 2014. Retrieved 9 December 2014, from https://www.cia.gov/library/publications/the-world-factbook/

United Nations Development Programme (UNDP). 2014. *Human Development Report 2014: Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience*. NY: UNDP.

7. The Environment and Urbanization

Food and Agriculture Organization of The United Nations. 2010. *Forestry*. Retrieve 23 December 2014, from http://faostat3.fao.org/

McKinsey Global Institute.2014. Southeast Asia at the crossroads: Three paths to prosperity. Retrieved 3 December 2014, from http://www.mckinsey.com/

The World Bank. 2014. *World Development Indicators Database*. Retrieved 22 December 2014, from http://data.worldbank.org/data-catalog/world-development-indicators.

World Health Organization (WHO).2013. *World Malaria Report 2013*. Geneva: WHO.

World Health Organization (WHO).2014. *Burden of disease from Household Air Pollution for 2012*. Geneva: WHO.

World Health Organization (WHO). 2014. *Slum residence Data by country*. Retrieve 30 September 2015, from http://apps.who.int/gho/data/node.main.281?lang=en

World Health Organization (WHO). 2014. *Tuberculosis country profiles*. Retrieved 16 December 2014, from http://www.who.int/tb/country/data/profiles/en/

8. Health Financing

ASEAN Plus Three UHC Network. 2014. *Universal Health Coverage for 2.1 Billion Populations: Lessons Learned from ASEAN Plus Three Countries: ASEAN*. Retrieved 3 September 2014, from http://www.aseanplus3uhc.net/universal-health-coverage-21-billion-populations-lessons-learned-asean-plus-three-countries

World Health Organization (WHO).2014. *Global Health Observatory (WHO-GHO)*. Retrieved 10 November 2014, from http://www.who.int/gho/en/

9. Health Resources

Kanchanachitra, C., Lindelow, M., Johnston, T., Hanvoravongchai, P., Lorenzo, F.M., and Huong, N.L., et. al. 2011. Human resources for health in southeast Asia: shortages, distributional challenges, and international trade in health services. In *The Lancet, 377* (9767), 769-781.

World Health Organization (WHO). 2014. *World Health Statistics 2014*. Geneva: WHO.

10. Health Inequities

General Statistical Office (GSO). 2011. *Viet Nam Multiple Indicator Cluster Survey 2011, Final Report*. Ha Noi: GSO.

Kanchanachitra, C., Lindelow, M., Johnston, T., Hanvoravongchai, P., Lorenzo, F.M., and Huong, N.L., et. al. 2011. Human resources for health in southeast Asia: shortages, distributional challenges, and international trade in health services. In *The Lancet, 377* (9767), 769-781.

Ministry of Health and Lao Statistics Bureau. 2012. *The Lao Social Indicator Survey 2011-2012*. Vientiane, Lao PDR: Ministry of Health and Lao Statistics Bureau.

National Statistics Office (NSO) [Philippines], and ICF Macro. 2009. *National Demographic and Health Survey 2008*. Calverton, Maryland: National Statistics Office and ICF Macro.

Statistics Indonesia (Badan Pusat Statistik-BPS), National Population and Family Planning Board (BKKBN), and Kementerian Kesehatan (Kemenkes-MOH), and ICF International. 2013. *Indonesia Demographic and Health Survey 2012*. Jakata, Indonesia: BPS, BKKBN, Kemenkes, and ICF International.

The National Statistical Office (NSO). 2013. *The Thailand 2012 Multiple Indicator Cluster Survey (MICS)*. Bangkok: NSO.

The United Nations Children's Fund (UNICEF). 2011. *Myanmar: Multiple Indicator Cluster Survey 2009-2010 Selected Indicators*. Yangon: UNICEF

11. ASEAN and Health Challenges

Suwat Kittidilokkul, 2013. Discussion "*ประชาคมไทยกับอาเซียน: บุคคลากรสาธารณสุข รู้ทันประชาคมอาเซียน*". 20 May 2013.

Southeast Asia Initiative on Tobacco Tax (SITT) of the Southeast Asia Tobacco Control Alliance (SEATCA). 2014. *Tobacco Taxes and Prices in ASEAN: An Overview (May 2014)*. Retrieved 29 September 2014, from http://seatca.org/dmdocuments/ASEAN%20Tobacco%20TaxPrice_Summary_May14%20Final.pdf

Sustainable Development Solutions Network. 2015. *Indicators and a Monitoring Framework for Sustainable Development Goals-Launching a data revolution for the SDGs*. Retrieved 15 January 2015, from http://unsdsn.org/resources/publications/indicators/

United Nations. 2013. *International migrant stock: By destination and origin*. Retrieved 24 December 2015 from http://www.un.org/en/development/desa/population/migration/data/estimates2/estimatesorigin.shtml

10 Outstanding situations in the Year 2015

1. The 2014 coup d'état: Breaking the political impasse

[1] ด่วน! ผบ.ทบ. ประกาศยึดอำนาจ ตั้ง'คณะรักษาความสงบแห่งชาติ'. 22 May 2014. Retrieved 30 May 2014, from Bangkokbiznews Online website: http://www.bangkokbiznews.com/news/detail/583950

2 คำต่อคำ "ประยุทธ์" เผยโรดแมป" ปรองดอง-ปฏิรูป 1 ปี-เลือกตั้ง" รื้อรถไฟเร็วสูงไม่ก่อหนี้-งดประชานิยม. 22 พฤษภาคม 2557. Retrieved 30 May 2014, from Manager Online website: http://www.manager.co.th/politics/viewnews.aspx?NewsID=9570000060714

3 รัฐธรรมนูญชั่วคราวกับแม่น้ำ 5 สาย. 24 July 2014. Retrieved 30 May 2014, from Dailynews website: http://www.dailynews.co.th/Content/Article/254517/รัฐธรรมนูญชั่วคราวกับแม่น้ำ+5+สาย

4 กมธ. ยกร่างฯ วางกรอบ 4 ภาค. 12 May 2014. Retrieved 1 December 2014, from Dailynews website: http://www.dailynews.co.th/Content/politics/280322/กมธ. ยกร่างฯวางกรอบ+4+ภาค

5 วิษณุยันชัด เลือกตั้งกพ.-มีค.59 หนุนนิรโทษไม่สุดซอย "พรเพชร" ขานรับทันที. 30 November 2014. Retrieved 30 November 2014, from Khaosod website: http://www.khaosod.co.th/view_newsonline.php?newsid=TVRReE56TXhNemd5T1E9PQ==&sectionid=

6 นิรโทษขั้นตอนสุดท้าย 'บวรศักดิ์' ชูปรองดองก่อน สนช.หนุนนายกฯ ทางตรง. 12 December 2014. Retrieved 20 December 2014, from Thaipost website: http://www.reform.or.th/2014/wp-content/uploads/C-141212008041.pdf

7 ด่วน! "ยิ่งลักษณ์" ไม่รอดมติสนช.ถอดถอน 190-18 เว้นวรรคการเมือง 5 ปี "นิคม-สมศักดิ์" เฮ! ไม่ถูกถอดถอน. 23 January 2015. Retrieved 20 February 2015, from Matichon Online website: http://www.matichon.co.th/news_detail.php?newsid=14219856678Ibid.

