

Thai Health 2019



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

ONLINE SOCIAL MEDIA A DOUBLE EDGED SWORD

THAI HEALTH IN THE CONTEXT OF
A SOCIALLY-CONNECTED WORD

- 12 | INDICATORS OF HEALTH OF VULNERABLE POPULATIONS
- 10 | OUTSTANDING SITUATIONS
- 4 | OUTSTANDING ACCOMPLISHMENTS FOR HEALTH

Cataloging in Publication Data

Thai Health 2019: Online Social Media – A Double Edged Sword Thai health in the context of a socially-connected world:

Institute for Population and Social Research, Mahidol University, 2019.

978-616-443-289-5

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

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**ONLINE
SOCIAL MEDIA
A DOUBLE EDGED
SWORD**

THAI HEALTH IN THE CONTEXT
OF A SOCIALLY-CONNECTED WORD



Preface

There are members of any population that find themselves in vulnerable circumstances, either due to legal status, socio-economic challenges, sex and sexuality, health condition, disability, or simply old age. In some cultures, mainstream society does not want to see the disadvantaged populations, and marginalizes them through discrimination, stigma, exploitation, or denial of opportunity. Thus, providing coverage of the entire population, including health insurance, education, and access to public services is an important power to help strengthen and reduce vulnerability in society.

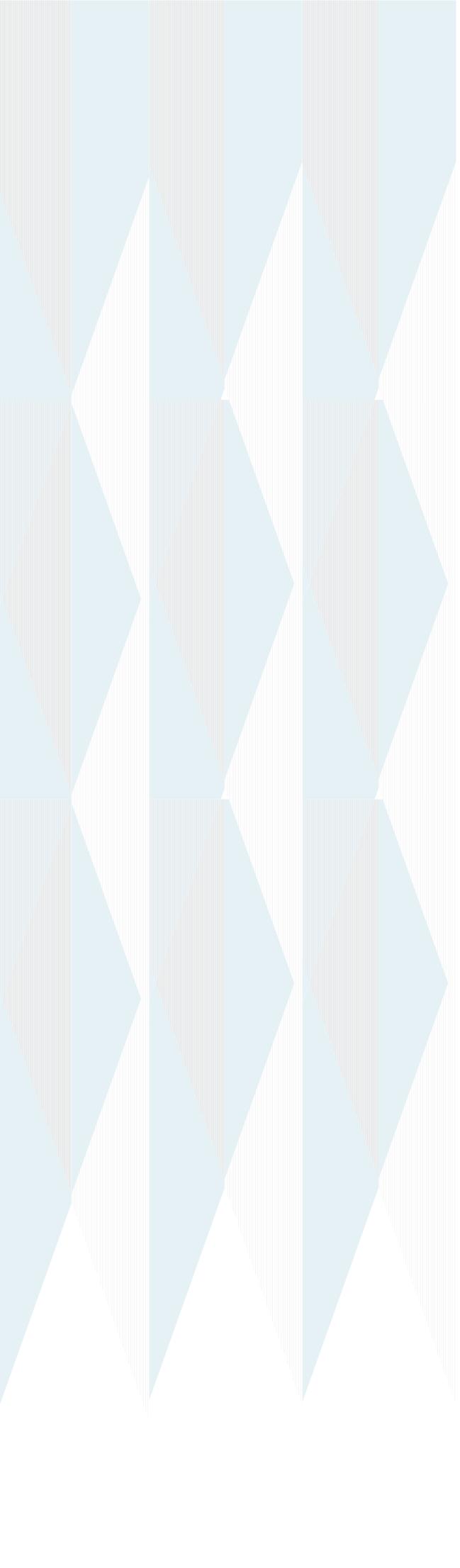
This annual volume on the Health of the Thai Population presents the status of country in terms of 12 indicators of health for vulnerable populations. The first two indicators are related to persons who have migrated to Thailand for work and find themselves in vulnerable situations; and Thais who have migrated to other countries for work or opportunity. Indicators 3-6 are related to persons who are in difficult circumstances due to social problems, sex/sexuality, or economic distress. Indicators 7-9 relate to segments of the population whose vulnerability is due to a health problem or disability. Finally, Indicators 10-12 concern people whose vulnerability and risk to well-being can be attributed to a certain stage in life.



This year's report on the Thai health situation presents the top stories in 2018 so that society can learn and analyze the phenomena that we are experiencing together. The report highlights the following issues: 1) The prolonged effort to ban paraquat in Thailand: The Toxic Substances Board Won't Act; 2) The resurgence of tuberculosis; 3) Misappropriation of the poverty relief fund - making merit for sin; 4) Imported electronic waste: The danger from abroad; 5) Approving healthy use of marijuana - the first step toward a medical advance; 6) Rabies outbreaks and the obstacles to vaccination coverage; 7) The "Magic Skin" network – Is it finally time to get serious about consumer protection?; 8) 17 days to save the Wild Boars Academy soccer club; 9) The tragic boat accident in Phuket: Thai tourism lessons; and 10) The return of measles in Thailand.

This volume also features a notable issue that has implications for Thai Health: Online Social Media – A Double Edged Sword; Thai health in the context of a socially-connected world. This special report reviews how online social media has become ubiquitous, but it is also dividing the global population into the connected and non-connected. That chapter invites the reader to reflect on the social media innovations, and how they came about, how big or small a role they play in social life, which are the most popular platforms, and why others vanished. After digesting that information, the reader is invited to rejoin the 21st century and envision how the growing global population can be connected in health-promoting ways. Thailand is one country that is evolving rapidly in how it uses social media and on-line forums and applications. What does this mean for the near future? How are social media and individual or societal health interconnected? The reader is encouraged to find the answer in this special report and help explore ways to steer use of online social media toward meaningful outcomes in order to enhance individual and population health in Thailand.

Thai Health 2019 Report Task Force
March, 2019



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Citation:

Thai Health Project. 2019. Title of article. In Thai Health 2019. (page number).

Nakorn Pathom: Institute for Population and Social Research, Mahidol University

Citation example:

Thai Health Project. 2019. Cross-border Populations in Thailand . In Thai Health 2019. (pp. 10-11).

Nakorn Pathom: Institute for Population and Social Research, Mahidol University



**HEALTH OF
VULNERABLE
POPULATIONS**

12

INDICATORS

12 Indicators

Health of Vulnerable Populations

A person's status, whether legal, socio-economic, sex/sexuality, health, disability, or even the age can either be a cause or an effect of vulnerability which, in turn, can lead to discrimination, stigma, prejudice, exploitation, or even abuse. All these issues impact on rights and access to social services, security and protections. These protections extend to the workplace, income security, equal participation in society and politics, and access to health, education, and other assistance provided by the government. Without these safety nets, segments of the population can easily become vulnerable. That can lead to the adverse consequences that are discussed in this annual report. The 12 indicators which are featured this year include cross-border migrants who live and work in Thailand, as well as Thais who go abroad for work and opportunity. Indicators 3-6 are related to persons who are in difficult circumstances due to social problems, sex/sexuality, or economic distress. This report also focuses on the incarcerated population, sex workers, persons who use addictive drugs, the sexually diverse, and individuals or families which are poverty-stricken. Indicators 7-9 relate to segments of the population whose vulnerability is due to a health problem or disability. This report highlights the disabled, persons living with HIV (PLHIV), tuberculosis (TB) cases, and the mentally ill. Finally, Indicators 10-12 relate to persons whose vulnerability and risk to well-being can be attributed to being in a certain stage of life. This report focuses on vulnerable children, adolescents, and the elderly.

Estimated in 2018, there were five million non-Thai migrant workers and their accompanying dependents, stateless persons, and refugees living in Thailand. By definition, these groups are already vulnerable to a variety of difficult circumstances. Many are not included in the state civil registration system, and that fact deprives them from access to essential public services. Others do not yet have legal work permits, and that limits employment options, as well as access to the universal health care coverage.

Additionally, it was estimated that one million Thais were living outside the country in 2018. Of these, about 15% were working as laborers. Each year, some 10,000 – 15,000 of these overseas Thais find themselves in difficult circumstances requiring assistance from the local Thai embassy. It is unknown how many others are also in need of assistance but cannot access it.

Stigma and discrimination can be classified by the status of an individual with respect to standards or norms of the host society. Universally marginalized populations are those in prisons, sex workers, and drug addicts. In many societies, LGBT people are also stigmatized in one way or another. These vulnerable groups invariably are at a disadvantage in accessing essential health care, education and rehabilitation. Marginalization often extends beyond individuals to family members and close acquaintances.



Possibly, this contributes to self-stigma in the vulnerable groups, and that makes it harder to address and rectify.

Poverty, income disparity, and onerous debt is a form of economic vulnerability that continues to affect many Thais and households. Even though the number of Thais who are below the national poverty line has declined steadily (to about 5.3 million persons in 2018), however the number of Thais who need financial assistance and social welfare is still large. At the family level, the number of Thai households at risk of vulnerability shows signs of increasing, in part due to changes in the structure of the family. This can have an adverse impact on family member relationships and even lead to domestic violence, especially affecting women and children.



In 2018, approximately two million Thais had registered as having a physical disability and, in theory, that gave them access to subsidized medical care and health benefits. Thailand is expanding its assistance programs for the disabled, but that does not necessarily address the underlying causes of poverty due to lack of employment or underemployment of these individuals.

PLHIV and TB cases are vulnerable due to their precarious health status and exposure to discrimination and prejudice, or lack of compassion and understanding by mainstream society. As of 2018, it was estimated that there remained 400,000 PLHIV in Thailand, with approximately 5,000 persons becoming newly infected each year. While that is a decline in incidence, it still shows that more actions are required for HIV prevention. Despite decades of programs, TB continues to be endemic, in part because of the emergence of multi-drug resistant strains of the bacteria. Another group with health vulnerability are the persons with mental health issues that are making it difficult for them to live quality and productive lives. Thai society still stigmatizes mental illness, and there are limited places for therapy that are community-accessible. Thus, many of those suffering from mental illnesses may not even have the opportunity to be correctly diagnosed, not to mention the treatment.

Children, adolescents and the elderly have age-specific vulnerabilities that are part of the natural life cycle. In some

cases, these individuals become unnecessarily dependent on others for care and protection. Some children have birth defects or live in low-income households which cannot provide proper child-rearing. Those disadvantages in the formative years can lead to vulnerabilities when these children transition into adolescence. Some youth act out or adopt delinquent behaviors as a response to uncaring family life. They tend to gravitate to other disgruntled youth like them, and that can reinforce risk behavior such as drug use and unsafe sex. Some of that behavior can have adverse life-long consequences, such as unplanned pregnancy which is a problem of increasing prevalence in Thailand. Other associated vulnerabilities for youth are risk of sexually-transmitted infections (STIs), traffic accidents, gambling, late-night partying, and abuse of online social media or Internet-based games and applications. In the coming years, one in five Thais will be elderly. Without proper care and monitoring, an increasing number of elderly are vulnerable to preventable health problems and conditions. Of particular concern are the elderly who live alone, or live with an elderly spouse with no other younger household members present. Many of these elderly suffer from lack of income security, and that vulnerability worsens as they age. All sectors of Thai society need to mobilize in order to accommodate the coming demographic “tsunami” of the elderly, and reduce the risk of vulnerability in this special group of the population.



1

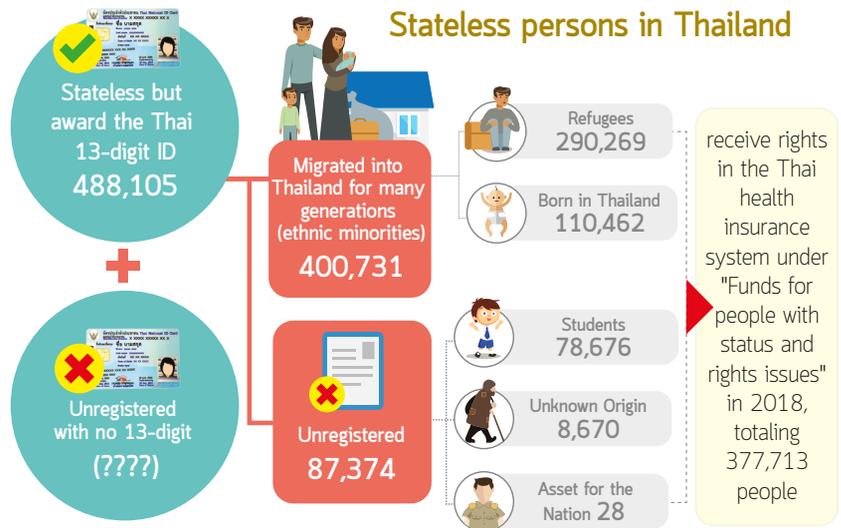
Cross-border Populations in Thailand

“ It is estimated that there were five million non-Thai migrant workers and their accompanying dependents, stateless persons, and refugees living in Thailand in 2018. ”

It is very difficult for people without a registered residence, work permit, or even nationality and travel documents to obtain steady employment in a foreign country. Thus, the un- or under-documented migrant workers in Thailand are the most vulnerable members of the labor force. Without a proper job, these migrants also lack access to employee benefits such as health insurance and workman’s compensation. Especially vulnerable are the dependents of migrant workers and, in particular, the children of refugees.

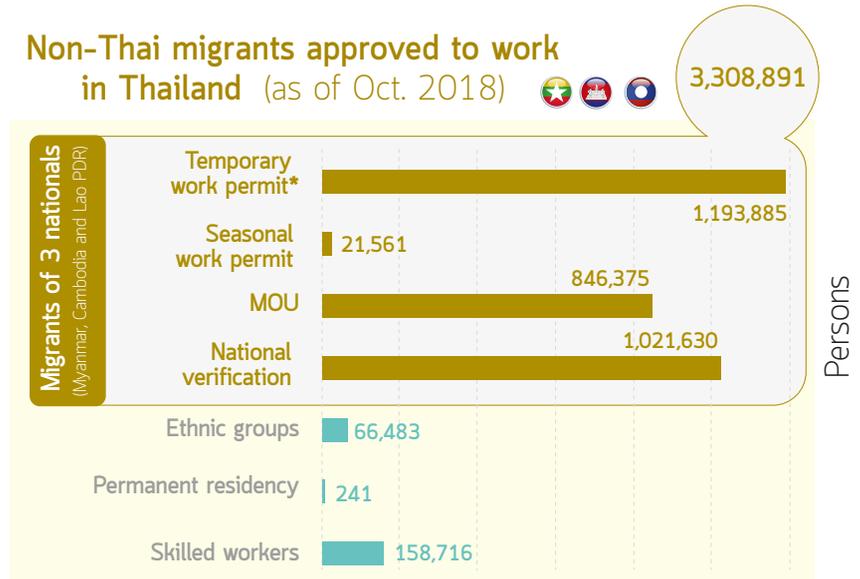
The vast majority of foreign workers in Thailand come from its lower-income neighbors: Myanmar, Cambodia and Lao PDR. In 2015, 3.3 million of these workers were registered and given temporary work permits. If the unregistered are included, it is estimated that there are 4.5 million non-Thai laborers in the country.¹ This implies that there are many accompanying dependents of migrants (mostly children) whose parents do not have proper documentation for work or residence.

A particularly vulnerable sub-group of these migrants are the stateless persons living in border regions. They live outside the mainstream of society to such an extent that they neglect to register births or residence and, thus, can never gain access to the public services they would be entitled to as citizens or legal residents. Some are caught in the middle when neither country on opposite sides of the border will accept them as their nationals. Thus, they are in a perpetual state of legal limbo and remain cut off from public health services, formal education, steady employment and the right to domicile and travel. In 2018, it was estimated that there were 500,000 stateless (i.e., undocumented) persons living in Thailand. Of these, it is presumed that two out of five are children who were actually born in Thailand.



Source: Population registration database, Central Registration Office (as of 16 February 2017) cited in “The situation and the solution to the problem of statelessness among the statelessness in Thailand by Mr. Krisada Bunraj (14 June 2017).

Non-Thai migrants approved to work in Thailand (as of Oct. 2018)

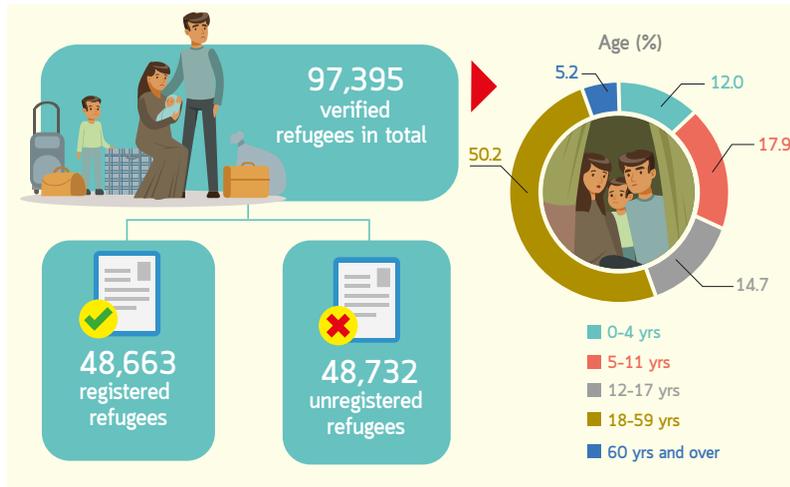


Remark: * Foreign workers’ registration groups through the One-Stop Service centers nationwide (Myanmar, Lao PDR, Cambodia and Vietnam), with a waiver for work up to 31 March 2020 / or 1 Nov 2019 or 30 September 2019 (fisheries)

Source: Statistics of the number of aliens who have been granted work permits throughout the Kingdom, October 2018 https://www.doe.go.th/prd/assets/upload/files/alien_th/98802fed607243cb1c1afe248b3d29eb.pdf

¹ Estimates of the Cross-border Population of Three Nationalities. IPSR, Mahidol University, 2015

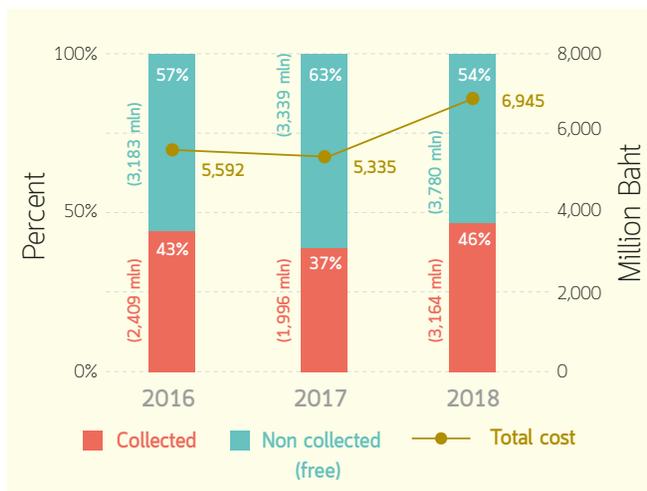
Refugees from conflict zones residing in 9 temporary shelters in Thailand



Remark: Thai government and UNHCR jointly conducted the verification exercise in 9 temporary shelters in March-April 2015 that included registered and unregistered migrants. Data were updated regularly

Source: Thailand-Myanmar Cross Border Portal Information Management Common Service (IMCS): as of October 31, 2018

Cost of health services for non-Thai migrant workers,



Source: HDC database, health information services for foreign populations, health zones 1-12 (excluding Bangkok) of the Ministry of Public Health

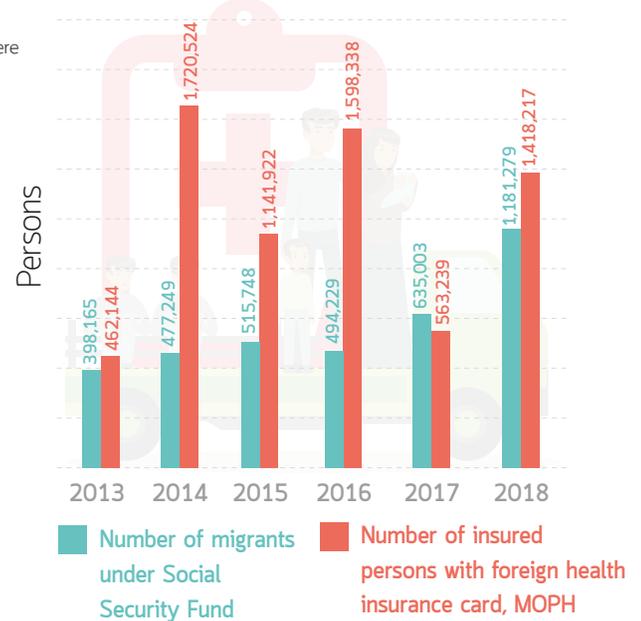
access the first two systems. The health needs of so many non-Thais threatens to strain the already over-burdened public health service system in Thailand. In 2017, at least half the cost of treating these migrants was unable to be claimed by the service outlet due to lack of health insurance coverage and inability to pay out of pocket. Further, migrants without health insurance are reluctant to seek health care out of fear of deportation or perceived unaffordability of care. What is more, those with untreated communicable disease threaten society well beyond the migrant's own home or community.

Most refugees who enter Thailand illegally to flee conflict in their homeland do receive temporary shelter and support, largely provided by international humanitarian organizations. These organizations have set up refugee camps at border sites to intercept these refugees. Currently, most of these camps are on the Thai-Myanmar border. As of 2018, it is estimated that there were 100,000 refugees in Thailand, about half of which are under the age of 18 years.

The first step to assist these children would be to register their birth so that they can acquire Thai citizenship, even if their parents cannot. That would at least provide protections and break the cycle of legal limbo to help regularize these populations.

Currently, Thailand has three systems to provide some measure of health security for cross-border migrants: The Social Security System, the Migrant Health Card System, and a special health card for migrants who can't

Number of migrants with health insurance



Remark: (1) The number of migrant workers who are insured with the Social Security Fund for the year 2018 is as of October 2018, MOPH; including the number of health insurance cards for all types of foreign workers / workers. 2016 was the first year that the health insurance card has been implemented with a validity of 2 years. That is why the number newly covered declined in 2018: Social Security Office and Ministry of Public Health

Source: Social Security Office, Ministry of Public Health

Rate of health service utilization of migrant workers with foreign health insurance cards is about **30%** the level for Thai nationals with universal coverage; and **3-4 times** more for outpatient services

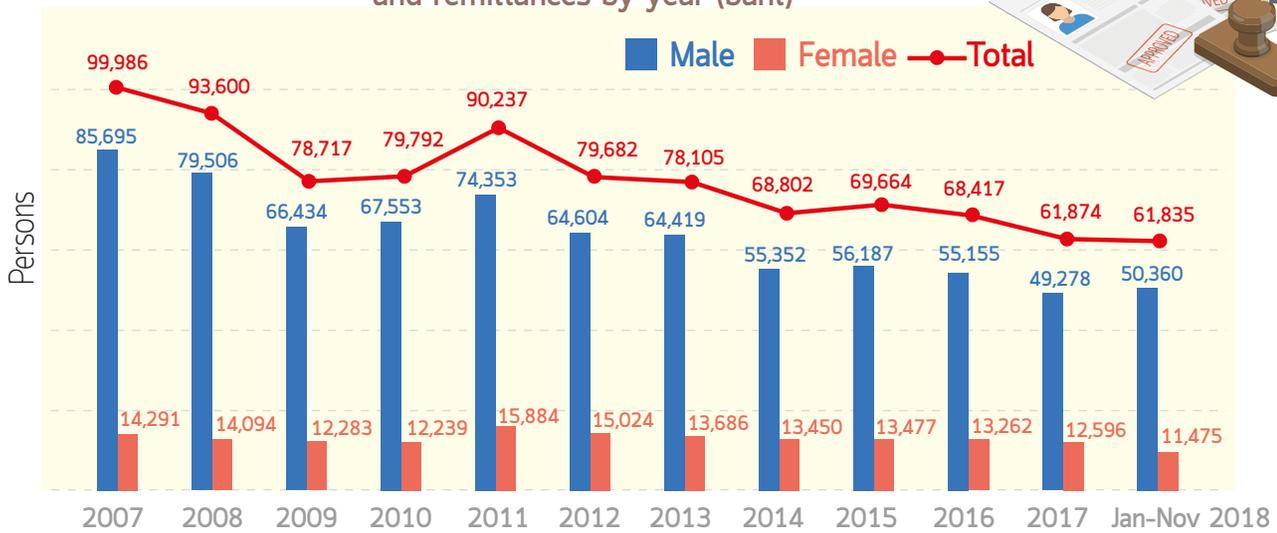
Source: Rapeepong Supanchaimart et al, 2016

2 Thais Living Abroad

“ Each year, over one million Thai are pursuing work and opportunity abroad. Of these, an estimated 10,000 - 15,000 fall into difficult circumstances and have to seek assistance from the local Thai embassy.”

Although traveling to work in a foreign country by Thais has decreased in recent years, the income from remittances is still increasing and is one of the factors that help promote national development. However, many Thais fall into difficult circumstances when abroad, and this vulnerable group should not be forgotten or abandoned.

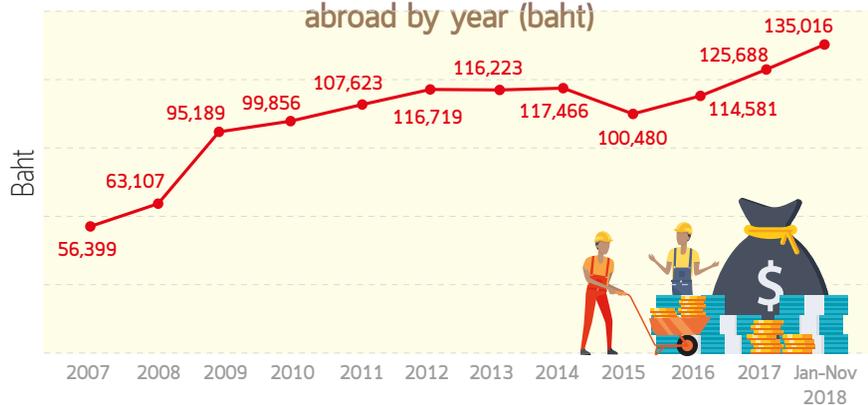
Number of Thai workers approved to work abroad and remittances by year (baht)



Remarks: Including only those newly receiving approval; does not include re-entry approvals
Source: Division of Foreign Labor Administration

The common destinations of Thai persons traveling overseas to work include Taiwan, Israel, and South Korea, respectively. In 2018, the number of Thai workers who were working in these three countries totaled 120,000 persons, representing three-fourths of Thais working abroad. The number of Thai applications for permission to travel to work in foreign countries, as reported by the Department of Employment, decreased from almost 100,000 in 2007 to only 60,000 in the past year. About 80 percent of the applications are submitted by male workers. Although the number has declined, the income sent back from overseas Thai workers continued to increase in 2018 with a value of up to 1.4 billion baht. For some sectors, the Thai migrant workers tend to have higher levels of education and skills, and that accounts for the relatively high value of remittances.

Estimate of remittances to Thailand from Thai workers abroad by year (baht)



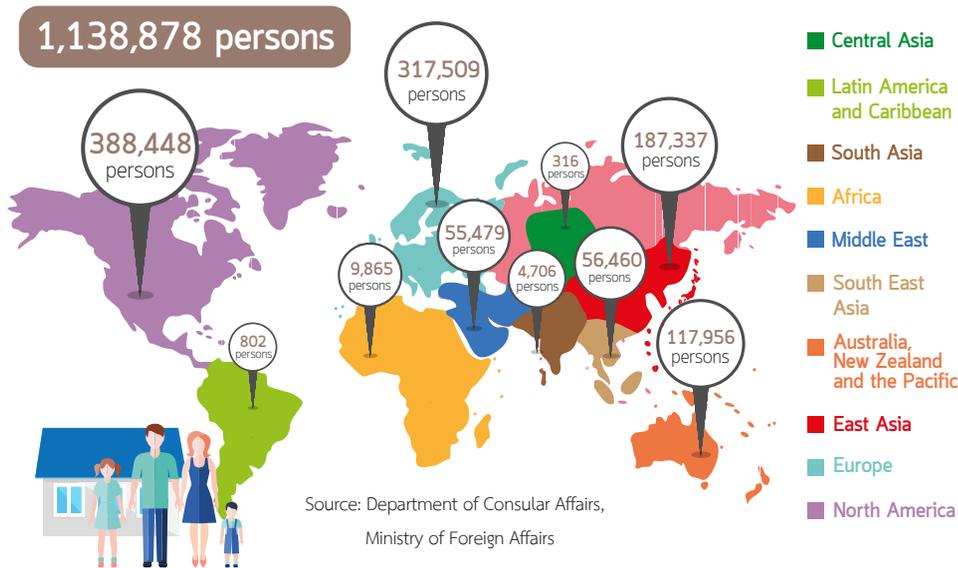
Remark: Estimated remittances only include funds remitted via Thai banks
Source: Division of Foreign Labor Administration

Although the number has declined, the income sent back from overseas Thai workers continued to increase in 2018 with a value of up to 1.4 billion baht. For some sectors, the Thai migrant workers tend to have higher levels of education and skills, and that accounts for the relatively high value of remittances.

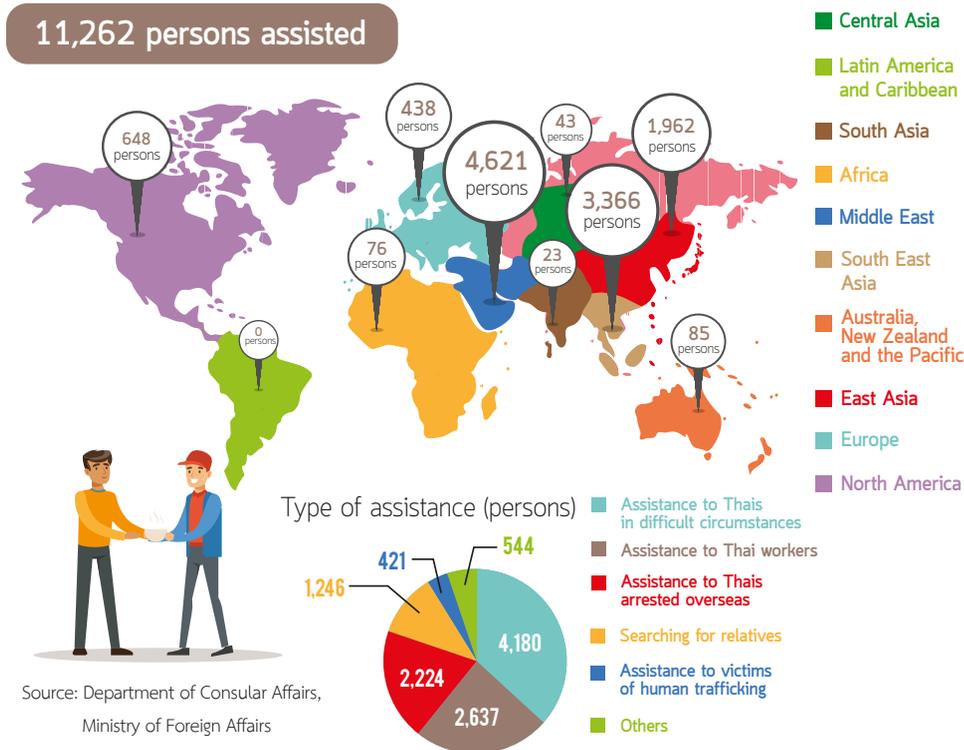


Source: Division of Foreign Labor Administration

Number of Thais living abroad in 2017 by region



Number of assistance to Thais abroad in 2017



All overseas Thais, including workers, accompanying dependents, dependents of foreigners, and those pursuing continuing education, currently total about 1.14 million persons, mostly residing in countries of North America and Europe. Data from the Department of Consular Affairs of the Ministry of Foreign Affairs indicate that, in 2017, 11,262 of these overseas Thais fell into difficult circumstances and had to seek assistance from the local Thai embassy. Some of the issues were ordinary problems such as a lost passport, property loss, or acute illness. However, some were in severe distress, especially those who entered the foreign country under false pretenses or with the incorrect visa for what they did in the country. The worst cases are those Thais who are victims of human trafficking or other forms of exploitation. These latter cases are mostly found in countries of the Middle East, followed by Southeast Asia and East Asia.

3

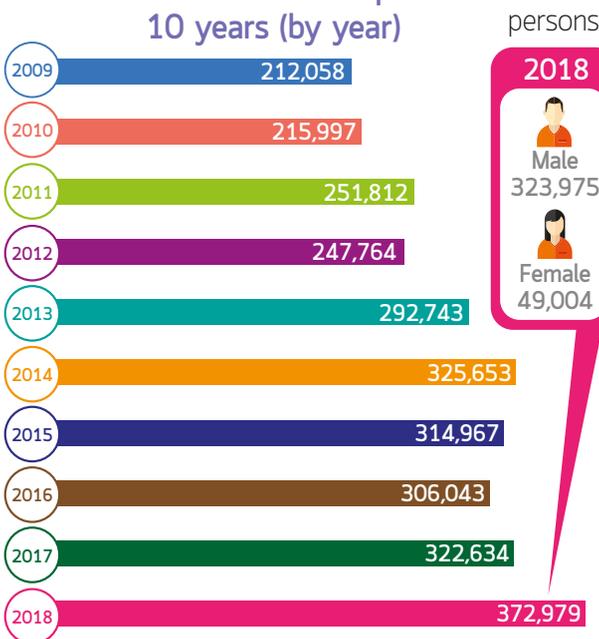
The Incarcerated, Sex Workers, and Persons Who Use Addictive Drugs

“Opening one’s heart to understand and give opportunity to co-exist peacefully in society is a way of empowering and strengthening marginalized vulnerable populations.”

Certain segments of the Thai population are marginalized due to stigma, deprivation, or involuntary social segregation. Often, this is because of behaviors by individuals which society scorns. Current or former prisoners, sex workers and drug addicts fall into this category of vulnerability.

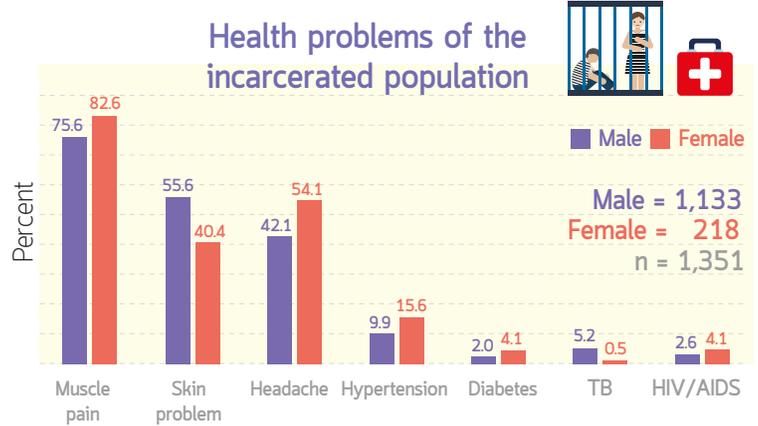
In terms of incarcerated persons per capita, Thailand is ranked in the top ten of countries in the world, ranking 3rd in Asia and 1st among ASEAN member countries. This eagerness to imprison, is creating severe overcrowding in Thai prisons, which also presents a health threat. Prisoners also have limited access to preventive and curative health services. Furthermore, over 25,000 prisoners had no 13-digit Thai identification number, and that cuts them off from access to welfare services (including health care) which Thai citizens are entitled to.

Statistics of correctional corrections nationwide for the past 10 years (by year)



Source: Statistical reports of correctional institutions throughout the country, 2018, Information Technology Center, Planning Division, Department of Corrections

Health problems of the incarcerated population



Source: Sickness in the prison: health problems and access to services, 2561, Kulapa Vanajsara

Medical treatment rights of prisoners

Type of prisoner	N	Rights
Have 13-digit #	328,074	UC, Social Security, Cabinet resolution, others
Probably Thai	10,923	Without any rights
Non-Thai	14,988	
Unspecified	452	
Total	354,437	June 30, 2018

Source: Guidelines for the development of health insurance systems for prisoners, 2018, Division of Health Economics and Health Security

10 countries in the world with the largest inmate population

USA	2,121,600
China	1,649,804
Brazil	700,489
Russia	567,789
India	419,623
Thai	372,979
Turkey	260,000
Indonesia	246,005
Iran	230,000
Mexico	204,422

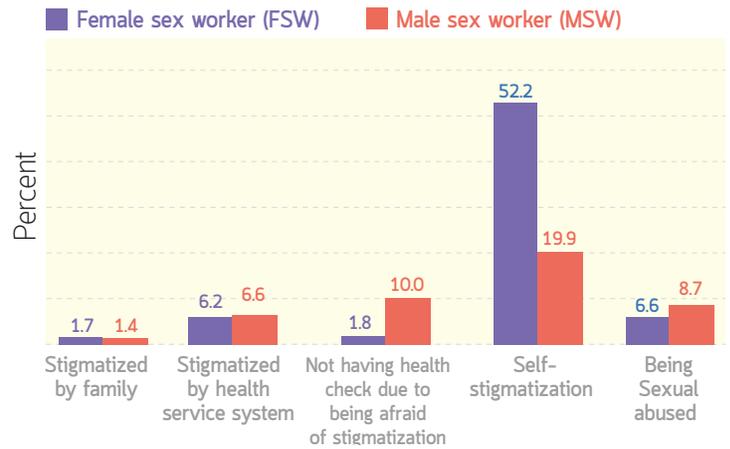
10 countries in Asia with the largest inmate population

China	1,649,804
India	419,623
Thailand	372,979
Indonesia	246,005
Iran	230,000
Philippines	188,278
Viet Nam	130,002
Myanmar	92,000
Bangladesh	88,424
Pakistan	83,718

Source: World Prison Brief; Institute for Criminal Policy Research (ICPR) 2018, University of London.

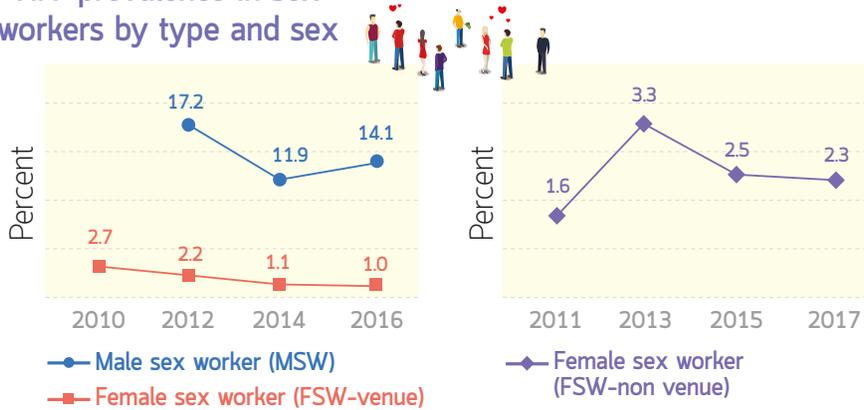
For sex workers, the situation of vulnerability to HIV/AIDS has improved due to universal access to prevention and treatment. This is especially the case for female sex workers. However, society still looks down on the profession of sex worker – indeed selling or buying sex is still a criminal offense. Thus, sex workers are socially stigmatized, and this extends to how they are received and treated in the health service system. This prejudice discourages some groups of sex workers to avoid public health outlets altogether. That can mean a worsening of their health condition or lack of prevention supplies which could increase risk of HIV. The social stigma is so ingrained that many sex workers have acquired a sense of self-stigma, actually blaming themselves for their vulnerability.

Experience of stigma and discrimination by sex worker



Source: HIV Behavioral Surveillance among High-Risk Groups, 2016, Bureau of Epidemiology

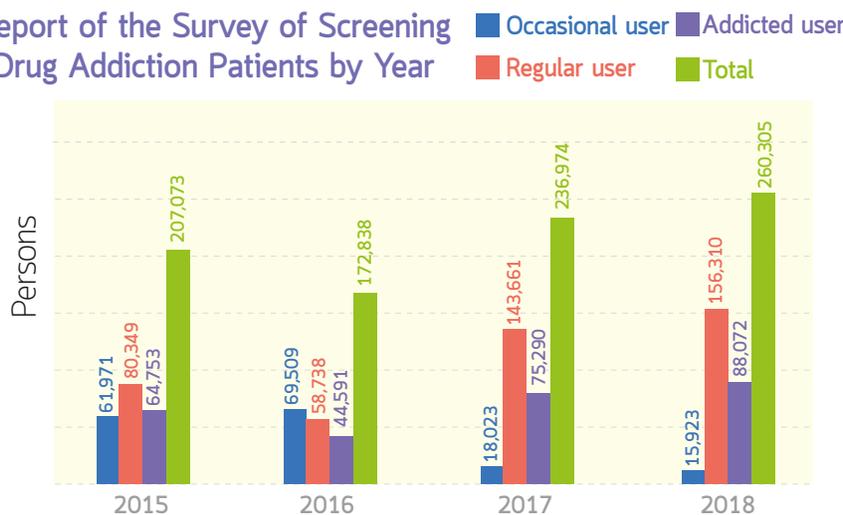
HIV prevalence in sex workers by type and sex



Source: HIV Behavioral Surveillance among High-Risk Groups, 2016, Bureau of Epidemiology

The government has been trying various strategies to address the problem of addictive drug use. The latest strategy is to treat drug addiction more as a health problem than a criminal offense. This includes harm reduction and recruiting addicts into treatment programs to cure their addiction and expanding access standard health care at any government hospital. After the drug addict has completed a course of treatment, they are followed-up and provided with occupational support to help them start a drug-free life. Those who voluntarily accept treatment in a public hospital can apply for jobs without concern about their history of drug addiction or any arrest/fine being revealed. Screening for drug use in 2018 found a decline in drug users, but the number of addicts is still unacceptably high and increasing. A promising approach is to provide closer monitoring of the addict after completion of treatment, with appropriate occupational therapy. There also has to be coaching of the family and community so that they accept the ex-addict back into the fold, and help them re-integrate into society and the work force. This requires understanding and compassion, and is the most likely way to prevent recidivism.