1. Life hanging on bear thread: (Lack of) Safety in Thai public transport

[1] พนักงานรถไฟสารภาพ ฆ่าน้องแก้ม. 7 July 2014. Retrieved 11 December 2014, from JS100 website: http://www.js100.com/en/site/news/view/3493

[2] ผงะ! โจรชิงทรัพย์ผู้โดยสารทั้งโบกี้รถไฟ ติดตู้ "เลดี้" — คาดโดนรมควันวางยาสลบ. 5 August 2014. Retrieved 9 January 2015, from Khaosod website:http://www.khaosod.co.th/view_newsonline.php?newsid=TVRRd056SXINVEl4T0E9PQ==

[3] List of Rail Accident in Thailand. 9 November 2014. Retrieved 9 January 2015, from Wikipedia website: http://th.wikipedia.org/wiki/รายชื่ออุบัติเหตุทางรถไฟในประเทศไทย

[4] Saowanee Chamchalio. ประสบการณ์การให้ความช่วยเหลือผู้ประสบอุบัติเหตุจากรถโดยสารสาธารณะและปัญหาอุปสรรคที่พบ. (n.d.). Retrieved 9 January 2014, from Roadsafetythai website: http://www.roadsafetythai.org/sites/default/files/file/upload/มูลนิธิเพื่อผู้บริโภค%20สวนีย์%20%20ฉำเฉลียว.PDF

3. Garbage and toxic waste management: new national agenda?

[1] ไฟไหม้บ่อขยะ สมุทรปราการ ควันเริ่มจาง กรมควบคุมมลพิษ ห่วงอาจมีสารก่อมะเร็ง. 17 March 2014. Retrieved 10 December 2014, from Kapook website: http://health.kapook.com/view84416.html

[2] ภาพดาวเทียมไทยโชตเข้าช่วยตรวจสอบแนวควันบริเวณพื้นที่เสียหายจากเหตุการณ์เพลิงไหม้บ่อขยะ. 18 March 2014. Retrieved 10 December 2014, from Facebook website: https://www.facebook.com/gistda/photos/a.10150141503351265.335098.328782391264/10152274998701265/

[3] อันตราย!!!ควันพิษบ่อขยะ. 19 March 2014. Retrieved 10 December 2014, from Thairath Online website: http://www.thairath.co.th/content/410843

[4] สถานการณ์ไฟไหม้บ่อขยะแพรกษา ผลกระทบและการแก้ไข. (n.d.). Retrieved 10 December 2014, from Greenintrend website: http://www.greenintrend.com/?p=300

[5] กรณีบ่อขยะ "แพรกษา" สู่วาระแห่งชาติการจัดการขยะของประเทศไทย. 11 August 2014. Retrieved 11 December 2014, from Thaipublica website: http://thaipublica.org/2014/08/praksa-1/

[6] Thailand State of Pollution Report 2013. 19 March 2014. Retrieved 11 December 2014, from Pollution Control Department website: http://www.pcd.go.th/Public/News/GetNewsThai.cfm?task=lt2014&id=17119

[7] สถานการณ์ ปัญหา และข้อเสนอเชิงนโยบายในการจัดการขยะมูลฝอย. n.d.. Retrieved 10 December 2014, from Provincial Office Natural Resources and Environment Prachuapkhirkhan website: http://prachuapkhirikhan.mnre.go.th/download/pan59/pre_6.pdf

[8] Sanitary Landfills. 31 January 2013. Retrieved 10 December 2014, from Pollution Control Department website: http://www.pcd.go.th/public/Publications/print_waste.cfm?task=SanitaryLandfill

[9] ปัญหาลักลอบทิ้งกากขยะอุตสาหกรรม. 18 March 2014. Retrieved 9 December 2014, from Thaipbs website: http://news.thaipbs.or.th/content/ปัญหาลักลอบทิ้งกากขยะอุตสาหกรรม

[10] "ขยะซ้อนขยะ" ปัญหาจัดการกากอุตสาหกรรมที่ไร้การเหลียวแล. 23 March 2014. Retrieved 10 December 2014, from Thaipost website: http://www.thaipost.net/sunday/230314/87910

[11] 'แพรกษาโมเดล'วาระแห่งชาติด้านขยะที่ไม่อาจรอช้า. 11 July 2014. Retrieved 10 December 2014, from Waymagazine website: http://waymagazine.org/report/แพรกษา

[12] Ibid.

[13] 'ขยะเมืองไทย' อะไรจะมากมายก่ายกองได้ขนาดนั้น!!!. 22 April 2014. Retrieved 9 December 2014, from Thairath Online website: http://www.thairath.co.th/content/417113

[14] Pollution Control Department. Thailand State of Pollution Report 2013. 20 March 2014. Retrieved 9 December 2014, from Thairath Online website: http://www.thairath.co.th/content/411086

[15] อธิบดีกรมควบคุมมลพิษ ได้กล่าวถึงนโยบายสร้างโรงไฟฟ้าโดยใช้ขยะเป็นวัตถุดิบว่าปัจจุบันมีการก่อสร้างโรงไฟฟ้าที่ใช้ขยะเป็นเชื้อเพลิงแล้ว 2 แห่ง คือที่ จ.ภูเก็ต และ อ.หาดใหญ่ จ.สงขลา และมีแผนที่จะดำเนินการเพิ่มอีก 13 แห่งทั่วประเทศในปีถัดไป ซึ่งแนวทางนี้เป็นความหวังที่จะช่วยลดปริมาณขยะตกค้างอย่างมีประสิทธิภาพ

[16] ทส.มอบนโยบายการจัดการขยะมูลฝอยของประเทศให้กับจังหวัด. 19 September 2014. Retrieved 10 December 2014, from Pollution Control Department webstie: http://www.pcd.go.th/Public/News/GetNewsThai.cfm?task=lt2014&id=17206

[17] นายกรัฐมนตรีประกาศเจตนารมณ์โครงการเมืองสะอาด คนในชาติมีสุข ระยะที่ 2. 4 December 2014. Retrieved 9 December 2014, from Thainews website: http://thainews.prd.go.th/centerweb/news/NewsDetail?NT01_NewsID=TNPOL5712040010007

4. Ebola and cross-border disease management

[1] Ebola Situation Report-11 February 2015. 8 February 2015. Retrieved 16 February 2015, from WHO website: http://apps.who.int/ebola/en/ebola-situation-report/situation-reports/ebola-situation-report-11-february-2015

[2] เชื้ออีโบลา คร่าชีวิตหัวหน้าแพทย์เซียร์ราลีโอนรายที่ 2. 14 August 2014. Retrieved 10 January 2015, from Kapook website: http://health.kapook.com/view95685.html

[3] Ebola in graphics The toll of a tragedy. 5 March 2015. Retrieved 5 March 2015, from Economist website: http://www.economist.com/blogs/graphicdetail/2015/03/ebola-graphics

[4] Ebola impacts antenatal care-Offical. 3 March 2015. Retrieved 10 March 2015, from StarAfrica website: http://en.starafrica.com/news/sleone-ebola-impacts-antenatal-care-official.html

[5] Ebola in graphics The toll of a tragedy, Ibid

[6] สธ.ห่วงคนตกใจ "อีโบลา" ย้้าโอกาสเสี่ยงติดในไทยยาก. 31 July 2014. Retrieved 12 December 2015, from MCOT website: http://www.mcot.net/site/content?id=53d9dbfdbe0470fec58b456a#.VQ54d9KZR1M

5. Surrogacy and what Thai society needs to know

[1] ข้อมูลจากการสัมภาษณ์หญิงไทยที่รับตั้งครรภ์แทน. 20 August 2014.

[2] แถลงข่าวแพทยสภากรณีอุ้มบุญ. 8 August 2014. Retrieved 20 January 2015, from The Medical Council of Thailand website :http://www.tmc.or.th/detail_news.php?news_id=763&id=1&s_head=3

6. New drug legislation. Who wins? Who loses?

[1] ร่างฯ ที่ สคก. ตรวจพิจารณาแล้ว เรื่องเสร็จที่ 1017/2557. (n.d.).Retrieved 2 December 2014 from Bureau of Drug Control, website: http://drug.fda.moph.go.th/zone_law/files/ร่างพ.ร.บ.ยา_1017_2557.pdf

[2] เอกสารนำเสนอในการประชุมเสวนา พรบ. ยา พ.ร.บ. วิชาชีพ เพื่อใคร. 28 September 2014. At Room 702, 80 years building, Faculty of Phamaceutical Science, Chulalongkorn University. Vinit Usavakidviree on title New drug legislation to whom get obstacles or opportunities.

[3] Ibid.

[4] เครือข่ายเภสัชฯ บุก อย.ค้าน พ.ร.บ.ยา ส่งตัวแทนหารือแก้ไขใน 2 สัปดาห์. 10 October 2014. Retrieved 2 December 2014, from Manager Online website: http://www.manager.co.th/QOL/ViewNews.aspx?NewsID=9570000116308

[5] ร่างพระราชบัญญัติยา พ.ศ. .... (ฉบับประชาชน ปรับปรุง 19.01.55). (n.d.). Retrieved 2 December 2014, from Drug System Monitoring Mechanism & Development website: http://www.thaidrugwatch.org/download/draft_revise_drug_act_19-01-55.pdf

[6] หนังสือสำนักงานเลขาธิการนายกรัฐมนตรี ที่ นร.0404/4144 ลงวันที่ 25 มีนาคม 2556 เรื่องการรับรองร่างพระราชบัญญัติยา พ.ศ. .... (ฉบับประชาชน ปรับปรุง 19.01.55).

[7] หนังสือสำนักงานเลขาธิการสภาผู้แทนราษฎร ที่ สผ0014/5068 ลงวันที่ 14 สิงหาคม 2557 เรื่อง ร่างพระราชบัญญัติยา พ.ศ. ....

[8] หนังสือสำนักงานปลัดสำนักนายกรัฐมนตรี ที่ นร0105.03/45195 ลงวันที่ 12 กันยายน 2557

[9] แถลงการณ์ร่วม สำนักงานคณะกรรมการอาหารและยา และเครือข่ายวิชาชีพเภสัชกรรม กรณี การแก้ไข ปรับปรุง (ร่าง) พ.ร.บ.ยา ฉบับที่สำนักงานคณะกรรมการกฤษฎีกา ตรวจแล้วเสร็จ. 22 October 2014. Retrieved 10 December 2014, from Bureau of Information website: http://pr.moph.go.th/iprg/include/admin_hotnew/show_hotnew.php?idHot_new=68704

[10] อย. เผยผลหารือ (ร่าง) พ.ร.บ.ยา กับสภาวิชาชีพ และหน่วยงานที่เกี่ยวข้อง. 30 October 2014. Retrieved 10 December 2014, from Bureau of Information website: http://pr.moph.go.th/iprg/include/admin_hotnew/show_hotnew.php?idHot_new=68812

[11] หนังสือกระทรวงสาธารณสุขที่ สธ 1009.3.1/3899 ลงวันที่ 12 ธันวาคม 2557 เรื่อง ร่างพระราชบัญญัติยา พ.ศ. ....

[12] บันทึกความเห็นและข้อเสนอแนะ เรื่อง ร่างพระราชบัญญัติยา พ.ศ. .... .เอกสารที่ กม คปก (ค) ที่ 22/2557 เรื่อง ร่างพระราชบัญญัติยา พ ศ. .... from Bureau of Law Reform Commission of Thailand

7. Health Areas and discontent: Holding the public victims

[1] สธ.ปรับรูปแบบบริการสุขภาพ กระจายผู้ป่วย 12 เขตพื้นที่. 12 December 2012. Retrieved 26 December 2014, from Thairath website: http://www.thairath.co.th/content/312822

[2] 1 เม.ย.รวมกลุ่ม รพ.รักษาคนไข้. 3 February 2013. Post today

[3] ยืดงบฯ" สปสช." จ่ายตรงสำนักงานเขต. 13 March 2013. Post today

[4] Ibid.

[5] แผนกินรวบระบบสุขภาพ การเมืองรวมหัว ขรก.ปรับโครงสร้างเขตสุขภาพยึดอำนาจเบ็ดเสร็จ. 25 September 2013. Retrieved 15 December 2014, from ASTV website: http://www2.manager.co.th/Around/ViewNews.aspx?NewsID=9560000120965

[6] ข้อสรุป 5 ชมรมสธ.ยันสปสช.ต้องจัดงบบัตรทองผ่านเขต-ยุบกองทุนย่อย. 30 October 2014. Retrieved 12 March 2015, from Hfocus website: http://www.hfocus.org/content/2014/10/8507#sthash.JNIjazWS.dpuf

[7] ชงยุบ "กองทุนรายโรค สปสช." เหตุยุ่งยาก. 29 October 2014.*Matichon*

[8] เบรก 'เขตสุขภาพ สธ. 'ปฏิรวบ'สวนทาง' ปฏิรูป'. 12 August 2014. *Bangkokbiz news*

[9] ค้านสุดเสียง! กลุ่มรักหลักประกันฯ ยัน 'เขตสุขภาพ' ไม่เวิร์ก. 29 August 2014. Retrieved 10 December 2014, from *thairath* website: http://www.thairath.co.th/content/446541

[10] 'อัมมาร' แนะแก้สองปัจจัยกระทบงบ 'ประกันสุขภาพ'. 11 December 2014. Retrieved 10 March 2015, from *TDRI* website: http://tdri.or.th/tdri-insight/bangkokbiz-2014-12-11/

[11] สปสช.สุดทนถูกบิดข้อมูลให้ร้ายการบริหารกองทุน แนะตั้งกรรมการคนนอกตรวจสอบ รพ.ขาดทุน. 11 December 2014. Retrieved 8 March 2015, from *NHSO* website: http://www.nhso.go.th/FrontEnd/NewsInformationDetail.aspx?newsid=MTMyOA==

[12] ย้อนรอย มหากาพย์ขัดแย้งร้าวลึก ระเบิดศึก สธ.-สปสช. 13 December 2014. Retrieved 10 January 2015, from *Hfocus* website: http://www.hfocus.org/content/2014/12/8838

[13] บัตรทองถกเดือดรัชตะหักปลัด สธ. 9 December 2014. *Post today*

[14] นพ.ยุทธ โพธารามิก ลาออกประธานสอบปัญหา รพ.ขาดทุน. 19 December 2014. Retrieved 10 February 2015, from *ThaiNews Agency* website: http://www.tnamcot.com/2014/12/19/นพ-ยุทธ-โพธารามิก-ลาออกป/

[15] "นพ.รัชตะ" รมว.สาธารณสุข ยืนยันมีคำสั่งย้าย "นพ.ณรงค์" ปลัด สธ.ไปประจำสำนักนายกฯ. 11 March 2015. Retrieved 16 March 2015 from *Bangkokbiz news* website: http://www.bangkokbiznews.com/news/detail/638661#sthash.jyFUOgoC.dpuf

8. Chiangrai earthquake, community impacts and problem management

[1] สรุปความเสียหาย และให้ความช่วยเหลือประชาชนผู้ประสบภัยจากเหตุแผ่นดินไหว จังหวัดเชียงราย ประจำวันที่ ๒๗ มิถุนายน ๒๕๕๗. 1 June 2014. Retrieved 10 December 2014, from *Public Disaster Prevention and Relief Bureau of Chiangrai* website: https://dpmcr.wordpress.com

[2] Chiangrai Earthquake Report. 5 May 2014. Retrieved 12 December 2014, from *Seismological Bureau, Thai Meteorological Department* website: http://www.seismology.tmd.go.th/home.html

[3] Ibid.