Report of the Survey of Screening Drug Addiction Patients by Year



Source: Report of Screening of Drug Addiction Patients, 2018, Center for Prevention and Suppression of Addictive Drug Use, MOPH

Drug addicts divided by 3 levels

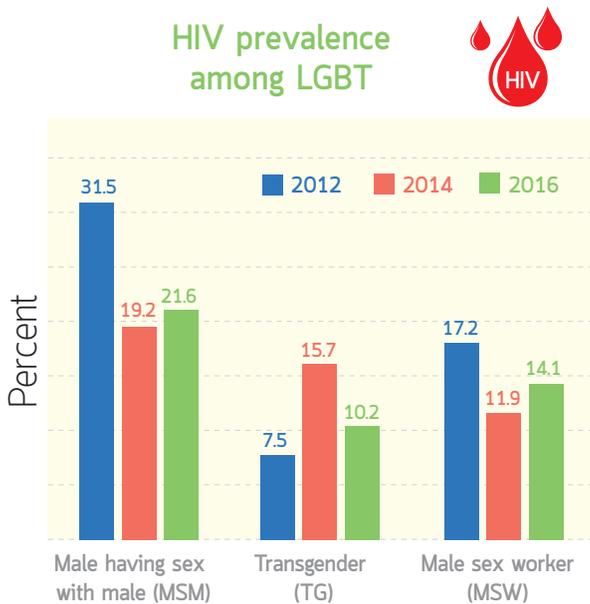
- 1) Occasional user
- 2) Regular user, psychological addiction, pleasure when using, with tendency toward heavier use
- 3) Addicted user, life revolves around drugs, often high on drugs, adversely affecting school or work life

4

Sexual Diversity

“ It is estimated that, in 2018, approximately 2% of Thai males were men who have sex with men (MSM) or transgenders (TG). ”

Stigma against certain groups in society is a key cause of vulnerability, and this is especially true of the population of Thai MSM and TG. The negative prejudice is so pervasive that many members of these groups actually blame themselves for their marginalization. This presents important obstacles to seeking needed health care and receiving services with dignity intact.

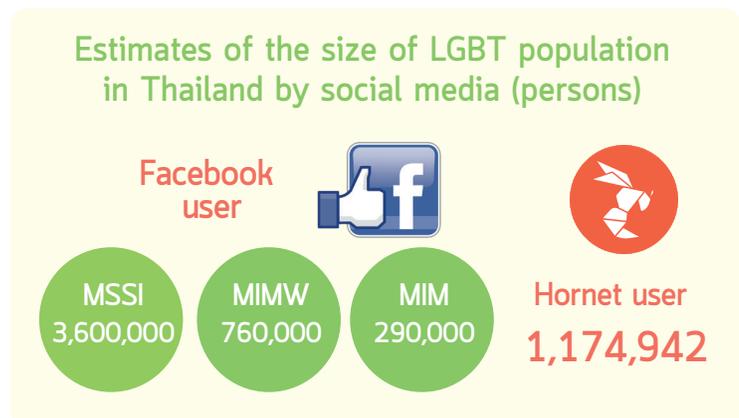


Source: National M&E System, Bureau of AIDS, TB and STIs, MOPH

Country	MSM	TG	Year
Indonesia	750,000	39,000	2016
Thailand	590,000	63,000	2016
Philippines	530,000	120,000	2015
Myanmar	250,000	-	2015
Vietnam	170,000	-	2017
Lao PDR	50,000	-	2016
Cambodia	20,000	3,000	2015

Source: UNAIDS <http://aidsinfo.unaids.org/>

Estimation of the number of LGBT is rather difficult. Part of the problem is the varying definition of terms, and methods of estimation. Baral et al (2018) used data from the Hornet application to estimate the number of MSM in Thailand at approximately 1.17 million persons, while UNAIDS estimated the number of MSM and TG to be 653,000 persons or about 2% of the Thai male population. Past studies and estimates of LGBT have focused mostly on MSM, probably due to their higher vulnerability to HIV infection than, say, lesbians.

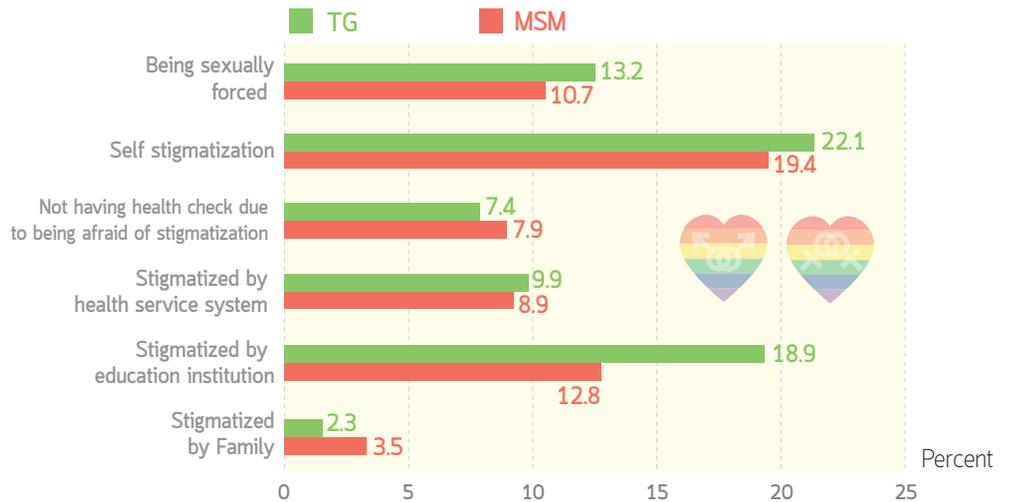


Source: Baral, S. et al. (2018)

MSSI: men (>18 years of age) with at least one reported same-sex interest
MIMW: men (>18 years of age) interested in men or men and women
MIM: men (>18 years of age) interested in men

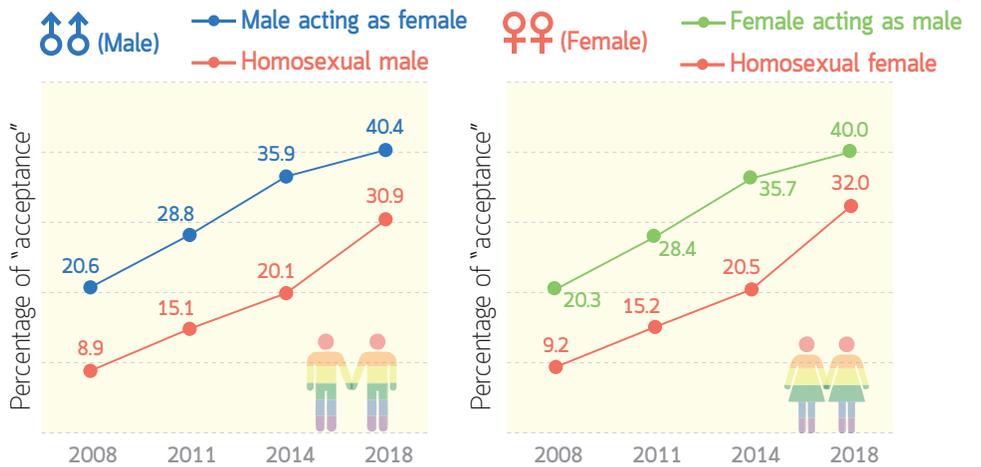
MSM and transgender women are key populations in the Thai HIV prevention response because HIV prevalence among these groups is unacceptably high. Past surveys of socio-cultural status and mental health in the Thai population indicate that there is increasing acceptance of LGBT. However, the social stigma that remains presents an obstacle to seeking needed health care for these marginalized groups. Stigma is also a barrier to accessing prevention and care services for PLHIV with LGBT lifestyles. A 2016 survey found that self-stigmatization among MSM and TG was high as about 1 in 5. There was also a significant level of discrimination against MSM and TG in the workplace or school in that year.

Situation of stigma against MSM and TG



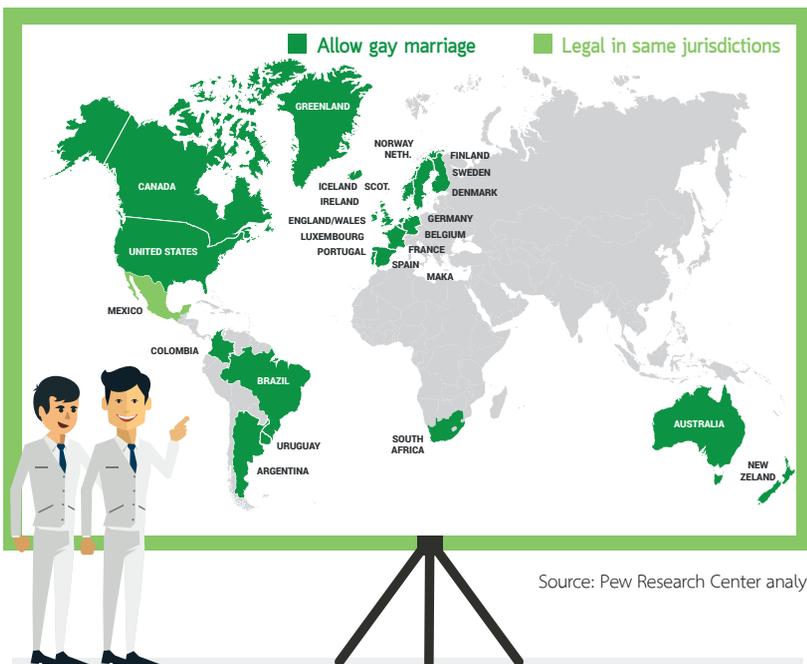
Remark: Experience of stigma in the 12 months prior to the survey
Source: Survey of the Situation of Stigma, IBBS 2016, in HIV risk groups

Acceptance of sexual expression and prefers of LGBT in Thailand



Remark: Population age 13 years or older
Source: Survey of Socio-cultural and Mental Health Status, 2008, 2011, 2014, and 2018

Countries that have legalized same-sex marriage



Source: Pew Research Center analysis. Map classifications as of Dec. 7 2017

Same-sex marriage is becoming increasingly accepted around the world, where it is even legal (mostly in countries of Europe and the US). That said, it is noteworthy that there is not a single country in Asia which has legalized same-sex marriage, including Thailand.

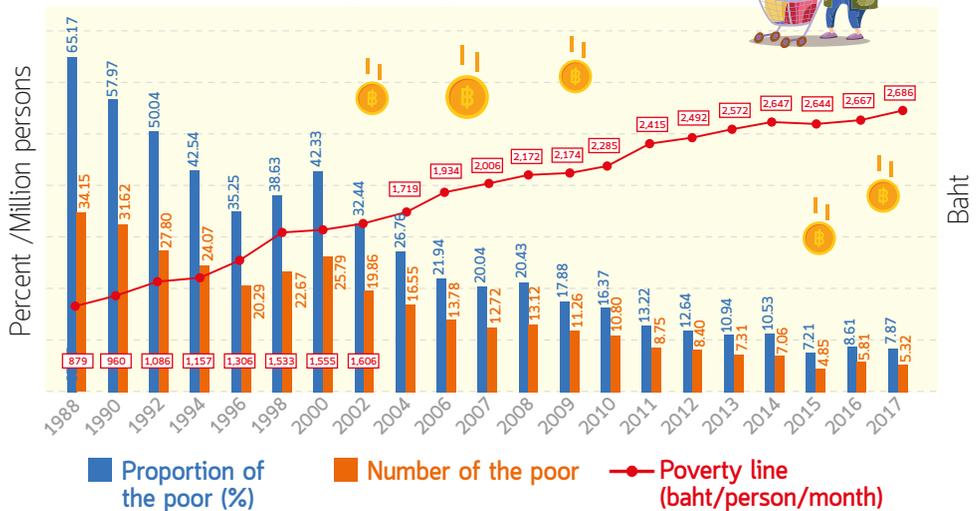
5

The Poverty-stricken and Lower-income Groups

“ Thailand has 5.3 million persons who are living below the poverty level. Approximately 11 million Thais have low enough incomes to qualify for the state welfare card for the impoverished. ”

The number and proportion of the Thai population who are poor has been decreasing over time. However income inequality has not improved at the same pace, especially in municipal areas. To correct this imbalance, there needs to be intensified investment in the education and health sectors in parts of the country which are lagging behind the mainstream.

Status of poverty in Thailand

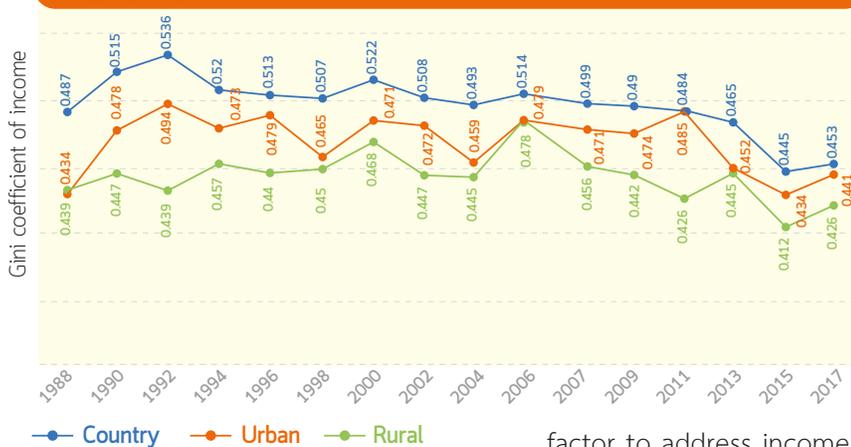


Remark: Poverty here refers to expenses for consumptions
Source: Survey of Household Socio-economic Status, NESDB

The National Economic and Social Development Board (NESDB) has reported that, for 2017, there were 5.3 million persons in Thailand (7.9%) who were below the poverty line, and that represents a continuing decline over previous years. The Gini Coefficient is a measure of income distribution in a society (where a value of 0 indicates perfectly equal distribution). In Thailand, while income inequality has declined somewhat, it is still unacceptably high. Opportunity for continuing education above the compulsory grades is an important



Income inequality in Thailand



Source: Survey of Household Socio-economic Status, NESDB

factor to address income inequality; conversely, lack of educational opportunity is an indicator of poverty status. As educational attainment declines, the risk of falling into poverty increases proportionately. One in five persons with no formal education are living below the poverty level. The National Health Security Office (NHSO) is helping to equalize opportunity for health care, regardless of income level, through the universal health insurance scheme. This is helping prevent households from financial collapse due to inability to afford health care costs. The percentage of Thai households that had a financial crisis from paying medical bills or becoming poor households after paying medical bills decreased from 5.7% and 2.0% in 2000 (before having universal health coverage) to 2.3% and 0.2 percent, respectively, in 2017.

In 2017, there were 5.3 million Thais classified as "poor" based on data from the Socio-economic Survey of Households by the National Statistical Office. By contrast, in 2017, 11 million Thais registered for the welfare card for the poverty stricken.



Percent of the population living below the poverty line for consumption (age 6 years or older) by education level, 2017

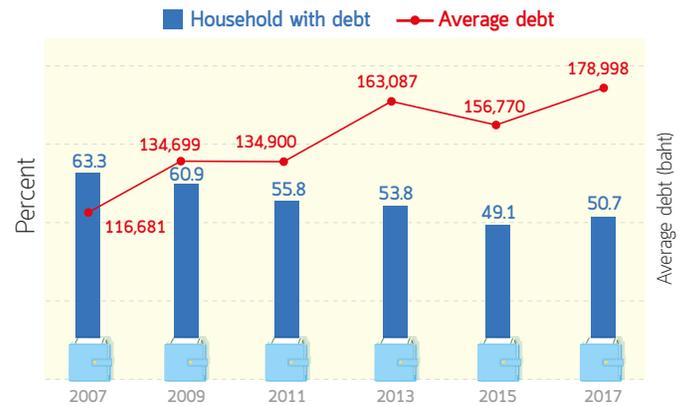


Remark: Other educational attainment consists of non-diploma courses (e.g., Pondok), or non-equivalent education (e.g., Islamic education)

Source: Survey of Household Socio-economic Status, NESDB

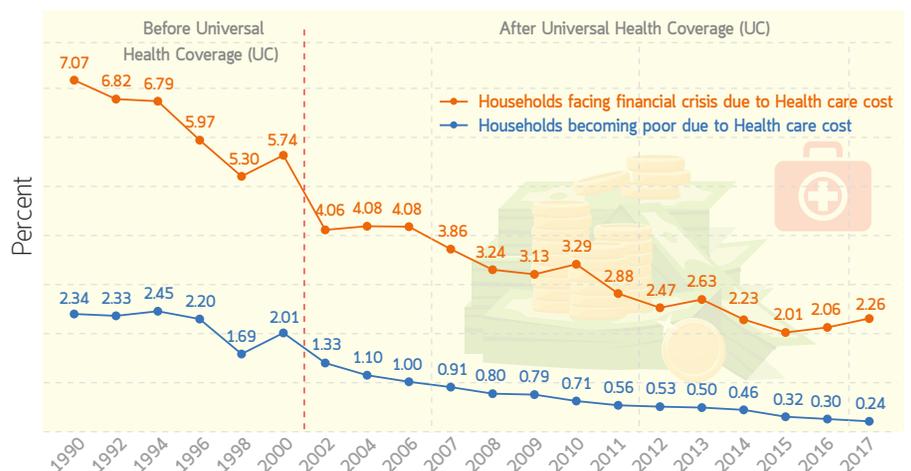
Most Thai poor work in agriculture, fisheries, forestry and wage labor. Many of these individuals lack any kind of income security. They also lack access to investment funds and loans to improve their livelihood. They do not have access to financial assistance in times of inadequate income, and that is an important factor that prevents them from becoming self-reliant and free from poverty. At present, the proportion of Thai households that are in debt has decreased. However, the average amount of debt per household has increased. The burden of household debt, especially in poor households, is something which the government needs to monitor closely. The state welfare card program to help subsidize the cost of essential goods and services for the impoverished is one strategy. However, the fact that 11 million persons in 2018 were able to obtain a card calls into question the criteria for determining whether an individual truly qualifies as “poor.” This needs closer scrutiny since the national surveys of economic status indicate that only half that number are truly impoverished.

Percentage of Thai households with debt and total debt per household, 2007-2017



Source: Survey of Household Socio-economic Status, NESDB, 2017

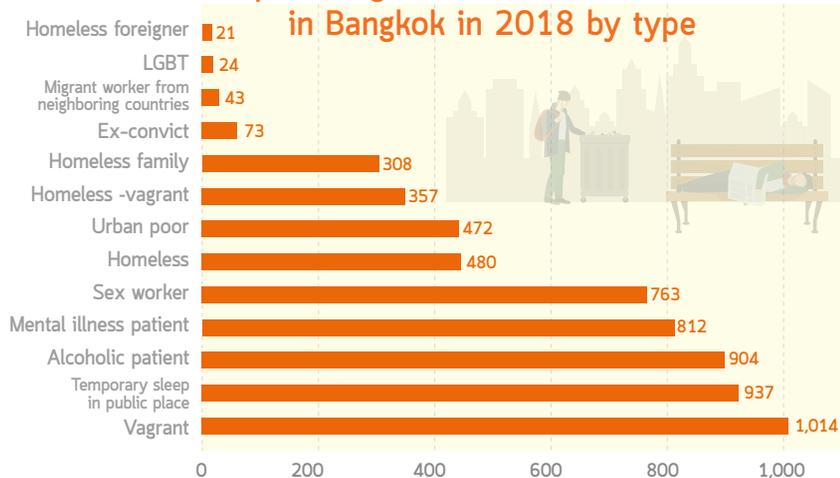
Percentage Thai households with economic vulnerability due to health care cost



Remark: Household having catastrophic health expenditure means the household that has health expense higher than 10% of total household expense. Household having health impoverishment means the household that lives beyond the poverty line, but becoming below the poverty line after health payments.

Source: Report on the Universal Healthcare System, 2018 Fiscal Year, NHSO

People living on the streets or homeless in Bangkok in 2018 by type



Remark: One person could belong to more than one category

Source: Survey by the Issarachon Foundation

Income inequality in urban areas is higher than in rural areas. The poor and homeless in the city are particularly vulnerable to various health and safety risks. This is especially true in Bangkok where the number of people who live on the streets is estimated to be 4,000 persons. Most of these are people have fallen into difficult circumstances due to economic misfortune, health problems or social discrimination.

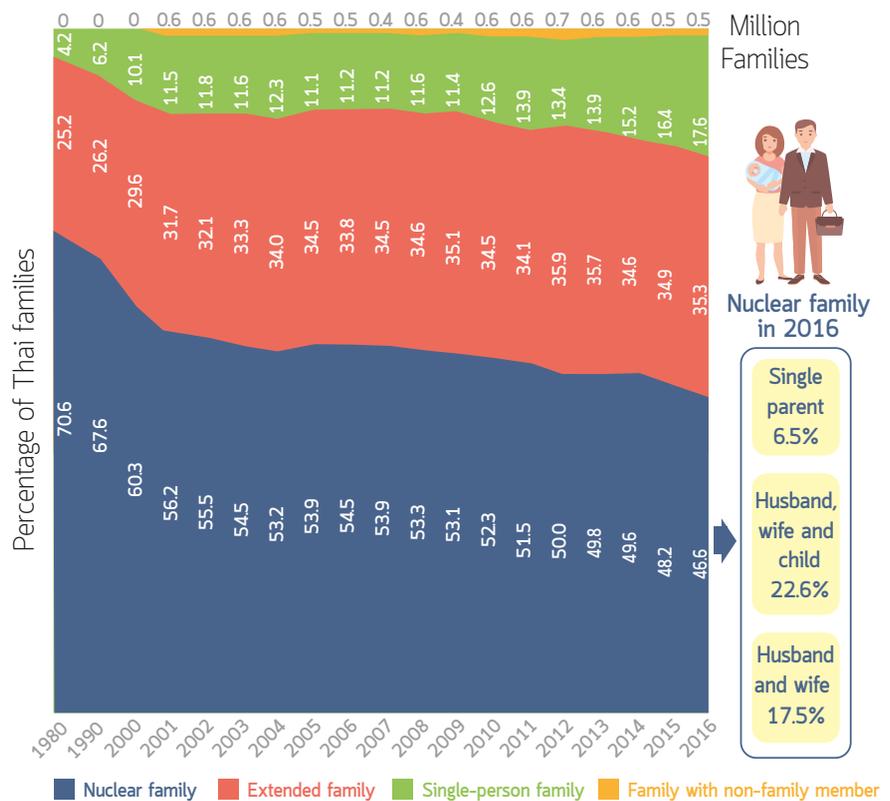
6 Vulnerable Families

“ In 2017, there were over 9,000 persons who sought assistance as victims of domestic violence. ”

The face of the Thai family has changed from that of the past, which was typically an extended-family household. At present, single-person, nuclear-family, and skipped-generation households (grandparent and grandchild only) are increasing as a proportion of Thai households. This can lead to problems in family relationships due to lack of mutual attention and quality communication, which may eventually lead to domestic violence.

Many Thai families are characterized by a vulnerability in various dimensions. Single-person households have increased continuously and accounted for 3.8 million families in 2016, or 17.6% of all Thai families. Nuclear families, namely those in which parents live only with a child or children under the age of 18, accounted for about 1.4 million households. Skipped-generation households are an increasing phenomenon as well. These occur when the working-age children leave the family home to find work and leave their child or children in the care of their parents (i.e., the child’s grandparents). It is estimated that approximately 400,000 skipped-generation families, nearly half of national total, are in the northeast region.¹

Structure of the Thai family: 1980-2016

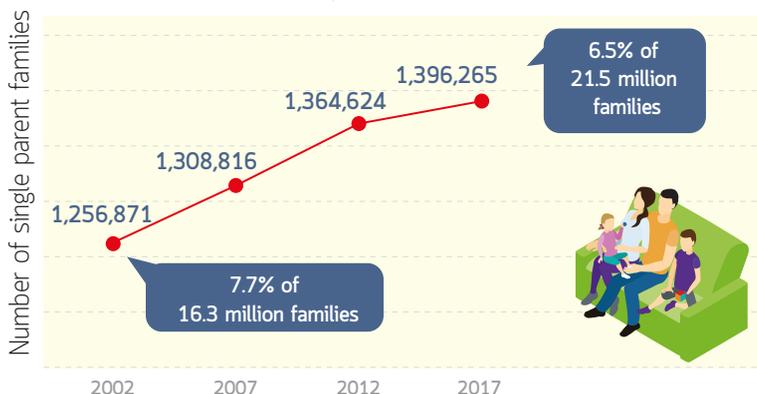


Million Families

Nuclear family in 2016

- Single parent: 6.5%
- Husband, wife and child: 22.6%
- Husband and wife: 17.5%

Number and percentage of nuclear families in Thailand



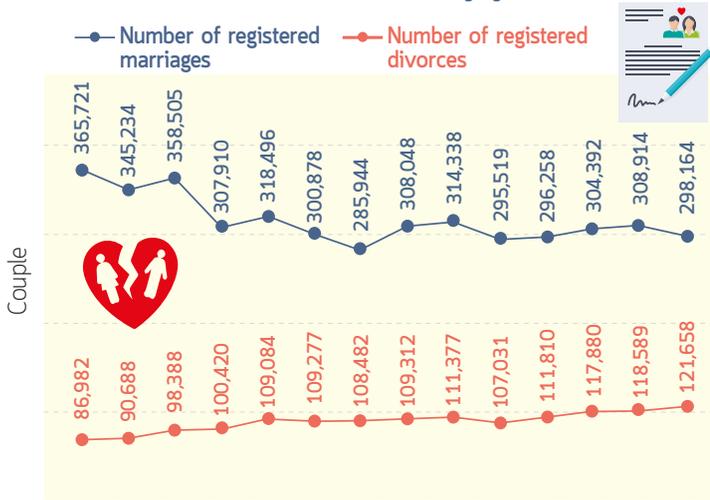
Remark: Families in which children under age 18 years live with their parent(s) alone
Source: Database on Social and Quality of Life, NESDB

Another indicator of changing household composition is the increase in number of registered divorces, which reached 121,658 in 2017. That has occurred as the number of registered marriages declined to below 300,000 in that year.² The strength of the Thai family should be an issue of urgent priority, along with continuing to monitor and address the problem of domestic violence, which is especially important for children and women.

¹ UNFPA (2015) Thai population situation report for 2015: The face of the Thai family in an era of few births and high longevity

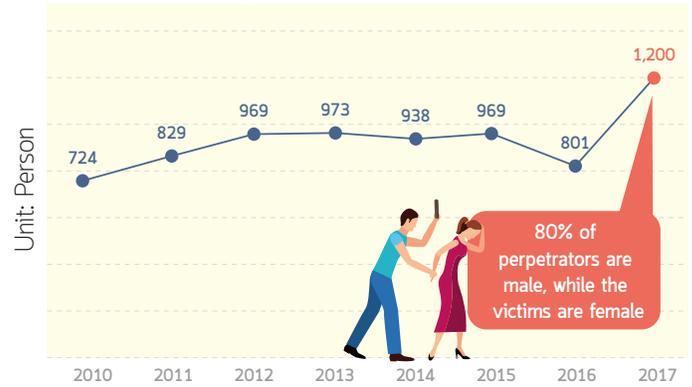
² Department of Women’s Affairs and the Family Institution (2018). Report on the strength of the Thai family in 2017

Number of registered marriages and divorces in Thailand by year



Source: Department of Provincial Administration, Ministry of Interior

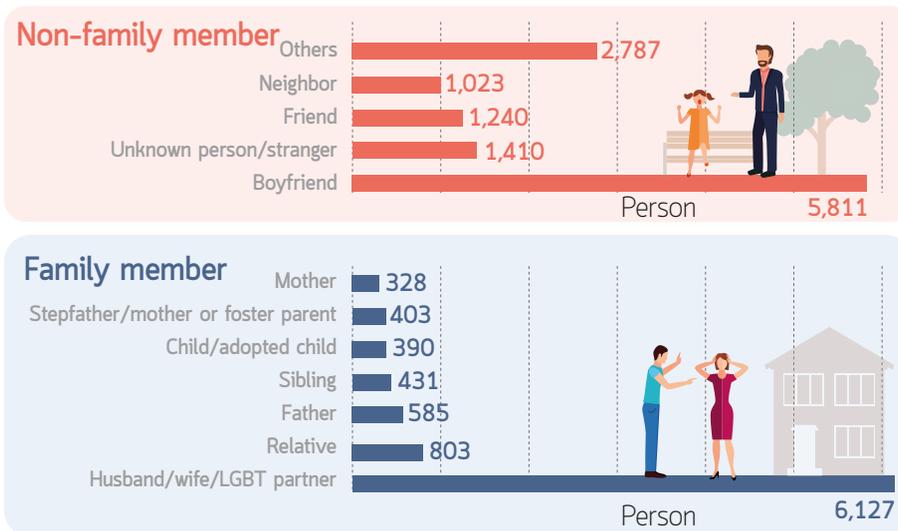
Number of cases of domestic violence during Fiscal Year 2010-17



Remark: Collected by www.violence.in.th

Source: Services statistics of crisis centers in Fiscal Year 2017, by type

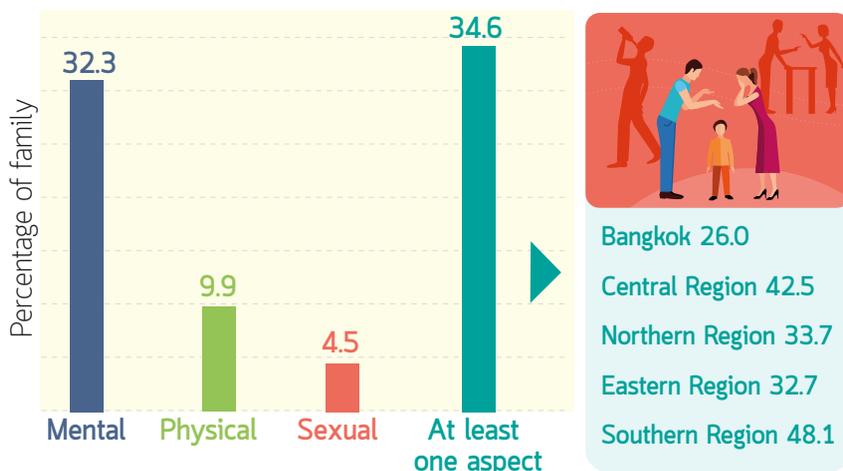
Number of victims of violence



Remark: Total victims = 21,218, or 58 cases/day (93.8% are female) where one act of violence might be perpetrated by more than one person

Source: 2017 Report on the Situation of Domestic Violence, as per Article 17 of the Domestic Violence Victims Act or 2007, MSDHS

Prevalence of violence against women and family members



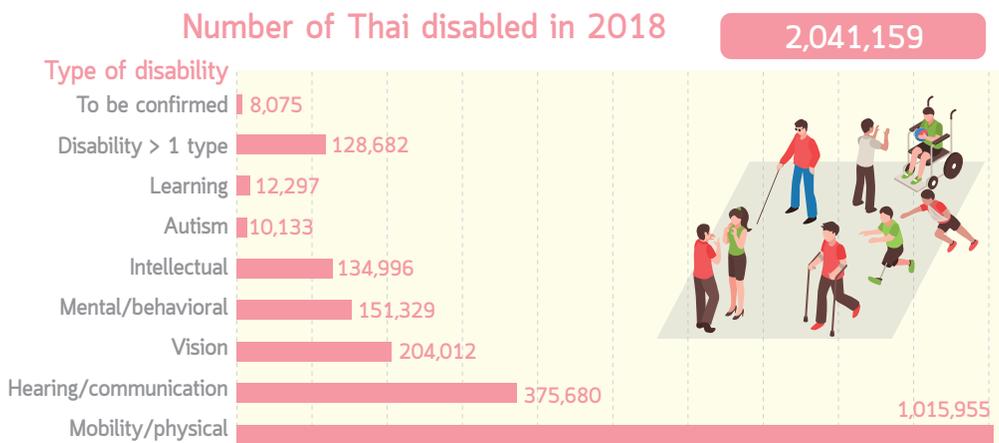
Source: 2017 Report on the Situation of Domestic Violence, Center of Domestic Violence Prevention in Rural Area

National surveys have found violence against women and other members of the family has a prevalence of up to 34.6 percent, although many cases are psycho-emotional abuse. Indeed, the prevalence of physical and sexual violence was as high as 10% and 5%, respectively, in 2017. There are also data on for child and women victims of domestic violence who have sought assistance. There was a total of 21,218 women and children cases at crisis centers, and, 2 in 5 cases, the violence was perpetrated by another family member. Most of the domestic violence is perpetrated by the male spouse/parent. Data from the domestic violence situation database (www.violence.in.th) indicates that up to 80 percent of domestic violence incidents are perpetrated by a man, while the victim is usually a female. The cause is often male sexual jealousy, infidelity, irrational anger and intoxication from drugs or alcohol.

7 The Disabled

“ There are approximately two million persons who have registered as disabled. Of these, 1.6 million are receiving monthly disability assistance in the form of a cash subsidy.”

Disability, by definition, usually makes a person more vulnerable to adverse impacts on health, income, and social life. Thailand has a policy and programs to support quality of life for the disabled. In theory, disabled Thais can access all their rights, but in practice not all actually exercise those rights.

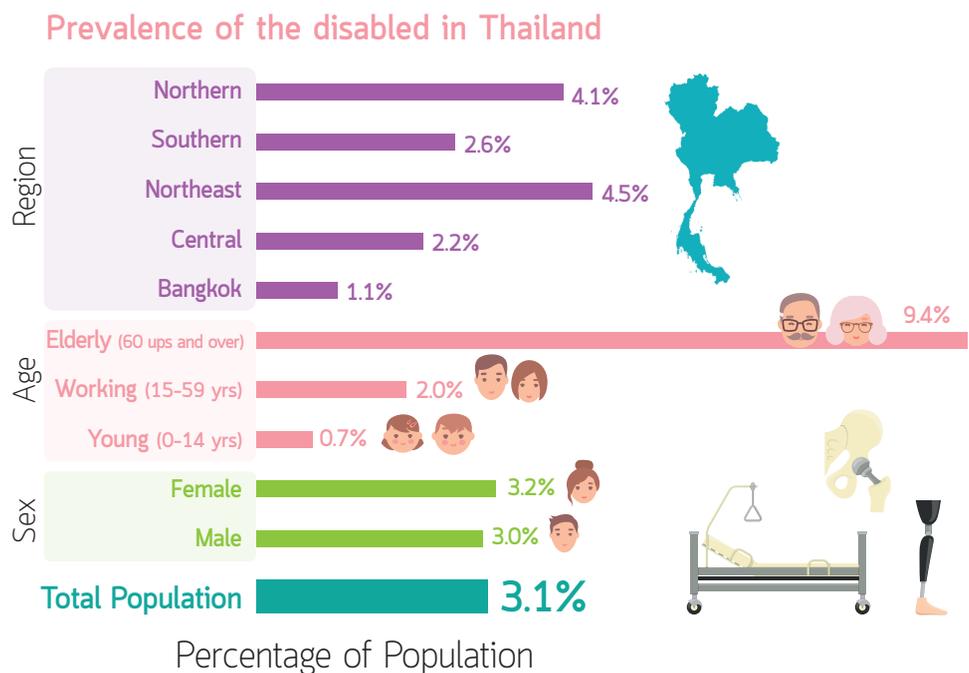


The Ministry of Social Development and Human Security (MSDHS) has defined different categories of disability that qualify for government assistance, such as impairment of vision, hearing, or mobility, and physical, mental, behavioral, intellectual/learning disability, and autism. In 2018, about two

Source: Report of the status of the Thai disabled (as of Oct. 31, 2018), Department of Support and Development of Quality of Life of the Disabled, MSDHS

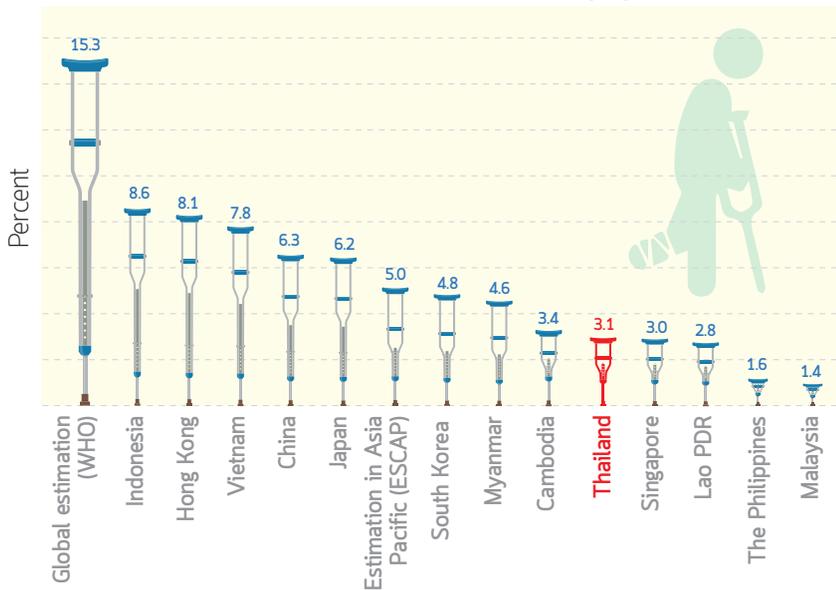
million Thais qualified for a disability welfare card. Of these about half had impaired movement or physical disability, followed by hearing impairment, ability to communicate clearly, and vision. Fully 128,682 had multiple types of disability. The disabled are vulnerable for financial and social stress, and are prone to poverty or un-/underemployment. In 2017, 16.4% of the disabled lived under the poverty line, or more than twice the rate of the general population. Only one in four disabled had a full-time job, which is three times less than the general working age population.

In the past, disability was downplayed by the Thai welfare and benefits systems and the three public health



Source: Calculated by data of the disabled with ID card for PWD, in the Report of the status of the Thai disabled, Department of Support and Development of Quality of life of the Disabled, MSDHS and conducted by population number in 2018 (as of Oct 31, 2018)

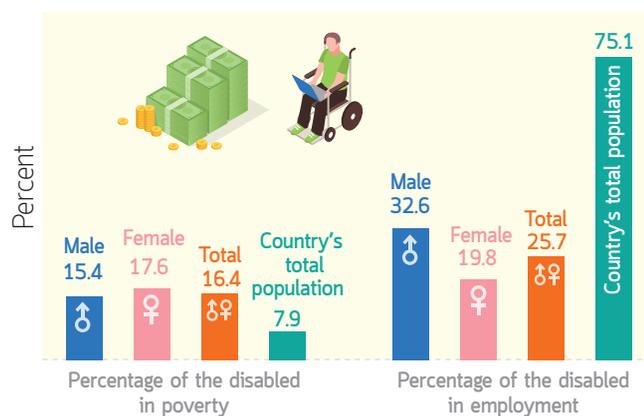
Prevalence of the disabled of the total population, 2017



Remark: UNESCAP (2018) Building Disability-Inclusive Societies in Asia and the Pacific: Assessing Progress of the Incheon Strategy

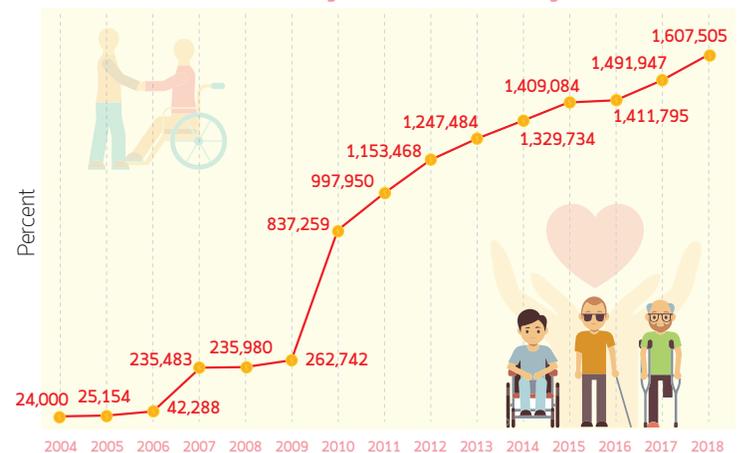
insurance schemes. In particular, those who worked and were covered by the Social Security System had a more limited set of benefits, e.g., covering a list of equipment to support persons with disabilities, the universal health insurance system. However, over time there have been improvements in the Thai health insurance system such that, at present, persons with disabilities who are insured and covered under Social Security have the option of receiving medical treatment and a broader support package. The disabled can choose to access medical treatment under the universal health insurance system or Social Security System

Poverty and Employment of the Thai Disabled Compared with the Mainstream Population, 2017



Remark: UNESCAP (2018) Building Disability-Inclusive Societies in Asia and the Pacific: Assessing Progress of the Incheon Strategy

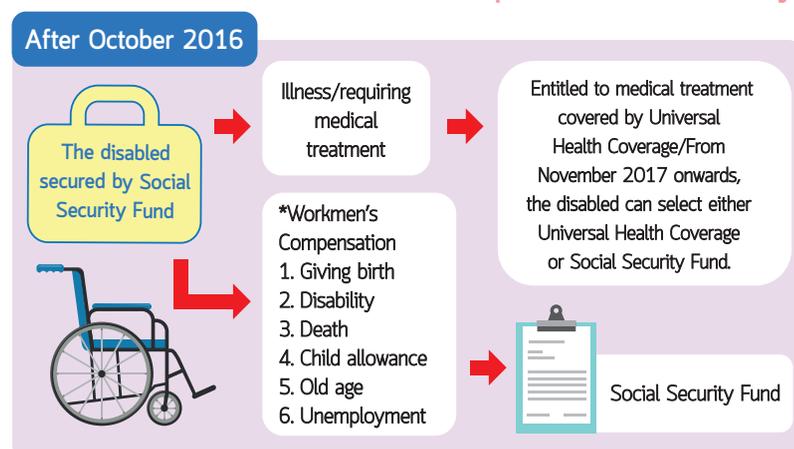
Number of disabled receiving monthly welfare subsidy



Remark: In FY 2015, the welfare subsidy for the disabled was increased from 500 to 800 baht per month

Source: Department of Local Administration and the Department of Social Development of the BMA and Pattaya

Health benefits for the disabled as part of social security



Source: "Implementation of secured people with disability to access Regularly health care, according to Order No. 58/2559 Head of NCPO"

In comparison with other countries around the world, it would seem that the Thai population has a lower proportion with disability than elsewhere. However, that could be an artifact of definitions of disability, and the nature of the benefits programs to improve quality of life of the disabled. In any case, the Thai goal is to ensure that everyone with a disability gets the assistance they need and maximizes their quality of life potential.

8

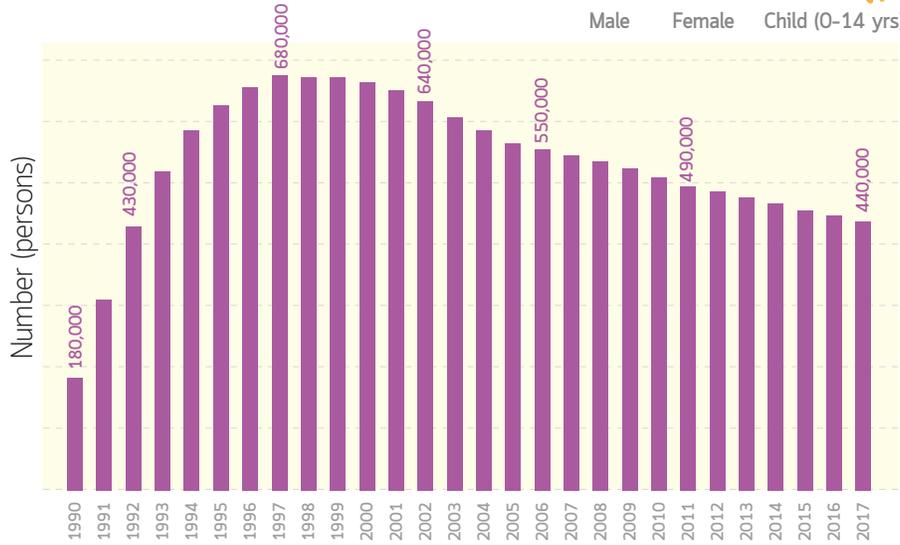
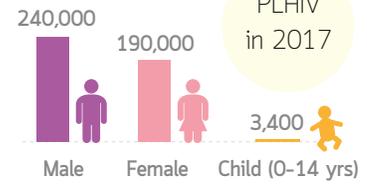
Persons Living with HIV (PLHIV) and Cases of Tuberculosis (TB)

“ The number of PLHIV in Thailand has declined to over 400,000, while the annual number of new cases of TB is over 100,000.”