[4] รอยเลื่อนมีพลังในประเทศไทย. (n.d.). Retrieved 10 December 2014, from *Department of Mineral Resources* website: http://www.dmr.go.th/main.php?filename=Active_FAULTS_THAI

[5] Chiangrai Earthquake Report, Ibid.

[6] สรุปการช่วยเหลือผู้ประสบภัยแผ่นดินไหว ศูนย์ ปภ.เขต 15 ชร (รวม) ข้อมูล ณ 11 มิ.ย. 57. 13 June 2014. Retrieved 12 December 2014, from *Public Disaster Prevention and Relief Bureau of Chiangrai* websie: https://dpmcr.wordpress.com

9. Border Economic Zones: Two sides of the coin

[1] The Government House of Thailand. 2014. ผลการประชุมคณะกรรมการนโยบายเขตพัฒนาเศรษฐกิจพิเศษ (กนพ.) ครั้งที่ 2/2557. Retrieved 12 December 2014, from website: http://www.thaigov.go.th/th/government-th1/item/87633-id87633.html

[2] International Institute for Trade and Development. 2014. แนวทางและมาตรการเพื่อการพัฒนา เขตเศรษฐกิจพิเศษบริเวณพื้นที่แนวชายแดนของไทย. Bangkok: Faculty of Economics, Chulalongkorn University.

[3] พระราชบัญญัติส่งเสริมการลงทุน (ฉบับที่ 3) พ.ศ. 2544, ราชกิจจานุเบกษา เล่มที่ 118 ตอนที่ 110ก. (ลงวันที่ 30 พฤศจิกายน 2544).

[4] การพัฒนาแนวพื้นที่พัฒนาเศรษฐกิจ (Economic Corridors Development). (n.d.). Retrieved 12 December 2014, from website: http://www.nesdb.go.th/Portals/0/HighLight/gms/P001.pdf.

[5] Somchai Sakdavekeeisorn. 2014. Special Border Economic Zone. Office of the National Economic and Social Development Board. Bangkok.

[6] เขตเศรษฐกิจพิเศษในพื้นที่ 36 ตำบล บริเวณสิบอำเภอของห้าจังหวัดชายแดนข้างต้น ได้แก่ 1. จังหวัดตากประกอบด้วย 14 ตำบล ใน อ.แม่สอด อ.พบพระ อ.แม่ระมาด ระมาด 2. มุกดาหาร ประกอบด้วย 11 ตำบล ใน อ.เมือง อ.หว้านใหญ่ อ.ดอนตาล 3. สระแก้ว ประกอบด้วย 4 ตำบล ใน อ.อรัญประเทศ อ.วัฒนานคร 4. ตราด ประกอบด้วย 3 ตำบล ของ อ.คลองใหญ่ (ทั้งอำเภอ) 5. สงขลา ประกอบด้วย 4 ตำบล ใน อ.สะเดา

[7] นายกรัฐมนตรีมอบนโยบายให้ทุกหน่วยงานสนับสนุนการจัดตั้งเขตเศรษฐกิจพิเศษใน 5 พื้นที่ชายแดนเป้าหมายให้มีผลทางปฏิบัติ ธ.ค.นี้-เห็นชอบแผนดำเนินงานเขตพัฒนาเศรษฐกิจพิเศษปี 58-59. (n.d.). Retrieved 15 December 2014, from *Royal Thai Government* website: http://www.thaigov.go.th/2012-07-18-11-42-15/item/87633-id87633.html

[8] Thailand Border Trade Market 2011-2014. n.d.. Retrieved 15 January 2015, from *Department of Foreign Trade* website: http://bts.dft.go.th/btsc/files/Border%20Trade%20Service%20Center/1.Reported%20%20trade%20%20statistics/2557/12_DEC2014.pdf

[9] Development of Population Policy. n.d.. Retrieved 10 December 2014, from *HealthInfo.in.th* website: http://www.hiso.or.th/hiso/picture/reportHealth/ThaiHealth2012/thai2012_3.pdf.

[10] Krittaya Atchawanitchakul. 2011. Towards Managing Stateless People in Thailand's Context. Institute for Population and Social Research, Mahidol University. Nakhon Pathom.

[11] ประกาศคณะรักษาความสงบแห่งชาติ ฉบับที่ 70/2557 เรื่องมาตรการชั่วคราวในการแก้ปัญหาแรงงานต่างด้าวและการค้ามนุษย์. 25 June 2014. Retrieved 12 December 2014, from 3rd Army Area website: http://www.army3.mi.th/army3_internet/mod/book/view.php?id=30&chapterid=211

[12] สรุปยอดรวมการจดทะเบียนแรงงานต่างด้าว ณ ศูนย์บริการจดทะเบียนแรงงานต่างด้าว (ONE STOP SERVICE: OSS) ทั่วประเทศ ตั้งแต่วันที่ 26 มิถุนายน-31 ตุลาคม 2557 (ปรับปรุงยอดวันที่ 29 พฤศจิกายน 2557). 1 December 2014. Retrieved 13 December 2014, from *Office Of Foreign Workers Administration* website: http://wp.doe.go.th/wp/images/pr/pr_oss291157.pdf

[13] Rapeepong Suphanchaimat. สุขภาพแรงงานข้ามชาติ กับความเป็นธรรมในระบบสุขภาพ อะไรคือทางออกที่เหมาะสม. เอกสารประกอบการเสวนา "สุขภาพแรงงานข้ามชาติ ทางออกที่เหมาะสมเพื่อสร้างความเป็นธรรมในระบบสุขภาพ". National Health Bureau. 15 October 2012. TK Palace Hotel. Nonthabuti.

[14] Ibid, Krittaya Atchawanitchakul.

[15] Numbersof ethnic minorities and migrant workers in the national registry as of 2013. n.d.. Retrieved 7 December 2014, from *Office Of Foreign Workers Administration* website: http://wp.doe.go.th/wp/images/statistic/sy/sy2556.pdf.

[16] สธ.เผย ขาย 'บัตรประกันสุขภาพต่างด้าว' แล้วกว่าแสนบัตร!. 23 July 2014. Retrieved 10 December 2014, from *Thairath* website: http://www.thairath.co.th/content/438314.

[17] กกจ.ร่วมมือ สปส.เตรียมปรับเกณฑ์ดันแรงงานต่างด้าวเข้าประกันสังคม. 24 October 2013. Retrieved 12 December 2014, from *Matichon Online* website: http://www.matichon.co.th/news_detail.php?newsid=1382596242.

[18] เอกสารประกอบการประชุมร่วมระหว่างสำนักงานสาธารณสุขจังหวัดระนองกับสำนักบริหารการสาธารณสุข เพื่อหารือการแก้ปัญหาแรงงานต่างด้าว เรื่องสถานการณ์การให้บริการสุขภาพแรงงานต่างด้าว จังหวัดระนอง เมื่อ 11 พฤศจิกายน 2557

[19] Guinto R, Curran U, Suphanchaimat R, Pocock N. 2014. *Universal health coverage in 'One ASEAN': are migrants included? Global Health Action 2014*, 7: 25749 (in press).