The HIV/AIDS situation in Thailand has improved significantly given the expanded universal access to antiretroviral therapy (ART). However, negative stigma toward HIV is still prevalent in society and may actually be on the rise. For TB, the country is accelerating case finding and referral for treatment to cure cases as soon as possible and prevent resistant strains of TB from proliferating.



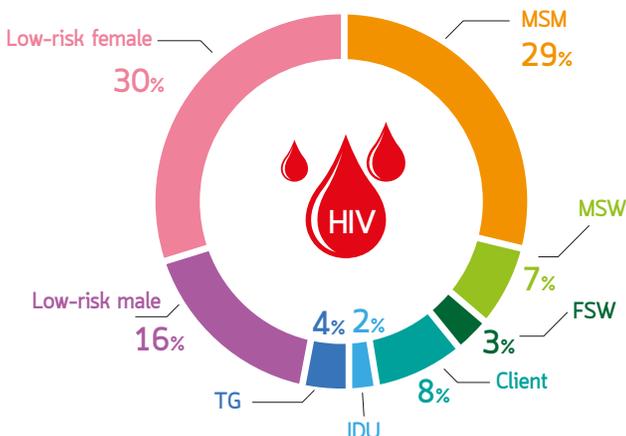
People living with HIV (PLHIV) in Thailand by year



Source: 1990-2017 from UNAIDS AIDSinfo Website (<http://aidsinfo.unaids.org/>)

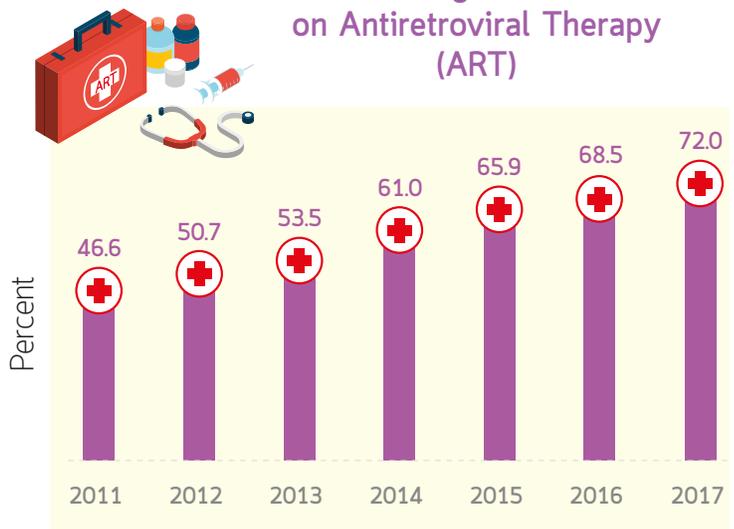
The country’s intensive operations to prevent infection, support care and promote access to ART, has helped reduce the current caseload to 440,000 than what was projected if no prevention and treatment program had been implemented. Of these 440,000 PLHIV, three-fourths are already enrolled in ART. The number of new HIV infections is estimated to be about 5,000 persons per year, and that number is expected to continue to decline. However, the risk of infection in key populations still needs to be monitored, as well as discrimination against PLHIV. A recent survey found that Thais still had discriminatory attitudes against HIV and PLHIV for half of the UNAIDS indicators.

Proportion of new infections by risk group (age 15 years or older) 2017



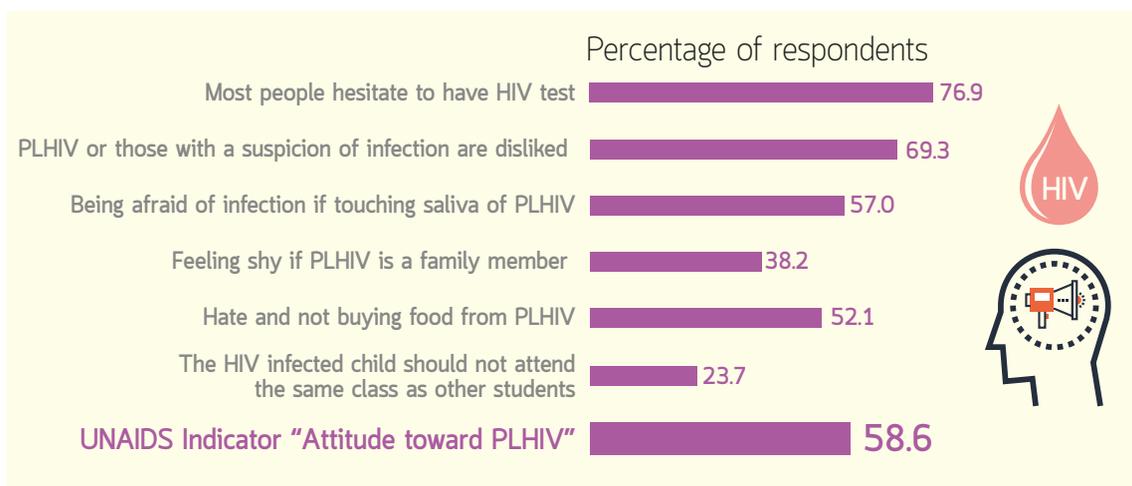
Source: “Status, Policy and Implementations of the Strategy for AIDS and STIs” <http://aidssti.ddc.moph.go.th/contents/download/2291>

Percentage of PLHIV on Antiretroviral Therapy (ART)



Source: Report on progress of the Ending AIDS strategy of Thailand as of 2018

Attitudes toward PLHIV



Source: Survey of the Health of the Thai Population by Physical Exam, 2014-15, cited in Kriengkrai Srithanaviboonchai, et al. (2017)

Global TB Report 2018

Rates and incidence per 100,000 population	Global avg.	WHO Region						Thailand
		Africa	The Americas	Western Mediterranean	Europe	SE Asia	Western Pacific	
TB mortality rate (excluding HIV/TB)	17.0	39.0	1.8	13.0	2.6	32.0	4.9	13.0
Mortality rate for HIV/TB cases only	4.0	24.0	0.6	0.4	0.5	1.4	0.3	4.2
TB incidence (including HIV/TB)	133	237	28	113	30	226	94	156
Incidence of HIV/TB	12.0	63.0	3.0	1.4	3.6	7.7	1.6	16.0
Incidence of drug-resistant TB	7.4	8.6	1.1	6.0	12.0	9.7	6.0	5.7
Estimate of new TB cases receiving treatment	64%	52%	81%	68%	81%	64%	75%	74%
Estimated treatment success of new TB cases (%)	82%	82%	75%	92%	77%	75%	91%	83%

Source: Global Tuberculosis Report 2018, World Health Organization

TB is still a major public health challenge for Thailand. During 2016 - 2020, Thailand was classified by the WHO to be among 14 countries in the world with unacceptably high levels of TB. That classification is based on the case-fatality and incidence of TB, TB patients who are co-infected with HIV, and the level of multidrug-resistant TB. In 2017, Thailand still ranked disturbingly high for these indicators. New TB patients are estimated to be about 100,000 per year. The proportion of male patients is almost twice as high as women. Only three-fourths of new TB cases have access to treatment, while the success rate of treatment remains at 83%.



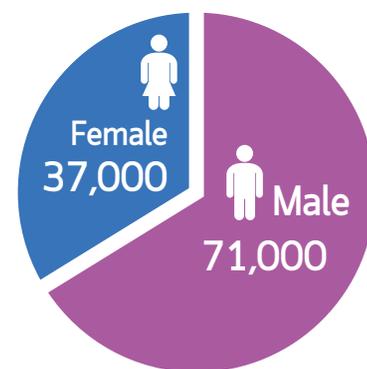
Thailand is classified as one of 14 countries

(including Angola, China, Congo, Ethiopia, India, Indonesia, Kenya, Mozambique, Myanmar, Nigeria, Papua New Guinea, South Africa, Thailand and Zimbabwe).

With a high burden of tuberculosis (TB), drug-resistant TB (MDR-TB), TB and HIV (TB / HIV) by the World Health Organization during 2016-2020. Source: Global TB Report 2018, WHO

Estimate of new cases of TB in 2017

108,000



Source: Global Tuberculosis Report 2018, World Health Organization

9

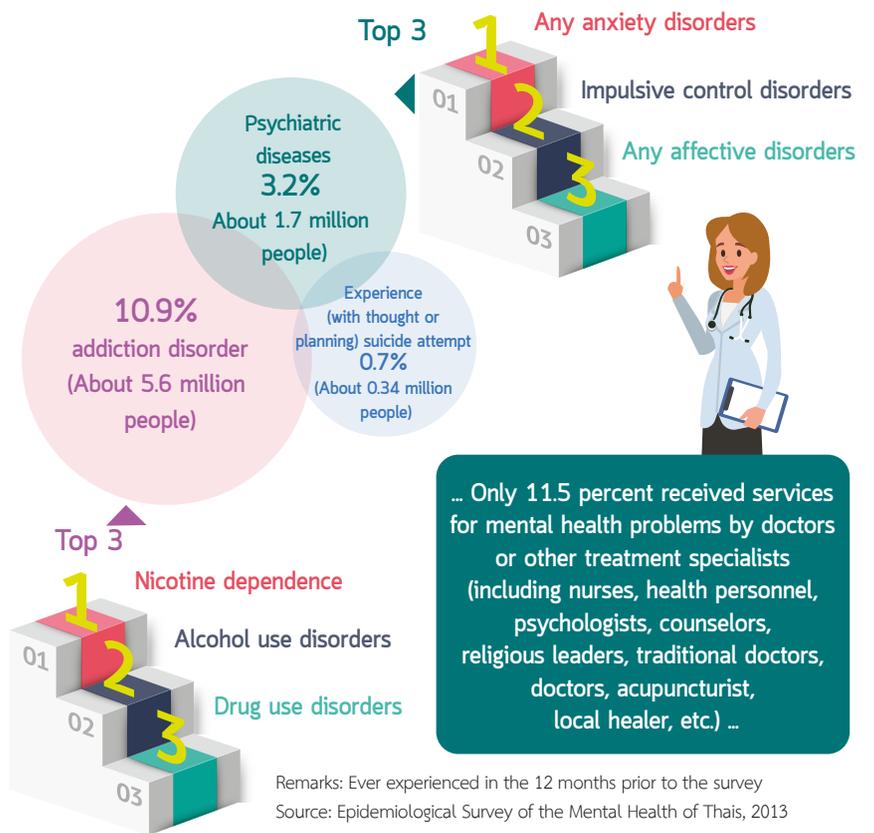
Vulnerability Attributed to Mental Illness

“ The number of Thais with mental illness has increased steadily, reaching 2.7 million in 2017.”

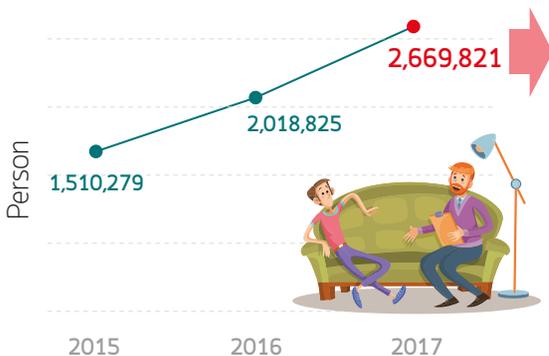
The increasing number of psychiatric patients every year may be a good sign that Thai persons with mental health problems are accessing treatment services more than before. However, at the same time, it is a warning sign that the mental health situation in society may be worsening.

According to the national Thai mental health survey in 2013, the number of Thais diagnosed with a psychiatric disorder in the past 12 months reached 1.7 million. Fully 5.6 million had used addictive drugs, while 340,000 had attempted suicide. Of this number, only one in ten accessed mental health care. The number of psychiatric patients receiving psychiatric services under the Department of Mental Health was estimated to have increased from 1.5 million persons to 2.7 million persons during 2015- 2017, thus reflecting better access to treatment services for those with mental health problems. However, it is certain that a significant number of persons in need of mental health care are not receiving it. For example, in the case of clinical depression, it is estimated that population prevalence is 1.4 million persons, but less than three-fifths of these are diagnosed and treated.

12-month prevalence of mental illness, drug addictive behavior disorder, and suicide among Thais



Number of mental health treatment cases, Fiscal Year 2015-17

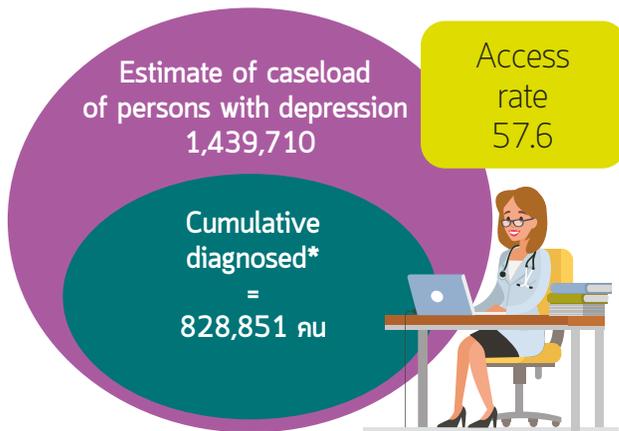


Number of mental health cases by main symptom: 2017



Source: Department of Mental Health, MOPH

Rate of access to diagnosis and treatment for cases of depression



Remarks: *The number is only for those with 13 digit identification numbers, with the cumulative amount from 2009 to December 25, 2018.
Source: Phra Si Maha Pho Hospital, Department of Mental Health, MOPH

The main challenge to better coverage of psychiatric treatment is the lack of knowledge and understanding about the disease in the population, including persons with mental illness and their relatives. Some sufferers may be reluctant to seek treatment because of the social stigma of having a mental illness. There are also limitations in the structure of the mental health service system. Some hospitals that are remotely located may have a shortage of psychiatric personnel, resources and budget, including the lack of alternative psychiatric services in deprived areas.

Vulnerability of those with mental illness, and their relatives and care givers

Health

Patients : High health risk (injury, disability or premature death from the severity of symptoms, risk of suicide, self-harm, accidents), low access to essential services

Caregivers : physical and emotional illness (from caring for patients) stress, anxiety and depression, lack of medical care (due to main focus on patients)



Socio-economic

Patients : Social stigma and negative attitude from those around them, alienation from society and potential employers financial instability, risk of prosecution which may be a result of disease or symptoms

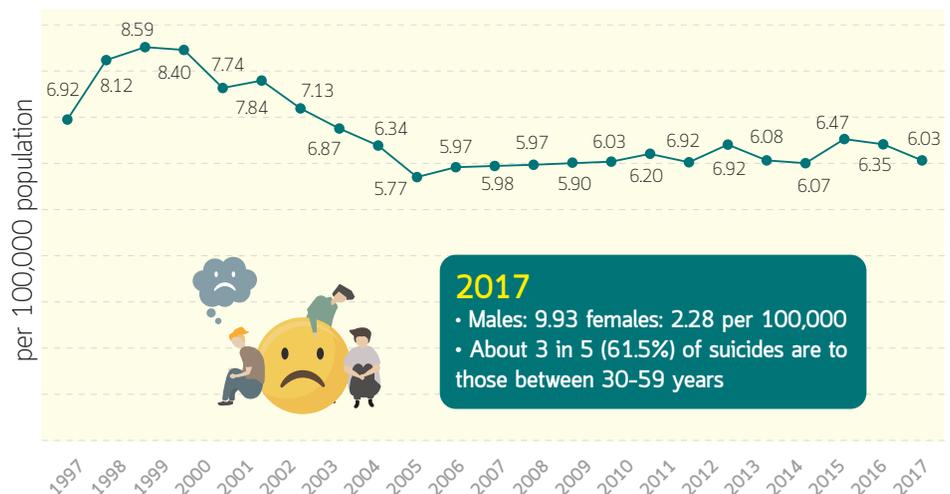
Caregivers : The economic burden of taking responsibility for the patients, lose work opportunities, stigma from society, lack of understanding from society about the burden of psychiatric care, lack of care from other relatives, becomes the victim of patient violence

ที่มา : การสำรวจระบาดวิทยาสุขภาพจิตของคนไทยระดับชาติ พ.ศ. 2556, เบื้องบาท พญกษิณานันท์ และคณะ

Clearly, mental illness can lead to other health, economic and social vulnerabilities in various areas, and not just for the sufferers themselves. Others who are affected are the family members, care providers and close acquaintances. In addition, if the patient is not diagnosed, treated or appropriately counseled, that may be a trigger for the idea or suicide to emerge, and that problem is still unacceptably high in Thailand.



Suicide rate: 1997-2017



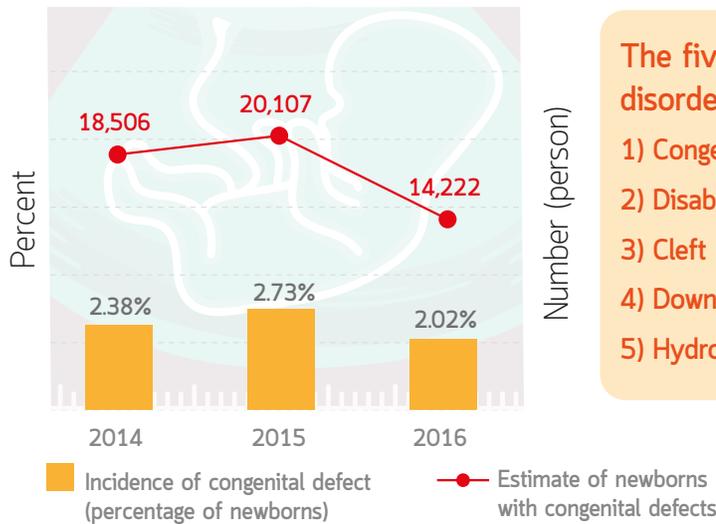
Source: Report on suicides in Thailand, Department of Mental Health, MOPH

10 Vulnerable Children

“ 1 in 50 newborns are at risk of having a congenital disability. One in five are born into poor families or families at risk of poverty.”

Too many Thai children are born into vulnerable situations, either due to the socio-economic status of their parents or congenital health defect. When they grow older, these children become vulnerable to adverse social consequences and unmet care needs.

Estimate of congenital birth defect rate: 2014-16



The five most common disorders are:

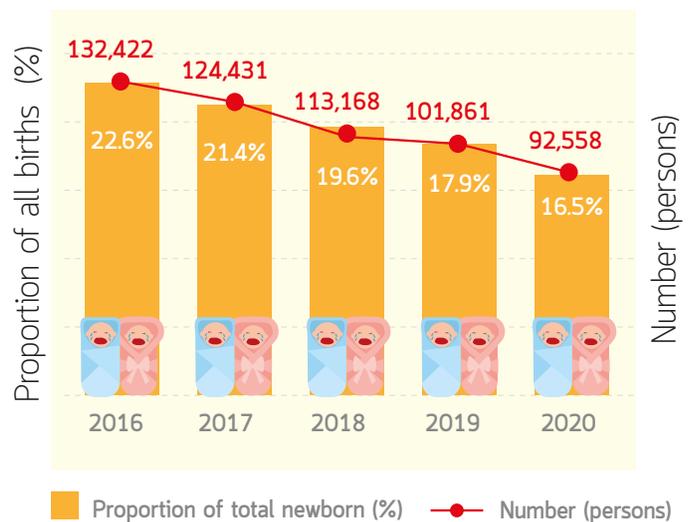
- 1) Congenital heart disease
- 2) Disabled limbs
- 3) Cleft lip, cleft palate
- 4) Down syndrome
- 5) Hydrocephalus

Based on the 2014-2016 registration data, the incidence of congenital birth defects was 2-3 percent of live births. Thus, the estimated number of infants born with disabilities per year in Thailand ranges from 1,500 – 2,000 persons. Most of the disabilities are congenital heart disease, limb disorders, cleft lip, cleft palate, Down syndrome and cerebral thrombosis.

Source: Incidence of congenital defects based on registration data, Queen Sirikit National Institute of Child Health

Parents' and family poverty create economic vulnerabilities for children through no fault of their own. The Child Support Grant project to support newborns in Thailand was launched in 2016.¹ In That year it was estimated that 130,000 newborns were born into poverty or at risk of poverty, with an estimated 100,000 each year thereafter. After the three years of Project operations, a cumulative total of 700,000 applications for financial assistance were submitted. Most of the applicants were unemployed mothers, single mothers, and teen parents. As those children grow older, they

Estimate of newborns born into poverty and risk: 2016-20

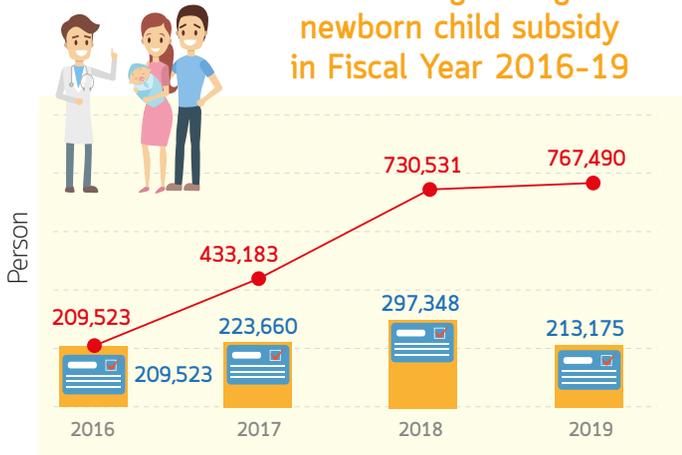


Remark: Children at risk of poverty refers to households living above the poverty line but not more than 25% over the poverty line

Source: Estimates and projections of child poverty and risk, Newborn Child Support Project

¹ In the first year (Fiscal Year 2016), grants were made of 400 baht per month for a one year period. Since FY 2017, the monthly grant was increased to 600 baht, and the duration of the stipend was lengthened to three complete years from the time of birth.

Number registering for newborn child subsidy in Fiscal Year 2016-19

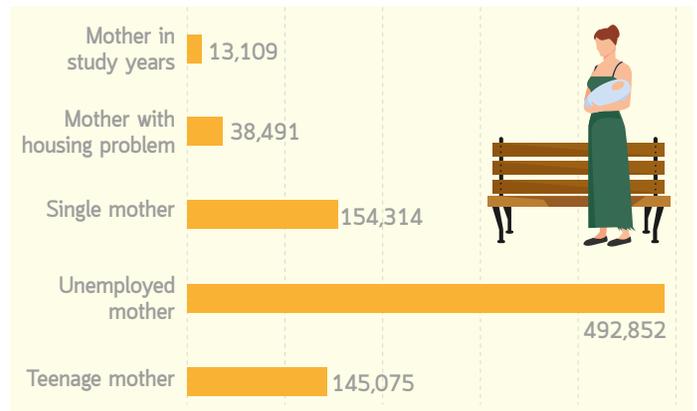


■ Number of registered newborns in fiscal year (person) —● Cumulative number of registered users (person)

Remark: The number of registered users in Fiscal Year 2019 is the target number, while the number of cumulative registered is the actual number as of 10 January 2019

Source: The results of the implementation of the project for the support of newborns for Fiscal Year 2019, Department of Child and Youth Affairs, Ministry of Social Development and Human Security

Cumulative number of newborns registered for the Project for the Support of the Newborn Child classified by problem condition

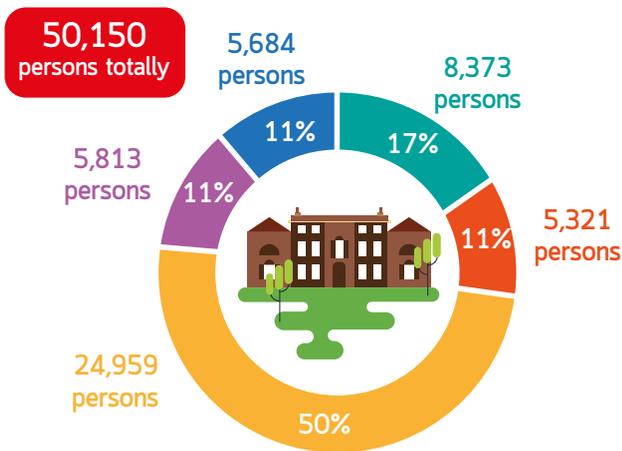


Cumulative number, Fiscal Year 2016-18 (person)

Remark: The proportion of each group is compared to the statistics of registered users in the whole country. 1 person may have multiple conditions.

Source: Calculated based on data from the implementation of the Project for the Support of the Newborn Child, FY2016-2018, Department of Child and Youth Affairs Ministry of Social Development and Human Security

Children in Family and Children's Shelters and Child Protection Centers of the Department of Child and Youth Affairs, by cause of admission



■ Parent unable to raise the child ■ Behavioral problem
 ■ Orphan, homeless, abandoned ■ Being through violence
 ■ Family in poverty

Source: Statistics and information on the situation of children and youth in the year 2017, Department of Child and Youth Affairs Ministry of Social Development and Human Security

Children and youth in difficult circumstances



Source: The small voice of the disadvantaged (2017), MSDHS, THPF, UNFPA, Chulalongkorn University and Equitable Education Fund

often find themselves at risk of inadequate or improper parenting, abandonment, fleeing an abusive household to become a street child, or incur other vulnerability. Some of these unfortunate children are put in the protection and care of the state (approximately 50,000 for the most recent year – but the actual number in need is certainly far higher). In 2017, it was estimated that over three million children and youth were living in difficult circumstances.

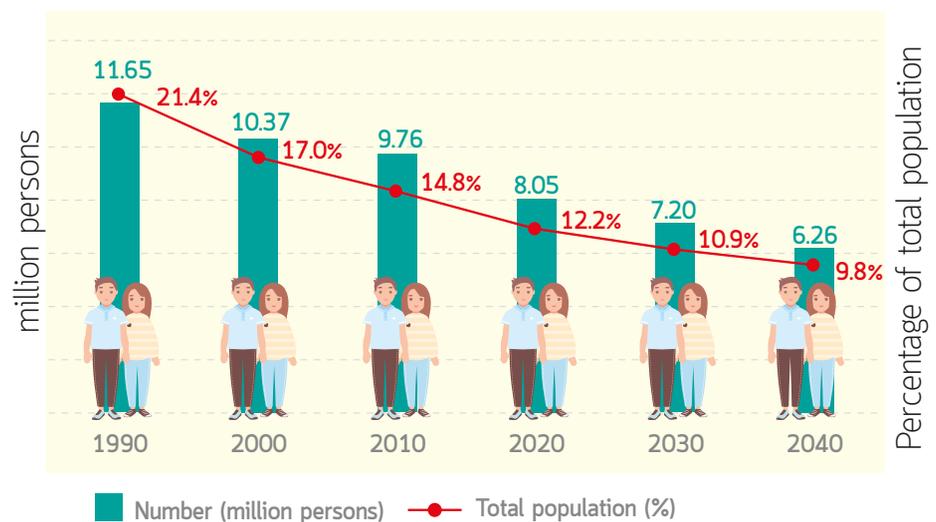
11 Adolescents

“ The prevalence of delivery by mothers age 15-19 was 39.6 per 1,000 persons; but the rate has begun to decline.”

Adolescence is the age of transition from childhood to adulthood. This period includes behavioral risks that may lead to vulnerability and health, economic and social problems, and that is a matter that all sectors of Thai society need to monitor. Adolescents need to cultivate knowledge, attitudes and values that lead to self-reliance and a constructive adult life.

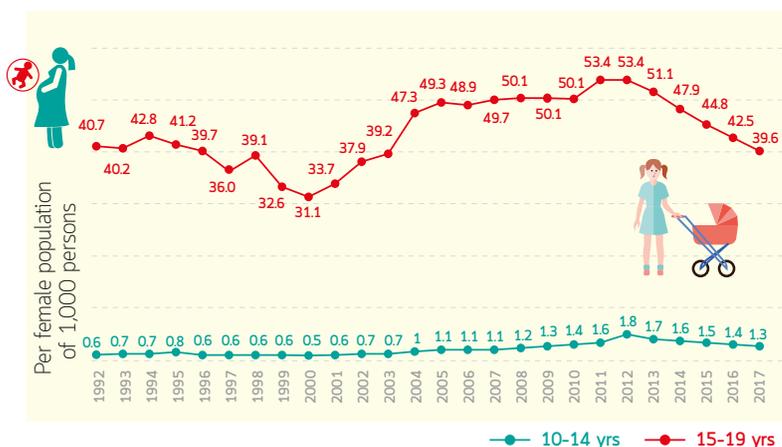
The Thai population age 10-19 years will continue to decline in the coming years. As of 2020, there are expected to be about 8 million persons in this age group, accounting for about one-eighth of the total population. The vulnerability of the population at this age is mainly due to behavioral problems that lead to risk and long-term problems, such as from unplanned pregnancy, STIs, injury, disability, accidental death, violence from interpersonal conflict, drug addiction, gambling debt, etc.

Number and proportion of Thais age 10 to 19 years



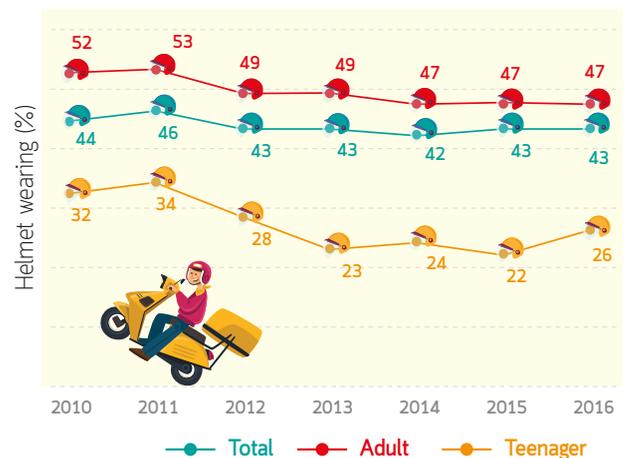
Remark: Year 2020, 2030 and 2040 are estimates and proportions
Source: NESDB Social and Quality of Life database

Rate of child delivery of mothers aged 10-14 years and 15-19 years as a proportion of the population in those age groups



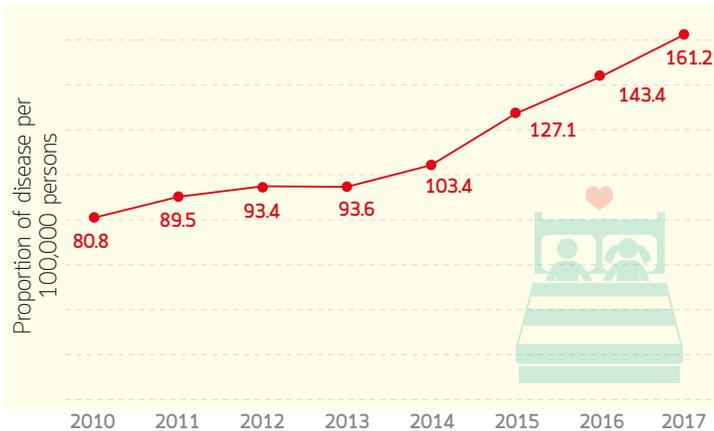
Source: Bureau of Reproductive Health, MOPH

Wearing a motorcycle helmet during 2010-16 by age group (driver and pillion rider)



Source: Helmet wearing rate of motorcycle users in Thailand 2016, Thai Roads Foundation and Network of Road Safety Surveillance Situation

STI incidence among the population aged 15-24

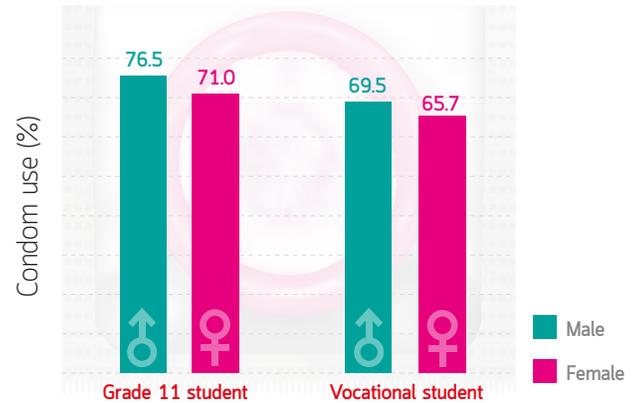


Source: Bureau of Epidemiology, Department of Disease Control 2010-2017

Remark: 2010-2014 data on sexually transmitted diseases, including gonorrhea, gonorrhea, chancroid disease, urinary tract and lymphatic vessels infection

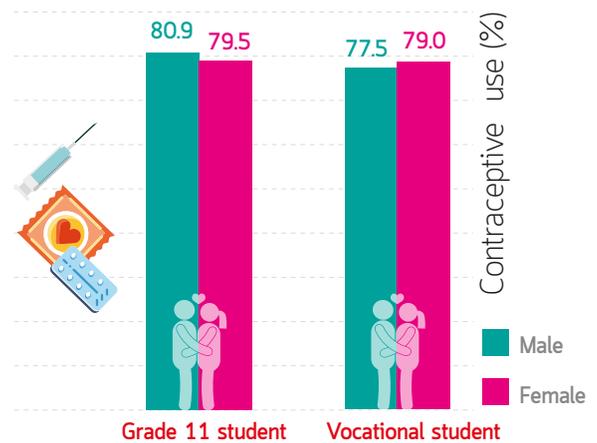
According to data in 2017, Thai teenagers still have sexual risk behaviors, and one in five of the sexually active group did not use contraception at last sexual intercourse. This causes the dual risk of unwanted pregnancy and STI, including HIV. Indeed, prevalence of STIs in the younger age groups is increasing. The birth rate in women aged 10-19 years is one indirect indicator of trends and risk. Although the number of teen births has started to decline in the past four to five years, it is still important to prevent unwanted pregnancy since each birth should be planned. This goal is in accordance with the Prevention and Response to Teen Pregnancy Act of 2016. It is

Condom use at last sex with a lover: 2017



Source: Bureau of Epidemiology, Department of Disease Control, 2017

Use of reliable* contraception at last sex with a lover or regular partner, 2017

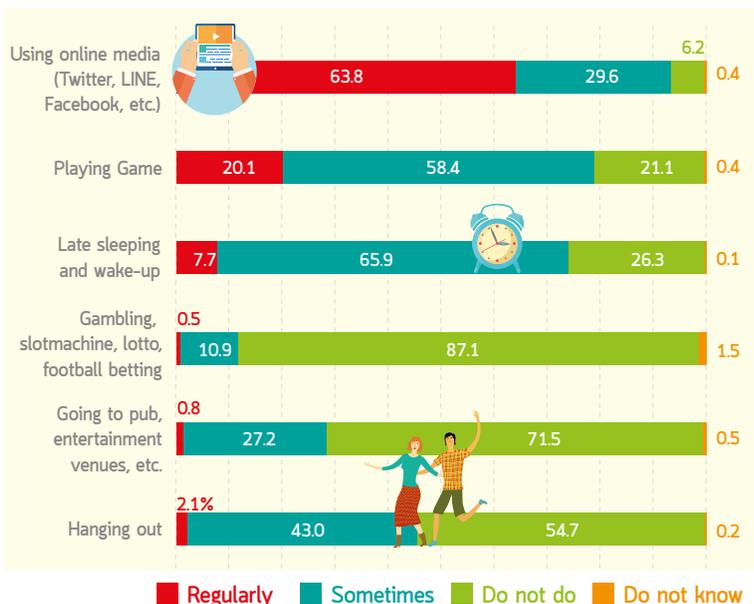


Remarks: *condoms, the pill, injectable, and emergency contraception
Source: Bureau of Epidemiology, Department of Disease Control 2017

also important to provide care and support for adolescent mothers so that they can complete their formal education. This requires appropriate comprehensive interventions to prevent school drop-out due to unplanned pregnancy. Helping this group of the population is critical to building a social "immunity" from risks and challenges they may face in early adulthood.

Today, there is an increase in social risk behavior of adolescents leading to preventable loss, such as from road accidents, motorcycle racing, not wearing safety helmets, gang violence, use of inappropriate online social media, addiction to computer games, and gambling, among many other risks.

Percent of behavior reflecting values of Thai youth (age 13-24) in 2018



Source: Survey of Socio-cultural status and mental health, 2018

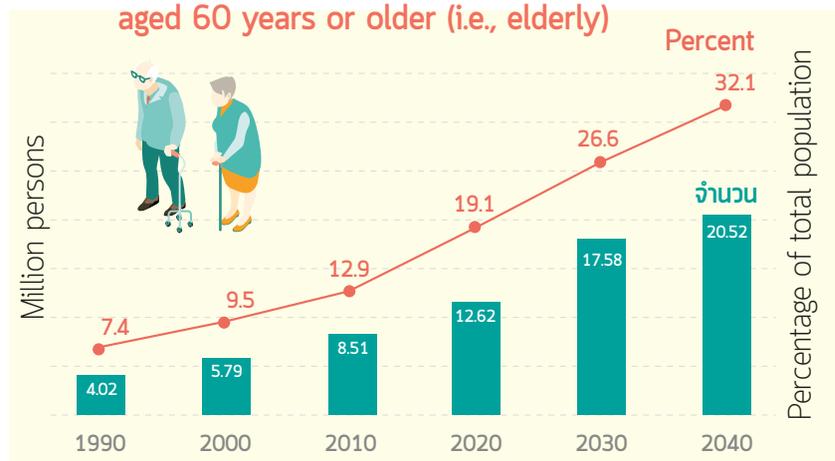
12 The Elderly

“ One in ten elderly Thais are living alone; another one in four are living only with an elderly spouse. ”

The vulnerability of the elderly increases with age, as bodily organs begin to malfunction and associated health problems emerge. As one ages, usually the person’s earning potential declines, and the oldest elderly usually become dependent on a younger care provider. Thailand’s rapid decline in fertility, increased longevity, delayed or rejection of marriage, and out-migration of adult children means that the increasing number of elderly will become even more vulnerable than normal in the years and decades ahead.

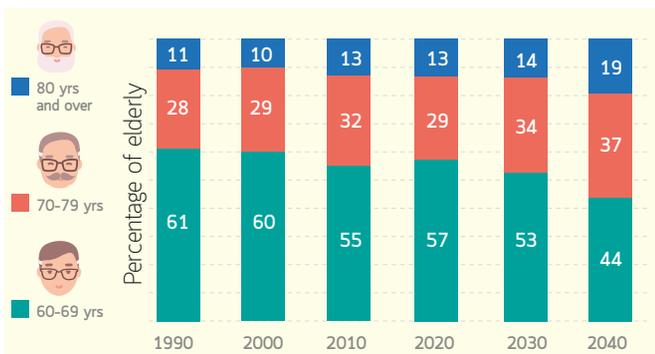
In 2020, it is projected that there will be 12.6 Thai elderly, or one out of five of the total population. That proportion will continue to climb until it reaches one in three by 2040, or two decades from now. At present, over half the elderly are age 70 years or older. Even though surveys have found that about 95% of the younger Thai elderly are still self-reliant for some basic daily activities, one in five of those age 80 years or over require assistance in performing daily chores.

Number and proportion of the Thai population aged 60 years or older (i.e., elderly)



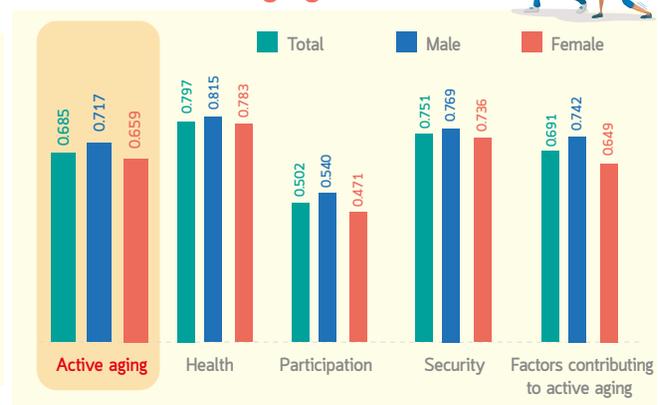
Remark: Data for 2020, 2030 and 2040 are estimates and proportions
Source: Quality of Life and Social Database NESDB

Proportion of the elderly by age group



Remark: Data for 2020, 2030 and 2040 are estimates and proportions
Source: Quality of Life and Social Database, NESDB

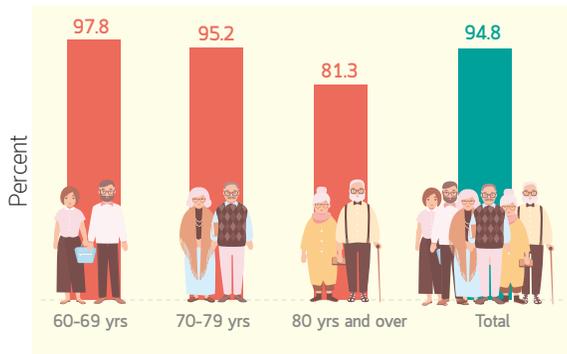
Active Aging Index



Source: NSO, 2017, Active Aging Index scores

The Active Ageing Index is a tool to assess the quality of life of an elderly person. In 2017, the Index score for Thailand was 0.685, which placed Thailand in the middle range of countries. The scores for the dimensions of health and security of Thai elderly were rather favorable when compared to the dimensions of participation and an enabling environment for energetic activity. In any case, too many Thai elderly are vulnerable for physical and mental health problems. Some of the more common health problems include hypertension, overweight, and knee degradation. At least 6% of elderly suffer from depression.