[20] Ecological Alert and Recovery-Thailand. ความตายที่นิคมฯ ลำพูน. (n.d.). Retrieved 9 December 2014, from *Ecological Alert and Recovery-Thailand* website: http://thaiecoalert.org/th/pollution/50.

[21] The Constitution of Thailand and Environmental Quality Protection. (n.d.). Retrieved 11 December 2014, from *Bangkok University* website: http://www.bu.ac.th/knowledgecenter/executive_journal/july_sep_10/pdf/aw13.pdf.

[22] ประกาศกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อมในปี พ.ศ. 2555 ได้กำหนดประเภทโครงการที่ต้องจัดทำรายงานการวิเคราะห์ผลกระทบสิ่งแวดล้อม (Environ-mental Impact Assessment หรือ EIA) 22ประเภทโครงการและเพิ่มเติมเป็น35 ประเภทโครงการ และกำหนดประเภทโครงการที่ต้องจัดทำรายงาน EHIA จำนวน 11 ประเภทโครงการ (ประกาศกระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม พ.ศ. 2555, ราชกิจจานุเบกษา เล่มที่ 129 ตอนพิเศษ 116ง. วันที่ 20 กรกฎาคม 2555).

[23] ทำไมคนไทยไม่เอา EIA. 16 October 2013. Retrieved 10 December 2014, from *Blogazine* website: http://www.blogazine.in.th/blogs/noksayamol/post/4404.

10. Violent Crime: Thorn in the flesh of Thai tourism

[1] คดีนักท่องเที่ยวชาวอเมริกันพร้อมลูกชายที่ถูกทำร้ายจนเสียชีวิตที่จังหวัดกระบี่. 7 August 2013. Retrieved 15 December 2014, from *Manager Online* website: http://www.manager.co.th/Local/ViewNews.aspx?NewsID=9560000097786

[2] 2556 คดีหนุ่มชาวอังกฤษที่ถูกฆาตกรรมบนหาดริน เกาะพงัน. 18 September 2014. Retrieved 15 December 2014, form K*apook* website: http://hilight.kapook.com/view/108257

[3] ตร.ภูเก็ต เร่งเก็บหลักฐานจากกล้อง หาคนร้าย ฆ่าชิงทรัพย์ชาวออสซี่. 22 June 2012. Retrieved 12 December 2014, from *Thaipbs* website: http://news.thaipbs.or.th/node/93019

[4] งามไส้! สื่อนอกตีข่าว" คลิปคนชั่วแห่งกระบี่" หลังพ่อเหยื่อแค้นคนไทยข่มขืนลูกสาวนางแบบ. 8 November 2012. Retrieved 12 December 2014, from *Khaosod* website: http://www.khaosod.co.th/view_newsonline.php?newsid=TVRNMU1qTTJOVFU0Tmc9PQ==&sectionid=

[5] เปิดเส้นทางธุรกิจ "รัสเซีย" มาเฟียผูกขาดทุกหาดบนเกาะภูเก็ต. 24 July 2013. Retrieved 25 December 2014, from *Manager Online* website: http://www.manager.co.th/Local/ViewNews.aspx?NewsID=9560000090652

Four Outstanding Accomplishment for Health

Traditional doctor Nan Insom honored

หมอไทยดีเด่นแห่งชาติ พ.ศ.2557. 17 September 2014. Retrieved 20 November 2014, from *Thai Holistic Health Foundation* website: http://www.thaihof.org/main/article/detail/3595

"ป้อหนาน อินสม สิทธิตัน" ชาวบ้านโฮ่ง ลำพูน หมอไทยดีเด่นแห่งชาติ พ.ศ. 2557. 7 September 2014. Retrieved 20 November 2014, form *Haaksquare* website: http://www.haaksquare.com/en/node/5793

Herbs in national drug list

Herbal Medicinal Products in National List of Essential Medicines. n.d.. Retrieved 25 November 2014, from *Thai Holistic Health Foundation* website http://www.thaihof.org/main/banersideber/medical

List of Herbal Medicinal Product. n.d.. Retrieved 25 November 2014, from *National List of Essential Medicines* website http://drug.fda.moph.go.th:81/nlem.in.th/medicine/herbal/list

สปสช.เพิ่มบัญชียสมุนไพรรักษาฟรีเป็น 71 รายการ. 19 January 2011. Retrieved 25 November 2014, from *Manager Online* webstie: http://www.manager.co.th/QOL/ViewNews.aspx?NewsID=9540000007608

A golden year for Thai athletes

Asian Games Medal Table 2014: China top in Asian Games with 151 Gold Medals. n.d.. Retrieved 13 December 2014, from *Kapook* website: http://hilight.kapook.com/view/109115

Asian Para Games: Thai in the 6 Ranking. 24 October 2014. Retrieved 13 December 2014, from Thaipbs website: http://news.thaipbs.or.th/content/สรุปเหรียญเอเชียนพาราเกมส์-ทัพนักกีฬาไทยอยู่อันดับ-6

แฟนบอลหลายชาติอาเซียน ซูฮก ไทย คว้าแชมป์ซูซูกิคัพ 2014. 22 December 2014. From *Kapook* website: http://football.kapook.com/news-21059

Thai guitarist won international competition

ที่ 1 ของโลก 'เบิร์ด' เด็กอุบลฯ คว้าแชมป์โลกกีตาร์คลาสสิก กลับไทยแล้ว. 3 July 2014. Retrieved 20 November 2014, from *Thairath* Online website: http://www.thairath.co.th/content/433951

เปิดใจ... "เบิร์ด เอกชัย" หนุ่มไทยผู้ชนะการแข่งกีตาร์คลาสสิกระดับโลก. 21 February 2015. Retrieved 10 March 2015, form Manager Online website: http://www.manager.co.th/Home/ViewNews.aspx?NewsID=9580000020580

Health frauds

When health is commoditized, drugs become profit-making tools.

Documents in Thai Language

Anonymous. 2013. *Dangers of Diet Pill Set: Side Effects and Fatality*. ASTV Manager Online. Retrieved on December 7, 2014 from http://www.manager.co.th/Qol/ViewNews.aspx?NewsID=9560000157170.

Anonymous. 2013. *The Growth of Vitamins and Supplements and Metropolitan Lifestyle*. Thansettakij. (33)2,885. October 6-9, 2013.

Anonymous. 2014. *Exposed: Pharmaceutical Companies Bribe Doctors*. Post Today. December 15, 2009.

Anonymous. 2014. Food and Drug Administration and the Problem of Hype. *Matichon* (Afternoon Frame). May 18, 2014.

Anonymous. 2014. Thailand and Its Potential to Lead in Health and Beauty Branding. *Marketeer*. Retrieved January 15, 2015 from http://marketeer.co.th/2014/09/ดนัย-จันทร์เจ้าฉาย-ไทยก-2/

Anonymous. 2014. Thai Beauty Product Market Expected to Grow 20 Billion Baht in 3 Years. *ASTV Manager Online*. April 18, 2014.

Anonymous. 2014. *Top 10 Brands in Thailand that Spent Most Money on Advertisement 2013*. Retrieved January 16, 2015 from http://www.brandbuffet.in.th/2014/01/media-industry-outlook-2014/

Anonymous. n.d.. *5-Party Strategy Movement: Obstruction of Illegal Food and Drugs Advertisement*. Retrieved January 16, 2015 from http://www.supinya.com/2013/08/๕-ภาคีขับเคลื่อนยุทธศาส/

Anonymous. n.d.. *Cervical Cancer*. Pamphlet Distributed by Health Intervention and Technology Assessment Program (HITAP).

Anonymous. n.d.. *Exposing Illegal Health Product Advertisement in the Era of NCPO*. Retrieved on January 14, 2015 from http://www.consumerthai.org/web/index.php/news/2014-09-03-00-47-43/19-571106001

Anonymous. n.d.. *Medical and Beauty Industries Rank Top in Business — 10 most Outstanding Business of Next Year by Thai Chamber of Commerce*. Retrieved on January 10, 2015 from http://www.bangkokbiznews.com/home/detail/business/business/20141224/625013/แพทย์-ความงามแชมป์ธุรกิจดาวรุ่ง.html.

Biothai Foundation. n.d.. *History of TRIPS and Its Differentiation from TRIPs Plus*. Retrieved on December 1, 2014 from http://www.biothai.net/news/15553

Choenkwan Putchong, Teera Sirisamutr, Sripen Tantivess, and Yot Teerawattananon. 2010. The Dissemination of the Information Concerning Human Papillomavirus (HPV) Vaccine via Printing Media in Thailand. *Journal of Health Science*. 19(4): 569-577.

Drug Act, B.E. 2510. Retrieved on November 17, 2014 from http://www.moph.go.th/ops/minister_06/Office2/drug1.pdf

Duangkamol Sajirawattanakul. 2009. *Doctor's Confession: Unethical Drug Marketing Strategy*. Retrieved on January 15, 2015 from http://www.tpma.or.th/web/th/movement/ปากคำแพทย์เหยื่อพริตตี้-กลยุทธ์ขายยาล้ำจริยธรรม.

Ellen F.M. t' Hoen, 2009. *The Global Politics of Pharmaceutical Monopoly Power, Drug Patents, Access, Innovation and the Application of the WTO Doha Declaration on TRIPS and Public Health* (Chollada Klangburi, Trans.) Bangkok: Health Consumer Protection Program.

Ethical Criteria for Medicinal Drug Promotion in Thailand (Approved by Drug Committee on August 9, 2012). 2012. Unpublished.

Folk Doctor. 2011. *High Technology Medicine*. Retrieved on December 17, 2014 from http://www.doctor.or.th/article/detail/11472.

Health Consumer Protection Program. 2014. *Consumer Situation Report 2013-2014*. Bangkok: Health Consumer Protection Program. Faculty of Pharmaceutical Science. Chulalongkorn University.

Jermsak Pinthong. 2012. *The Case of Pa Cheng*. Retrieved on December 17, 2014 from https://www.facebook.com/permalink.php?story_fbid=314357958655427&id=181318038626087

Jiraporn Limpananont et al. 2004. *Database of Drug Patents in Thailand, Final report*. Bangkok: Social Pharmacy Research Unit (SPR), Faculty of Pharmaceutical Sciences, Chulalonglorn University.

Kanoknai Thawornpanich. n.d.. *The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs)*.

Komatra Chuengsatiansup. 1999. *What Does Bio-Organic Phenomenon Imply about Thailand?* (2nd ed.). Bangkok: Komol Keemthong Foundation Publishing.

Retrieved on December 1, 2014 from https://www.l3nr.org/posts/158121

Lucksameepen Sanchavanakit. (n.d.). *The Agreement on Trade-Related Aspects of Intellectual Property Rights*. Retrieved on December 1, 2014 from https://www.gpo.or.th/rdi/html/TRIPS_agreement.html

Marcell Angell. 2006. *The Truth about the Drug Companies* (Wichai Chokewiwat Trans.). Bangkok: Folk Doctor.

Medical Council of Thailand. 2006. *The Medical Council Regulations on Medical Ethics Preservation, B.E. 2549*. Unpublished.

Medical Council of Thailand. 2006. *The Medical Council's Notification No.50/2549 on Prohibited Words in Advertisement*. Retrieved on November 24, 2014 from http://tmc.or.th/detail_news.php?news_id=139&id=1&s_head=5

Medical Profession Act, B.E. 2525. Retrieved on November 17, 2014 from http://www.moph.go.th/ops/minister_06/Office2/doctor%20law.pdf

Ministry of Public Health. 2003. *Notification of the Ministry of Public Health No.11 (B.E. 2546) on Regulations, Methods, and Conditions on Advertisement of Hospitals*. Retrieved on November 24, 2014 from http://www.kodmhai.com/m7/New/N45.html

Monitoring and Customer Complaint Center for Health Products, Food and Drug Administration. 2013. *Overall Operation 2013*. Retrieved January 16, 2015 from http://newsser.fda.moph.go.th/hpsc/frontend/theme/view_info_operation.php?Submit=Clear&ID_Info_Operation=00000024

Naiyana Praditsitthikorn. 2013. Cervical Cancer Screening in Thailand: A Model-Based Economic Evaluation. *Journal of Health Systems Research*. 7(3): 289-399.

National Health Commission Office. 2014. *59 Resolutions of the 1st-6th National Health Assembly, B.E. 2551 — B.E 2556 compiled by National Health Commission Office*. Bangkok: National Health Commission Office.

National Statistical Office. 2010. *Development Indicator: Information and Communication Technologies in Thailand*, 2010. Bangkok: National Statistical Office

Nittana Tarnittanakorn and Pratsaneeyakorn Saipimpang. 2013. Beauty Blogger: An Online Beauty Influencer. *Suthiparithat Journal*. 27(81) January-March 2013.

Nuchjarin Ketnil. n.d. *Behavior and Attitude of Thai consumers toward Healthy Food Product (Chapter 2: Instant Healthy Food Product)*. Food Intelligence Center, National Food Institute. Retrieved on January 15, 2015 from http://fic.nfi.or.th/broadcast/TMK-Jan-2014-FIC-OIE.pdf.

Pinij Limsukon. 2011. *A Talk with 3-Baht Doctor: High Technology Medicine*. Folk Doctor Magazine. 384 (January).

Ray Moynihan and Alan Cassels. 2007. *Selling Sickness: How the World Biggest Pharmaceutical Companies Are Turning Us All into Patients* (Vichai Chokevivat, Trans.). Bangkok: Folk Doctor.

The 1st National Health Assembly. 2008. *Resolution 1.2 Universal Access to Drugs for Thai Population. In 59 Resolutions of the 1st-6th National Health Assembly, B.E. 2551-B.E 2556 compiled by National Health Commission Office*. Bangkok: National Health Commission Office.

The 2nd National Health Assembly. 2009. *Resolution 2.4 Termination of Unethical Drug Sales to Reduce the Loss Economic Benefit and Patients' Health. In 59 Resolutions of the 1st-6th National Health Assembly, B.E. 2551-B.E 2556 compiled by National Health Commission Office*. Bangkok: National Health Commission Office.

The 4th National Health Assembly. 2011. *Resolution 4.5 Operation on the Issue of Illegal Advertisement of Drugs, Food and Health Products on Radio, Television and Internet. In 59 Resolutions of the 1st-6th National Health Assembly, B.E. 2551-B.E 2556 compiled by National Health Commission Office*. Bangkok: National Health Commission Office.

The 6th National Health Assembly. 2013. *Policy on Essential and Appropriate Medical Check-Up for People*. In 59 Resolutions of the 1st-6th National Health Assembly, B.E. 2551-B.E 2556 compiled by National Health Commission Office. Bangkok: National Health Commission Office.