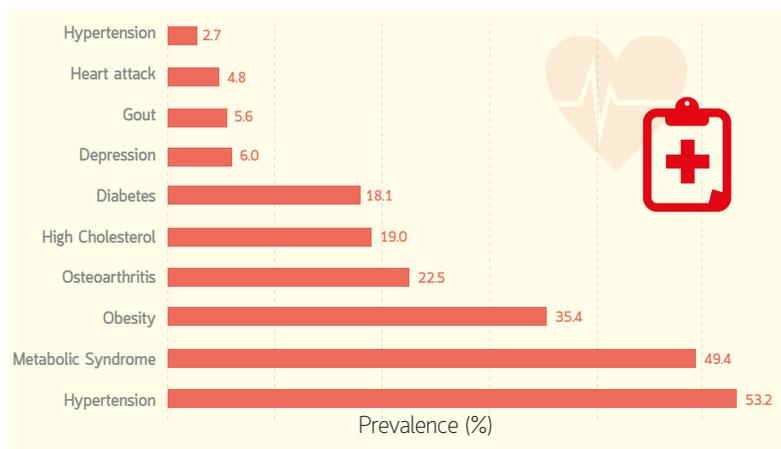
Percentage of elderly who can perform daily essential activities by age, 2017



Remark: Older people who can still perform basic routines such as including eating, wearing clothes (dressing), bathing / washing face (including the use of the bathroom) without having to have help from others or use special equipment

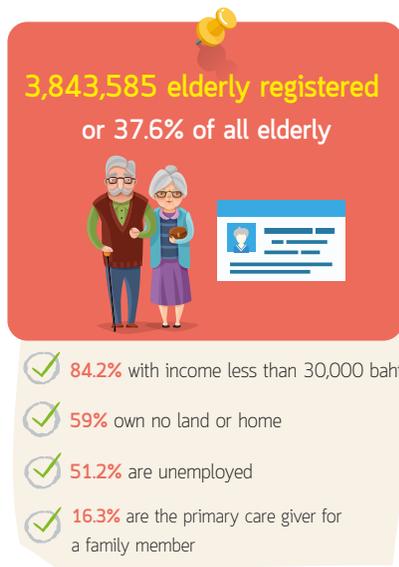
Source: Thai elderly situation report 2017

Health challenges of the elderly



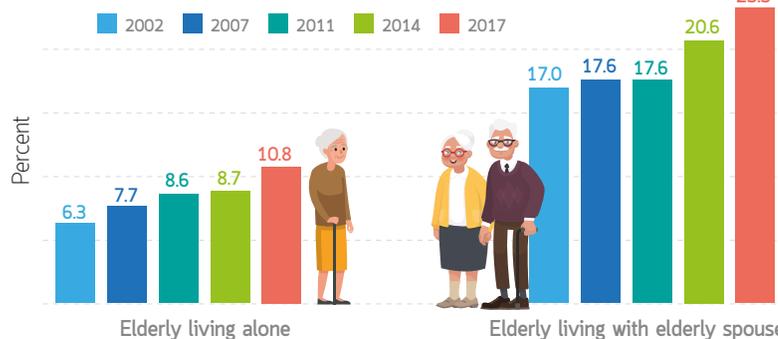
Source: รายงานการสำรวจสุขภาพประชากรไทยโดยการตรวจร่างกาย ครั้งที่ 5 พ.ศ.2557, สถาบันวิจัยระบบสาธารณสุข กระทรวงสาธารณสุข

Number of elderly registered for the welfare subsidy, 2017



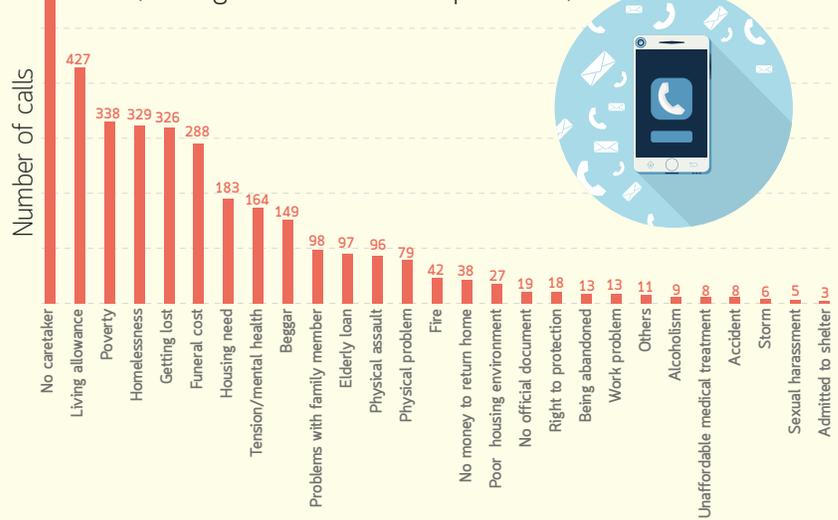
Source: <http://www.dop.go.th/know/1/139>

Trends in the population of elderly living alone or with an elderly spouse



Source: Situation of the Thai Elderly 2017, Institute for Population and Social Research, Mahidol University

Data on calls to the Elderly Hotline # 1300 (during Oct. 2015 - Sep. 2016)



Source: Kraiwut Wattanasin, 2018. Crime Prevention Model for the Elderly, Faculty of Social Sciences, Police Cadet School

In the past ten years, the proportion of the elderly living alone or only with an elderly spouse has increased steadily. Some of this may be the fact that more elderly have the financial means to support themselves in the home and are healthy enough to meet their basic needs. Thus, not

all elderly living alone or in pairs are more vulnerable than others to adverse consequences of ageing. However, data from the #1300 national hotline indicate that the most common complaint of the elderly was lack of a care provider. National Welfare Project data for 2017 show that four million elderly, or about one in three, had registered for welfare assistance. Most of these are lower-income individuals, those with no ownership of land or house, and the unemployed.

Citation:

Thai Health Project. 2019. Title of article. In Thai Health 2019. (page number).

Nakorn Pathom: Institute for Population and Social Research, Mahidol University

Citation example:

Thai Health Project. 2019. The prolonged effort to ban paraquat in Thailand: The Toxic Substances Board Won't Act. In Thai Health 2019. (pp. 36-41). Nakorn Pathom: Institute for Population and Social Research, Mahidol University



**OUTSTANDING
SITUATIONS**

10

**OUTSTANDING
SITUATIONS**



The prolonged effort to ban paraquat in Thailand: The Toxic Substances Board Won't Act

<https://waymagazine.org/wp-content/uploads/2018/05/cc-report-paraquat.jpg>

Efforts to push the ban on the use of three types of dangerous chemicals, including paraquat, chlorpyrifos and glyphosate, lasted for almost two years. Finally, there was progress on February 14, 2019, at the meeting of the Hazardous Substances Committee, which voted 16 to 5 to not yet stopped the use of such chemicals. The result has disappointed the public, academics and health networks across the country

Thailand is an agricultural country that embraced agricultural pesticides and chemical fertilizers ever since the Green Revolution era and has even intensified its use of pesticides these days. Thailand does not produce the pesticides itself, especially the active ingredient in pesticides and, therefore, it must import its entire supply. In 2017, imports of pesticides or agricultural hazardous substances amounted to 197,647 tons, while only 75,473 tons were imported in 2005.¹ This means that Thailand's import of pesticides increased 2.6 times in 12 years. A survey by the network of pesticides watch (Thai-PAN) found that, among imported pesticides used in Thailand, more than 150 types are Highly Hazardous Pesticides (HHPs) according to the JMPM criteria (FAO/WHO Joint Meeting Pesticide Management) or the Working Group between the UN's FAO and WHO for the

management of pesticides. This article summarizes the situation of the use of three types of pesticides, paraquat, glyphosate and chlorpyrifos, which many advocates are trying to ban the use of in Thailand. This chapter also reviews policy on the use of such chemicals in other countries, and describes the fight to push for change of government policy by joining forces of the public sector farmers group, academics and the Thai Health Network

Pesticide use situation in Thailand

Three types of pesticides: paraquat, glyphosate and chlorpyrifos, which many groups in Thailand are lobbying for a genuine ban on use of, are also considered Highly Hazardous Pesticides. In 2017, Thailand imported 267 types of pesticides as follows: paraquat – 44.50 million

kilograms, glyphosate -- 59.85 million kilograms, and chlorpyrifos -- 3.32 million kilograms. These three account for 54.5% of the total import volume of pesticides.

In Thailand, paraquat is known by its trade name "Grammoxone", a combustion herbicide. It is widely used because it efficiently makes the green part of the weed plant wither. It is a fast-acting chemical which causes weeds to dry and die within 1-2 hours without destroying the root system of the cash crop. But its adverse effects on human health have been clearly documented, such as the following:²

- (1) It is highly toxic to humans
- (2) It is a cause of Parkinson's disease and adversely affects the nervous system
- (3) It is a contributing factor causing necrotic disease
- (4) It is a substance that is too toxic to be used safely even with good protection
- (5) Once it enters a pregnant woman's body, it can be passed on from mother to fetus
- (6) Paraquat contaminants are dispersing in the environment and have entered the food chain

Paraquat is banned in more than 50 countries

There are currently 53 countries around the world that have banned the use of paraquat, including European Union countries. In 2007, the European Court ordered the ban of paraquat due to health concerns and chemical safety assessments. In Asia, paraquat is banned in ten countries.³

The research of Asst. Prof. Dr. Noppadon Kitana, Department of Biology, Faculty of Science, Chulalongkorn University, found traces of paraquat in frogs, crabs, and shellfish. Despite being a herbicide-focused substance, it is clearly being absorbed by animals. Data from Nan Province has documented paraquat contamination in the amount of 24 - 56 micrograms per kilogram in field crabs, and 12.6 - 1,233.8 micrograms per kilogram in frogs (compared to a standard limit of not more than 5 micrograms per kilogram).⁴ However, the agro-industry protested these findings, and argued that use of paraquat was still necessary to help farmers reduce cash crop production costs.



Thai-PAN

The beginning of the battle to ban paraquat in Thailand

The first round of the battle to ban paraquat began when the Ministry of Public Health (MOPH) increased its attention to safe food consumption and found problems affecting farmers' health and population at risk of exposure to toxic substances. Accordingly, the government appointed a committee in December 2016 to address the problem of high-risk pesticides and prevention of adverse effects. This was a joint committee between the MOPH, the Ministry of Agriculture and Cooperatives, the Ministry of Industry, the Ministry of Natural Resources and the Environment, and representatives from academia and the public. After compiling evidence and information from relevant agencies, Thailand passed a resolution on April 5, 2017 to ban the use of paraquat and chlorpyrifos, with a deadline to end all imports of these pesticides by December 2018. The target date for ending all use was set as December 2019. Two weeks after this announcement, the National Farmers Council (the legal entity which represents Thai farmers) endorsed the proposed import ban of paraquat, chlorpyrifos, and glyphosate, and appealed to the Ministry of Agriculture to expedite finding a replacement to protect the health of farmers and consumers.

The Department of Agriculture compiled academic data to redraw conclusions despite having representatives in the committee, and concluded on September 12, 2017 that it agreed with the restriction of use of glyphosate. However, the Department could not draw conclusions on the adverse health effects of paraquat and chlorpyrifos



<https://www.posttoday.com/economy/554472>

since it claimed to lack the medical expertise to make a judgment. Therefore, the Department proposed that the Hazardous Substances Committee advise on the issue of the effects of these two pesticides on human health.

In the meantime, the public sector mobilized the formation of “The Network to Ban Deadly Toxins” to support the resolution of the committee on the issue of high-risk pesticides. Furthermore, when the MOPH saw that registration licenses of paraquat and chlorpyrifos were about to expire, it submitted a letter to the Prime Minister, co-signed by 50 provincial governors, calling on the Department of Agriculture to not extend the paraquat and chlorpyrifos registrations and allow the Hazardous Substances Committee to consider banning these toxic substances at once. Unexpectedly, in November 2017, the Department of Agriculture extended paraquat registration for the Syngenta Co., Elefante Co., and Dow Agro-Science Co. for six years, dating from October 2017. The Department granted this extension without waiting for the results of the decision of the Hazardous Substances Committee, citing the reason that, if they delayed the extension of the registration, the private sector will be damaged and may sue the state.

The renewal of the licenses for such hazardous chemicals caused a stream of criticisms. The objections were so loud that the Office of the National Health Commission condemned and announced its disagreement with the extension of the paraquat and chlorpyrifos registrations by the Department of Agriculture. In addition, the Federation of Consumer Organizations submitted a letter to the Human Rights Commission to investigate human rights violations in the case of the extension of the paraquat registration without waiting for the consideration of the Hazardous Substances Committee.

Various organizations unite to support the ban of paraquat

On December 7, 2017, the Hazardous Substances Committee appointed a Special Sub-Committee to consider the control of paraquat, chlorpyrifos and glyphosate. For its part, the Network to Ban Deadly Toxins was closely following this issue and submitted a letter demanding the Hazardous Substances Committee use independent academic information to make its

determination, and avoid any conflict of interest. The Network wanted to make sure that no committee members who are stakeholders are involved in the consideration, and that deliberations of the Committee be made public.

In January 2018, the Prime Minister directed the MOPH be the lead together with other relevant agencies to study the information and the impact of paraquat and report this matter to the Cabinet as soon as possible. On February 15, 2018, the MOPH convened a meeting with the Ministry of Agriculture and Cooperatives and the Ministry of Industry on paraquat to review the impact of using this pesticide. The meeting confirmed the resolution of the Committee on High-risk Pesticides and the initial resolution to ban use by December, 2019. On February 22, 2018, the Public Health Commission of the National Legislative Assembly (NLA) announced the results of the deliberations and passed a resolution to immediately implement the resolution of the Committee to ban imports of the pesticides from June 2018 since it was revealed that imports of these three pesticides had actually increased significantly in 2017 compared to previous years.

In addition, the National Reform Plan for Natural Resources and the Environment was announced in the Royal Gazette on April 6, 2018, citing Sub-issue 1.9 Reducing/abolishing the use of chemicals for agriculture that affect people's health and environmental quality. This announcement focused on prohibiting or limiting the use of chemicals, especially paraquat, by using scientific evidence that indicates the threat to human health, and accelerating the development of various substitutes and alternatives to using bio-active substances

In the meantime the anti-corruption organization "ACT" conducted a poll and found that paraquat is one of the issues that people are most interested in. Therefore, a public forum was convened on "Corruption in the agricultural sector part I: Paraquat?" Since then, there have been a series of academic forums to provide information to the public, such as on May 16, 2018, on the topic of "Academic Facts on Controlling Hazardous Chemicals: Paraquat, Glyphosides and Chlorpyrifos." This latest forum called for the Hazardous Substances Committee to consider a ban of these three pesticides



by using scientific facts. The organizers of the forum was to submit academic evidence to the Hazardous Substances Committee for their consideration to ban these chemicals according to the resolution of the NLA Health Commission.⁵

The Hazardous Substances Committee resisting against banning paraquat

Even though various agencies, administrative, legislative and civil society networks have agreed with the need to abolish paraquat, chlorpyrifos and glyphosates, at the meeting of the Hazardous Substances Commission, on May 23, 2018, the Committee passed a resolution of "No ban" on the use of these three pesticides. The Committee claimed that the environmental and health impact data were not sufficient. However, after the Committee meeting, Assoc. Prof. Dr. Jiraporn Limpananon Executive Director of the Ministry of Defense and member of the Committee, issued a personal statement describing the process of voting as follows: "Before voting, I mentioned Section 12, paragraph 2 of the Hazardous Substances Act, which states that 'The decision of the meeting to hold a majority ... Any director who has a personal interest in any matter being considered, that director does not have a right to vote on that matter.' It appeared that not a single member of the committee wanted to waive their right to vote." This example provides an indication of the inability of the Hazardous Substance Committee to issue resolutions based on scientific data.

This inaction led to the movement of the Network to Ban Use of Deadly Toxins, whose members include 686 organizations. The Network mobilized its members to gather in front of Government House on June 5, 2018

to submit a letter to the Prime Minister through the Minister of Agriculture and Cooperatives to more carefully monitor the process of considerations of the Hazardous Substances Committee and the work of the Special Subcommittee as follows:

(1) Appointment of the Special Subcommittee to Consider Hazardous Substances Control Has chosen representatives from the Ministry of Agriculture and Cooperatives and former officials of the Ministry of Agriculture, numbering up to four persons, and four persons support the Ministry of Agriculture, as members on the committee of 12 persons. None of the members is an expert in health effects.

(2) The Special Sub-Committee is relying on information that is obsolete to support the continued use of toxic substances, and is ignoring the empirical data and many new reports on the harmful effects of these pesticides. The network of scholars from many institutions, such as Chulabhorn Research Institute, Chulalongkorn University, Mahidol University and Naresuan University have stepped up to provide a platform for academic facts to be used as the basis for decisions.

(3) The members at the meeting of the Hazardous Substances Committee on May 23, 2018 had at least three directors who have interests with the Pesticide Trade Association. But they did not recuse themselves from the vote on the proposed ban of the three pesticides. That inaction may conflict with the Hazardous Substance Act BE 2535, Section 12, paragraph 2.

Accordingly, there was a call on the Hazardous Substances Committee to review the resolution and consider banning paraquat and chlorpyrifos as of December 2019 according to the time frame proposed by the MOPH, and the Ministry of Agriculture and Cooperatives to find alternative pesticides which pose less or no health risks. This is in accordance with the resolution of the National Farmers Council.

The Ombudsman called for the ban of Paraquat within one year, but the Hazardous Substances Commission continues to prolong its use

The demonstration by the Network in front of Government House led to the Ombudsman to examine

this issue and on 23 November 2018, proposed a ban on the use of paraquat within one year. During the interim, there should be increasing restriction of use of this pesticide, and promotion of awareness with the public, including identification of a replacement. This process should be completed within 120 days after receiving the documentation and to develop biopharmaceuticals or find other safer methods, to be completed within 180 days after issuing of this announcement. This led the Hazardous Substances Committee to reconsider a ban of paraquat based on the Ombudsman's decision. **However, on February 14, 2019, the Committee voted 16 to 5 not to endorse a ban.** This conclusion confirms the Committee resolution in May 2018 – not restricting the import and use of these three dangerous agricultural chemicals – based on the reason that there is not yet alternative pesticide or replacement measures at present. In the meantime, the Department of Agriculture will continue to try to find alternatives. It is expected that, in the next two years, these three pesticides will actually be banned nationwide.⁶ However, some government agencies are not waiting and have ordered the elimination of use of these chemicals. For example, the Department of National Parks, Wildlife and Plant Varieties has issued a prohibition on the use of paraquat, glyphosate and chlorpyrifos in the national parks area to protect the national park natural resources and environment and the watershed areas as well as the health of the people. As for the National Human Rights Commission, the Thai Pharmacy Council and the Thai Medical Council, they have proposed to consider prohibition of use of all three substances as well. During the final development before the February 14, 2019 meeting of the Hazardous Substances Commission, groups opposing and favoring use of paraquat competed for advocacy influence. There was also some underhanded shuffling of staff of the Ministry of Agriculture and Cooperatives. For example, on February 12, 2019. Mr. Krisada Bunrach, Minister of Agriculture and Cooperative convened a meeting of high-ranking government officials to announce that the Ministry does not support the use of toxic substances that harm human health. In addition, he announced that the Ministry of Agriculture has introduced measures to



reduce the use of paraquat under consultation with the Hazardous Substances Committee and ordered that all 5 director-general – who are members of Hazardous Substances Commission – attend the meeting themselves. However, in the end, the documents that the Ministry of Agriculture executives used to consider for its decision is only a proposal to limit use of the three pesticides following 5 ministry announcements which would be implemented. Decision to ban the pesticides will be reconsidered again in 2 year time.

Despite the undesirable resolution of the Hazardous Substances Commission in on February 14, 2019, the relevant networks such as Thai-PAN have resolved to move forward in order to abolish paraquat and other hazardous toxins by encouraging the Ombudsman to take up this matter with the National Anti-Corruption Commission to file a law suit to the Administrative Court. The attempt is extended to promoting the ban of goods and services from producers and others who support the use of these hazardous substances as well. In addition, this advocacy is in opposition to the situation in which corporate interests of agro-industry are, by de facto, administering the country instead of the relevant government agencies – a situation that must be rectified.

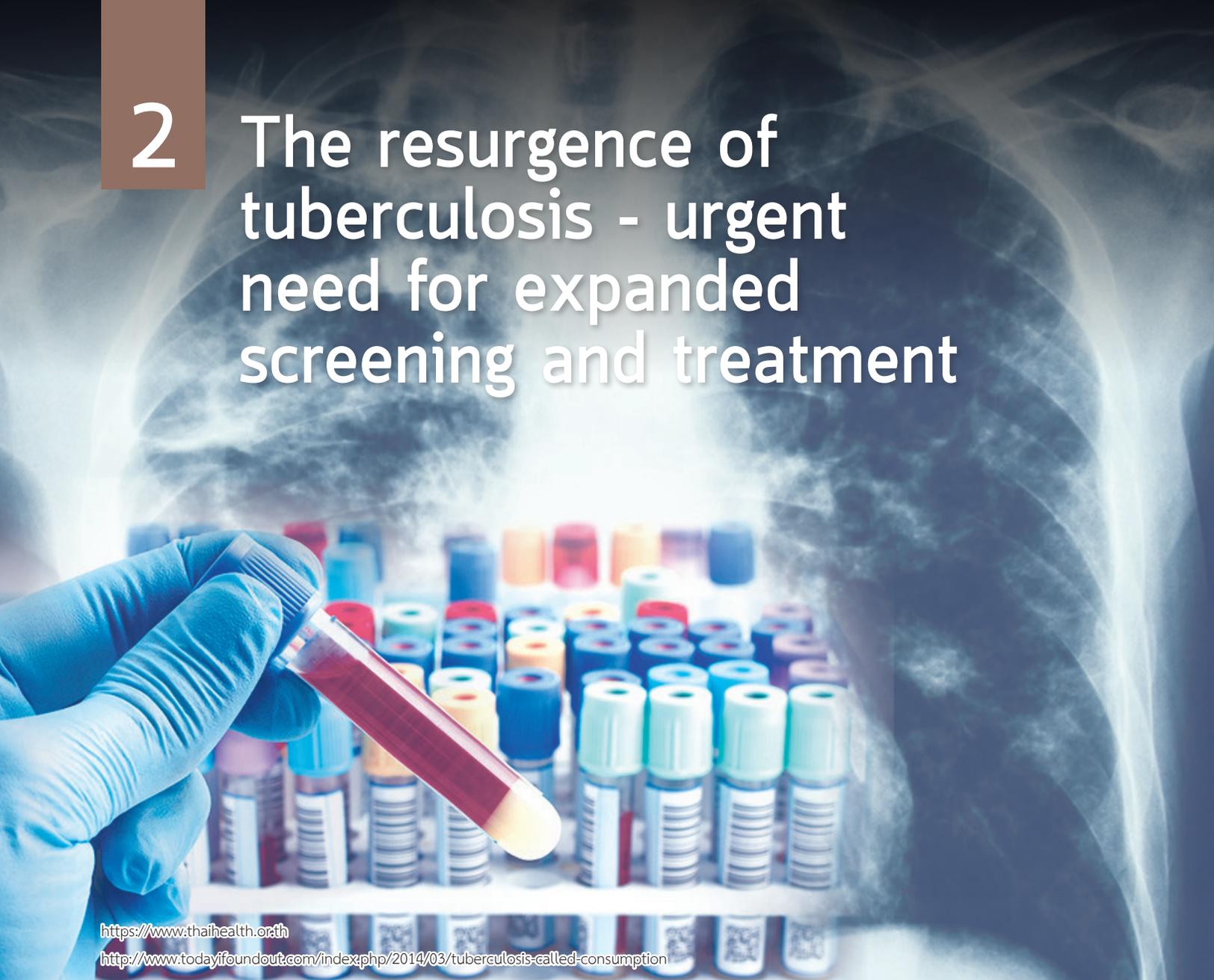
Conclusion

Three types of pesticides, paraquat, glyphosides and chlorpyrifos, adversely affect human health, animals and the environment. At present, at least 53 countries around the world have abolished the use of paraquat. Thus, many groups have joined together to propose a ban on the use of these dangerous chemicals in Thailand as well. But those demands are being opposed by the chemical business sector, parts of the agricultural sector and some government agencies, with the argument that these pesticides reduce production costs of farmers. However, this is only an economic argument for the use of these toxins. The fact that it has been so difficult to achieve a ban on these pesticides reflects the hideousness of hazardous substance law which allow decision making power on the ban of these pesticides on the hands of agencies who do not have the adequate knowledge and awareness of health and environmental impact, not to mention the conflict of interest among some committee members. Thai society needs to use the knowledge and power of the people to uproot this issue and bring about changes.



2

The resurgence of tuberculosis - urgent need for expanded screening and treatment



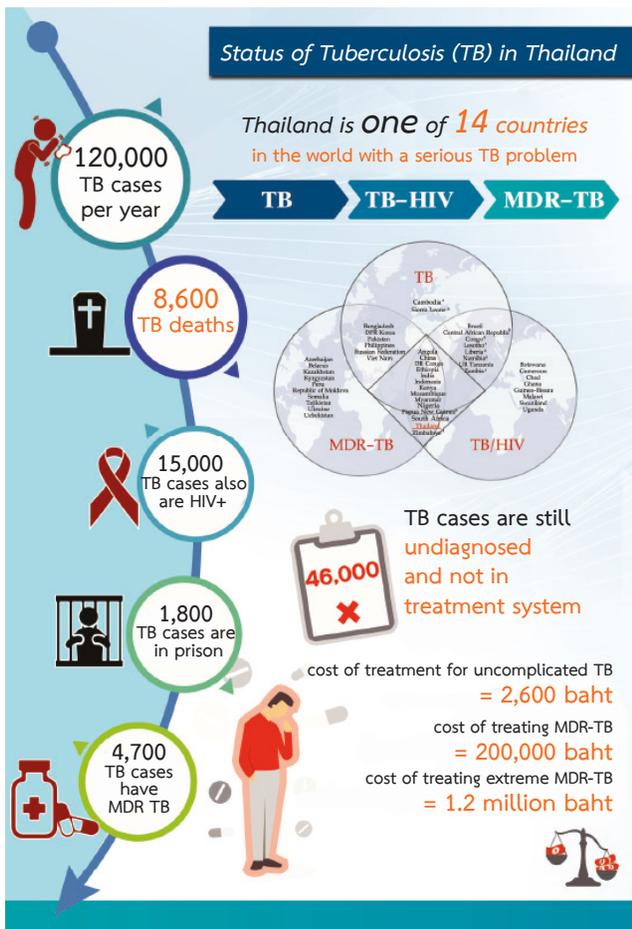
<https://www.thaihealth.or.th>

<http://www.todayifoundout.com/index.php/2014/03/tuberculosis-called-consumption>

Tuberculosis (TB) is becoming a disease that once again requires special surveillance. At the end of 2017, a student at a famous school in Bangkok fell ill with TB¹. That one case created a lot of awareness for Bangkok society since the school is well-known and located in the city center. Moreover, TB outbreaks have been documented in such places as the Nakorn Ratchasima provincial prison, in which over 300 inmates were infected.² In addition to that, TB patients have been found in many areas across the country. It is therefore clear that TB is threatening to become a major public health problem in Thailand.

In addition to the re-emergence of TB outbreaks, there are strains of the bacteria that are increasingly resistant to the front-line drugs to treat it. Thailand is not unique in this respect as other countries are also reporting a resurgence of this killer disease³. WHO is so concerned that it has declared the renewed spread of TB a global emergency⁴.

WHO ranks Thailand as one of the top 14 countries in the world that are facing the problem of TB, TB-HIV, and multiple drug resistant TB (MDR-TB). Thailand has about 120,000 new TB patients per year, with 8,600 deaths, 15,000 TB/HIV patients, and 4,700 MDR-TB cases. It is clear that TB has become a major public health concern and a great challenge in Thailand.



<https://www.tbthailand.org/download/Manual/FactSheet%20TB%20in%20Thai1-OL.pdf>

What is TB?

Tuberculosis is a chronic contagious disease caused by the Mycobacterium bacteria. TB can infect all organs in the body, such as lungs, lymph nodes, spine, joints, abdomen, urinary system, the reproductive system, the nervous system, etc. However, the most common site of infection is the lungs, i.e., pulmonary tuberculosis, spread by respiratory contact. Cure is possible but the course of treatment takes six months or more (even up to two years in some cases). Thus, TB patients must endure and strictly comply with the treatment regimen. In the past, TB normally led to death. But with advanced medicine nowadays, it can be cured by medical treatment. Even after a patient is “cured,” the TB bacteria can remain in the body in latent form.

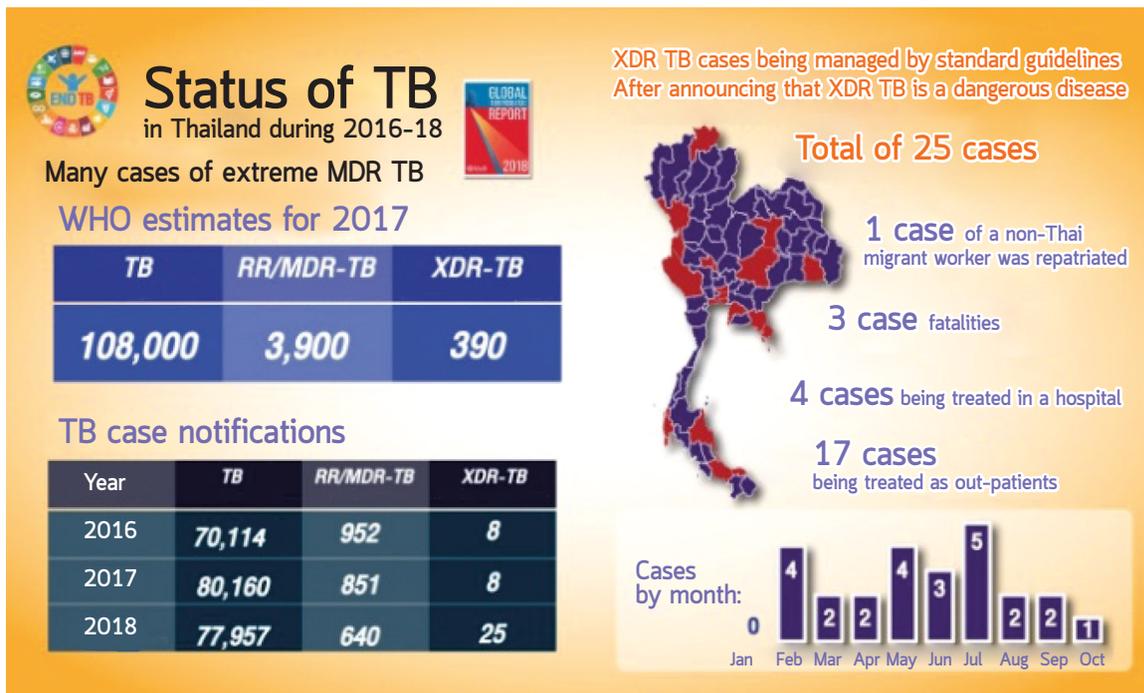
Tuberculosis is the world’s leading cause of death

The 2017 Global Tuberculosis Report by WHO listed TB as the leading cause of death in 2014. The report cited 10.4 million TB cases (new and recurrent) or 140 per 100,000 population. The number of deaths was 1.7 million and there were about 1.03 million people with TB-HIV co-infection (or about 10% of the total caseload). Of these cases, 400,000 die each year. It is also estimated that there are 600,000 cases with drug-resistant TB with around 4.1% are new patients while 19% are those who have had treatments before. Of these, around 490,000 patients have MDR-TB.

The role of His Majesty King Rama IX in prevention and treatment of lung disease in Thailand

Thailand is of course aware of the threat of TB and has tried to contain the disease ever since treatment became available. Before HRH King Bhumibol Adulyadej ascended the throne, he realized that TB was already endemic in the Thai population. Thus, one of his first royal actions to combat TB was to arrange a charity music concert where “Yam Yen” (Love at Sundown) Thai Royal Song – the musical compositions of HRH King Bhumibol Adulyadej was allowed to play to raise funds for a National TB Campaign. Those funds were later matched by donations from the King. In 1953, King Rama IX donated funds from his personal property for the Thai Red Cross to build the building Mahidol Wongsanusorn to set up a laboratory for the production of BCG vaccine to prevent TB. WHO certified the quality of the vaccine that was being produced there.





<https://ddc.moph.go.th/th/site/office/view/tbthailand#>

TB situation in Thailand: HIV was a turning point

Initially, Thailand’s national TB Control Plan succeeded in reducing the prevalence of disease from 150 to 76 per 100,000 population between 1995 and 2001. But the prevalence of TB started to increase again early in the new millennium, largely because of the HIV epidemic.⁵ In 2015, WHO had speculated TB situation during 2016-2020 and listed Thailand as one of the 14 countries with the highest tuberculosis problem in the world based on the high incidence of TB, TB-HIV coinfection, and MDR-TB⁶ as Thailand had 1.3 times the global average for TB incidence and 12,000 deaths. In 2016, it was estimated that there were approximately 120,000 cases of incidence per year.⁷

In 2016, Thailand’s TB control program was able to treat 82.9%⁸ of new and recurrent cases of TB, but that is lower than the international target standard of 90%.⁹ Still, TB control is on Thailand’s national agenda. On September 12, 2017, the Cabinet approved in principle the National TB Control Strategy for the period of 2017-2021. Thailand has also set the goal of ending TB as a public health threat by 2035.¹⁰ That goal is consistent with the WHO target to reduce global incidence of TB to below 10 per 100,000 per year by that year.

Challenges in TB control that are particular to Thailand

The priority challenges on combatting TB in Thailand include the increasing prevalence of MDR-TB, HIV-TB co-infection, TB in prison populations, and TB in cross-border migrant communities. The summary of the situations are as followed.

1. MDR-TB

MDR-TB is a crucial problem as the cost of treatment is unsustainably high (about 200,000 baht per case) and the cure rate is low. By contrast, treating an average case of TB (i.e., not MDR-TB) is only 2,000 – 4,000 baht per case, and cure rates are high. Thailand has been implementing a Programmatic Management of Drug-Resistant Tuberculosis (PMDT) strategy since 2012. However there are limitations of record keeping and coverage of participating outlets. Also, the laboratory confirmation of MDR-TB is still not optimal.

2. TB-HIV co-infection

PLHIV have 20 to 37 times more the risk of catching TB compared to others. Further, TB is the top cause of death for PLHIV. Thus, it is very important to know whether a TB patient has HIV or not in order to decrease mortality rate during TB treatment. In 2016, of 70,114 TB cases registered for treatment, a total of 6,794 (about

10%) had HIV. Of these, around 58% were treated with co-trimoxazole, and 66% were on ART.

3. TB in prisons

Inmates in Thai prisons are at elevated risk of TB due to over-crowding and constant turnover of the prison population. These factors make prisons an ideal environment for spread of TB. Thus, TB incidence in the prison population is 7 to 10 times higher than in the general population. In 2016, among the inmate population of 287,174 in 143 correctional institutions, there were a registered total of 1,656 TB cases, 311 of whom had TB-HIV co-infection. The cure rate for treating TB of inmates was 71.9%. In 2017, expanded case-finding detected TB in 3,694 prison inmates, 83 of whom had MDR-TB (as of 2 November 2017).

4. TB among cross-border populations and in border areas

TB among migrant populations and in border areas is one of the challenges in TB control in Thailand since some of its lower-income neighbors have 2 to 3 times the prevalence of TB as Thailand. In addition, TB seems to be on the rise in cross-border migrant populations. In 2017, a total of 3,207 non-Thai migrant laborers were diagnosed with TB.

The Thai MOPH has declared TB as the 48th disease that needs special monitoring. This refers to drug-sensitive TB, and the drug-resistant strains such as RR-TB, MDR-TB, pre XDR-TB and the most dangerous form XDR-TB, which ranks 13th on the deadly disease list according to the Communicable Disease Control Act of 2015 which indicates that disease control personnel are the law enforcers.

Why has it not been possible to control TB?

In past decades, Thailand has been making every effort to control TB. There has been research on developing the best treatments. In addition, Thailand has also received international donor support (e.g., from the Global Fund for AIDS, Malaria and Tuberculosis - GFATM) to make the country TB free. These efforts have long been helping Thai MOPH in controlling the prevalence, improving coverage and result in high rate of successful TB treatment.¹¹ Even though the external

assistance on HIV/AIDS work from the GFATM has ended, Thailand continues to allocate other significant funding to fight TB.

However, TB is a disease that is infectious even before overt symptoms are detected. This means that infectious cases are circulating undetected in the community. While some may even delay treatment recipient, and some do not have access to treatment, some who have access to treatment may receive the diagnosis in delay. Thus these TB un-aware patients may likely be spreading the disease to unsuspecting others. While there are effective treatments for naïve TB, the emergence of MDR-TB makes many front-line treatments nearly useless. Thus, treatment needs to be constant over the six-month standard treatment regimen. However, some patients discontinue medication prematurely due to side effects or lack of determination to adhere strictly to the regimen. This allows drug resistant strains of TB to emerge. Even if the patients have completed their six-month standard regimen, if the sputum examination result comes out positive, they will still need to continue with the treatment which could be disheartening. Also, because untreated PLHIV have compromised immune systems, they are especially vulnerable to infection with TB. When they do become infected, their TB tends to be more severe than for an HIV-negative person. Hence, TB is no different than opportunistic communicable diseases and has an impact on the effectiveness of the treatment.

National strategic plan to accelerate TB screening

At present, Thailand is implementing prevention and care as part of TB control under the national



action plan to fight TB 2017-2021. The initial aim is to reduce incidence of TB to 88 per 100,000 by the end of 2021. The strategy focuses on “*finding cases, effectively treating cases, developing the system and network for supportive policy, striving to create innovation*” with the goal to end TB as a national health threat by reducing TB incidence to below 10 per 100,000 by the year 2035, which is also in line with the WHO global target and timeframe.

The Department of Disease Control (DDC) has teamed up with the National Health Security Office (NHSO) to integrate the budget for 2018 to support the national action plan to control TB to achieve the goal. This budget supports intensified TB screening and chest x-rays for all inmates in 137 prisons nationwide, and recruiting all infected inmates into effective treatment to reduce TB spreading. As noted above, inmates are one of the target populations because the incidence of the disease is 7-10 times higher than the general population. In the event that a chest x-ray result is abnormal, a sputum sample is collected (AFB) and/or screening for TB resistance with Xpert MTB/RIF. The budget for this is 10,560,640 baht from the NHSO and matching support budget from the DDC for a total of 20,639,360 baht.

Conclusion

TB is the world’s leading cause of death. Although Thailand has implemented TB control plans and used technology to diagnose and treat TB equivalent to the World Health Organization standards and developed countries, the incidence of TB in Thailand has not



<https://thailandonlinehospital.com/th/disease/view/264>

decreased enough and is still likely to become more problematic in the years ahead without an intensified control effort. Therefore, there is a need to increase efficiency, both for prevention and control systems, as well as TB surveillance. Health personnel need to have refresher training to keep up with the evolution of the spread of disease. Field epidemiology methods need to be expanded to help explain how outbreaks occur and detect new patterns of spread. Medical and health staff need to give higher priority to TB control. In fact, Thailand already has the necessary information, data, and measures to control TB, but these are not always being applied in a timely manner.

Another area of emphasis is the need to focus on the higher-risk populations, expand access to diagnosis and treatment, and ensure strict compliance with the treatment regimen until fully cured. For example, the proactive outreach to prisons for TB screening and treatment in 2018 which screen TB cases using CXR for the first time. Proactive projects like this should be implemented continuously in order to reduce the risk among vulnerable populations. Otherwise, MOPH will need to cope with providing treatment onsite. In addition, the NHSO, MOPH and the Ministry of Social Development and Human Security should work together to provide health promotion and TB screening and prevention services for higher risk groups, such as the homeless. This is needed not only to help those populations to be free of TB, but also to prevent drug resistant cases and spread of TB to the larger population effectively.



<https://www.pexels.com>



Misappropriation of the poverty relief fund - making merit for sin

<https://www.pexels.com>

<https://www.pptvhd36.com/news/ประเด็นร้อน/76798>

The duo of Ms. Panida and Ms. Nathakan was exceptionally brave to blow the whistle on corrupt practices in welfare services for the poor and PLHIV of the Khon Kaen provincial protection center for the disadvantaged. Their actions led to an expansion of the corruption probe. The National Anti-Corruption Commission (NACC) found that, in fact, the corrupt practices found in Khon Kaen had spread widely, with more than 60 provinces of Thailand having committed such acts of corruption.¹

Corrupt practices by government officials are still a pervasive problem in Thai society. The way they cheat has continually evolved to evade detection. Often, the cost of these corrupt practices is hidden in the state budget and, when totaled, amounts to an enormous loss to the country and society. Vital budget and public development projects suffer from the drain on resources due to corruption. This problem, in addition to reflecting the fraudulence of agencies responsible for managing projects, also reflects the inefficiencies of state monitoring organizations, such as the Office of the Auditor General (OAG) and organizations that are responsible for combating corruption, including the National Anti-Corruption Commission (NACC) and Office of Public Sector Anti-Corruption Commission (PACC). At the same time, this case showed the vital role of the general

public that a few whistle blowers can play to expose corruption.

This article is a case study of a student intern and her co-worker who revealed the fraud of government officials in the Ministry of Social Development and Human Security (MSDHS). The case reveals the extent of corrupt practices that can occur in bureaucratic systems and that are linked in many areas throughout the country.

Two brave souls who exposed massive corruption

Back in August 2017, Ms. Panida Yotpanya or Nong Bam², a student of the Faculty of Humanities and Social Sciences, Community Development Branch, of Mahasarakham University, began an internship in the Center for the Protection of Persons with Disabilities in

Khon Kaen Province. During her internship, she found suspiciousness at the Center. The manager of the Center had created a system for forging documents in order to withdraw money that was intended to go to impoverished people, in the amount of 2,000 baht per person, 2,000 baht for PLHIV, and 3,000 baht for occupational support for the poor. The manager and accomplices collected these funds that were intended for over 2,000 persons, totaling more than 6.9 million baht of stolen funds. Ms. Nathakan Muenphon (an employee of the Center) and Ms. Panida took their findings of corruption to the media and related agencies, including both the NACC and the Office of the Public Sector Anti-Corruption Commission (PACC), and the National Council for Peace and Order (NCPO). As a result of their actions, Ms. Nathakan was fired from her job at the Center and Ms. Panida was not allowed to complete her internship.³ However, their actions drew wide attention from the public, and the news media continued to follow the related events. This pressured the government to investigate the corruption charges more seriously.

284 government officers in 68 provinces were involved in the corruption scheme

After exposing the matter until it became national news, the government conducted an investigation which was implemented in three stages. The first phase began in February 2018, when the NACC and PACC, together with the MSDHS launched a fraud investigation in Khon Kaen Province. The investigation looked specifically into the charges made by Ms. Nathakan and Ms. Panida. The first action was an order to transfer the director and three other staff of the Khon Kaen Center by order of the PACC. The investigation would eventually find enough evidence to convict the Center director and six accomplices on four charges of corruption and forgery with maximum penalty of life imprisonment.⁴

As part of that initial phase, the Department of Social Development and Welfare had set up a committee for serious disciplinary examination of all government officers and contract employees of the Khon Kaen Center.⁵ The Committee resolved that the director of the Center, Ms. Puongphayom Jitkhong, and the Chief of the Social

Welfare Section, Ms. Waraporn Obma, be fired. Moreover, Prime Minister Gen. Prayut Chan-ocha ordered the transfer of Mr. Puttipat Lert Chaowasit, Permanent Secretary of the MSDHS, and Mr. Narong Kongkham, Deputy Permanent Secretary to posts in the Prime Minister's Office⁶ to seriously investigate corruption in the MSDHS.

In the second phase of the investigation, the PACC set up a subcommittee to investigate the payment of subsidies for low-income families and the destitute in 2017 throughout the country. That investigation found misappropriation of funds in the amount of 129.5 million baht⁷ involving 189 government officials. The corrupt practices included forging documents, false signing of disbursements, fake amended payments, false receipts of funds, and other forms of embezzlement. Those whose names are registered to receive this fund did not receive full amount of fund or any at all. Some were also ineligible to receive the fund.⁸ This led to criminal charges and referral of the issue for the MSDHS to implement their own disciplinary measures.

Following this, the MSDHS passed a resolution to accuse Mr. Puttipat and Mr. Narong, along with nine other high-ranking government officials with wrong-doing requiring serious discipline, including discharge from their positions and freezing of all their assets given evidences that they were behind the corruption. In addition, the Office of Prevention and Suppression of Money Laundering also prosecuted criminal cases after finding that Mr. Puttipat and other corrupt officials had embezzled and laundered state funds in the amount of 88 million baht. On June 29, 2018 Mr. Puttipat committed suicide by poisoning himself at his home.⁹ His wife had also taken the poison but was saved by paramedics.

In the third stage of this corruption investigation, the PACC extended the investigation to 28 departments within the MSDHS. The inspection found seven cases of fraud involving 41,410,000 baht.¹⁰ The corrupt offices include the Centers for Development of Highlands Populations in Petchburi, Phrae, and Ratchaburi Provinces; Self-help Settlements in Lamdome Yai of Ubon Ratchathani Province, Thay Muang in Phangna Province, Rataphum in Songkhla Province, and Betong in Yala Province. An additional 21 offices are still undergoing investigation at the time of this writing.



From these three phases of investigation, the PACC conducted inspections of 113 offices or agencies, involving the misuse of state budget in the amount of 376,136,600 baht. The PACC Board of Directors approved the findings of the investigation at 61 agencies. The agency found fraud in 68 provinces, and no corruption in eight provinces, namely Chachoengsao, Prachin Buri, Nakhon Si Thammarat, Nonthaburi, Phrae, Nakhon Sawan, Sukhothai and Uttaradit. The investigation uncovered 284 corrupt officials of the Department of Social Development and Welfare, MSDHS. The corruption within the MSDHS is not only misappropriating funds within the Centers to assist the destitute, but also spread to other agencies and entities, like a metastasizing tumor, to an increasing number of provinces. The six agencies involved in the corruption include the Center for Assisting the Destitute, the Division of Welfare and Protections, the Self-help Settlements, the Center for Protection of the Homeless, the Center for Development of Highlands Populations, and the Center for Coordination of Village Cooperatives.¹¹

Finding a solution to prevent fraud

The problem of corruption that infiltrated the bureaucratic system seems to get worse by the day and has become a generic part of the government. When high-level executives are behind the corruption, it becomes that much more difficult to root out. A key

source of the problem is the lack of a strong audit system. In the past, Thai people may have heard that most government fraud occurs during large procurement projects, through bribery, auction irregularities and conflicts of interest. Although these steps have a monitoring system, it is not thoroughly applied.

In addition, the authority to disburse budget lies in the hands of the agency's executives directly. Therefore, without independent oversight, the system is prone to corruption. The OAG does not have the staff or budget to keep pace with the corrupt officials.

As a result of this case, Gen. Anantaporn Kanchanarat, Minister of the MSDHS, ordered the creation of a new subsidy payment system¹² by requiring budget disbursement to use electronic payments via Krung Thai Bank (Krung Thai Corporate Online). The Comptroller General's Department and Krung Thai Bank are responsible for transparency of disbursements to prevent corruption and misconduct. This system is being applied to the full range of subsidies and welfare, including the subsidy for newborn care, relief aid for the disabled and the elderly, etc. When the Budget Bureau allocates budget to the MSDHS, the Ministry then allocates disbursements through the "One Home Committee." Those who qualify for a subsidy are logged into an on-line database which prevents anyone else from taking those funds. The subsidy is deposited directly into the individual's Krung Thai

Bank account, set up just for this purpose. That removes government officials from the process of managing the welfare funds. The process takes 2 days for accounts at other banks. There are other checks and balances to ensure transparency and prevent corruption, such as the use of witnesses and local leaders to verify the status of the individual welfare recipients and correct disbursement of funds.

Prof. Dr. Kovit Phuangam, Dean of the Faculty of Social Sciences of Thammasat University, expressed the view that merely changing the payment method from the government intermediary agencies to the bank is only addressing the tail end of corruption; i.e., not the root cause.

In the long run, Dr. Kovit suggests that all projects related to the state welfare system need to clarify the rights of those who are directly entitled to the amount and explain that the benefits of the rights that should be honored. Disabled people have one right; the elderly have another right; the destitute have another right, and so on. Also, there need to be relationship building between the state and related sectors, and assign who should do what, which tasks should be transferred to local administrative offices. There should be studies of how people should act more responsibly and show accountability in order to achieve a true transformation. Whether the disbursement of fund is through a bank or not, there should not be any problem if there is such transformation.¹³

Increase the oversight role of civil society

Civil society, like the Anti-corruption Organization (Thailand), is another sector that can play an important role in seriously advocating for counter-corruption. Mr. Mana Nimitmongkol, Director of the Anti-corruption Organization (Thailand) has called for more use of outsiders to investigate this issue. The MSDHS should not be allowed to police itself without oversight. When high-level officials are involved, it would be impossible to detect corruption without outside investigation.¹⁴

There is also the group organized by Mr. Srisuwan Chanya, Secretary General of the Thai Constitutional Protection Organization Association. That association called for the Anti-money Laundering Organization to examine the financial transactions of the executives of

the MSDHS. Mr. Srisuwan believes that corruption of this scale had to be part of a national network of corrupt officials. Lower-level staff would not have dared participate unless they felt protected by senior officials of the MSDHS. Therefore, the fact that the MSDHS sets up a committee to investigate the corruption does not mean that any action can or will be taken. There are many other projects with budget in tens of billions of baht that are also prone to embezzlement. This is especially true of the “Ban Man Kong” affordable housing project in which it is believed that there is a network of corrupt officials already siphoning off funds for personal gain.¹⁵

Conclusion

While Thailand has experienced impressive economic development, the basic habits of people in society seem to have regressed, as there is an increasing emphasis on how to get ahead at the expense of others. These people do not have a social consciousness and cannot think beyond their own needs and desires. This can lead to vast networks of corruption as shown in this case study of the MSDHS. This situation is not only due to the gaps in the bureaucratic audits and control system. It is also the result of the attitude and tolerance of the Thai people, including government officials, who have become complacent or cynical in the context of a corrupt social environment. In just one short period of time, the corruption at the MSDHS caused enormous damage to the country. On a national scale, this level of corruption is clearly holding the country back. The investigations have only uncovered the tip of the iceberg of corruption that has permeated every level of society. The audit mechanisms are too weak, from the internal audit of a ministry itself or the examination by constitutional organizations, such as the OAG and other and corruption monitoring organizations such as the NACC and PACC. Civil society surely has a bigger role to play, such as the Anti-corruption Organization, as well as the many potential whistle blowers inside corrupt agencies. Such a phenomenon is like unleashing the individual power that helps protect the nation without fear of any negative influence. Therefore, it is essential that Thai society help to adjust and create values and attitudes of Thai people to create a transparent and honest society so that these problems can be effectively averted in the long run.



4

Imported electronic waste: The danger from abroad



Thailand is becoming a global dump site for electronic waste. After the Chinese government signed the ratification with the United Nations on the import of electronic waste, the suppression of the import of electronic waste in China diverted some of this hazardous waste to Thailand

According to the Customs Department data, it was found that Thailand imported electronic waste correctly (under the Basel Convention that controls the transport of hazardous waste transport), during January to May 2018, in the amount of more than 52,000 tons. That amount has doubled in volume compared to 2017 throughout the year. However, there were also illegal imports¹ (outside the Basel Convention), by means of false declarations of a ship's contents. This is a warning sign that Thailand is vulnerable to becoming a toxic waste dumping ground of the world. This article is a summary of the situation of electronic waste in Thailand and electronic waste smuggling problems. It also considers ways to solve these problems.

The situation of electronic waste in Thailand

The Department of Industrial Works² has tracked the amount of industrial waste in Thailand over the past five years and found that the amount was 4,387,769 tons in

2012; 10,150,937 tons in 2013; 12,322,492 tons in 2014; 11,159,866 tons in 2015; and reached the highest level yet of 16,340,000 tons in 2016. This means that the amount increased nearly four-fold in just five years. This is largely attributable to the fact that Thailand is one of the world's major electronic manufacturing bases and, thus, produces waste on its own.

Electronic waste, or e-waste, is waste from electronics appliances and electronic products. A major challenge for the world is how to recycle these waste products as the components in e-waste contain high-value metal and minerals. With the right technology, they can be used to create value. For example Japan has used precious metals extracted from electronic waste such as gold and copper, to produce medals for the Olympic Games in Tokyo in 2020.³

For Thailand, the import of e-waste must follow the Basel Convention on Control of Transboundary Hazardous Waste Disposal (Basel Convention) which is a regulation that limits e-waste transportation between

countries. The aim is to reduce the amount of toxins caused by waste or e-waste. The Convention controls the transport of various types of chemical waste, and previously designated only 47 types of waste on the control lists. They have been regrouped as List A

which has 61 types of waste, namely (1) 19 types of metal wastes such as arsenic, lead, mercury, asbestos, cadmium, etc.; (2) six types of inorganic wastes such as fluorine catalysts, etc.; (3) 20 types of organic waste such as crude oil, fuel oil, etc.; and (4) inorganic waste and 16 kinds of organic substances such as hospital waste, explosives, etc.

E-waste is constantly increasing, and that makes traditional waste management inefficient, while having an adverse effect on the environment. There is the problem of chemical residues leaking and damaging the local ecosystem. The data of the Department of Industrial Works for 2017 showed that Thailand had more than 60,000 tons of electronic waste correctly classified into garbage from domestic industry in the amount of approximately 7,400 tons, and 53,000 tons of imported waste. To date, Thailand has 148 authorized plants with e-waste treatment permits. These facilities include waste sorting plants, treatment plants, and facilities for waste disposal and recycling of precious metals. Most imported waste is from Japan, Hong Kong and Singapore, and 98% are mobile phones, electronic circuit boards and computers. The Department of Factories has issued e-waste import licenses to seven factories with a total quota of approximately 117,000 tons per year. Of these, five factories have improperly imported e-waste under the conditions of their license.⁴

The Pollution Control Department found that there is an increasing trend in accumulation of e-waste in Thailand. Much of this is from electrical parts, various types of electronics, and appliances. The volume has increased from 357,000 tons in 2012 to 384,233 tons in 2015. The most common electrical waste were televisions (27 percent), followed by air conditioners (19 percent), refrigerators (17 percent), washing machines (16 percent), and computers (15 percent). Other disposed devices include VCD/DVD players, telephones and digital cameras. The majority of the sources are from general population homes, accounting for 82%, followed by offices at 14%,

and hotels/apartments at 3%. A survey on household consumer behavior showed that more than half of these discarded appliances can be sold for parts (51.3%). One-fourth are collected and held (25.3%), while 15.6% are discarded with general waste, and 7.8% gave away unwanted devices. According to the Pollution Control Department, mobile phone is the most common product in the e-waste management system and is increasing each year. In 2016, it was estimated there were 10.90 million mobile phones discarded, followed by 3.6 million audio/video playback device units. It is expected that, in 2021, there will be 13.42 million discarded mobile phone and 3.65 million portable audio/video devices in the e-waste system.⁵

Dangers of discarded cell phones and batteries

E-waste that is closest to the Thai people are unused mobile phones. Thais strive to be modern and like to buy the latest model when a new generation of cell phone hits the market. Often, the older phone is simply discarded as general waste. As a result, the mobile phone has become a major component of



<https://www.mxphone.net/wordpress/wp-content/uploads/2016/11/Think-Smart-2.jpg>

garbage in the community, and is mixed with solid waste, without proper management of the electronic components or batteries. Over time, the shell of the phone and the battery will deteriorate or erode. The chemicals inside can then enter the environment. These materials are toxic and they can permeate the ecosystem and food chain through soil, water and air, with unpredictable adverse health consequences for the population.⁶

Electronic waste smuggling: Transnational crime

The problem of smuggling of e-waste in Thailand continues to fester. On May 30, 2018, Pol. Gen. Virachai Songmetta, Deputy Commissioner of the National Police, together with officials of the Ministry of Industry and Customs inspected shipping containers at Laem Chabang Port in Chonburi Province. They found seven units imported from Hong Kong and Japan which contained e-waste, including electronic game consoles, power cables and circuit boards despite the shipping declaration that they were just plastic. This resulted in four criminal charges for false declarations under the Customs Act, avoidance of tax payment, and unauthorized import of Category 3 hazardous substances. In addition to the criminal penalties, the importing company is responsible for correct disposal or return of the e-waste to the country of origin.⁷

According to the Pollution Control Department, there has been continuous smuggling of e-waste to Thailand.

- In December 2001, Thai importers were caught smuggling car batteries and car parts from the UK in five containers with total weight of 23.4 tons.
- In September 2002, smuggled used computer monitors from Japan were found in two containers weighing 46.2 tons.
- In January 2004, e-waste from Japan was imported in seven containers weighing 46.2 tons.
- In August 2014, electrical appliances from Japan were smuggled in eight containers weighing 196.1 tons.⁸

These events reflect the laxity of management and controls in Thailand, which is partly caused by corruption and taking of bribes by government officials to overlook

illegal imports of e-waste. However, these are transnational crimes that need to be stopped. In one case, a private group of Chinese companies founded a company in Thailand or bought a factory from a Thai citizen as a way to apply for a license to import the e-waste from the Department of Industrial Works. The company's operations were inefficient and they had to distribute these e-wastes to other factories in their network for disposals. It was also reported that they tried to buy off the Thai inspectors with bribes worth 100,000 Baht per shipping container to look the other way.⁹ These types of cases are due to the selfishness of some groups without taking into account the impact on the whole society, the environment of the country, and people's health problems that result.

The search for a solution

At present, Thailand has no laws regarding e-waste management specifically for electronics. Although, there have been efforts to gain Cabinet approval of a draft "Electrical and Electronic Product Management Act" since 2015. The latest attempt was on December 25, 2018, when the Cabinet finally passed a resolution approving the draft bill. The essence of the bill would require the manufacturer to set up a product recovery center,¹⁰ or the distributor of electronics and electronic equipment -- or any person acting under the supervision of the manufacturer or the producer -- to enter into an agreement with the parent organization to properly manage e-waste. Local government would be involved in the establishment of such a product recovery center. However, as of the beginning of 2019, the NLA has not yet considered the draft law. Thus, the draft bill is still being reviewed by the Council of State. At the time of this writing, the laws that are in effect that deal with hazardous waste management and industrial operations and various environmental laws, include the following:

- National Environmental Quality Promotion and Preservation Act, 1992
- Factory Act, 1992
- Industrial Estate Authority of Thailand Act, 1979
- Public Health Act, 1992
- Hazardous Substance Act (No.3), 2008
- Investment Promotion Act, 1977



- Export and Import Act, 1979
- Industrial Product Standards Act (No. 6), 2005
- Customs Tariff Decree, 1987¹¹

Regarding operations of related agencies, in 2006, the Ministry of Industry, via the Office of Industrial Economics, established a framework and action plan to support the impact of the European Union regulations on electrical and electronic waste products. The Department of Industrial Works studied how to correctly manage the discarded electrical products and electronic equipment, and the Ministry of Industry issued an announcement regarding the disposal of electrical appliances and electronics that are Category 3 hazardous substances. The ministerial directive required manufacturers, importers, exporters or possessors of e-waste to obtain permission from the competent official of the Department of Industrial Works before being able to operate. The Ministry of Natural Resources and Environment, via the Pollution Control Department, conducted studies and various projects. For example, feasibility study to establish a hazardous waste disposal center in the community, mobile phone battery disposal mechanism project, electronics appliance waste management guideline, and strategic

management of electrical and electronic products, etc. Meanwhile, MOPH Department of Health has prepared a guide for citizens on proper disposal of e-waste.

Another attempt to address the problem immediately was the appointment of the 5th Government Administration Reform Committee, with Gen. Prawit Wongsuwan, Deputy Prime Minister and Minister of Defense as the chairperson. On June 20, 2018, the Committee considered three urgent measures¹²:

- Suspending the permission to import e-waste from factories that were not in compliance with the Basel Convention
- Returning e-waste and plastic scraps to place of origin in the case of false declarations as well as prosecuting the offenders
- If importing e-waste and plastic scraps, and improperly managing that waste, then the offender is instructed to rectify the situation; and will be prosecuted

Academia and civil society demands for action

Mr. Sonthikachawat, Secretary General, Thai Environmental Health Association¹³ has called for

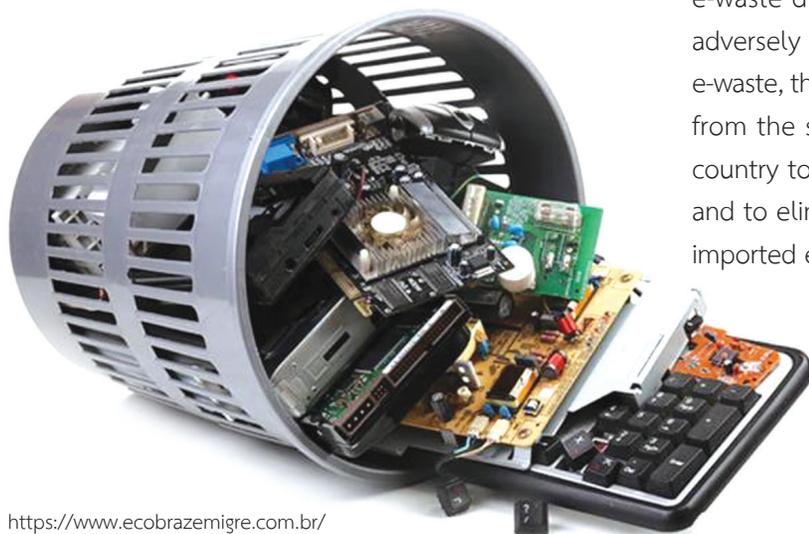
speeding up legislation on e-waste management and electronic equipment (WEEE) under the principle of increased responsibility of manufacturers and product importers. The proposal is for a system to collect, return, transport, recycle and dispose of electrical and electronic equipment products. This should be done in cooperation with all relevant sectors ranging from consumers, local authorities, and distributors, for example, by requiring consumers who want to dispose of such products to separate waste and pay a disposal fee to the public sector for transporting and managing the e-waste. In addition, retailers have to collect old products when selling new products. The manufacturer is responsible for all costs of repurchasing and recycling which will result in a greater amount of recycling. This could reduce the problem of indiscriminate disposal of e-waste and encourage manufacturers to develop products that have more environmental protection properties, and reduce the use of non-eco-friendly materials. The government must accelerate this process to create enough industrial waste disposal facilities for all types of hazardous waste. All recycling plants must operate within the area of industrial estates for ease of control and environmental supervision.

During this urgent phase, Ms. Phenphaset Sae Tung, the Director of the Ecological Restoration Foundation, joined forces with seven villagers adversely affected by e-waste in Chachoengsao, Chon Buri, Rayong, Samut Sakhon, Phetchaburi, Saraburi and Ratchaburi Provinces, where a number of recycling plants are located at, to call upon the NCPO to use its power under Section 44 to seriously look into this matter. They argued that this

problem is caused by the Department of Industrial Works which issued the ministerial announcement to allow exceptions to be made, resulting in non-compliance with the Hazardous Substance Act regarding licensing and registration. This results in continued production, import, export and possession of e-wastes and other refuse by companies that have not received permission to do so.¹⁴ There could be adverse effect to the environment as a result.

Conclusion

A big part of the ever-growing pile of e-waste is due to consumer's abandoning older phones and computers when a new model comes out. The original device is still intact but deteriorates over time, thus releasing toxins from e-waste into the environment. In developed countries such as Belgium, the problem is addressed by a central organization called RECUPEL which is an agency that has a storage and management system for electrical and electronic equipment, with practices that are in accordance with the law and environmental policy agreements. RECUPEL has the authority to recall unused electronic devices. This process resulted from mutual agreement between the government and the electronics industry, and this model could be replicated by Thailand before the problem of e-waste becomes unmanageable. In other words, Thailand needs to establish a central organization to join forces with relevant government agencies to control and manage e-waste, promote the creation of a fully integrated recycling plant, and create enough electronic waste disposal plants for the whole country. There also need to be zones that are free of e-waste disposal so that nearby communities are not adversely affected. As for the problem of smuggling of e-waste, there should be a system for screening products from the source before importing containers into the country to prevent smuggling of e-waste into Thailand, and to eliminate the need for extra budget to ship the imported e-waste back to the country of origin.



Approving healthy use of marijuana - the first step toward a medical advance

https://www.matichon.co.th/politics/news_1204356

Many countries around the world allow legal marijuana use for medicinal or recreational purposes. Many decades ago, Thailand classified marijuana as a Category 5 drug, requiring criminal punishment, according to the 1979 Narcotics Act. However, recently there has been a movement to reclassify marijuana so that it can be used for medicinal purposes. That is opening the door for hope that some Thai patients will benefit from such a policy.

According to the 1979 Narcotics Act, marijuana was classified as a banned Category 5 drug (in the same category as Kratom). The law stipulated that possessing marijuana is subject to a maximum of five years imprisonment, and a fine of up to 100,000 baht¹. Over the years, there have been efforts to reclassify marijuana as a medicinal plant in Thailand, following the lead of many other countries which have done so, including the US². But for Thailand, the matter of drugs is a delicate issue, and it is still difficult for most people in the society to accept decriminalization. However, what needs to be understood is that the movement to reclassify marijuana is not about recreational use, but as a medical aid.

There is ample research confirming the medicinal benefits of marijuana for many types of diseases and conditions. This article presents a discussion of perspectives on various aspects and trends in policy and

legal changes related to marijuana, and potential impacts of legalization.

Marijuana: A medicine or addictive drug?

Marijuana is part of the cannabis family of psychoactive substances (Cannabinoids) which contains active components, such as Delta-9-Tetrahydrocannabinol (THC). These substances are classified as psychotropic and neurotropic substances in Category 1 according to the Psychoactive and Neurological Act, 1975. Researches on the effect of THC led to the commercial production of Dronabinol (Marinol), which contains THC for use in cancer patients treated with chemotherapy to prevent nausea and vomiting, and increase appetite in AIDS patients.

Marijuana is commonly consumed by smoking. The effect penetrates the bloodstream quickly, e.g., within

2-3 minutes, and the psychotropic action of a single use can last up to one hour. The symptoms are equivalent to being slowly sedated, and in some cases more quickly than others. The euphoric high (i.e., “stoned”) effect can be experienced in most users. At the beginning, marijuana acts as a nervous stimulant and some people will experience mental stress or anxiety, followed by a feeling of tranquility and quietude. With heavy use, the user’s mood can change suddenly, provoke sudden outbursts of laughter or sudden euphoric feeling – what is called a marijuana intoxication. More than any other symptom, the marijuana user will experience a sense of drifting, dry mouth, confusion, increased appetite, increased pulse rate, and red eyes while high. Chronic use of marijuana can cause a deterioration in health, followed by diseases such as bronchitis, sinusitis, respiratory inflammation, cramping, and/or diarrhea. Marijuana can have a range of pharmacological effects, such as a stimulant, a depressant, a hallucinogen, an analgesic or similar properties of a psychotropic substance.³

Dr. Somyot Kitti-mankong from the Bureau of AIDS, TB and STIs of the DDC wrote a book titled “Marijuana as a Cancer Treatment” explaining that cannabis is beneficial in treating a range of diseases, especially AIDS, in the past. Use of marijuana by PLHIV can counter some of the effects of a degraded immune system and help return some PLHIV to a more healthy state. There have been experiments which found that administering marijuana has an effect on reducing liver cancer in rats and reducing the occurrence of other cancers such as cancer of the breast, uterus, pituitary gland, testicles, and the pancreas, and also inhibits lung cancer cell growth in vitro. Human lung cancer cells were injected in mice and found that marijuana could inhibit proliferation of the cells by up to 60 percent, preventing the cancer from spreading. Research from the US National Institutes of Health has confirmed that cannabis use is effective for cancer treatment, and can have an inhibiting effect on some types of cancer. The

mechanism of this effect is that marijuana causes the cancer cells to self-destruct.

Marijuana as a traditional medicinal herb in Thailand

From research on “The use of medical marijuana,” Dr. Weeraya Tha-uppachit discovered that in fact, marijuana has been used as a medicinal plant in traditional Thai medicine formulations for centuries. There is actually documentation on use of Thai medicinal ingredients containing marijuana in medical texts and writings of royal medicine of Phra Narai’s text during the era of King Narai, more than 360 years ago. The main form of marijuana-containing drugs are Tippagad, Suksaiyad, Ummarit Osot, Akkineewakana, which was used as a tonic, appetite stimulant, sleeping aid, treatment of headache, and carminative. Evidence of use has been recorded by “Akkineewakana is a mix of 1 unit of Marijuana and ginseng with 2 units of crushed cinnamon shells, bay leaves, cloves, and Piper wallichii, 3 dry ginger, and 1 unit of the root of the plum and Indian long pepper, and 6 unit of rock sugar. The crushed concoction was then mixed with a solution and taken to treat nausea and vomiting. With flatulence which results in discomfort, nausea and vomiting, and loss of appetite, I present to you this medicine to King Naria to be taken to ease the symptoms”

Other documentation of marijuana use can be found in more than 100 different texts, including inscriptions at Phra Chetuphon Temple (“Wat Pho”). However, after the UN designated marijuana to be a narcotic drug in 1961, most countries declared marijuana to be illegal, including Thailand.

A reconsideration of marijuana: WHO affirms the medicinal properties of marijuana

On December 13, 2018, the WHO Drug Dependency Expert Committee issued a report that Cannabidiol, or CBD, one of more than 100 compounds found in marijuana, can be effective in treating epileptic seizures in children, adults and animals, including the treatment of Alzheimer’s disease, hallucinations, cancer, and Parkinson’s disease. In addition, it was found that CBD



is different from other substances found in marijuana (or the so-called Cannaboid family) in that it has no effect on the nervous system to cause a patient to feel high or intoxicated, or become physically dependent on the drug as with other narcotics. The WHO report also stated that recognition of the medicinal benefits of CBD is causing many governments to adjust their laws so that CBD can be used to treat patients. However, some countries that are least tolerant have classified CBD as a Class 1 drug – drug with high adverse effect and no medical benefit.. This has led to underground marketing of CBD which may lead to illegal use, overuse, or compromised quality of the drug formulation.

Earlier, the WHO had issued a report called “The health and social effects of non-medical cannabis use⁴”, featuring the Swedish Ministry of Health. The report stated that the most obvious effect of marijuana is to increase the risk of traffic accidents by 1-3 times. However, this effect is very small compared to the drunk driving problem (i.e., with alcohol)⁵. The Rangsit University has also studied this matter very seriously and produced a Cannabis Spray for relieving pain and vomiting from chemotherapy among cancer patients.⁶

The government gives the green light to pursue medical marijuana

The issue of using marijuana as a remedy is a matter that Thai society became interested in recently. Two candidates that have medicinal properties are Cannabidiol (CBD) and Tetrahydrocannabinol (THC) which have different treatment effects.⁷ Still, Thailand’s tough drug laws still classify marijuana as a banned substance. Given the louder calls for some easing of the drug law, the NCPO began to endorse a reconsideration by the NLA, calling for an amendment of the 1979 Narcotics Act to make an exception for medical marijuana.

However, there was still a debate about the Thai marijuana patent. Prof. Dr. Thirawat Hemajutha, of the Faculty of Medicine of Chulalongkorn University,⁸ revealed that Thailand might not have the legal means to use marijuana for medicinal purposes. That is because the Department of Intellectual Property had received applications from a foreign companies to patent the substances found in marijuana plant. However, it is



actually impossible to do so as these substances are naturally found in marijuana. According to the Intellectual Property law, this cannot be done. Based on the appeal process, an announcement has been made on the website for those who oppose the action to sign their names. This appealing process takes 90 days which has already passed. If this foreign company succeed in securing this patent, the big question will be whether what Thailand is trying to achieve in decriminalizing marijuana for medical purposes such as steps led by the Government Pharmaceutical Organization, development of semi-industrial plantations, marijuana species development, and extraction, which cost 120 million baht, can still be done.

Later in 2018, the matter of legalization of marijuana for medicinal use heated up, and the NLA reconsidered more drafts of an amended drug law. Mr. Pornpetch Wichitchonchai, then president of the NLA, called the Department of Intellectual Property to clarify the patent status of marijuana on November 20, 2018. Mr. Direk Bunthae, Deputy Director-General of the Department of Intellectual Property, admitted that there were 11 applications for marijuana patents by foreign companies pending. However, the Department has not yet registered a single marijuana patent for a foreign company, and some requests have been canceled or withdrawn. This gave the NLA the confidence to approve the 3rd draft of the Narcotics Act with the support from 166 committee members. The draft contains the content of 28 articles. The essence of the amended Act is that it would legalize import or export of Category 5 drugs, e.g., marijuana and Kratom for medical purposes upon an approval from the authorities. Possession would not be a crime as long as it was an appropriate amount and used for medicinal purposes including treatment, first aids,

and researches. Also, the drug could only be obtained from authorized distributors. In addition, the NACC was given authority to designate where the marijuana plant could be cultivated. The MOPH would also be involved in making the determination of where marijuana could be used which would allow marijuana to only be decriminalized for medical purposes and among only health personnel and patients⁹.

Various opinions on decriminalization of marijuana

The issue of marijuana legalization became a hot topic of discussion by political parties and candidates preparing to run in the March 2019 elections including the Democrat Party, Polmuangthai Party, Bhumijaithai Party, and Palang Pracharat Party.¹⁰ Finally, the decriminalization of marijuana has been pushed forward until the amended Narcotics Act draft was approved by NLA. Meanwhile, Pol. Capt. Chalerm Yubamrung, of the Pheua Thai Party issued a statement disagreeing with the amended drug act with the argument that it would be too difficult to control cultivation, distribution and use of marijuana. He warned that, inevitably, medical marijuana would make its way to markets serving adolescents for recreational use. He said there should be a master plan for drug control before this amended law goes into effect.¹¹

While Thailand continued to debate legalization of marijuana, multinational pharmaceutical companies have applied for a patent for natural cannabis extracts in Thailand. This caused Mr. Panthep Puapongpun, Dean of the Institute of Integrative Medicine and Anti-Aging Medicine, Mr. Komson Phokhong, a lecturer at Faculty of Law, Rangsit University, Ms. Rosana Tositrakul, former member of the Senate, and Prof. Wicha Mahakun (former NACC member), along with members of the civil society network for medical marijuana (comprising over 100 people) to appeal to the Department of Intellectual Property to not allow Thai marijuana to be patented by foreign companies. They also protested the action of the Thai Food and Drug Administration (FDA) to designate areas for legal marijuana cultivation using closed systems. Cultivators in Canada have demonstrated the superiority of outdoor cultivation of the marijuana

plant given that sun light has significant impact on the quality of marijuana. In addition, this method of cultivation also helps reduce production costs.¹²

The effects of legalization of medical marijuana

Marijuana contains various chemicals with both positive and negative effects. Still, the benefits would seem to outweigh the risks if medical use is effective in treating many illnesses and to prevent cancer cell growth. Therefore, marijuana is considered an alternative treatment for diseases that will allow patients to access more effective drugs and reduce the side effects caused by synthetic drugs. This could also help to reduce the cost of treatment compared to the reliance on imported drugs. As stated in historical evidences, marijuana was considered a traditional local herb for limited use within communities. Legalization of the plant could also encourage medical innovation in Thailand to excel and be accepted among the global community.. However, given the current condition of Thai society, the immediate concern is the smuggling and sale of marijuana for recreational use without doctor's recommendation. As noted, excessive use can cause harmful and disorienting psychological effects with loss of self-control, deterioration of memory, deteriorated muscle, high heart rate, and hallucination. This could cause further social issues, especially crime caused by those with psychological problems or other accidents. Legalization of marijuana is hence a double sided coin that requires careful ways of handling by the government.

New Narcotics Act legalizes marijuana and Kratom for medicinal use

Ultimately, on February 18, 2019, an amended Narcotics Act (No. 7) 2019 (2562 B.E.) was announced in the Royal Gazette and, thus, became effective law. The justification was that the 1979 law was out of date, and there needed to be recognition of the many scientific studies showing the medical benefits of these plants. The law would allow patients to exercise their right to treatment, under the guidance of a licensed physician in order for these herbs to be consumed legally.

The Permanent Secretary for Agriculture and Cooperatives, Director-General of the Department of Traditional Thai Medicine and Alternative Medicine, Director-General of the Department of Industrial Works, Director-General of the Department of Health Service Support, Director-General of the Department of Mental Health, President of the Medical Council, President of the Thai Traditional Medicine Council, and the President of the Pharmacy Council, as members of the Narcotics Control Board, were instructed to proceed with the import, export, cultivation, distribution and possession of these drugs as specified.

Anyone with possession of marijuana for medical use, treatment for a specific condition or research before this Act became official would not be penalized. But they would now need to apply for a license to use the drug, submitted to the Thai FDA within 90 days from the date of the Act. If the application is denied, then all remaining stock of marijuana must be turned over to the MOPH or destroyed.

In addition, there was also a secondary law issued by the Drug Abuse Act (Issue 7) 2019, signed by Dr. Piyasakol Sakolsatayadorn, Minister of Health, regarding the following:

Issue 1: Announcement of the MOPH on the provision of Category 5 narcotics specific to marijuana belonging to the MOPH or to destroy marijuana that has been obtained by individuals: There is no criminal penalty under Section 22 of the Narcotics Act.

Issue 2: Announcement of the MOPH on punishment for Category 5 drug possession specific only for marijuana: Patients who needed marijuana to treat a specific disease before the Narcotics Act was in forced will not be prosecuted.

Issue 3: Announcement of the MOPH regarding the notification of possession of marijuana. For those qualifying under Section 26/5 and other persons who are not patients under Section 22 (2) before the Narcotics

Act was in forced will not be prosecuted. That is those who are not specified in group 1) and group 2). All 3 issues became in forced the day after the announcement on the Royal Gazette.

In addition, there was a general amnesty for marijuana possession for three groups, including 1) doctors, researchers, community enterprises, 2) patients, and 3) other groups according to the law. People from these three groups can report possession at the comprehensive service center designated by the FDA. Alternatively, these people can report to their local provincial health office. If in doubt, people can call the hotline number 1556 and press 3 during office hours, to obtain response to inquiries on issues related to marijuana directly.

Conclusion

The data of the Department of Medical Services¹³ indicate that 122,757 Thais were diagnosed with cancer in the latest year, or an average of 336 cases per day. Deaths from cancer average 78,540 cases per year or 215 cases per day. The cancer situation in Thailand is worsening. However, research on cannabis for cancer treatment was only conducted in some academic institutions, and no action had been taken seriously due to law restriction. Now that limited use is legal, the government and relevant agencies should focus on establishing agencies or supporting agencies involved in experimental research of the medicinal benefit of the use of marijuana to treat diseases and conditions. The government should encourage educational institutions that are ready and equipped to improve understanding of the useful properties of marijuana. However, there also needs to be careful monitoring of the drug so that it is not diverted for recreational use. Otherwise, marijuana can become a double-edged sword that causes more harm than benefit to Thai society. Hence it is important to have an agency that controls and monitors this matter seriously to prevent improper use of marijuana.





<https://goodlifeupdate.com/healthy-body/78407.html>

<http://www.papaideo.com/news/3236>

Rabies outbreaks and the obstacles to vaccination coverage

In 2018, the news of the ongoing rabies epidemic in many provinces has created concern by the public throughout the country. The media had daily headlines on the number of new infections. At some point, this could cause a panic in society or raise skepticism as to why rabies has re-emerged as an epidemic after years of low case reports.

The Director-General of the Department of Disease Control reported that, in 2018, rabies had caused 17 deaths in 14 provinces as follows: two cases each in Buriram, Rayong and Songkhla Provinces, and one each in Surin, Trang, Nakhon Ratchasima, Prachuap Khiri Khan, Phatthalung, Nong Khai, Yasothon, Kalasin, Mukdahan, Tak and Surat Thani Provinces¹. The Department of Livestock Development reported that a total of 9,275 animal samples were tested for rabies in 2018. Of these, 1,469 samples or 15.83% in 54 provinces showed rabies infection. The highest numbers were in ten provinces: Surin, Roi Et, Songkhla, Nakhon Ratchasima, Yasothon, Chon Buri, Si Sa Ket, Amnat Charoen, Nakhon Si Thammarat and Kalasin. The species having positive rabies samples included 1,281 dogs, 117 cows, 51 cats, 15 buffaloes, two goats and one each for horses, pigs and deer species. During January 1 - December 30, 2018, only 23 provinces had no detection of rabies: Chainat, Lopburi, Singburi, Angthong, Trat, Nakhon Nayok, Bueng Kan, Sakon Nakhon,

Nong Bua Lam Phu, Chiang Mai, Phrae, Mae Hong Son, Lampang, Lamphun, Phitsanulok, Sukhothai, Uttaradit, Uthai Thani, Nakhon Pathom, Chumphon, Phang Nga, Phuket and Narathiwat.²

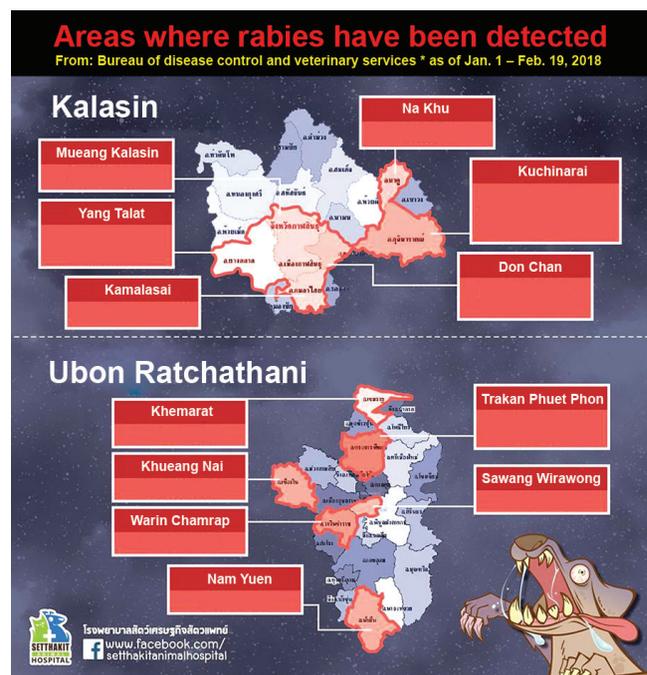
It is hard to believe that the root cause of this latest rabies epidemic can be traced back to the public administration system. At least that is the interpretation of the regarding Thailand's "Decentralization" program to delegate more budget and responsibility to local administrative organizations (LAO). The Office of the Auditor General (OAG) observed that the responsibility for rabies control was that of the central government ministries and departments, not the LAO. Initially, the OAG advised all LAO that they did not have authority to procure and deliver rabies vaccine and requested that all LAO return the budget allocated for rabies vaccine. However, the Council of State ruled that the Department of Livestock Development could delegate that responsibility to the LAO. However, by this time,

most of the LAO were reluctant to appropriate budget for rabies vaccine, out of fear that the OAG would find them at fault and impose penalties or discipline, resulting in outbreaks and a number of deaths. This fiasco is a case study of a situation in which government personnel simply adhered to legal interpretations of their role and duty, without understanding the goal and consequences of action or inaction. In this case, the actions of the OAG set up a chain of inaction that ultimately resulted in outbreaks of a deadly disease and human fatalities. Thus, even though Thailand has trained personnel and adequate supplies, but the misinterpretation on legal duty and authority by those who are lack of legal knowledge could lead to a number of problems. This article reflects the outbreaks of rabies that were the result of such misinterpretation and views the case of recent rabies outbreaks as lessons to develop a guideline and solve the problems in the future.

Decentralization of government and the re-emergence of rabies

After the 2014 coup, the NCPO implemented a policy to examine transparency and the use of the budget by LAO. One LAO targeted for inspection was the Suranaree Municipality in Muang District, Nakhon Ratchasima Province for fiscal year 2013. The OAG had issued a notice to Suranaree Municipality that the purchase of rabies vaccine was not appropriate because it is not the duty of the municipality to administer the vaccine. Instead, the OAG ruled that it was the duty of the Department of Livestock to procure and deliver the vaccines. The OAG called for a refund of the budget and disciplinary action of the LAO executive. In addition, the OAG issued a letter nationwide asserting that LAO are not allowed to use their budget to procure rabies vaccine to vaccinate household pets and strays. The Suranaree Municipality wanted clarity in this matter and sent a letter to the Department of Livestock Development to request the Department to propose the matter to the Office of the Council of State to independently interpret the authority on procurement and use of rabies vaccines.

On January 29, 2015 the Department of Livestock Development duly sent a letter to the Office of the Council of State to interpret the purchasing power



<https://www.facebook.com/pg/setthakitianimalhospital>

of LAO with regard to rabies vaccine. In March 2016, the Office of the Council of State ruled that the Department of Livestock Development has the authority to purchase rabies vaccine according to the 1992 Rabies Act 1992, and also has the power to delegate such authority to the LAO. However, the OAG did not notify the LAO nationwide about that determination, and, as of the being of 2018, the OAG continued its program of inspections of LAO budget to detect procurement of rabies vaccine, and to see whether the vaccine was up to standard quality and appropriately priced³. Eventually, the FDA intervened in the import of rabies vaccine resulting in a period of stock shortage. At this point, most LAO were reluctant to allocate any budget for vaccine procurement out of fear of OAG inspections, demand for refunds, or punitive action against the LAO. According to the government procurement database of the OAG, during 2014-2018, only four LAO purchased rabies vaccine⁴. At this point, the rabies epidemic began to intensify, and worsened in 2018 with outbreaks of disease in 54 provinces across the country⁵.