Vithan Charoenpol. 2012. *How Can Thailand's Health Service Business Maintain Growth?*. Siam Commercial Bank Economic Intelligence Center. Retrieved on February 2, 2015 from https://www.scbeic.com/THA/document/note_20120913_hospital.

Documents in English

't Hoen, Ellen F.M. 2009. *The Global Politics of Pharmaceutical Monopoly*. Diemen, the Netherlands: AMB Publishers.

Adams, Christopher P. and Branter, Van V. 2006. Estimating the Cost of New Drug Development: Is It Really $802 Million? *Health Affairs*, 25(2): 402-428.

Anand, Neha. 2014. Pharmaceutical Copying: Patent Conflicts in the Developing World. *Yale Journal of Medicine & Law*, April 17, 2014.

Anonymous. n.d..*Generic Drug*. Wikipedia, the Free Encyclopedia. Retrieved on December 16, 2014fromhttp://en.wikipedia.org/wiki/Generic_drug

Anonymous. n.d.. *What is an Original Drug*? Retrieved on December 16, 2014fromhttp://www.aifd.org.tr/en/Yeni-ilac-ve-ar-ge/Orijinal-ilac-nedir.aspx

Applbaum, K. 2006. *Pharmaceutical Marketing and the Invention of the Medical Consumer*. PLoS Med 3(4): e189. doi:10.1371/journal.pmed.0030189.

Blumenthal, D. 2004. Doctors and Drug Companies. *New England Journal of Medicine*. 351(18): 1885-1890.

Byrd, C.2013. *The Average Cost of Prescription Drugs without Insurance*. eDrug Search.http://www.edrugsearch.com/edsblog/the-average-cost-of-prescription-drugs-without-insurance/#ixzz3VjPPNwWp

Collins, J. 2006. Professionalism and Physician Interactions with Industry. *Journal of the American College of Radiology*, 3: 325-332.

Conrad, P. and Baker, K.K. 2010. Social Construction of Illness: Key Insights and Policy Implications. *Journal of Health and Social Behavior* 51S: S67-S79.

Di Ma, Joseph A., Handsen, Ronald W. and Grabowski, Henry G. 2003. The Price of Innovation: New Estimates of Drug Development Costs. *Journal of Health Economic*, 22: 151-185.

Edney, J. 2006. How Capitalism Threatens Your Health. Retrieved on November 16, 2014 from *Counterpunch* -- http://www.countercurrents.org/eco-edney040406.htm.

Ford, N. et al. 2007. Sustaining Access to Antiretroviral Therapy in the Less-Developed World. Lessons From Brazil And Thailand. *AIDS*, 21 (Suppl 4): S21-S29.

Hard, N.Is capitalism bad for your health?. 2009. (Review Article). *British Journal of Sociology* 33(3): 435-443.

Harper, M. 2014. *Drug Price War Takes Pharma Back to The Futur*e. Retrieved on December 20, 2014 from http://www.forbes.com/sites/matthewherper/2014/12/22/drug-price-war-takes-pharma-back-to-the-future/

Henry, D. and Lexchin, J. 2002. The Pharmaceutical Industry as A Medicine Provider. *The Lancet* 360: 1590-1595.

Jogalekar, A. 2014.Why Drugs Are Expensive: It's The Science, Stupid. *Scientific American*, January 6, 2014.

Komesaroff, P.A. *2007*. Relationships between Health Professionals and Industry: Maintaining a Delicate Balance. *Australian Prescriber* 30(6): 150-153.

Lexchin, J. 2006. Bigger and Better: How Pfizer Redefined Erectile Dysfunction. *PLoS Med* 3(4): e132. doi:10.1371/journal.pmed.0030132.

Lexchin, J. 1993. Interactions between Physicians and the Pharmaceutical Industry: What Does the Literature Say? *Canadian Medical Association Journal,* 149(10):1401-1407.

Leys, C. and Albo, G. 2009. Healthcare under Capitalism. Retrieved on November, 16 from *Global Research* -- http://www.globalresearch.ca/healthcare-under-capitalism/16202.

Mintzes, B. et al,. 2002. Influence of Direct Pharmaceutical Advertising and Patients' Request on Prescribing Decisions: Two Site Cross-sectional Survey. *British Medical Journal*, 324(7332): 278-279.

Mintzes, B.. 2002. Direct to Consumer Advertising Is Medicalising Normal Human Experience. *British Medical Journal*, 324(7342): 809-911.

Mintzes, B. 2006.Disease Mongering in Drug Promotion: Do Governments Have a Regulatory Role? Published in *PLOS Medicine*, DOI: 10.1371/journal.pmed.0030198.

Moynihan R., Henry D. 2006. The Fight against Disease Mongering: Generating Knowledge for Action. *PLoS Med* 3(4): e191. doi:10.1371/journal.pmed.0030191.

Moynihan, R. and Alan, C. 2005. *Selling Sickness: How the World's Biggest Pharmaceutical Companies Are Turning Us All into Patients.* Crow Nest NSW: Allen & Unwin.

Moynihan, R., Heath, I. and Henry, D. 2002. Selling Sickness: The Pharmaceutical Industry and Disease Mongering. *British Medical Journal*, 324: 886-891.

Moynihan, R. 2003. Who Pays for the Pizza? Redefining the Relationships between Doctors and Drug Companies. 1: Entanglement. *British Medical Journal*. May 31, 2003; 326(7400): 1189—1192.

Moynihan, R. n.d. *Disease-Mongering. Politics of Medicines Free online Encyclopedia*. Retrieved on December 16, 2014 from http://www.politicsofmedicines.org/articles/disease-mongering

Moynihan, R. 2003. The Making of a Disease: Female Sexual Dysfunction. *British Medical Journal*, 236: 45-47.

National Institute of Health. 2001. *Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Direction, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III): Executive Summary*. NIH Publication No. 01-3670, May 2001.

Nelson, R. 2014. Why Are Drug Costs So High in the United States? *Medscape*, November 19, 2014. Retrieved on December 16 from http://www.medscape.com/viewarticle/835182

Orlowski, J.P. and Wateska, L.1992. The Effects of Pharmaceutical Firm Enticements on Physician Prescribing Patterns: There's No Such Thing as a Free Lunch. *CHEST*,102(1): 270-273.

Phillips, C.B. 2006. Medicine Goes to School: Teachers as Sickness Brokers for ADHD. *PLoS Med* 3(4): e182. doi:10.1371/journal.pmed.0030182

PLoS Medicine. *2006. Disease Mongering Collection of Articles*. Available at: http://www.ploscollections.org/article/browseIssue.action?issue=info%3Adoi%2F10.1371%2Fissue.pcol.v07.i02

Praditlitthikorn, N. et al.. 2011. *Economic Evaluation of Policy Options for Prevention and Control of Cervical Cancer in Thailand*. Pharmacoeconomics 29(9): 781-806.

Quick, J.,Hogerzeil, H., Rägo, L. R., and de Joncheere, K. 2003. Ensuring Ethical Drug Promotion-Whose Responsibility. *The Lancet*, 362: 747.

Rivas, A. 2014. Generic Drugs Are Getting More Expensive; Keeping Prices Down Isn't A Matter of New Regulations. *Medical Daily* Nov 23, 2014. Retrieved on December 16, 2014 from http://www.medicaldaily.com/generic-drugs-are-getting-more-expensive-keeping-prices-down-isnt-matter-new-311904

Rosenblatt, M. 2014. The Real Cost of "High Priced" Drugs. *Harvard Business Review*, November 17, 2014. Retrieved on December 16, 2014 from https://hbr.org/2014/11/the-real-cost-of-high-priced-drugs

The American Psychiatric Association. 1994. *Diagnostic and Statistical Manual of Mental Disorders*. Washington, DC: The American Psychiatric Association.

Tiefer, L. 2006. Female Sexual Dysfunction: A Case Study of Disease Mongering and Activist Resistance. *PLoS Med* 3(4): 3(4): e178. doi: 10.1371/journal.pmed.0030178.

Torrey, T. n.d.. *Lifestyle Drug - The Definition of a Lifestyle Drug*. Retrieved on December 16 from http://patients.about.com/od/glossary/g/Lifestyle-Drug-The-Definition-Of-A-Lifestyle-Drug.htm

Wazana, A. 2000. Physician and Pharmaceutical Industry: Is a Gift Just a Gift?. *Journal of American Medical Association*, 282(3): 373-380.

Woloshin S., Schwartz L.M. 2006. Giving Legs to Restless Legs: A Case Study of How the Media Helps Make People Sick. *PLoS Med* 3(4): e170. doi:10.1371/journal.pmed.0030170.

World Health Organization. 1992. *International Classification of Mental and Behavioural Disorders*. Geneva: WHO.

Yothasamut, Jomkwan et al. Scaling up Cervical Cancer Screening In The Midst Of Human Papillomavirus Vaccination Advocacy in Thailand. *BMC Health Service Research* 10 (suppl 1): S5.

Personal communication

Prasert Palitponganpim, Dr. Chiangrai Prachanukroh Hospital. Interview, 9 October 2014.

Yot Teerawattananon, Dr. Health Intervention and Technology Assessment Program (HITAP). Interview, 29 September 2014.

Vichai Chokevivat, Dr. Institute for the Development of Human Research Protections. Interview, 20 September 2014.

The Process of Producing the Thai Health Report 2015

Health Indicators

- **The process**
- Select interesting and important issues to be included in the health indicators through a series of meetings of the Steering Committee
- Identify experts to be contacted, then hold meetings to plan each section
- Assign an expert to each approved section to prepare a draft
- Brianstorm the draft papers, considering suitability, content, coverage, data quality, and possible overlaps
- Meetings with experts responsible for each section, to review the draft papers and outline key message for each section
- Broad review of the draft papers by experts, followed by revisions of the papers

Guidelines for health indicator contents

- Find a key message for each section to shape its contents
- Find relevant statistics, particularly annual statistics and recent surveys to reflect recent developments
- Select a format, contents and language suitable for diverse readers

The 10 Health Issues, and Four Outstanding Accomplishment for Health

Criteria for selecting the health issues

- Occurred in 2014
- Have a significant impact on health, safety, and security, broadly defined
- Include public policies with effects on health during 2014
- Are new or emerging
- Recurred during the year

Four Outstanding Achievements are success stories in innovation, advances in health technologies, and new findings that positively affected health in general.

The special Issue

There are two types of special topics: target group oriented and issue oriented. The types alternate each year. The topic is sometimes selected from the 10 health issues.

Important criteria in selecting the special topic include:

- Political significance
- Public benefits
- The existence of diverse views and dimensions

Working process

1. The Steering Committee met to select the topic
2. The working group outlined a conceptual framework for the report
3. Experts were contacted to act as academic advisors
4. The working group compiled and synthesized the contents. The contents were thoroughly checked for accuracy by academics and experts.
5. The report was revised in line with reviewers' suggestions.

Names of Steering committee 2015

1. Dr.Amphon Jindawattana	National Health Commission Office of Thailand	Committee Chair
2. Dr.Choochai Supawong	National Health Foundation	Committee
3. Pibhop Thongchai	Foundation for Children	Committee
4. Dr.Pinij Faramnuayphol	National Health information System Developing Office	Committee
5. Dr.Pongpisut Jongudomsuk	National Health Security Office	Committee
6. Parichart Siwaraksa	Freelance Academician	Committee
7. Assistant Professor Ruj Komonbut, Ph.D.	Faculty of Journalism and Mass Communication, Thammasart University	Committee
8. Surin Kitnitchi	Klongkanomjeen Community, Sena District, Ayutthaya Province	Committee
9. Suriyon Thankitchanukit	Office of the National Economic and Social Development Board	Committee
10. Dr.Vichai Chokevivat	Institute for the Development of Human Resource Protections	Committee
11. Associate Professor Vithaya Kulsomboon, Ph.D.	Health Consumer Protection Program	Committee
12. Walaiporn Patcharanarumol, Ph.D.	International Health Policy Programme	Committee
13. Worawan Chandoevwit, Ph.D	Thailand Development Research Institute	Committee
14. Dr.Yot Teerawattananon, Ph.D.	Health Intervention and Technology Assessment Program	Committee
15. Yuwadee Kardkarnklai	Future Urban Development	Committee
16. Director of Health System Development Section	Thai Health Foundation Promotion	Committee
17. Director Statistical Forecasting Bureau	National Statistical Office	Committee

Names of Experts

Dr.Suwit Wibulpolprasert

Dr.Vichai Chokevivat

Parichart Siwaraksa

Reviewers for Health frauds: When Health is Commoditized, Drugs Become Profit-Making Tools.

Dr.Amphon Jindawattana

Interview for Health frauds: When Health is Commoditized, Drugs Become Profit-Making Tools

Dr.Pasert Palitponganpim

Dr.Vichai Chokevivat

Dr.Yot Teerawattananon, Ph.D.

The Writers 10 Health Issues Team

Parun Rutjanathamrong

Piyawat Ketwongsa,Ph.D.

Dr.Rapeepong Suphanchaimat

Assistant Professor Suchada Taweesit, Ph.D.

Thanut Anuruksa

Wuttichai jungpairoj

The Thai Health Report Team

Main Editor

Associate Professor Churnrurtai Kanchanachitra, Ph.D.

Editor "Health frauds: When health is commoditized, drugs become profit-making tools."

Associate Professor Chai Podhisita, Ph.D.

Assistant Professor Kanchana Tangchontip, Ph.D.

Pattraporn Chuenglertsiri

Editor "10 Outstanding Situations in the Year 2015". and "Four Outstanding Accomplishments for Health"

Sakkarin Niyomsilpa, Ph.D.

Kanchana Thianlai

Editor "11 Indicators "Asean Health"

Assistant Professor Chalermpol Chamchan , Ph.D.

Assistant Professor Manasigan Kanchanachitra, Ph.D.

Suporn Jaratsit

Acknowledgement

This edition of Thai Health would not have been possible without the support of the Steering Committee which provided guidance on framework as well as nominated outstanding issues to be included in this report. Special acknowledgement goes to Dr.Suwit Wibulpolprasert, Dr.Wichai Chokewiwat,and Khun Parichart Siwarak for thoroughly reviewing the manuscript and making suggestions for revision and to Dr.Ampol Chindawatana for reviewing the feature story “Health Frauds”.

Thai Health working group also would like to express our gratitude to Dr. Yot Teerawattananon, Dr. Wichai Chokewiwat, and Dr. Prasert Palitponkarnpim for kindly giving interviews and providing information for the feature story “Health Frauds” for this edition of Thai Health.

Last but not least, we would like to thank our readers for their continuous support of Thai Health which inspires and encourages us to keep improving this publication over the years.