During the outbreaks of rabies, there were various social movements regarding the problem. Seminars with academics and specialists were held to review the situation and the causes. One issue was the interpretation

of OAG and the second was the quality of the vaccines being procured. Another issue was the large number of stray dogs due to lack of control on pet dogs and dog owners abandoning their pets⁶. In addition, many community leaders objected to the interpretation of the OAG which was not in line with the work in the local context⁷. Moreover, the Animal Lovers Association called for the resignation of the Director-General of the Department of Livestock Development in the belief that the Department procured vaccines of inferior quality, and that was the cause of the rabies outbreaks⁸. In social media, many people criticized the actions of the OAG as the real cause of the rabies problem. Eventually the OAG had to issue a statement claiming no wrongdoing⁹.

Summary of the viewpoints of the OAG and interpretation of the Council of State

The Department of Livestock Development conducted a consultation with OAG about procurement of rabies vaccine of LAO, with the following key points¹⁰:

1. The facts: The Suranaree Subdistrict Municipality used the budget in fiscal year 2013 to purchase rabies vaccines to be used for household pets and stray dogs. The Nakhon Ratchasima branch of the OAG inspected the budget records and determined that the Municipality was not allowed to use budget to procure the vaccines. Instead, the OAG asserted that vaccinations was the purview of the Department of Livestock Development. The interpretation of the central OAG office and Council of State were as follows:

2. OAG's point of view

2.1 According to the Rabies Act 1992, control and prevention of rabies is not the direct mission of the Suranaree Subdistrict Municipality. Instead, it is the direct mission of the Department of Livestock Development.

2.2 The OAG examined the budget expenditure for fiscal year 2013 and found that Suranaree Municipality vaccinated animals free of charge. Section 5 of the Rabies Act 1992 requires animal owners to take their animals to be vaccinated from veterinarians or authorized persons. The animal owner must pay for the vaccination by themselves. The Suranaree Municipality vaccinated the animals for free even though it had not been assigned responsibility to do this by the Department of

Livestock Development. Therefore, Suranaree Municipality did not conduct the budget disbursement correctly as required by law given that at that time, there was no announcement from the Director-General of the Department of Livestock Development saying that animal owners did not have to pay for the vaccinations. Hence, Suranaree Municipality would have to collect vaccination expenses from animal owners retroactively.

3. Office of the Council of State's point of view

3.1 The Rabies Act 1992 aims to provide the Department of Livestock Development with the authority to control and prevent animal epidemics in accordance with the Animal Epidemiology Act, BE 2499 (1956). The Department has veterinarians who are competent, and the Department is an agency that is ready and appropriate to control and prevent rabies. However, the law establishing many local administrative organizations (LAO) has defined the authority and duties of LAO to prevent and suppress infectious disease and having local authority in public health as per Article 67 (3) of the Tambon Council Act and Subdistrict Administration Organization 1994, Article 50 (4) Article 53 (1) 56 (1) and Article 56 (3) of the Municipal Act, 1953 and Article 62 (14) of the City Administration Act of Pattaya, 1999. In addition, in Section 89 (16) of the Bangkok Metropolitan Administration Regulations Act, 1985 defines that Bangkok has authority in the areas of public health, family health and medical care. In addition, the provisions of the 1992 Rabies Act stipulates duties on prevention and control of rabies for local officials, veterinarians of the LAO and the related local government agencies. Therefore, the LAO has the authority as required by law to prevent and control rabies, which is a contagious disease under the Communicable Diseases Act, as well as the Department of Livestock Development.

3.2 While the OAG was examining budget expenditures for the fiscal year 2013, Suranaree Subdistrict Municipality received a request for cooperation from Nakhon Ratchasima Province that the Ministry of Agriculture and Cooperatives (Department of Livestock Development), MOPH (Department of Disease Control), Ministry of Interior (Department of Local Administration) and related agencies to carry out an annual rabies prevention campaign in 2013, sched-

uled between 1 March and 30 April 2013 to allow dogs and cats to be vaccinated. The LAO was to implement public relations to explain correct care of pets to reduce the occurrence of disease in animals and help to achieve the objectives according to the strategic plan to eliminate rabies by 2020. Thus, the Suranari Municipality believed, in good faith, that the announcement of the Director-General of the Department of Livestock Development would be issued in accordance with Section 17 of the Rabies Act, 1992, covering the area of Suranaree Municipality. This directive had been issued every year, as well as already being under the authority of Suranaree Subdistrict Municipality in the prevention and suppression of communicable diseases under Section 50 (4) of the Municipal Act of 1953.

Therefore, even though in 2013 there was no announcement about the role of LAO according to Section 17 of the 1992 Rabies Act covering the Suranaree Municipality area, the Municipality was then able to proceed to vaccinate and give birth control pills to controlled animals without charging fees from the owners of the controlled animals.

Guidelines solution for the future

This case study shows that the examination of the budget expenditure by the OAG is problematic regarding the legal misinterpretation. There is a lack of understanding of the law, and lack of consideration of details in the administration of the country, especially in the context of decentralization. That said, the organization that created the strategic rabies control plan still lacks an overview of legal management. Therefore, there should be guidelines to prevent this situation from happening in the future.

1. There is a need to increase the distribution of power to LAO.

The misinterpretation of the authority of the LAO by the OAG in this case of rabies vaccine procurement and delivery shows that the OAG was too legalistic and neglected to clarify the situation after the judgment of the Council of State. The OAG had the misunderstanding that legal authority (under the 1992 Rabies Act) applied only to the Department of Livestock Development. They believed that, if the LAO was to become involved, then



there must be a notification issued by the Department of Livestock Development. The OAG did not consider any other legal framework that would allow the LAO to perform these duties. In fact, it should concern Determining Plans and Process of Decentralization to Local Government Organization Act B.E. 2542 (1999) which establishes guidelines for central government to transfer public health services (e.g., vaccination against rabies) to be implemented on a regular basis by the LAO. That is in line with established law (1953 Municipal Act) that defines such duties as well. Therefore, according to the law, the LAO has the power and duty to conduct rabies vaccination as well as the Department of Livestock Development.

In addition, the judgment of the OAG must be conducted in conjunction with the facts of the mission, authority, as well as limitations in the actions of the government agencies as they actually are. In other words, the OAG should not take a narrow legalistic view of what is allowed or not. Department of Livestock Development is a central government body – that is while there are provincial and district level branches of the Department of Livestock Development, there are no such branches or personnel at the sub-district or village level¹¹. Due to its limitation in carrying out vaccination in the local communities across the country given the lack of personnel, the Department of Livestock Development, together with the DDC, and Department of Local Administration established a strategy for eradication of rabies by the year 2020¹². The plan has been in operation since 2009. Therefore, the action by Department of Livestock Development has been transferring its strengths

into various government agencies as well as requesting the cooperation of many government agencies in the implementation of the state mission to prevent and control rabies in various areas throughout the country.

Specifically, the Department of Livestock Development has requested cooperation from the Department of Local Administration to coordinate with various provinces in the operation, and that collaboration had worked well until the OAG interference.

2. The strategic plan to control rabies should consider other laws

As part of the strategy to eliminate rabies by 2020, the authorities should always check the legality of the strategic plan because based on the governing law that said “the administrative action must be lawful”, governing administrative action will be the law as both the source of power and that which limits the authority of administrative officials. This principle is a process for the governing body to be under the law, resulting in the protection of the rights and freedoms of the people. Without these protections, government agencies or officials may rule arbitrarily and in excess of their authority. This case study hence serves as an important lesson learned on things to consider when implementing a national strategic plan. If the strategic plan is to be successful, then it must be known what laws are to be applied to support the operations, and whether the existing legislation is sufficient to implement the strategic plan or not.

In order to reduce the difficulty of interpreting the law, the Ministry of Interior has issued regulations regarding the cost of animal welfare management of LAO (2019)¹³. The essence of the said regulations may authorize municipalities and sub-district administrative organizations (SAOs) to provide animal welfare as necessary and appropriate, whether in the case of animal detention or the creation of animal care homes until the owner receives or sells the animals. At the same time, the regulations also require that the LAO must prepare animal registration in their area of jurisdiction to be recurrent according to the form specified by the Department of Local Administration. Smaller LAO such as sub-district administrative organizations (SAOs) or other

municipality offices can request that a larger government agencies in the province, such as the Provincial Administrative Organization (PAO) performs animal welfare on their behalf. The budget for such activities incurred by the LAO can be disbursed accordingly. Such budget includes creating animal shelters, pet food, animal sterilization services, vaccines and diagnostic costs. Hence, the municipality and the SAO can request subsidies from the PAO in order to proceed with the relevant regulations. Therefore, this process will help the government to effectively manage rabies locally to maximize coverage.

Conclusion

Although Thailand is well-equipped with personnel in public health, pharmaceutical and medical systems, there can be confusion in the interpretation of legal authority, and that may cause public health problems such as a case presented in this chapter. This reflects importance of law and government regulations on public health administration in the national level. The plan for the elimination of rabies by 2020, which the Department of Livestock and Suranaree Municipality used as a framework to study those operations, was actually launched in 2009 before the OAG started auditing LAO budgeting and spending (in 2013). In fact, central ministries has delegated authority for rabies prevention to provincial and sub-provincial entities for many years. This reflects that the budget audit was problematic as OAG misinterpreted the laws and was lack of understanding the details of public administration. In addition, the organization that developed the national rabies strategic plan also lacked an overview of legal management of field operations. The host agency for the plan must take into account the statutes, and formulate plans and procedures for decentralization to LAO, according to the decentralization act of 1999, which set out the guidelines for the transfer of the mission and the duty of public health services from the central government bodies to LAO. This decentralized authority also extends to the plan to eradicate rabies by 2020. In sum, the host agency must ensure that the existing legislation is sufficient to support successful completion of the plan.



The “Magic Skin” network

- Is it finally time to get serious about consumer protection?



www.freepik.com

The “Magic Skin product group” was a manufacturer of food supplements and cosmetics that claimed to have FDA certificate of quality. The group used celebrity artists, advertisements, and false or exaggerated product reviews. Before the arrest of the owner, many consumers believed the hype and bought the products without knowing the hidden dangers.¹ This case became a social issue that was widely covered in 2018, reflecting the inefficiencies in government oversight and the dangers that consumers suffer from a large number of supplements and tainted cosmetics in the market.

One of the hot topic issues of Thai society in 2018 was the prosecution of the owner the Magic Skin Co. Ltd. and products registered in the name of Wannapa Puangson. This case was a test of the effectiveness of the supervision of Thai health products by the Thai FDA. One lesson is clear: Having the FDA logo displayed on various products does not always mean it is safe to use them.

Why can illegal dietary supplements which contain dangerous substances such as Cybetramine, which is advertised as a weight loss preparation, or mercury, which claims make the skin white, be sold openly in public? Some celebrities or Internet idols were even hired to openly promote the products, often making obviously false or exaggerated claims (e.g., ‘lose excess fat in seven days’, or ‘develop white skin in seven days’). Why aren’t these products and promoters better controlled? How can this problem be solved? How can FDA play a role to better protect the consumers? This article will discuss the above issues by reviewing the lessons of the case of the Magic Skin scandal.

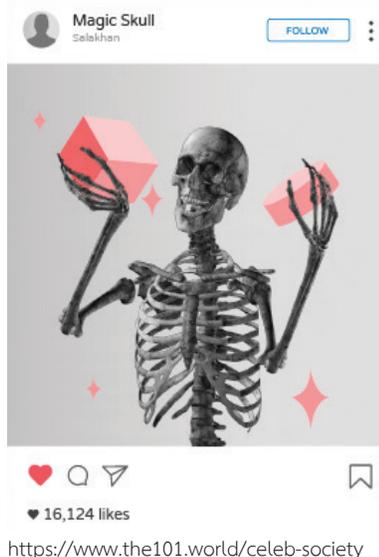
ผลิตภัณฑ์	อวดอ้าง	สรรพคุณจริง
“Mezzo” (เมโซ)	เซรั่มหน้าใส ทำมาจากรกแกะ	ทำมาจากกัวหลือ ไขมันคนกวนเอง
“Fern Shinobi” (เฟิร์น ฮิโนบิ)	ผิวขาว ใน 7 วัน	ไม่ขาว ไซยาเนนจริง หลุดผิวหนัง
“Apple Slim” (แอปเปิลสลิม)	ผอมลงน้ำหนัก การันตีความพอม	กินแล้วใจสั่น ส่งผลให้เกิดไตวาย
“Slim Milk” (สลิม มิลค์)	นมพอม ใสลิ้มแซก กระบอเวเซอร์	มีเพียงแค่มนม ที่แตกลิ้มเข้าไปเท่านั้น
“Fern Cleo” (เฟิร์น คลีโอ)	น้ำขม สลายไขมัน แค่ดื่ม ขน ขา เล็ก เร็ว ตัวใจ	ไม่พอม แต่ประจำเดือน มาไม่ปกติ
“Snow Milk” (สโนว์มิลค์)	นมขาว ผิวขาวอร่า เทียบเท่าฉีด ไม่ต้องเจ็บตัว	เป็นเพียงนมพอม ใสลิ้มนม เท่านั้น
“Treechada” (ตรีชฎา)	ครีมทาผิวขาว ทาได้ทั่วตัว รักษาสะเก็ดผื่น	ใช้ไม่ได้ผล อ้างยอดขาย 1,000 ล้านบาท

<https://mgronline.com/daily/detail/9610000041403>

Collective action by society to investigate the Magic Skin network

When problems started to occur regarding the inferior Magic Skins products, affected people joined forces to complain to the media. Followed up continuing news reports, eventually, the authorities had enough evidence to take action and arrested the owner on February 20, 2018. The FDA collaborated with the Nakhon Ratchasima Provincial Health Office and the Division of Crime Prevention and Suppression of Consumer Protection Act to inspect many places in Nakhon Ratchasima based on complaints filed by consumers. The complaints ranged from the product not performing as advertised, false FDA approval number, false advertising, deceptive marketing practices, products not matching the information on the label, etc. Most of the victims were distributors who were persuaded by the company to buy and stock up the products. Similar to a pyramid scheme, distributors were pressured to find new customers and, if they met their target quota, they were promised incentives of gold jewelry or trips abroad. Threats were made to distributors who could not reach their sales targets and complain to officials². After two months of investigation in Nakorn Ratchasima, the investigation expanded to 13 areas in Bangkok, Nakorn Ratchasima, and Chonburi, with 100 police officers becoming involved.

Given the mounting evidence, the court issued arrest warrants for eight suspects on the charge of public fraud³. At first, the police were only able to arrest Mr. Myasit Sawangthamarat. During the search at his house and offices, the police found a training room, product mixing



room, creams, perfume mixers and containers⁴. The inspections by officials of the FDA found that many of the Magic Skin products were not registered, and 260 items were registered in the name of Mrs. Wannapa Puangson and company. But

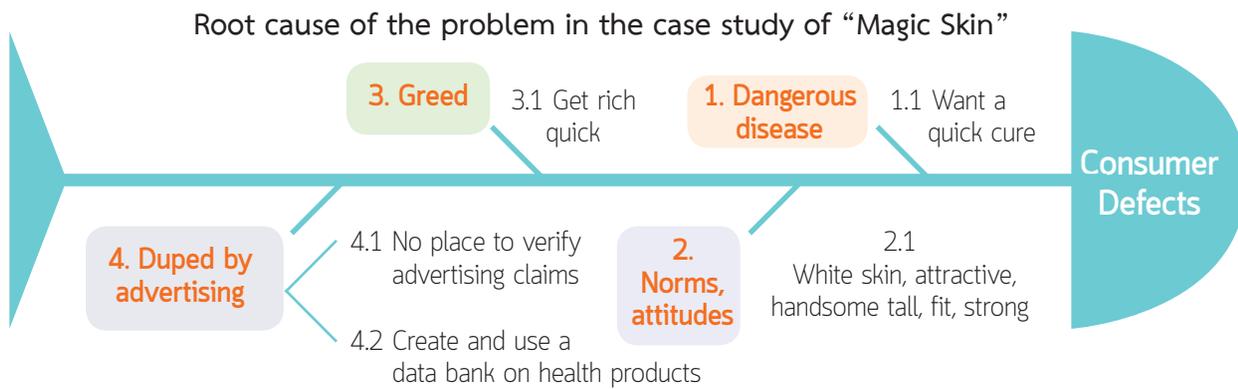
the location was not the same as registered. Hence, the company was immediately ordered to halt production and sales of unapproved products, with a recall of all those products to be destroyed, such as Apple Slim, Snow Milk, Fernchlio, Magic Skin, Shinobi, Trichada, and Meso, among many others. Legal action was also taken against the company.

In the case of allegations of the Magic Skin Network, 145 people were victims, with damages of 113 million baht. According to the investigation, six individuals were charged of fraud, promoting distorted or false information into the computer system causing damage to the public, production and sale of counterfeit cosmetics, contracting for the production of counterfeit cosmetics, producing cosmetics without specifying the ingredients, and using product labels that contain information that may cause misunderstanding of the key properties of the cosmetics.

Using at least 59 celebrities for product reviews to create product credibility

The rapid growth of Magic Skin was possible by the marketing strategy of using influencers (KOL: Key Opinion Leaders) to build brand credibility. Magic Skin hired celebrities, actors, and Internet idols to favorably review and promote products, or have pictures of them holding the products posted on the company's webpage. They also used their personal Instagram accounts to promote the product and to convince consumers that the products were reliable. At least 59 KOL were paid from 10,000 baht up to 100,000 baht each for product promotions⁵. Arrest warrants were issued for these 59 celebrities. All of these KOL said that the company showed them the FDA registration number and seal, which led them to believe the products were already cleared and legal. They used that as an excuse to deny they had any intention to deceive the public and potential consumers. This first lesson here is that seeing a celebrity endorse a product does not mean it is legal or effective⁶.

Progress in litigation with these KOL resulted in only ten cases which have been successfully prosecuted for advertising offenses according to Article 41 of the Thai Food Act. However, these offenses are only punishable by a fine not exceeding five thousand baht. The other 36 cases were thrown out. As for the income of the KOL who



Opinions voiced in the forum on lessons learned: Magic Skin. What is the role of the media— What is the gain for the consumer?

were paid to favorably review the Magic Skin products, the Director-General of the Revenue Department is continuing to pursue collection of taxes on those payments⁷.

Challenges for the consumer of health products

The case study of Magic Skin shows how the consumer is at a major disadvantage. The challenges can be classified into the following four:

1. Societal values and attitudes drive consumers to embrace products too readily. Many believe that fairer skin is more attractive, or that being thin and fit is more handsome or attractive. Consumers will try to seek short-cuts to achieve those ideals.

2. Some diseases are not curable by modern medicine. Thus, sufferers desperately seek alternatives for which there is no proof of clinical efficacy.

3. Greed is an important driver of deception in society today. There are those who want to get rich by any means; they do not care about the propriety, life and property of others. The network of distributors of Magic Skin products were able to convince consumers to spend over 100 million baht for these products. This was actually a form of pyramid scheme in which only a few at the top make the vast majority of the profits. Yet the Office of Consumer Protection Board, as a key actor in controlling products in the market and protecting consumers, has not really enforced any law. Also, the victims were also the perpetrators, not just an innocent consumer. Indeed, this observation was made by an agency that is responsible for consumer protection.

4. People are too gullible or not wise to advertising tricks in the media. Many Thai fall too easily for exaggerated

claims without trying to seek independent validation. Much of on-line advertisements through social media are illegal because they rarely show the license number for the product. However, if the oversight authorities do not or cannot enforce the laws, then these deceptive practices will continue, just as the expansion of social media continues. People will still fall victims.

The presentation and consumption of news

Magic Skin fraud case should be used as a case study to revise policy to protect consumers more. Magic Skin relied on loopholes in Thai law for supervision of online social media, and used all available platforms to sell products online (e-commerce) such as Facebook, Instagram, Line, its own website, E-Market Place, E-Classified etc. In addition, it also used various other public media including television, radio, billboards, bus billboards, and billboards on mass rail transit. Magic Skin hired celebrities to create brand awareness and inspire faith in potential consumers that these were quality products. The company used the Influencer Marketing strategy through online media, and involved KOL as brand representatives to stimulate a diffusion of innovation effect. The company produced a flood of fake product reviews that were always positive to create credibility. Magic Skin often referred to FDA registration numbers for its products that it obtained through e-submission, despite the fact that many of these products had components that are harmful to human health.

However, on the positive side, the Magic Skin scandal has been a wake-up call for all media outlets, and shows that print media and on-line media are responsible for preventing and exposing false advertising. The electronic

media in particular reported the news quickly and followed the case updates continuously. They did not just report live news or live on Facebook to accumulate clicks on its web pages, but they also emphasized on finding additional in-depth information and synthesize the information from different sources to make it easier for the public to understand. They have helped protecting the consumers, raise awareness in the society, and prevent the public from falling victims of such business in the future.

Regulatory agencies, and how to solve the problem

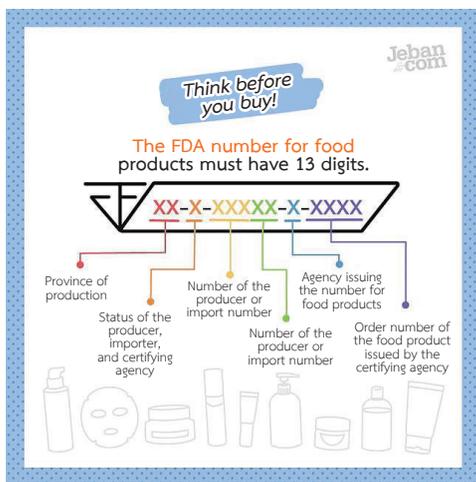
The E-Submission system is a system that the FDA created to facilitate entrepreneurs in submitting requests on the internet without having to travel to the FDA office itself. The intention of this system is to facilitate the process for entrepreneurs, but unscrupulous manufacturers can take advantage of this system and register inferior products. For this reason, the FDA has found that many health products, including food, medicines, cosmetics, etc., have no registered production sources, and some products contain hazardous, illegal substances. Although they are not properly registered by the FDA, they advertise the product registration number and the registration acknowledgement issued by the FDA.

The case of Magic Skin provides an important lesson for regulators and related agencies. In addition to the Thai FDA, which is the primary regulatory body for health products, there are also other units that are involved in addressing the problem of false advertising of health products. A research study on “Managing the problem of illegal health products advertising: regulators, problems, obstacles and recommendations⁸” has identified many

obstacles and barriers to rectifying the situation. Although, the FDA has established a Center for Complaints and Suppression of Illegal Health Products.,, the problem of false advertising is still pervasive and still beyond the power of the authorities to control. No single agency can effectively suppress illegal health product promotion and sales. Multiple government agencies need to collaborate to address the problem and seek the assistance of Civil Society as well. However, the FDA has the most direct mandate to address the problem. Hence there can be an issue of excessive workload.

Action to address the problem of illegal health products advertising needs to be decentralized from the FDA to involve other agencies as well as provincial entities such as the Provincial Health Office (PHO). The PHO should be the first line of defense against false advertising of health products in the province. The penalties for false advertising also need to be harsher so that entrepreneurs take this matter seriously. There should be a database which lists all health products so that those that are not properly registered or controlled can be systematically identified⁹. This data base should include all products registered with FDA with approval for advertisement including approved advertising words and advertisement license number. In addition, there also need to be guidelines on what words can or cannot be used when advertising a health product, and how product information must be displayed on the packaging or container. This also applies to images, video, audio, or other public presentations of the health product. This information should be easily available, and Civil Society should be engaged in helping to monitor and screening for illegal products. Civil societies should be provided supports such as budget to organize activities, information to be provided to the public, etc.

Furthermore, the FDA could also produce and distribute guidelines for determining whether a health product is legal or illegal. That would help decentralize the oversight task by mobilizing many related agencies to step in. It would also allow related agencies to enforce the law and prosecute illegal cases based on specific violations each agency is in charge of. Hence, one illegal case could violate several different laws. At the same time, the law should be strictly enforced and the punishment should



<https://today.line.me/th/pc/article/อย+เลขที่จดแจ้ง+มีแล้วยัง+ปลอดภัยจริงหรือ+ดังสติก่อนซื้อ-KWz0ma>

be harsh in order to prevent repeated offenses. Moreover, there could be a tripartite committee appointed with the specific mandate to address the problem of false advertising of health products on-line. The committee would have representatives from three sectors: Public sector oversight agencies with a direct mandate to control health product advertising; consumer protection groups; and on-line media monitoring groups. The operations of this committee should be neutral, transparent, and flexible. They should be a public media who communicate in a quick manner in order to protect consumers effectively and create ripples in the society.

Although there is a process to deal with health product advertising problems, and the National Health Assembly approved a strategic plan for addressing illegal advertising of medicines, food and health products (2014 – 2018), in this era of digital the government cannot simply rely on top-down law enforcement to address false advertising effectively. Since 2010, the Foundation for Consumers has been collaborating with the six Regional Consumer Rights Protection Centers, and consumer network partners to monitor the situation of health product advertising problems. These groups have already succeeded in many cases. For example, in 2011 they pressured the FDA to enforce a regulation that advertisements for “bird’s nest” must not use the term “100% genuine” because that was clearly an exaggeration and did not concern consumers’ damages.

Since then, the Foundation for Consumers and Consumer Protection Network have developed a mechanism to prevent abuses at the source by creating partnerships with health product businesses to implement effective self-regulatory mechanisms in parallel with the development of surveillance system. This includes creation of information communication channels such as Facebook pages for the Foundation for Consumers, Fanemouth (Foundation for Consumer), and the provincial Consumer Protection Centers. There is surveillance of provincial satellite TV advertising, and complaints can be filed through special channels (e.g., LINE application). In those cases, the business was very cooperative and removed false advertising within 24 hours from being notified. This has led to a self-surveillance mechanisms among the network of entrepreneurs in health products.



<https://www.pptvhd36.com/news/ประเด็นร้อน/82532>

In 2016, the consumer surveillance program was recognized as being a powerful watchdog by the FDA, PHO, and the Office of The National Broadcasting and Telecommunications Commission. The NBT Cacknowledged that the work of the consumer network creates public awareness and helps consumers to view advertising with a more critical eye. This knowledge can also protect their rights when harmed by illegal health products or deceptive advertising.

Conclusion

The Magic Skin scandal provides an excellent case study of consumer protection in a borderless world where multiple communication channels play an increasingly significant role in the lives of many people. The public sector, the media sector, and Civil Society need to study the lessons learned, and improve consumer protection to keep pace with the evolution of business models in the digital age. This case shows how state regulators, the FDA and other agencies need to integrate operations to seriously address the problem of false advertising of health products. In addition, it also contribute to new standards of product reviews in Thai society. Moreover, the media learned to assess the situation and report the news based on facts in all aspects. The Magic Skin case shows that having the FDA logo on a product is no guarantee of the quality of various products. That said, it is unrealistic to expect the FDA to be the only agency responsible for consumer protections and controlling health product advertising. In this 4.0 era, consumers must be more conscious of the information that they process. They need to know how to verify product quality before making a decision to purchase. This is especially important for on-line advertising and product purchasing. That is because the on-line promoter could be anyone from anywhere who is out to scam the gullible consumer.



17 days to save the Wild Boars Academy soccer club



<https://thestandard.co/13-moo-pa-academy-successfully-rescued>
<https://www.sanook.com/news/6929387>
<https://news.mthai.com/general-news/697114.html>

In the middle of 2018, the 12 teenage members of the Wild Boars Academy football (soccer) club and their coach became trapped in Tham Luang Nang Non cave in northern Thailand by flash flooding after a rain storm. They survived on a small ledge deep into the cave system for 17 days since June 23 until July 10, 2018. This miraculous rescue provides many interesting tales of bravery, sacrifice and endurance and many “memorable moments”.

The missing 13 members of The Wild Boar Academy soccer club and their coach who were trapped at Tham Luang Nang Non cave in Chiang Rai resulted in a major rescue operation, many kilometers deep in the underground. With the harsh weather condition and flowing flash flood, it seemed to be a “mission impossible” to first find the boys and then bring them out. But with the cooperation of 271 agencies together with 4,559 volunteers and experts from 27 countries¹ including world’s experts in cave diving, the rescue operation which lasted 17 days 4 hours and 29 minutes² was successful. Sadly, the operation had lost one volunteer due to oxygen insufficiency while diving in the cave.

Trapped in a flooded cave: the beginning of the search for the trapped members of Wild Boars and their coach

In the afternoon of Saturday, June 23, 2018, after finishing football practice, 12 members and the coach of

the Wild Boar Academy football club visited the Tham Luang Cave in Mae Sai District, Chiang Rai Province. After not returning when they should have in the evening, personnel went to the cave and found the club members’ bicycles and shoes at the mouth of the cave. Volunteers, staff and families went to help with the search effort but could not go far into the cave because of the rising flood waters from the afternoon cloud burst. When the news spread that the teens were trapped in the cave, the province immediately requested the assistance of the Thai Navy SEALs and other units as the rescue operation requires various specialties and expertise. However, the continuing rain and rising flood waters in the cave made the situation dire and the challenge formidable³.

Later, on June 29, 2018 the Ministry of Interior decided to declare the cave system a disaster area and that paved the way for special measures and budget to be deployed for the rescue. Mr. Narongsak Osotthanakorn, the Governor of Chiang Rai, was appointed to direct the

search and rescue center at the Tham Luang Nang Non National Park in Mae Sai district, Chiang Rai province.

King Rama X issues a royal command to encourage the best effort to save the boys and their coach

The rescue operation was made more difficult because of the geographic conditions of the cave system and the lack of experiences in rescuing people trapped in a flooded cave. Hence, Thailand needed to rely on cooperation from different agencies and a number of volunteers – such an amazing cooperation in such a remote area. King Rama X and three royal members were especially concerned for his 13 subjects and provided moral and material support for the rescue and had ordered that related agencies take best care of this matter.

Mr. Narongsak Osotthanakorn, the director of the search and rescue center, revealed that King Rama X had donated his personal fund to purchase essentials such as rain coats, helmets equipped with a flash light, overall jumpsuits and boots, diving suits, rechargeable LED lights, etc. These equipment could not be purchased under the government budget regulation in time. While the rescue operation was going on inside the cave, outside the cave, hundreds of volunteers were on hand to erect tents, prepare food and deliver equipment to those working on the rescue in the cave as well as collect garbage. (Even after the operation was completed, there was a big cleaning day to improve the landscape of Tham Luang Nang Non National Park to its former natural condition. A group of volunteers came together to collect garbage and other equipment, and dismantle tents and weir that were used to divert water.)⁴

Thailand mobilizes an international team of cave divers to work with the Thai rescue team

The search and rescue mission for the Wild Boar Academy members were not a mission for just Thailand but an international operation with cooperation from around the world. Because of the special skills required in cave diving, experts from around the world volunteered to join the rescue, including cave divers from the UK, Belgium, Australia, Thailand and Scandinavian countries.

There were also rescue teams from the US air force, Lao PDR, Russia and China. It was two British divers, John Volanthen and Richard Stanton, who led the search by diving through the flooded cave with several geographical challenges, narrow passage ways, darkness, and oxygen limit. The team of cave divers installed the guide rope while searching for the lost Wild Boars. It was first speculated that they might be at the Pattaya beach. But as it turned out that they were not there, the cave divers and the Thai Navy Seal team had to continue diving and searching at other cave chambers deeper in the cave⁵.

The operation was very intense including that of at the cave mouth, the cave drilling, the search for channel or passage holes to the cave, and the flood water management which is no less important than other tasks. The operation aimed to finally find the missing boys and their coach. Since the day they were missing on June 23, 2018 until all diving tanks were transferred to chamber 3 and guide ropes were installed⁶ and the boys were found,



<https://www.thairath.co.th/infographic/1334>

they were trapped in a dark cave with no food for more than 10 days (they were found by British cave divers). The discovery of the missing 13 boys and their coach brought joy to not only the people in Thailand but million others around the world who follow the news closely for the past 3 weeks. Both Thai and international media outlets follow the rescue operation intensively that the news became world's highlighted news⁷.

While that was a joyous event, it quickly became clear that bringing the boys out would be no easy feat.

The rescue mission still faced many challenging problems with attempts to bring the Wild Boars out of the constantly flooded cave while none of the boys nor their coach could swim. Each of the trapped boys would have to be carried or towed by a cave diver through tough passage ways. It was difficult and risky and required an excellent thorough planning. Subsequently, underwater medicine doctor, power gel, and other survival kits were delivered to the Wild Boars. The doctor and the divers kept the boys and their coach company and took care of them until they were ready for the return operation to begin⁸.

“Sergeant Sam:” Tham Luang Cave Hero

Most unfortunately, during the preparation for the rescue operation, a 38-year-old former Thai Navy SEAL, Sergeant Saman Kunan, ran out of oxygen in his own tank while retrieving used tanks from deep inside the cave. He was one of the volunteers in this operation and was assigned to transfer the air tanks from chamber number 3 to the T-junction area. Upon the completion of his mission on his dive back to the base, Sergeant Saman passed out underwater. His dive partner tried to revive him with CPR but was unsuccessful. In recognition for his ultimate sacrifice, HM King Rama X promoted Saman to Lieutenant Commander, in a special posthumous royal command⁹. Saman was also awarded the Prabhatpaphon Chang insignia for his goodness and sacrifices to help others as witnessed by the public and the international¹⁰.

Mission to move the Wild Boars out of the cave

Searching the boys was difficult but bringing them out safely was even more difficult. The operation needed



facebook page/Thai NavySEAL

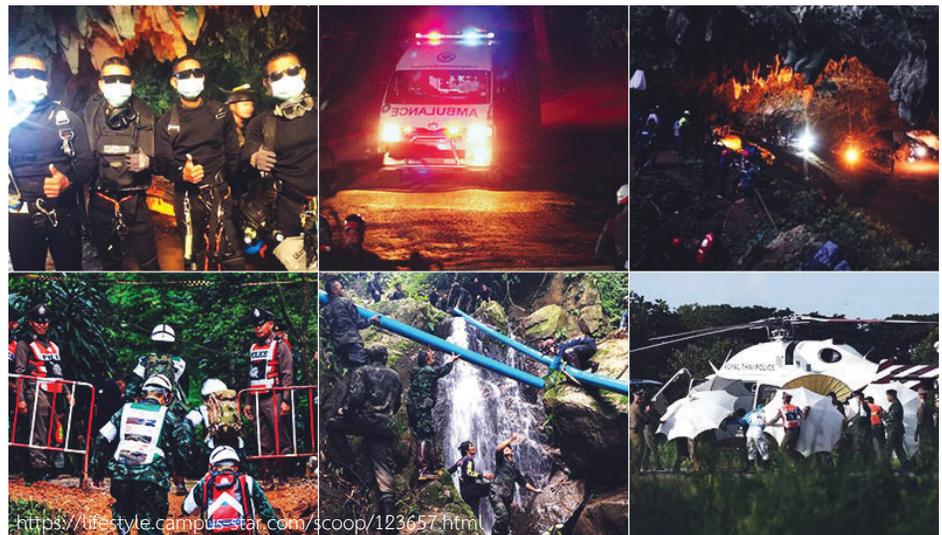
to be carefully planned. Admiral Aphakorn Yukongkaew, head of the Thai Navy SEALs, explained the plan for rescuing the boys and their coach. Leaving Nom Sao Dune, he boys would be fitted with a full face mask connected to an air tank, and each would be accompanied by one expert cave diver who had already performed multiple trips in and out of the cave. Once they have reached chamber number 3, the boys were then put on SKED stretcher which is highly flexible and could be twisted to accommodate the narrow, curved passages in the flooded cave. The stretcher also covered the extremities of the boys to protect them from injury if they hit the sides of the passage way. Each youth was also given a sedative to reduce the chance of a panic attack, which could be life-threatening, during the trip out. It was revealed that Alprazolam, Ketamine, Atropine were used under the medical advice from the doctors for the sedation. The plan was to transport the youth and their coach to a temporary infirmary once out of the cave to see if they needed any first aid or helicopter transport to the provincial hospital. Those who were not in critical condition could be transported by regular ambulance on roads that would be cleared of traffic. It was later revealed that Richard Harris, an Australian Anaesthetist doctor and cave diving expert with more than 30 years of diving experience, and Craig Challen were assigned with the task of assessing the health of the Wild Boar team and clear them for transport out of the cave. Both revealed

that this mission was one of the most dangerous ones they have done so far. Amazingly, once underway, the rescue operation was completed without a hitch¹¹.

All 12 Wild Boars and their coach were transported to the Chiang Rai Provincial Hospital which was assigned to provide treatment and disease control for the Wild Boars and their coach. All 13 of them were each transferred to the hospital at a time since July 8 until July 10, 2018. They were in surprisingly good condition given their ordeal and long period without fresh air, clean water or food. They were first given nutrients, vitamin B1, and anti-biotics by IV drip and then given tetanus and rabies vaccine shots as a precaution. They also went through a thorough physical and psychological examinations and were tested for emerging virus disease, which were not found¹².

Mr. Narongsak Osotthanakorn: The exceptional leadership during the crisis

The rescue of the 12 Wild Boars and their coach, not only succeeded in saving the lives of these 13 souls – it also showed the competence of the Thai officials and volunteers to seamlessly coordinate a highly complex international response, especially when the eyes of the world were watching. Much of this success is attrib-



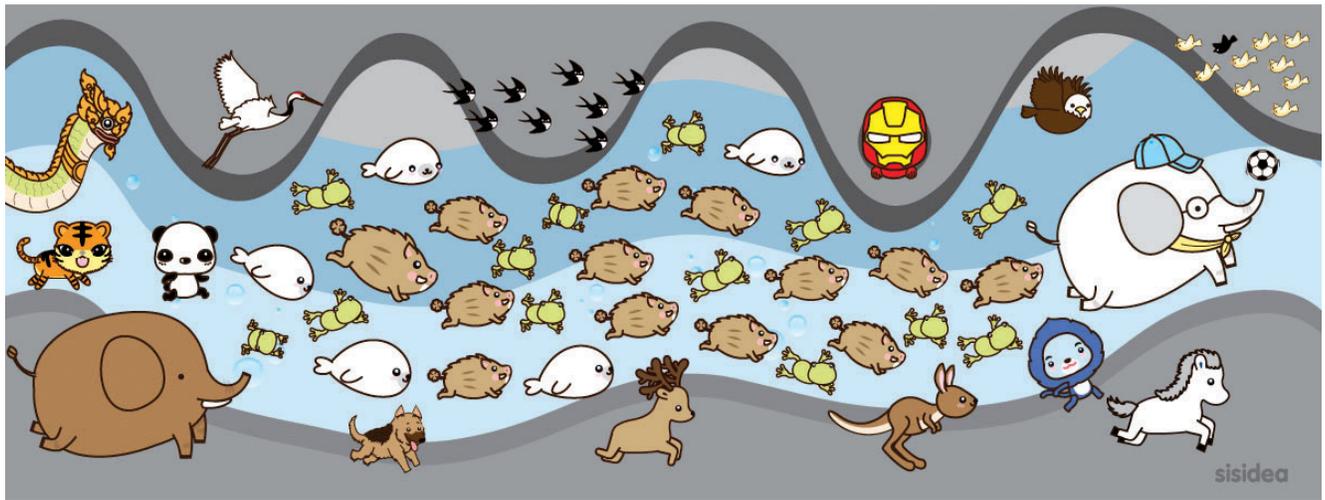
able to the management and leadership of Mr. Narongsak Osotthanakorn, Governor of Chiang Rai Province and the director of the search and rescue center at the time. The Governor demonstrated strong coordination skills and sound decision-making, and there were no reports of conflict, disputes or confusion of roles and responsibility. The Governor was also very transparent with the press and interested parties, and provided information on a need-to-know basis.¹³

King Rama X recognized the important contribution of the Governor and made the following congratulatory remarks: *“I have closely followed the search and rescue operations. It is admirable to see the many government officials perform their duties with strength, patience and commitment to specific tasks, despite the difficulty and many challenges, which they have never encountered before. Under strong leadership, these officials showed intelligence and sound decision-making, with exceptionally good coordination. These are qualities that every government civil servant should aspire to. These qualities show the courage to confront a challenge head on, and pursue it until they prevail, for the benefit of the nation. I wish that all of you maintain these excellent qualities, and experience goodness and prosperity in your lives¹⁴.”*

In addition, the Prime Minister also awarded the Chiang Rai Governor with a plaque for Outstanding Creative Cultural Contribution for the Year 2018 in recognition of his dedication, sacrifice and skillful management. The performance of the governor and his entire team made Thailand proud and praised in the eyes of the world¹⁵.



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Lessons learned in dealing with a natural disaster

More than 140 scholars have collaborated to distill lessons learned from disaster response plans through various academic forums. For example, a group of geological scholars, including Asst. Prof. Dr. Sombat Yuemuang, Director of the Geo-Informatics Research Center of the Faculty of Science, Chulalongkorn University, has identified guidelines for managing geological disasters under the following principles: (1) Use knowledge to lead the management ; (2) Establish surveillance and warning systems; and (3) Determine appropriate measures for disaster response. The case of the Tham Luang Cave near-disaster has become a world-class case study because of the unique nature of the challenge and the near-flawless execution of search and rescue. The cave divers explained that it was as if they were diving on top of Mount. Everest. However, the sudden danger posed by the cave after a freak storm also points to the need to better understand the natural hazards in a changing environment. Thus, Thailand needs to continue to have geological studies which include cave experts, geologists, the Parks Department staff, and other related specialists. The King Mongkut's Institute of Technology (Ladkrabang), is one of the agencies that participated in the aerial search mission, using both drones and human guidance technology. The institute pointed out that Thailand needs to be prepared for disasters with knowledge and basic information of each area for when disasters happen, these information and knowledge could be

retrieved for disaster management planning at an instant¹⁶.

Dr. Prawet Wasi had the following observations about the case of the Wild Boars soccer club rescue. Dr. Prawet feels that the experience and response can be applied to address broader problems in society. In his words: *“We can try to understand the Wild Boar model as representing a new paradigm in solving complex and difficult problems. That understanding can help us get out of many social “caves” we are trapped in today. It is a form of 8-fold path. In my view, the success of the Wild Boar model can be attributed to the following:”*

(1) The response was managed by people in the locality who face the actual situation every day. In other words, it was not managed by a centralized power that is unlikely to understand the local context.

(2) People from very different walks of life united with one another under a common commitment to save human life. This is unlike typical management of the country, in which each actor seeks to serve their own personal or group's interests. By contrast, the Wild Boar model does not use antagonistic thinking.

(3) The response combined power by transcending all types of discrimination, regardless of whether one is a soldier, police officer, civil servant, staff of any department or division, a merchant, or the media. There was no attachment to any ideology or reliance on government regulation to prevent people to come together. In the case of empowering people to help the Wild Boars, who would allow rules and regulations as an obstacle to unification?

(4) People learn better together in practice and in real and complex situations. Applying ready-made knowledge without learning is not effective. Customarily, civil servants tend to use their power without learning. By contrast, learning together in practice in real situations is a very powerful form of learning, because it produces collective wisdom, innovation and group genius.

(5) The response team sought appropriate expertise and technology to apply to the challenge. They needed to be open-minded to invite experts from various countries in a timely manner, and respect their input.

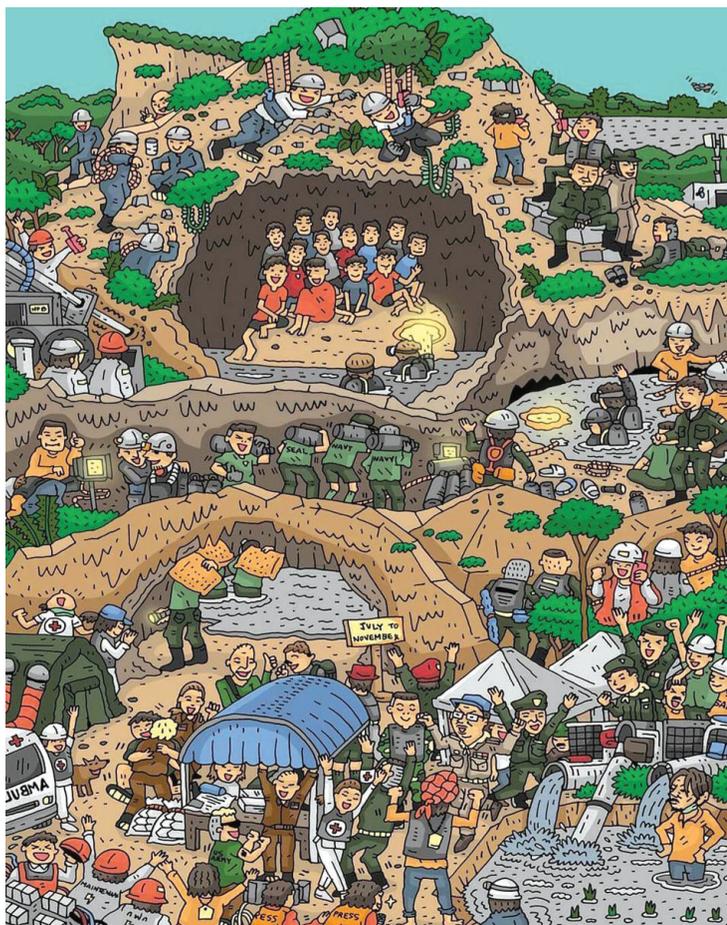
(6) The designated coordinator or problem solver had taken a comprehensive approach, and was able to communicate with others at all levels and create unity among the diverse. This could not happen by using centralized power.

(7) All parties involved served the cause out of selflessness and humility, and were willing to praise others who perform well. Everyone's contribution was heartfelt and for the public good. The effort was not motivated out of a sense of profit or enhanced reputation. The seed of goodness already exists in the depths of the human heart and, when it blossoms together with others, there is no greater power.

(8) The rescue demonstrated that there must be full and open communication of the problem and response throughout the country and around the world. This helped get everyone on the same page and exposed the counter-productive actors. The effort to rescue the Wild Boars was as public as any response could be. That transparency may also explain why everyone performed admirably¹⁷.

Conclusion

Saving the Wild Boar soccer club reflects many different actions and dynamics. In one sense, this event presented a melting pot of humanitarian and gracious hearts from around the world to help their fellow humans. There were volunteer sacrifices and rescue specialists, and more than 4,000 divers who participated in this rescue. This response shows that there is still hope that when fellow human



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beings suffer, there are also foreigners, from different religions and cultures that are ready to give help. This event is a model of how a disaster response and management can be successful. The leadership of Mr. Narongsak, the Chiang Rai Governor, was a principal factor behind the success of the rescue. This event also showcased the important role of the news media and online social media that created awareness of the incident and helped mobilize the response and contributions. The media had to balance speed of reporting by ensuring accuracy and dousing false rumors base on professional ethics. This event demonstrated that there were medical advancements and various technologies used in the rescue. Moreover, this incident is also an important lesson that shows that Thailand needs to continue to prepare and manage information about areas which may seem safe, but have potential for sudden disaster. That will help Thailand cope with other forms of acute disasters in the future as well. In addition, the 8-fold path lessons from the Wild Boar model, as explained by Dr. Prawet Wasi, can also be applied to complex social problems across the spectrum of Thai society.



The tragic boat accident in Phuket: Thai tourism lessons

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On July 5, 2018 three vessels sank off the shore of Phuket, killing 47 Chinese tourists¹. This tragic event created a physical and emotional impact, tarnishing the image of Thailand as safe, and straining the Thai-Chinese relationships, with significant impact on the tourism sector of Thailand.

The tragedy of “Phuket boat accident” on July 5, 2018, caused the death of 47 Chinese tourists and injured 149 others. This event has had a tremendous impact on the hundreds of thousands of Chinese who had planned tourism trips to Thailand, and continued to depress Thai tourism in the third and fourth quarters of 2018. This event is an important lesson that Thailand can learn from to strengthen safety and communication systems for tourists in Thailand, and to understand the sensitivities of foreign visitors when communicating with them—try to understand and express sincerity and seriousness to address the problems. This article is a brief summary of the fatal boating mishap and a highlight of lessons learned so that in the future, such tragedies can be avoided.

Rough seas not far off the coast of Phuket sink three vessels with tourists on board

On July 5, 2018, At the popular tourist spots for day trips included Racha Island and Hae Islan in the

Andaman Sea, the tragic event unfolded, causing a major damage to Thailand’s tourism sector. Three vessels sank on the same day. The first one was “The Phoenix PC Diving” which carried 89 Chinese tourists on board. It went out in the sea amid bad weather condition and encountered a storm with waves as high as 4 meters. The waves took over the vessel and sank rapidly to the seabed 45 meters below drowning 47 Chinese tourists to death. The second one was “The Serenita Yacht” which was also pushed by the squall into the island of Maiton and began to sink, but all 42 passengers were rescued. The third one was the jet ski which was being driven by two Russian tourists, but they were rescued after their vessel sank in the rough seas around Racha Island. The number of affected tourists from the boat accidents on that day was a total of 149 people².

Of course, accidents from natural disasters are something that are hard to predict and no one wants to happen. However, the preliminary investigation of events found that, before the boats left port, they were warned



about storm forecasts for the afternoon and likely high seas. The boat captains were admonished to postpone their trip. However, the boat captains ignored the warnings and departed as scheduled. Later, the Director of the Tourist Police Bureau investigated the ownership of the Phoenix vessel and found that it was actually owned by a Chinese business that used a Thai citizen as a nominee, or front, so as to appear legal. In fact, this practice is illegal, and this shifted the target for the blame for the accident. The implication was that this accident was due to the reckless seeking of profits by a foreign entity without concern for the welfare of passengers or adherence to Thai law and safety regulations. However, the focus should actually be on trying to find solution to improve safety system in Thailand³. All of this led to Gen. Prawit Wongsuwan, Deputy Prime Minister and Minister of Defense at that time, to tell the media the following: *“It’s about Chinese businesspeople. Mostly dealing with their own nationals but in Thai waters. These are de facto Chinese boats which found a way to get around Thai law. The Chinese operators brought this upon themselves⁴.”*

Regardless of the actual facts of the situation, this *“single drop of honey”* naturally caused a lot of discontent for the Chinese authorities and the Chinese public when the news of these comments spread in China social media⁵. Indeed, the online furor in China was so great that it affect the image of Thailand and confidence in tourism in the country. Gen. Prawit had to issue a personal apology via the Chinese embassy in Thailand, and announce that Thailand would pay compensation to the families of the victims. Gen. Prawit also said there would be a full investigation in order to identify and prosecute the actual wrong-doers⁶.

Myriad problems lead to decline in Chinese tourists to Thailand

In the immediate aftermath of the fatal boat accident in Phuket, there was a stream of animosity toward Thailand in China which seemed to increase by the day. Another round of escalating tensions occurred when immigration staff of Don Muang Airport argued with and slapped a Chinese tourist who requested a visa on arrival but refused to pay the special facilitation fee of 300 baht without a receipt. This interaction was caught by other Chinese on cell phone and was shared widely on Chinese social media⁷. Compounding the negative images of the experience of its tourists in Thailand, China’s economic problems have caused many of its citizens to not travel abroad. Part of this is due to the impact of the trade war with the United States, causing the yuan to depreciate by 6-7%, and the Shanghai stock market index has dropped almost 30% from the beginning of the year, affecting the purchasing power of Chinese people.

All of this caused enormous damage to the Thai tourism sector because Chinese tourists play such a significant role in the Thai tourism sector. The Tourism Authority of Thailand (TAT) reports indicate that Chinese tourists traveling to Thailand have grown exponentially throughout the past decade, with 1.13 million Chinese tourists entering Thailand in 2010. In 2015, Chinese tourists increased to 7.93 million people. In 2016, the number increased to 8.77 million and, in 2017, there were 9.8 million Chinese tourists entering Thailand, such that they now constitute the number one foreign tourist arrival in Thailand⁸. However, the disastrous Phuket boat accident and other negative news about the Chinese tourist experience in Thailand has caused the Thai tourism sector to *“tear its hair out”* as the number of Chinese tourist arrivals declined steadily over a five-month period. For July 2018, Chinese tourist arrivals already started to dip by -0.87%. By August, Chinese tourist arrivals were down 12%; followed by negative 15% in September, negative 19.79% in October, and negative 13.86% in November. It was estimated that the loss from the tourism downturn cost the Thai economy over 100 billion baht⁹.

The tourist atmosphere in the tourist attractions in Phuket, as well as tourist destinations that are usually popular with the Chinese (e.g., Pattaya and Chiang Mai)

were also negatively affected as if by a chain reaction. It has been reported that a large number of small hotels and resorts have had to sell their businesses, with Phuket losing 105, Chiang Mai losing 49 and Pattaya losing 51. Affected hotels and resorts were those that focused solely on Chinese tourists especially Chinese tour groups. Most of them were small businesses that had just been emerged during the past few years, especially those with Chinese co-investors, catering specifically to Chinese tour groups. There has also been impacts on restaurants, shopping centers, services, and entertainment sectors which formerly served Chinese tourists¹⁰.

Scramble to raise safety standards to restore confidence

The Phuket boat accident caused many casualties and deaths in July 2018, but it was not the first time that such incidents have occurred. Data from the Tourism Safety Standards Division of the Department of Tourism indicate that the number of injured and killed tourists from both land and sea accidents in 2017 reached 936, an increase of 25.12% from 2016. The number of tourists deaths was 265, and there were 671 tourist injuries. Of the tourist deaths, the Chinese comprise the largest portion¹¹. Some of these casualties can be attributed to the low level of Thai transport safety standards and the laxity of water vessel passenger supervision.

The July 2018 accident and immediate impact on tourism spurred the Thai government to rush to mobilize a rehabilitation of the Chinese tourism sector. The first step was to identify the root cause of the problem, which required the salvage of Phoenix vessel that sank. The government spent more than 39 million baht to bring a 1,200-ton crane from Singapore to retrieve the wreck, which took 2 days before the operation was completed on November 18, 2018, 3 months after the accident. The delay in the salvage was due to the need to wait for the end of the Monsoon. The examination of the Phoenix attracted the close attention of executives in both

Thailand and China, as well as a large number of observers¹² including as Mr. Virasak Kowsurat, Minister of Tourism and Sports, Mr. Phongpanu Svetarundra, Permanent Secretary of Tourism and Sports, Mr. Phakphong Thawiphath, Phuket Governor, Mr. Li Chun Lin, Counselor and Consul General of the Chinese Embassy to Thailand, and Mr. Li Chun Fu, Deputy Consul-General of China to Songkhla Province, among others.

After recovering the wreck, there was intensive examination of evidence by the Royal Thai Police, together with experts from Germany and the Chinese government. The first conclusion of the inspectors was that the boat did not meet standard safety conditions. Normally, there should be four water seal doors, but the Phoenix had only one door. In addition, the glass panels should be marine panels which can be knocked out by hand in case of emergency. However, these panels were not marine standard and could not be punched out by hand, probably causing the preventable death of many who were trapped in the sinking vessel. The Phoenix's engine was not a standard boat engine, but was made for Hino cargo trucks. All of these findings were reported to the Phuket Harbor Master, and charges of criminal negligence or dereliction of duty were submitted to the Office of the National Counter-Corruption Commission (ONCC) to take further action¹³.

Efforts to investigate the truth and prosecute the perpetrator(s) have generally satisfied the Chinese authorities. Mr. Li Chun Lin, Advisor and Consul General of the Chinese Embassy in Thailand expressed gratitude for the actions of the Thai government which China feels is sincere and dedicated to genuinely investigating the cause of ship capsizing. Further, once the legal case is resolved, that will help restore the confidence of Chinese tourists to return in large numbers, build the good image of Thailand as a safe tourism destination, and promote a better relationship between Thailand and China.

For the longer term solution, the government has raised concerns about tourism safety in general and has



placed this issue as a national priority agenda item. The Minister of Tourism and Sports said in a statement on the Tourism Marketing Plan of 2019 of the TAT that “*We will not compromise on security precautions. Our mission is to take care of tourists from the beginning of their trip to Thailand to the end.*” In order to prevent Thailand from acquiring the image of having lax safety for tourists, the Prime Minister himself ordered the TAT to develop a security surveillance system for tourists and implement measures to take care of tourists throughout the country. This should help improve the current Thai tourism safety index, which currently ranks 118th among 136 countries around the world¹⁴.

Launch of the tourism stimulus mode

In order to rebuild the confidence of the Chinese authorities and Chinese tourists, the Thai authorities organized a stimulus package to attract Chinese tourists back to Thailand, in time for the beginning of the high-season for tourism in late 2018, then continuing into the Chinese New Year during February 2019. Accordingly, the Cabinet approved the waiver of visa fees at the immigration checkpoint (or “Visa on Arrival”) for 20 nationalities (including China and India) and one Taiwan Economic Area for 60 days from November 15, 2018 until January 13, 2019.¹⁵ (Before it was extended to April 2019 later) Of course, the main target of this tourism promotion program were the Chinese, but a secondary goal was to attract tourists from other nations to compensate for the downturn in Chinese tourists.

This intensive tourism promotion effort began to show results by the end of 2018. The governor of TAT, Mr. Yuthasak Suphasorn, revealed that the number of Chinese tourists that had been declining for the past five months showed an increase during December 1-10 by nearly 11% compared with the previous period. This suggested that the decline of Chinese tourism had bottomed out and would return to previous levels. Even with the downturn during August – November, Chinese tourist arrivals in 2018 totaled 10.5 million, which is slightly higher than the total of 9.8 million in the previous year.

The view of the private sector on tourism is that by recovering the Phoenix to determine cause of the capsizing and large loss of life, combined with the issuance

of the free visa measure were significant factors in weathering the crisis in tourism sector. Mr. Wichit Prakobkosol, President of Thai Travel Business Association (ATTA) revealed that tourists from China as well as other countries under the promotion program of free visa were on the increase as shown in increasing number of accommodation reservations, flights, and tour programs in Thailand. ATTA appealed to the government to request the extension of the free visa program for another three months until April 2019 to cover the first quarter of 2019. Continuing the tourism stimulus program coincided with on-going increases in tourists, especially from China. It was estimated that, in the first quarter of 2019, there would be 2.5 million Chinese tourist arrivals in Thailand, possibly as high as 3 million with 3 month extension of free visa promotion program. Mr. Suparuek Sukrangkun, President of the Thai Tourism Services Association said that the free visa for 21 countries measure is considered very effective as it facilitates tourists who travel to Thailand. However, for the longer-term, it is critical to demonstrate the improved safety measures for tourists in Thailand, and to boost the overall image of Thailand as acting responsibility, not merely out of economic motive. That is because, while the number of Chinese tourists has improved, the image of Thailand in the eyes of the Chinese has not returned to what it was before.

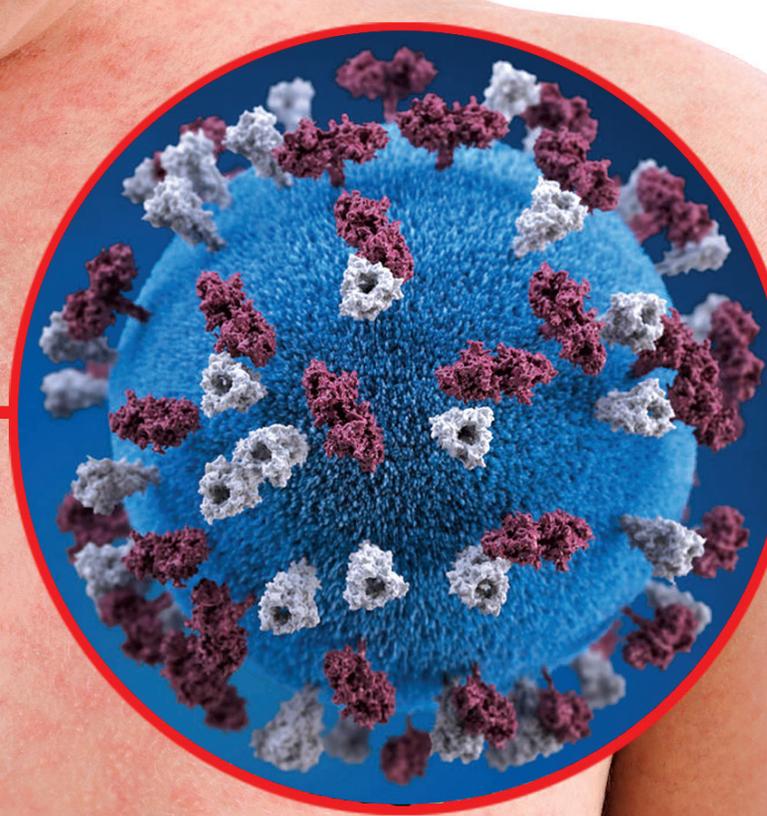
Conclusion

The Phoenix tourist boat tragedy has presented Thailand with a great opportunity to learn and improve. One clear lesson is to root out the businesses which are foreign-owned but fronted by a Thai nominee with no responsibility for business operations. There is also the negligence of the boat captain, the laxity of the Harbor Master, and the communications to the victims which were done so carelessly and insensitively. There is also a need to improve the safety standard of the transportation system comprehensively. At this time, although the tourism sector is recovering, all related sectors should learn from past mistakes. Clearly, Thailand must do everything to prevent a recurrence given the tremendous loss of life, property, country image, international relationship, and enormous economic loss.



10

The return of measles in Thailand



<https://www.77kaoded.com/content/241559>

<https://fineartamerica.com/featured/measles-virus-3d-model-science-source.html>

News of the re-emergence measles outbreaks in many areas of Thailand is a concern for people in public health because, in the past, it was controlled well by vaccination. In October 2018, it was found that in the southern border provinces, more than 800 children became sick with measles, resulting in nine deaths, many of whom had never been vaccinated¹. Therefore, questions have been raised about the disbursement system and the vaccine administration of the relevant agencies in that area.

“Fever with rash and cough, coryza (nasal discharge) and conjunctivitis (known as the 3 C’s)” are well known to medical students who must learn to recognize these classic symptoms of measles, and the distinction between that and rubella. The latter does not have red eye symptoms and the rash is more extensive². Measles is an infectious disease caused by a virus that is highly contagious by airborne transmission. Common symptoms include high fever, cough, nasal mucus discharge, and conjunctivitis, followed by a rash. A short-hand description of measles is “fever, rash”. The practitioner needs to monitor complications, including diarrhea, blindness, encephalitis, and pneumonia, which can be found in up to 30% of cases, and can result in death, especially in younger patients with malnutrition.

In 2018, there was a major outbreak of measles in the deep southern region of Thailand, with a total of 4,450 reported cases of fever or suspected measles.

That was the highest incidence for any sub-region of the country, and 23 people died. In the aftermath, questions were raised about the proper distribution of vaccines for epidemics and coordination of vaccine management at various levels in the system. This article is a review of the epidemic situation of measles in order to understand the situation and to distill lessons learned on the supply and distribution of measles vaccines in Thailand.

Status of measles in Thailand

Measles spreads when an infected person coughs or sneezes, and the virus comes into contact with another susceptible person. Mucous and saliva can contain measles virus. As many as 9 out of 10 people have no natural immunity to infection, thus outbreaks can occur and spread rapidly and could result in deaths. Hence, measles is one of the infectious diseases that requires close monitoring and surveillance. Most public

health programs recommend prevention of measles by vaccination at the age of 9-12 months, with a booster dose at 2.5 years. Thailand has a policy and campaign for all children to be vaccinated against measles, in conjunction with rubella and mumps (MMR) in those childhood ages. Based on epidemiological studies, at least 95% of the population needs to be vaccinated to provide total population coverage (i.e., herd immunity).

Thailand has a covenant with the WHO to eradicate measles by 2020. Thailand has implemented the measles vaccination for children at age of nine months since 1984 and had achieved a satisfactory national coverage rate. However, outbreaks continued to occur in some areas. Other countries also experience measles outbreaks in certain areas. Dr. Suwanchai Wattanayingcharoenchai, Director-General of the Department of Disease Control (DDC) shared information from WHO that, during the most recent year with data, cases of measles have been found in all regions of the world. The highest number of measles cases was reported in India, with 64,972 cases, followed by Ukraine with 53,218 cases, and Pakistan with

33,224 cases. In addition, outbreaks have been found in the Philippines, Serbia, Georgia, and Albania as well³.

In Thailand, data from the Bureau of Epidemiology of the DDC of the MOPH indicate that, in 2018, the incidence rate for measles was 4 per 100,000 population. Yala Province in the deep south had the highest incidence, and most cases were under age of one year. The next highest incidence was found in Prachuap Kirikan and Samut Sakorn Provinces. Incidence of cases with severe measles, i.e., with complications, was highest in Yala, Pattana, and Ubon Ratchathani Provinces⁴.

In the lower part of the southern region, there were 4,450 cases of fever with rash or suspected measles, and that was the highest for any sub-region in the country, resulting in 23 deaths (0.52% case-fatality rate). The province with the highest number of suspected measles cases was Yala Province with 1,621 cases (307.42 per 100,000 population), and 10 deaths (0.62% case-fatality rate). The next highest incidence was in Pattani Province with 1,788 cases (251.09 per 100,000 population) and 10 deaths (0.56 case-fatality rate) (Table 1).

Table 1: Incidence of Measles in the Southern Region of Thailand in 2018

Province	Number of Cases	Incidence per 100,000 population	Deaths	Deaths per 100,000 population	Case fatality rate
Yala	1,621	307.42	10	1.90	0.62
Pattana	1,788	251.90	10	1.41	0.56
Naratiwat	489	61.41	1	0.13	0.20
Songkhla	460	32.30	2	0.14	0.43
Trang	66	10.26	0	0.00	0.00
Pattalung	5	0.95	0	0.00	0.00
Satun	21	6.57	0	0.00	0.00
Entire sub-region (region 12)	4,450	89.99	23	0.47	0.52

Source: Measles Eradication Program, Bureau of Epidemiology, DDC, MOPH

By clearly identifying outbreaks from August in the four provinces in the lower southern region, the measles epidemic first erupted in a population in Yala Province, followed by Pattani, Narathiwat and Songkhla Provinces. Most cases were under 5 years of age, and the highest rate of illness was in the group under the age of 1 year, accounting for 1,348.64 per 100,000 population, followed by those age of 1-4 years old with 556 per 100,000 population.



Measles death occurred for cases between age 7 months to 14 years, **and most also had malnutrition**. Nearly all cases presenting at the hospital with complications, including pneumonia and diarrhea, **had never received the measles vaccine**. Only one case was not yet old enough to qualify for measles vaccination. By district, there

were six measles deaths in Yarang District of Pattani Province, and five deaths in Krong Pinang District, Yala Province.

There have been claims that the main reason for the re-emergence of measles outbreaks is that some parents believe that vaccinations violate Islamic principle. There are both truths and falsehoods about this assertion⁵. However, the high rate of measles vaccination coverage in Thailand would seem to argue against the idea that parents are refusing to have their children vaccinated⁶. The National Office of Thai Muslims issued a proclamation in 2013 that measles vaccination is not contrary to Islamic principle. In fact, there are immunity gaps in some sub-groups of the population, such as children who have received some of the vaccines but did not complete all that are required. Some persons age 20-40 years, especially those living in locations with dense concentration of population, such as in military camps, prisons, factories, busy tourist sites and public health facilities, have contracted measles. Hence, the recent outbreak of measles is raising questions about the distribution

Table 2: Number of measles deaths in the lower southern region during Jan. 1 – Dec. 29, 2018

Province	Number of deaths	District	Number of deaths
Yala	10	Krong Pinang	5
		Bangnang Satar	2
		Than To	1
		Kabang	2
Pattani	10	Yarang	6
		Mayaw	2
		Tung Yang Daeng	1
		Kapaw	1
Songkhla	2	Sabayoi	2
Naratiwat	1	Janae	1
Total	23		23

ที่มา : ระบบเฝ้าระวังเหตุการณ์ สำนักงานป้องกันควบคุมโรคที่ 12 สงขลา



and management of vaccine which inadequately cover some group of children population. Unavoidably, the questions also extend to how related agencies handle the situation of recent measles outbreaks.

Agencies which manage the vaccine

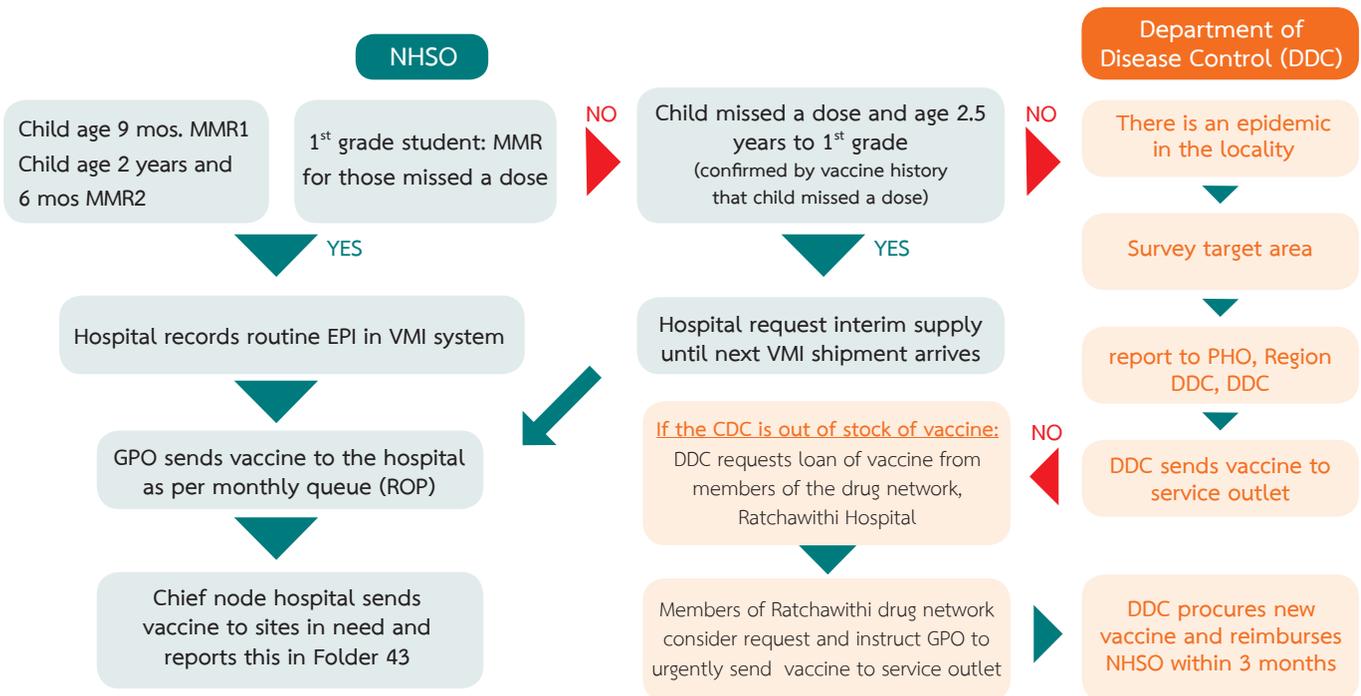
At present, in Thailand there are three principal agencies responsible for vaccine management: The DDC, the NHSO, and the Division of Health Economics and Health Security, all under the Ministry of Public Health. The division of labor is as follows:

1. The DDC is responsible for the following vaccinations:
 - Vaccinations for those traveling abroad e.g. flu vaccine, vaccination for meningococcal vaccine for Hajj travelers, and Yellow Fever vaccine for travelers to Africa
 - Flu vaccine for high-risk groups
 - Mop-up vaccinations for everyone at risk and whose history of vaccination is not known, and MMR/MR/dT
 - Vaccinations under the global disease eradication program commitments, such as polio, MMR/MR, and boosters vaccines.

2. The NHSO manages basic vaccination for Thais as follows:
 - EPI Routine (by age) and supplemental vaccines for those who missed the routine service
 - EPI for students in primary grades 5 and 6, and supplemental for students in primary grade 1
 - Seasonal flu vaccine
3. The Division for Health Economics and Health Security, manages vaccines for the following:
 - Routine EPI for migrant workers with a health card
 - Vaccines for persons undergoing nationality verification
 - Vaccines for undocumented migrants

Vaccine for Measles/Mumps/Rubella is a routine vaccination for all children in Thailand under the expanded program for immunization of the MOPH. The first dose is given between the ages of nine and 12 months, with a booster at age 2.5 years which helps boost the immunity by 2-5% in cases there were not enough immunity after the first shot was given. This vaccine is widely use across the globe. Since it was first introduced in the 1970s, it is estimated that over 500 million vaccinations have been given in over 60 countries.

Guidelines for Requesting and Disbursing MMR Vaccine



**The DDC is to procure emergency supply of vaccine in the case of an outbreak



Responses to measles outbreaks in the area

The response to the measles epidemic situation in the deep south sub-region began when the spike in new cases was detected. A local PHO requested supply to vaccinate persons who were contact cases of the primary case and the attending clinical personnel. Persons who had never been vaccinated in the community were strongly urged to be vaccinated. It turned out that a surprising number of people in the sub-region had not been vaccinated. This created a strain on the ability of the DDC to provide supply. The DDC requested urgent support from the NHSO, and was able to rush 125,000 doses of vaccine to Yala, Pattani, Naratiwat and Songkhla Provinces, the prime area of the outbreaks, during October to December 2018. By December, the epidemic had abated.

In any case, this episode exposed weaknesses in the vaccination system and the role of the three principal agencies to mount an integrated response.

Although there is a budget for purchasing emergency vaccines, it could not be mobilized in time. Also, the vaccine takes time to produce. Thus, the overall vaccine management of the country is very important, and weaknesses need to be urgently addressed. This is especially true for vaccine procurement and distribution that is appropriate for the epidemic, and requires careful coordination of various agencies and related sectors.

Conclusion The epidemic of measles in the southern region of Thailand in 2018 demonstrated the importance of efficient coordination among many agencies and actors in disease control, both at the local and national level. The service provider units must cooperate closely with the broader network and the local area, especially in insecure areas such as the border provinces of southern Thailand. The people need to trust the service providers and believe in the importance and necessity of vaccination, especially for young children, to serve their own welfare and the public good. At the national level, it is necessary to urgently review the entire system of vaccine management, including appropriate procurement and distribution in cases of emergency e.i. outbreaks of diseases, and insure efficient coordination of government agencies at the division, department and ministerial levels. There needs to be on-going population education on vaccinations so that they understand, are aware and demonstrate appropriate concern for the need for full vaccination coverage for their family, community and society at-large.



www.pexels.com

4 Four Notable Outcomes of Thai Health



http://f.isnhotnews.com/uploads/news/20180412033404_5572059913.jpg

FAO praises HRH Princess Maha Chakri Sirindhorn

The 34th Assembly of the United Nations Food and Agriculture Organization (FAO) of the Asia and Pacific Region, was held in Nadi, the Republic of Fiji, on April 11-13, 2018, under the theme “Eliminating Hunger.” At that event, José Graziano da Silva, the director of the FAO, praised HRH Princess Maha Chakri Sirindhorn as a Special Ambassador of the United Nations for Zero Hunger because the Princess has been working on the development of nutrition and food security and has been a leader and role model for solving food shortages and improving nutrition of students in remote areas for more than 30 years. The Princess has supported agricultural projects for school lunch, a development fund for children and youth in remote areas, and sponsored

a royal initiative to carry out cooperative projects with countries such as Lao PDR, Myanmar, Cambodia, Bhutan and Bangladesh. In 2016, HRH Princess Sirindhorn was the chairman of the opening ceremony for the establishment of the Asian Dairy Development Partnership. This initiative promotes and develops dairy cows to provide quality milk and improve the lives of dairy farmers in the region. That activity also promotes dairy supplemental food for Thai public schools in underserved areas to address malnutrition in school-age children and support the dairy industry as well. The FAO also distributed royal documents of HRH Princess Maha Chakri Sirindhorn to participants in the meeting.





<https://www.prachachat.net/general/news-111562>

WHO praises Thailand for eradicating filariasis

On the occasion of his visit to the Prime Minister during the 2018 Prince Mahidol Award International Conference (PMAC) on February 2, 2018, Dr. Tedros Adhanom Ghebreyesus, Director of the WHO, expressed appreciation of Thailand for playing an important role in successfully tackling global health issues, especially its success in eliminating filariasis from the country, ending the transmission of HIV from mother to child, improving the efficiency of dealing with STIs and implementing a universal health coverage policy, allowing people throughout Thailand from all walks of life to access health services. The WHO director presented an “Honorary plaque” to formally praise Thailand for its achievement in eliminating lymphatic filariasis from the country.

Filariasis (elephantiasis) was a public health problem in Thailand in the past. Lymphatic filariasis is caused by the helminthes parasite, with the mosquito as a vector. Most of the infected people are asymptomatic and, if not treated, can develop an acute inflammation of the lymph nodes in the armpit and groin, leading to disability in arms and legs after chronic infection for three to five years. The MOPH has implemented strict measures to prevent and control filariasis, including disease screening of cross-border migrant workers, drug dispensing (DEC-Diethylcarbamazine citrate) and surveillance blood test. Despite eradicating the disease in Thailand, the country continues to conduct screening and immediate treatment of non-Thai migrants to ensure that the disease is not re-introduced to Thai communities.





<https://www.matichon.co.th/wp-content/uploads/2018/06/Healthy-Heart-115.jpg>

Banning trans fats to reduce risk of NCD

The MOPH has announced the prohibition of the production, importation and distribution of trans fatty acids to reduce the risk of heart disease and atherosclerosis by the Decree No. 388, 2018. The decree specifies that “...foods which require their oil to undergo a partial hydrogen replenishment process and partially hydrogenated food containing oil are prohibited to be imported or sold.” This ban on trans fat has been in effect since January 9, 2019, with violators being punishable under Section 50 of the 1979 Food Act with imprisonment from 6 months to 2 years and a fine from 5,000 baht to 20,000 baht. The issuance of this announcement makes Thailand the first country among ASEAN members that has banned trans fat.

Research indicates that consumption of trans fat increases the risk of heart disease and atherosclerosis and also promotes excess accumulation of fat in the

human body. This fat increases the risk of diabetes, high blood pressure and blood clots. Foods that contain trans fat include margarine, white butter, non-dairy creamers, sweetened condensed milk, unsweetened condensed milk, whipped cream, large amounts of confectioneries and snacks from various factories, including fried food, baked goods using margarine, and ready-to-eat food such as biscuits and crackers, manufactured foods such as snacks in packages, and fast food products. The Thai FDA has partnered with educational institutions and food industry partners to orient entrepreneurs, manufacturers, importers and suppliers to understand the trans fat ban and legal consequences of non-compliance. In addition to that, the FDA has also produced a manual to help the consumers understand about trans fat.





<http://www.komchadluek.net/news/edu-health/350663>

WHO certifies the quality of Thai ARV drugs - they are just good as the original formulations

Thai-manufactured antiretroviral (ARV) drugs have been approved by the WHO in accordance with the WHO Prequalification Program (WHO PQ). That makes Thailand the first country among ASEAN member nations to have accomplished this milestone. Efavirenz Tablets (600mg) of the Thai Government Pharmaceutical Organization (GPO) was the first ARV drug to be certified as just as good as the original formulation. The drug is produced at the Rangsit pharmaceutical factory 1, Khlong 10, Thanyaburi District, Pathum Thani Province.

Efavirenz Tablets (600 mg) is one of the front-line drugs for PLHIV. It also the first ARV drug listed in the Thai guidelines for treatment of PLHIV. At the time of this writing, Thailand had about 80,000 PLHIV who rely on GPO Efavirenz, which is very effective in suppressing the HIV viral load and helps the immune system to

function more normally. Regularly taking Efavirenz helps reduce risk of opportunistic infections associated with HIV infection, such as TB or HPV (which is a risk factor for anal and cervical cancer). This ARV drug greatly improves the quality of life of the PLHIV.

The imported original formulation of Efavirenz had a price of up to 1,000 baht per bottle. By contrast, the version of Efavirenz produced by the GPO which has equivalent efficacy as the original costs 180 baht per bottle only. This ability to economize on production of the drug greatly increases access to treatment through procurement of ARV drugs by the Global Fund and UNICEF. This recognition and certification by WHO reflects a quality up-grade of Thailand's ability to manufacture life-saving drugs such as Efavirenz which meet global standards.



Citation:

Thai Health Project. 2019. Online Social Media – A Double Edged Sword Thai health in the context of a socially-connected world. In Thai Health 2019. (pp. 92-117). Nakorn Pathom: Institute for Population and Social Research, Mahidol University



**ONLINE
SOCIAL MEDIA
A DOUBLE EDGED
SWORD**

THAI HEALTH IN THE CONTEXT
OF A SOCIALLY-CONNECTED WORD

A person in a red shirt is seen from behind, looking out over a cityscape at night. The scene is overlaid with digital data, including binary code (0s and 1s) and various glowing blue and green patterns, suggesting a connection between the physical world and the digital realm.

Online Social Media - A Double Edged Sword

Thai health in the context of a socially-connected world

ภาพ : <https://www.freepik.com>

<https://medium.com/@AmazonkaIV/do-we-live-in-virtual-reality-ebbf37c7f4f0>

The Digital Divide in the 21st Century

“A tale of two worlds” sounds like it may be reminiscent of stories in novels or sci-fi movies like the TV drama “Love Destiny” or the movie “Interstellar”, where the characters travel between the past and the present world with certain principles that are driven only by the imagination. One world has met or has done something that the other world has not or does not create. That is the color and charm of these types of stories. However, the two worlds that are discussed in this chapter are real. The transition from the 1st to the 2nd Millennium is like a form of time travel: between the virtual and the physical world. The space between the two worlds is colorful and just as exciting as a fantasy tale; but this time it is not imagined. It is real.

In the decade of the 1950s, the world embarked on the journey to the information age or digital revolution when the first computer was invented using vacuum tubes for information storage, processing and output. That development defined the course of societal evolution through a distinct departure from the industrial age. One by one, countries are transitioning from manufacturing and agriculture-based economies to knowledge-based societies. Now, from that first computer (ENIAC) which required an area of 167 meters, the current generation of micro-processors – which are many times as powerful as ENIAC – are as small as a pin head.

During this relatively short journey over six decades, it can be said that online social media, embodied by

such applications (apps) as LINE, Facebook, Twitter, Google+, Myspace, Instagram, LinkedIn, Pinterest, Snapchat, WhatsApp or WeChat, and all facets of the sharing economy (Uber, Lyft, Airbnb, etc.) represent the vanguard of what is now the information age that is changing the way people work, interact, consume, and pursue recreation or hobbies. These apps are so-called disruptive technologies and the digital world reflects how social media has infiltrated almost every aspect of daily life. It has radically changed – and continues to change – the way of things have been done in the past to become “The way of online existence” from daily life. This may include how people create, treat and terminate of relationships, launch businesses, create news, share media, start political movements, foment terrorist acts, promote access to goods/education/public health, engage in religious practice, raise children, provide eldercare, and much more than can be listed here. Indeed, the virtual world is infinitely vast. Thus, increasingly the world is divided less by physical boundaries and nation-states. Instead, the divisions in the global population are increasingly defined by access to and participation in the digital socio-economy. Another way to portray this divide is between the real world of tangible experience and the virtual world of the ‘cloud.’

With each passing year, more people are traveling from the physical world to the virtual world, and spending more time there. The activities, options and opportunities in the virtual world are constantly changing and expanding. Even though the physical person still has their body to stand, walk, eat and sleep with, by transporting their mind into the virtual world a new kind of existence emerges in which the person has boundless potential. Obviously, even though the person has to switch back and forth between the physical world and the virtual one, the boundaries can become blurred.

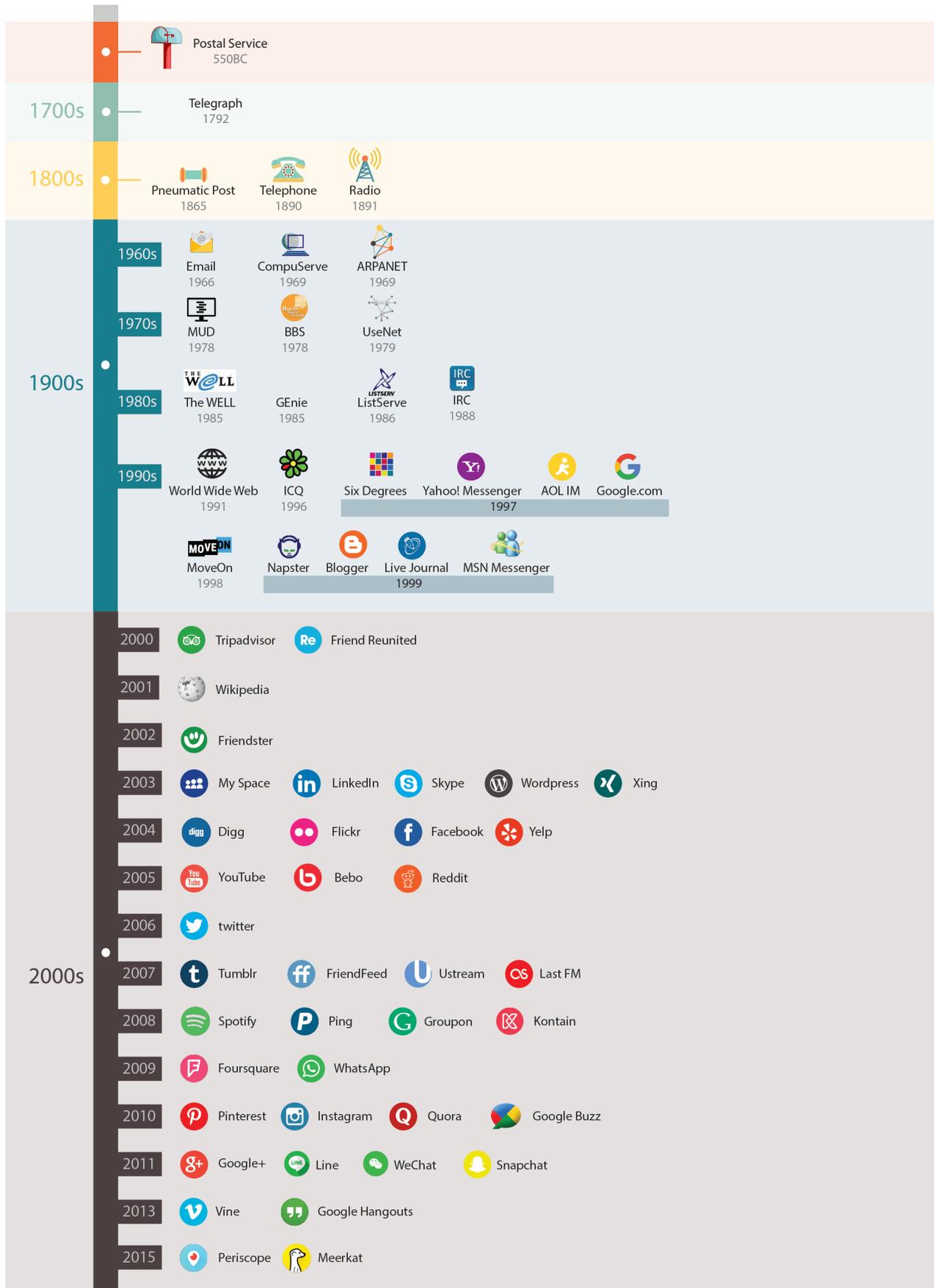
People and social media have evolved and the possibilities are expanding in both the horizontal and vertical dimensions. This can be seen from the scope of online social activities that has become more diverse and innovations that are getting more exotic and deeper by the day. Innovation and the widespread use of online social media, both by individuals and by organizations,



is causing the development and use of social media development to evolve rapidly.

In past years, the world has watched the changing dynamics of online social media, both in terms of the media itself and how people use it. Social media and the virtual world is making things much more convenient, with expanding opportunities for anyone with access and an entrepreneurial spirit. There is unlimited information that can be learned, at one’s own pace and in privacy. People can find new ways to make money or develop relationships with a vast range of people of similar interests, which would have been impossible without the Internet. This can enrich a person’s life, materially and emotionally, especially for the more shy members of society. At the same time, the anonymity and reach of online contact opens up opportunity for exploitative or criminal activities. The unsuspecting users of the Internet can quickly fall into traps that aim to deceive, rob, or harm in other ways. This is the “double-edged sword” of the online life when it interacts with the physical world. Understanding how this dynamic – between the virtual and the tangible – affects lives and society is more important now than ever. Only with that understanding can we envision where this journey will take us and the potential effect of the double lives we lead.

อุบัติการ และวิวัฒนาการ ของสื่อสังคมออนไลน์



ภาพ : พอตตา บุญยศิริธนะ



Online social media is an innovation that originated in the late 20th century with the advent of the Internet. Online interaction is merely part of a continuous evolution from older media. The telegraph, once widely used for one-way or two-way communication, officially ceased to exist in Thailand as of 2002. The method of pneumatic post, telephone and radio were inventions of the 18th and 19th century (during 1792-1891). The only transformative technology in the first half of the 20th century was television, which brought video into the home, but was only a one-way form of communication. With the advent of the Internet, it was only a matter of time before all forms of communication would be transferred to digital, online formats, with limitless storage and retrieval in the ever-expanding “cloud” that circles the earth.

The Oxford Dictionary defines ‘online social media’ as a form of communication through websites and applications that allows people to create, share and publish various content. Use of social media is a social activity which operates in the form of a network. Commonly, people understand social media as real-time communication via the Internet. Thus, it is not difficult to understand why this form of communication is so widespread and becoming an essential feature of most people’s daily life.

Evolution of online social media in the late 20th century

Online social media as it is used today was only made possible by the development of supercomputers in the final decades of the 20th century. The key breakthrough was software and technology which allow those computers to communicate and transmit information between themselves. CompuServe introduced the first rudimentary system for e-mail in the late 1960s. Then, in 1979, American computer scientists Tom Truscott and Jim Ellis developed the UseNet system to communicate via virtual newsletters by members. This allowed users to read and write responses in real time, including posting to a shared platform similar to the Bulletin Board System (BBS), but in ways that was faster and easier to use. A quantum leap in the development of online social media occurred with the creation of small computers running on micro-processors. That enabled the invention of the desktop and personal computers that began to dominate the computer market in the 1980s. Another advance was the development in 1988 of Internet Relay Chat (IRC) program for “talk” or “chat” communication, which offered instant communication between microcomputers. IRC created a chat room culture which was mostly used in academic circles and by hobbyists. However, with the invention of hyperlink software, the World Wide Web (i.e.,

the Internet, or “web”) became a reality. The first widely used interface were browsers which helped people search for information on the web. That leap in software truly connected people from around the world, in nearly real-time communication and sharing. The only limitation was access to the Internet and data transfer speed.

Fully-formed, online social media arrives at the end of the 1st Millennium

It can be said that social media really arrived when SixDegree.com was born in 1996 by Andrew Weinreich. The website was originally called MacroView, later changed to SixDegree, according to the Six Degrees of Separation concept of Frigyes Karinthy (1929), a Hungarian writer. The short story “Chain” in the compilation “Everything is Different”, refers to the phenomenon that any two people in the world can be connected through a network of “friends of friends of friends.” The hypothesis was that it only took six interpersonal connections for any two people to link together (i.e., have a friend of a friend... of a friend). In Thai, the expression that refers to this connectivity of strangers is “the world is round”, while in English the phenomenon is referred to as “It’s a small world”. SixDegree was different from IRC which allowed users to create their own profile and use it to find new friends. For example, the website Classmates.com, developed by Randy Conrads in 1995, is used to search for people who attended the same school. SixDegree.com closed down in 2000 when it was acquired by Youthstream Media Network for \$ 125 million. Classmates.com is still in operation but is not very popular, perhaps because the user has to pay a subscription fee for access to the database.

SixDegree.com and Classmates.com initially generated a lot of activity and social interaction in the 1990s. Another group, named “Friends of Robot Wisdom” was initiated by Jorn Barger in 1995, as a forum for posting opinions and commentary for others to read and discuss. Barger referred to this platform as a Blog or Weblog, and this was the forerunner for the myriad number and types of e-blogs that exist on the Internet today. The initial blog expanded to include content about various social, economic, and political issues of the day. Another web group, MoveOn.org, was initiated by Joan Blades and Wes

<http://www.sixdegrees.com>

Boyd in 1988, initially as an e-mail group for organizing campaigning activities to support political movements and candidates. Another platform, LiveJournal was developed by Brad Fitzpatrick, an American computer program developer, and later sold to SUP Media, a Russian communication company in 2007.

The emergence of blogs as a form of online social media can be viewed as an important way to take the pulse of society and encourage people to express their opinions in an uncensored way. This is especially true when a blog writer (“blogger”) can write anonymously. Initially, while this might seem as a liberating form of communication, anonymous posting without a moderator or editor quickly becomes polluted with “trolls,” or people who post negative content merely to cause outrage or derail civil discussion. It is startling, how a very few trolls can destroy an entire blog or public online forum. More insidiously, social media can be used to influence opinion in negative ways, or for criminal or counter-political purposes by targeting certain individuals and groups, and providing them with false information, i.e., propaganda. It can be seen that in the late 20th century, online social media evolved from casual conversations among friends and colleagues, to disseminating personal opinions and discussing various public issues widely, often among people unknown to one another.

Expansion and diversity of social media in the 21st century

It can be said that the first two decades of the 21st century were an era of thriving social media as indicated by all the new apps and platforms that appeared then. This is also a reflection of the growing online population

(“Netizens”). A survey in 2000 found that at least 100 million people had access to the Internet, and that the virtual world is expanding to compete with the real world for attention. In addition, there are many unique features of new online media to meet the complex needs of people in society.



ภาพ : พอลตา บุญยศิริธนะ

The hustle and bustle of the online world began to heat up in 2002 when Friendster, a social media network for groups of friends, was launched by a Canadian computer program developer based in Kuala Lumpur, Malaysia. As of 2003, there were only a handful of dominant social media sites, including LastFM, which offered specific content for music lovers, MySpace (a precursor of the Facebook type of platform), LinkedIn for connecting people based on professional skills and opportunities, WordPress (a blogging platform), Photobucket and Flickr (apps for sharing pictures), and Delicious (bookmarking) to categorize preferred areas of interest and post them.

Then, in 2004, Mark Zuckerberg, while a student in college, launched Facebook. The first version was only accessible by Harvard University students, but then steadily expanded its coverage to other universities and, eventually, the public. In that year, there were also other

social media resources of note, including Care2, Multiply, Ning, Orkut, Mixi, Pczo, and Hyves. In 2005, four new sites were launched, including YouTube, Yahoo! 360°, Bebo, and Reddit, in which YouTube was the first to offer video sharing, while Reddit was a news aggregation and website-ranking app.

In 2006, Facebook added features and expanded the user group from only the university student sector to the general public, eventually becoming the global powerhouse that it is today. In that same year, Jack Dorsey, Noah Glass, Biz Stone and Evan Williams launched a unique social media app called “Twitter” for tracking and sharing news, trends and issues, whether it be politics, celebrities, entertainment, sports, society, environment, etc. Social media in both of these websites do not only serve to maintain relationships among friends, but they are also important tools for celebrities and politicians to magnify their profile and amass



followers and fans. Other apps followed in 2007, including Tumblr and FriendFeed, while Spotify, Ping, Groupon, and Kontain came online in 2008. Foursquare emerged in 2009, while Instagram, Pinterest, and Google Buzz appeared in 2010, followed by Google+ and Pheed in 2011.

The progress of social media gained extra momentum and coverage with the advent of the affordable smartphone combined with ever expanding Internet access and speed of data transfer. The social media platforms also store and publish huge amounts of data (i.e., Big Data) every minute, around the clock. Contents include news, emotions, attitudes, pictures, video, audio, knowledge, entertainment and other information that may be important to an individual, a workplace, or other environments and user groups around the world.

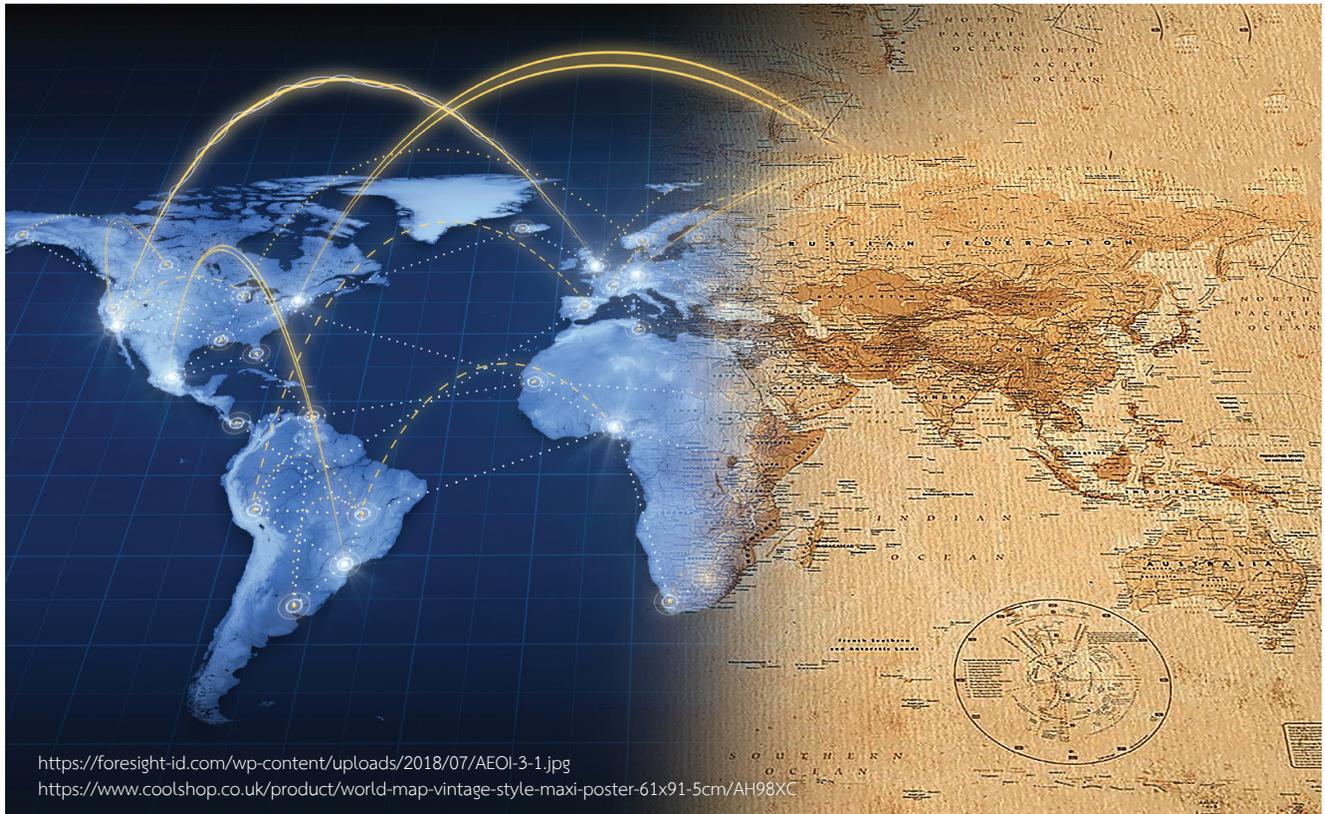
In the early 2nd Millennium, online social media has expanded the role of conversation among people around the world in a way that was never possible in human history. People receive and send information for entertainment, recreation, work, hobbies, social issues,

politics, and other topics to people in the same physical community or the opposite side of the world. Thus, borders have no meaning. Online social media is also rapidly replacing the role – or even the existence – of other types of media, whether that is print media or TV and radio. The other media have to adapt to survive in the virtual world. This transformation applies not only to media outlets, but also institutions and organizations; all are adjusting their respective roles and duties to make themselves relevant and viable in the digital age.

The rapid expansion of online social media reflects the fact that this is the format and platform that people around the world want to be a part of, especially for the younger generation. The online world is an integral part of their life, and it is hard to imagine existing without it. Every moment online offers the opportunity for discovery, invention, serendipity and surprise. News of any interesting new discovery circles the globe in minutes. Each user can invent their own way to navigate the “Cloud” for their own personal benefit or those around them.

Awakening of the “New World” of the 21st century

World population growth and Thai population in virtual space and social media



The discovery of the “New World” by Christopher Columbus in 1492 awakened people in the “Old World” (Europe, Africa and Asia) that they were not alone. It stimulated the appetite to learn more, create, imagine, dream and hope. This paradigm shift is epitomized in the words of Columbus *Nuevocielo e mundo* or “New paradise and a new world.” However, after revising the world map to account for this discovery, there was never again the urge to see what more of the world there was. That is, not until the end of the 20th century when “virtual world” emerged as a challenge to the real world of tangible physical experience.

In some sense, it is impossible to map the dimension of this virtual world. Where does the territory begin and end? That may have been the same feeling about Columbus’ New World and the virtual world of the late 20th century. It is this mystery of the unknown that makes humans want to discover more. It is written in the genes of humans to explore. But the

main difference between virtual world and Columbus’ New World is that the virtual world is a world that anyone can easily enter, regardless of socio-economic status, education, or location. The vehicles to access this virtual world are not as expensive as the *Niña*, *Pinta* and *Santa Maria* ships of the Columbus fleet. Today’s voyagers only need a mobile phone and Internet access, and they can journey everywhere. There is no need to spend a year of travel, or say goodbye to loved ones who may never see you again. In fact, finding the virtual world takes only a matter of minutes or even seconds, and the traveler can jump back and forth between the virtual and physical world at will. That is the reason that the population of the virtual world is increasing unabated, with no end in sight, yet with no sign of overcrowding.

When Columbus stepped on shore of the New World, which was then part of South America, that world was estimated to have 10 million inhabitants.

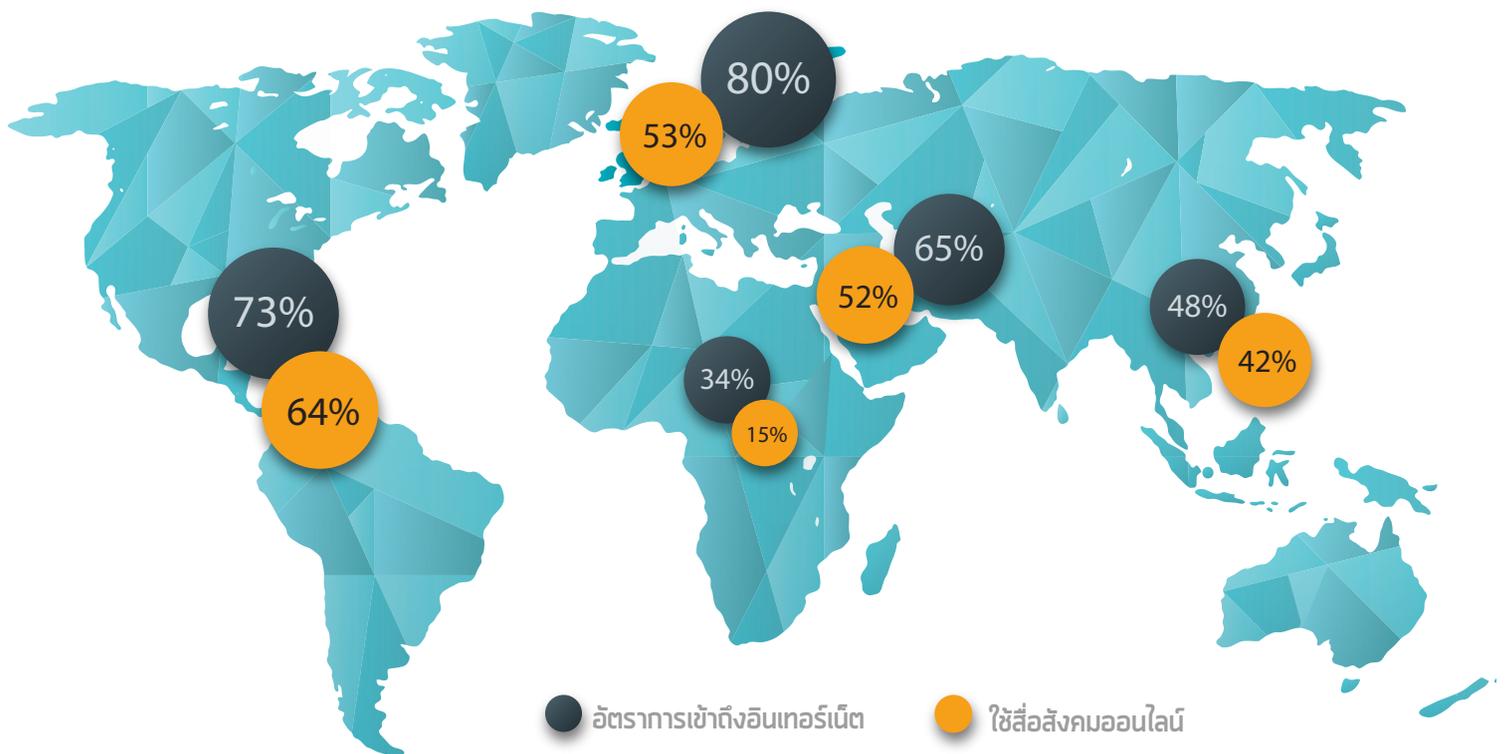
Columbus' New World took more than 500 years to reach a population of one billion. In 2018, the virtual world had a population of about 4 billion. Of these, people who use online social media account for at least 3 billion. In one sense, the birth of the virtual was that day in 1991 when the worldwide web was activated. In that sense, it took the virtual world only 27 years to expand to four times the size of the New World. In addition, one can also mark the origin of social media to the day in 1996 when Sixdegree.com went online. That means that it took only 22 years for the population of the online social media world to achieve a size three times larger than the New World. This rate of expansion reflects the awareness and thirst for something new, and the unrelenting advancement of scientific and human technology.

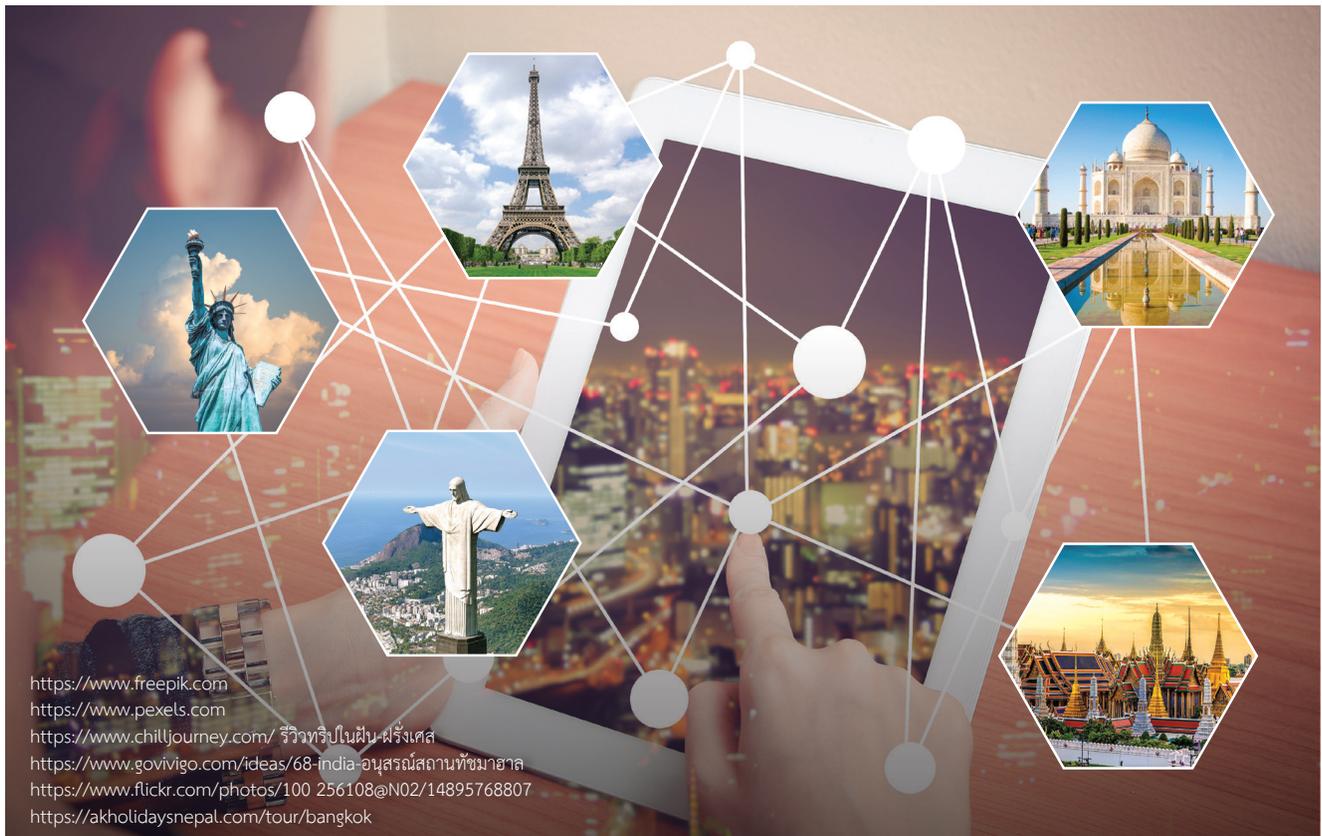
As of 2019, the physical world has reached a population of about 7.5 billion people. Even though global population continues to grow, it is growing at a declining rate and will stabilize at some level and then,

possibly decline. This demographic shift is truer in the more developed nations, where two in three persons have a mobile phone – more than half of which is a smart phone (i.e., with Internet access). That places the virtual world in the palm of the hand of those smart phone users. In the past year alone, the number of people using the Internet grew by 53%, and the persons using online social media increased by 39% in that same time period. During the entire year of 2017, there were an estimated of 11 additional (i.e., new) users of the Internet each second. Plus, the increase in social media users was 300 million people during that time frame. Further, it is not just the increase in the number of people who go online or use social media: the duration of time people spend in the virtual world is also increasing apace. The 2018 Global Digital Report estimated that people who go online spend at least an average of six hours per day in the virtual world.

The Western world, consisting of North America, South America and Europe, with a population of about

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1 in 4 of the global total, has relatively high Internet access compared to people in other continents. Nearly three-fourths of the population, or about 1 billion people in North and South America, have access to the Internet, and 64% use online social media. Europe has a population of about 840 million and 80% can access the Internet while 53% use online social media. This shows that the size of the virtual world population in the West is not much less than the size of that of the real world.

The key point here is that, although the growth of access to the Internet is high, it is not yet near a saturation point. In the past year, in North and South America, the number of people accessing the Internet has increased by about 23 million, representing an increase of 3%, while social media users have increased by 49 million, representing an increase of 8%. In Europe, Internet users increased by 37 million, representing an increase of 6%, while the number of those using social media increased by 32 million, representing an increase of 8%.

The Middle East region consists of 22 countries with a population of about 250 million but with an Internet access rate of up to 65%, and the use of social media

at 52%. Although both the number and the rate of access to the Internet cannot yet compete with those of the Americas and Europe, the growth in access to the Internet and use of social media is outpacing the Americas and Europe. In the past year, Internet access in the Middle East increased by 17 million, representing 11% growth. Meanwhile, users of online social media grew by 37 million people, representing a growth of 39%, which is the highest growth rate compared to all regions. One of the factors behind this surprising trend may be the “Arab Spring” – phenomenon in which the Middle East population in the real world and virtual world came together through the practice called O2O (Online to Offline), leading to major political and social changes in that region.

The Asia-Pacific is the region with the most area and largest population with 4 billion inhabitants. Estimates of access to the Internet in this region is 48%, and use of online social media is 42%. While less than those of the Americas, Europe and the Middle East, the population of the Asia-Pacific is catching up rapidly. In the past year, 98 million more people in the Asia-Pacific gained access to the Internet, representing a 5%

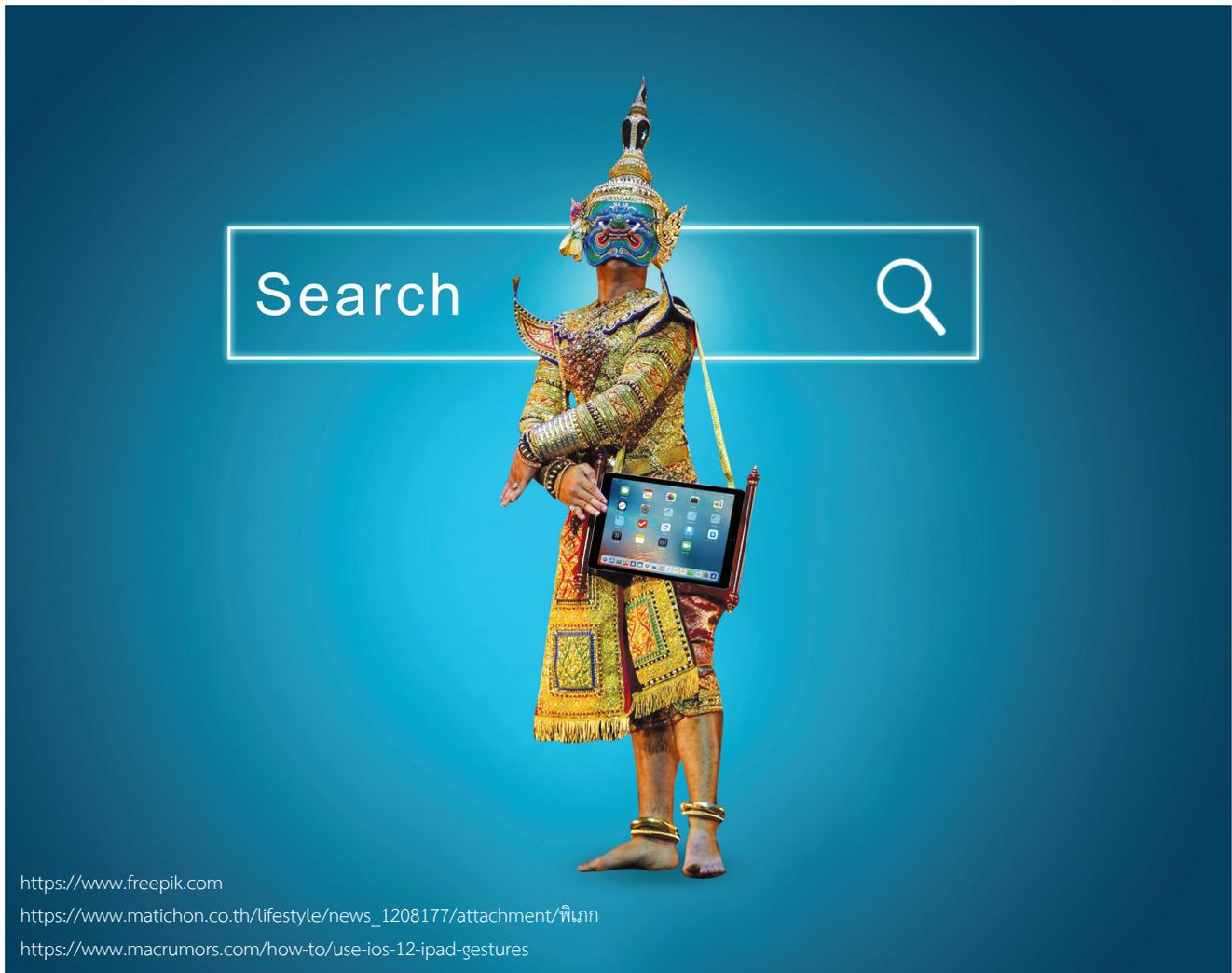
increase. Those using online social media increased by 224 million people, representing an increase of 14%. A noteworthy feature of the Asia-Pacific is the wide variety of cultures, languages and development level. In addition, many of the countries in this region are lower-income with slower-growing economies compared to the other regions cited above. A 2016 report by UNESCO estimated that Internet access rates range from over 90% of the population in Japan, and more than 80% in South Korea, Australia and Singapore, to less than 10% in Afghanistan, Myanmar and Cambodia. The UNESCO report cited problems of infrastructure, price of access to the Internet and safeguards from cyber-crime as obstacles to greater Internet usage in countries of the Asia-Pacific with low access rates.

The overview for Africa is that this region is still lagging behind the others in terms of Internet development and social media usage. This continent has 1.2 billion people living in over 50 countries, yet only one in three have Internet access and 15% use online social media.

However, over the past 10 years, some countries are making significant strides with huge investment in telecommunications infrastructure, including links to the Internet by placing underwater cable. In 2013 alone, African investment in this sector was \$3.8 billion, largely to build a cyber-bridge connecting Africa with other regions and to prevent Africa from being isolated from the virtual world. Despite these efforts, the main obstacle to access is now concentrated in the 16 landlocked countries which cannot directly access the underwater cable system. Because of the inter-country political disputes, it is often not possible to negotiate a transfer of access across countries. This affects both the price and convenience of access including a reasonable speed of data transfer. That said, in 2018, it was estimated that 73 million more people had access to the Internet than in 2017, representing an increase of 20%, with a corresponding increase of persons using online social media of 20 million, or 12% higher than in 2017.

<https://www.freepik.com>





Thailand and the virtual world

Among countries, Thailand has been quite receptive to the promise of the digital age and the virtual world. This started well before the advent of smart phones or tablet computers. Many Thais were already linking to the Internet through personal computers at home, at work, at school, or at ubiquitous Internet cafes located seemingly in every town. Thus, the population was already being primed for entry into the virtual world. The first forays into online social media were dominated by social network apps such as Hi5 which was launched in 2004. By 2008, Thailand ranked 12th among countries in the world for number of Hi5 members, with 3rd highest user growth rate globally.

As of 2018, a survey of the Electronic Transactions Development Agency of the Ministry of Digital Economy and Society, reported that Thais spent an average of 10 hours and 10 minutes on the Internet per day, increasing from 3 hours 41 minutes in the previous

year. Those findings are consistent with the We Are Social survey which ranked Thailand top in the world for average time on the Internet at 9 hours and 38 minutes per day. The duration for use of online social media per day for Thais was about 3 hours 10 minutes. What is more, Thais spend an average of 4 hours and 3 minutes per day watching various entertainment media, which means that about half the day of a Thai is spent in the virtual world.

In terms of penetration and access to the Internet and social media in Thailand, the survey found that about 82% of the Thai population had access to the Internet, or an increase of more than 11 million people in one year, representing a 24% increase rate. Access to social media was 74%, or an increase of 5 million over the previous year, representing an increase of 11%. In addition, 80% of Thai people have mobile communication devices, whether it is a mobile phone



or tablet. Fully 90% reported that they access the Internet every day, and 8% once a week. Three-fourths (74%) of Thais access the Internet via smartphones, and nearly all Thais aged 18 years or older have a smart phone. In fact, an increasing number of Thais under the age of 18 years have a smart phone.

Looking deeper into how Thais spend their time in the virtual world, it can be seen that a common use of the Internet is for search apps, and Google is the most popular search engine for Thais. On average, Thai people spend about 9 minutes on Google per time, and open about 7-8 pages per visit. Next most popular site for Thais after Google is Facebook. Thais spend an average of about 12 minutes on the site and open about 12 pages per visit. The third most popular site for Thais is YouTube, mostly to view entertainment videos. Thais spend an average of 24 minutes on YouTube, opening about 10 pages per visit.

In addition to using the Internet for search (Google) contact with friends (Facebook) or visual entertainment (YouTube), Thais like to use the Internet for instant messaging, rather than verbally communicating by phone. The LINE app is the most popular social media application for conversations. Moreover, Thais use the Internet to read and follow comments on various issues and express their opinions on such sites as Pantip.com

and Sanook.com. Thais also use Twitter. Furthermore, they are increasingly making purchases online. The most popular e-commerce site for Thais is Lazada.co.th.

The Internet and social media are rapidly coming to play a role in almost every dimension of Thai life, whether it is for entertainment and recreation, or reading, watching and listening to various types of content. Thais use social media more and more for communication with colleagues, tracking work progress, reporting obstacles, requesting opinions, directing and receiving assignments, and maintaining personal relationships (both friends and family), and shopping.

The rapid growth in use of social media partly reflects the phenomenon that people want to connect to and stay informed all the time. This is called the “Fear of Missing Out (FOMO)”, i.e., fear of not being up-to-date with current events, or being left behind by friends and colleagues. The driving force for this compulsive tracking and sharing is to demonstrate to others that this person is in-the-know and on top of things. The problem with this self-centered outlook on life is that it leads users of social media to not be critical enough of the information they are receiving and sharing. They simply forward content automatically, just as one would pass on a rumor without checking the source or considering the consequences if it is false.

for the innovative and resourceful users. The world of social media brings these thinkers to reach a global market, in which products are purchased instantly with a single click, and delivered to one's doorstep. Social media enables an obscure artist, who may create their work in a small apartment somewhere in the world, to then produce something of social value, become famous, and profit greatly, without having to go through middlemen or brokers. Indeed, the process is reversed as the agents and brokers rush to these social media stars to try and get a share of the action. This phenomenon is confirmed by the number of views as the new yardstick of popularity and demand which an artist or idol may generate on social media. This process is not limited to the younger generation who grew up with the Internet as a given but older people also have a voice on social media and can express themselves without fear of being forgotten. The Internet and online



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social media has heartened many elderly who have joined the virtual world to connect with old friends, share their hobbies, and contribute through blogs that are followed by people of all ages around the world. These older users contribute out of a sense of shared community, not profit motive.



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Currently, there are writers on social media and bloggers who research, create and disseminate information through online platforms, covering almost every issue. The topics range from health tips, investment, cooking, gardening, car care, and pet care, to name just a few. These persons can speak their mind on any topic, whether someone wants to know or not. But if there is someone who is interested, the Internet and online social media will connect them. This is how the virtual world can enrich life and expand the collective intelligence and intellect. The world is in the palm of everyone's hand.

That said, the production and dissemination of information that is so easy in the social media world may suffer from inferior data, false information, and lack of peer review or editorial screening and fact-checking. This inevitably leads to bias and misunderstanding. As noted earlier, the compulsion to be the first to share information compels users of social media to ignore

signs of exaggeration or falsehood. The goal is simply to be the first poster, not a helpful conveyor of useful information. This compulsion then acts as a chain reaction through the online social media world, where each recipient of a news item rushes to be the first to share it within their sub-network. It is easy to see how this form of communication can quickly get out of control, saturating whole segments of society with often false or unvetted information. This has happened already countless times in Thailand.

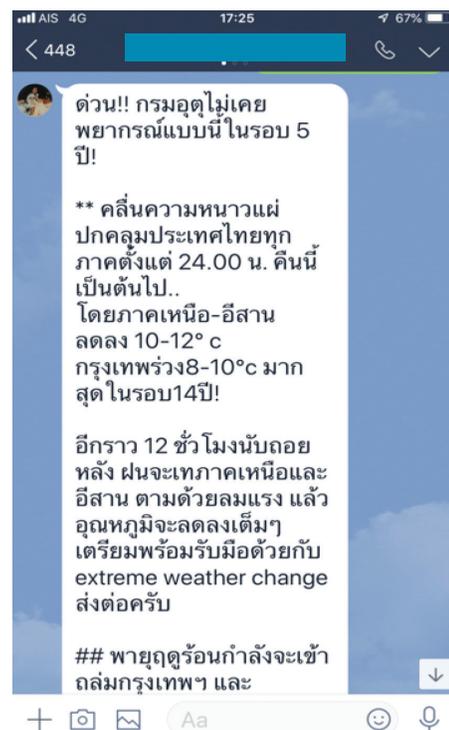
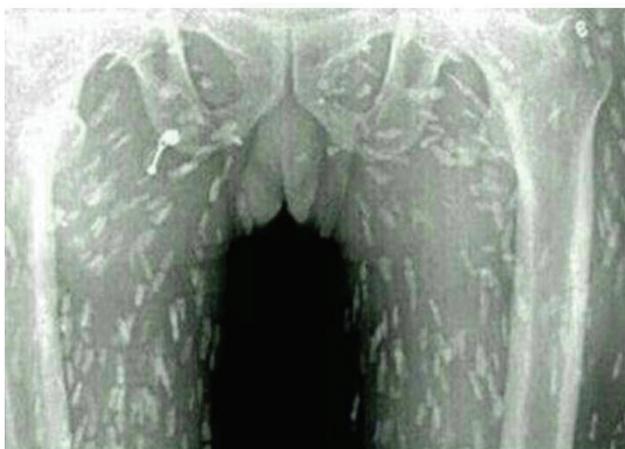
In addition, in a darker way, cyber-criminals take advantage of this easy way to spread false information in order to dupe gullible users of social media to buy products or send money to a scam operation. There is the case of “Natton Waai”, a 31-year-old man who was tricked by a fake image of a sexy woman into transferring hundreds of thousands of baht to an online bank account. Then there is the case of the young woman name “Fang”, who became a victim of a lesbian who seduced her online to wire away nearly 300,000 baht within a single month. These deceptions are age-old; the only difference is that now they can be done anonymously and to victims anywhere in the world. The scams are becoming more complicated, and the

potential reward for little investment is huge. Strangely, despite wide knowledge of these scams, it seems that more people are falling into the traps of online, social media cyber-criminals. In an effort to attract customers and transaction fees, banks have made online banking as effortless as possible. Some clever cyber-criminals have found ways to link their bank account with others to secretly transfer funds out of the victim’s account through ‘e-wallet’ tricks. The Internet is also creating societies with short attention spans and impatience with delays. Thus, few users of online social media bother to read terms or conditions of clicking “Accept” or “Continue” or when downloading a file or app.

Social media is making Big Data available to anyone anywhere, whether through wired or wireless connections with the Internet. In all of human history, there has never been so much information accessible to so many. Indeed, some speculate that a formal education might not be needed anymore, in the same way that electronic calculators have made learning arithmetic obsolete. At the same time, social media can be a trap for unsuspecting or overly gullible users. It is truly a double-edged sword with enormous power to enrich life, but also the ability to destroy people’s lives.

ภาพข้อมูลเท็จที่ส่งต่อในกลุ่มไลน์ทำให้คนหลงเชื่อและตระหนก

ชายชาวจีนผู้รักการกินซูชิรายหนึ่งมาพบแพทย์ หลังจากมีอาการปวดท้องและคันไปทั่วผิวหนัง และก็ต้องผะ เมื่อภาพเอกซเรย์ที่ออกมาร่างกายของเขาเต็มไปด้วยพยาธิตัวตืด เป็นผลมาจากการกินซาซิมิมากเกินไป



Physical health and social media

It is probably true to say that social media is responsible for the physical fitness crazes that pop up around the world these days. Part of this is due to the wealth of information and experience which people share about staying in shape, adopting a certain diet, or how to rest well in order to improve quality of life. Naturally, people want to share these tips for living healthy lifestyles with family and their close acquaintances. It is a sign of love and caring. In an era where people move far and wide, sharing information on staying healthy and physically fit is a positive way to maintain friendships and contact with others.

In addition to the health benefits that have been discussed, social media has also created ready-made programs or applications that augment health care. These apps are convenient to use because most of them can reside on a mobile phone or in conjunction with a device on a wrist strap that is both a time clock and a physical activity monitoring tool. These devices can calculate the number of steps walked each day, count the number of hours of sleep, offer exercise posture advice, and track vital signs such as heart rhythm, pulse and blood pressure. These devices include cardiograph apps such as Nike + Running, and Fitstar Personal Trainer while some have the ability to detect certain illnesses, such as iTraig, and send warnings to the user, close acquaintances, or even one's personal physician. There is also an app that offers suggestions of food to eat to control calorie consumption (e.g., Calorie Counter by Fat Secret), promote weight loss (e.g., Diet Point Weight Loss) or even quit smoking (such as Quit now and Quit smoking slowly). These "life coach" apps are rapidly becoming part of the daily life of more and more people.

Nevertheless, there are research results, both domestic and international, that mention online social media addiction or "social syndrome" that adversely affects physical health in a way that is not different from the "office syndrome." Office syndrome is a set of symptoms that reflect the unhealthy consequences of staring into a computer screen for a long time during the work-day. Addiction to online social media generally means that the user is stationary or sitting. Thus, chronic use of social media means that the user is sedentary for



<https://macropinch.com/cardiograph>

<https://www.wired.com/2017/11/review-iphone-x>

longer periods of time than if they were not addicted. There are also adverse effects of constantly watching text and images on the small screen of a smart phone or tablet, just as with office syndrome. Symptoms include back pain, neck pain and headache. This is especially dangerous for children and adolescents who need physical activity to develop properly. However, online games are becoming increasingly popular among the younger generation. They compete for the attention of the young and developing mind. Chronic use of social media can interfere with sleep. A study by the Faculty of Medicine, University of Pittsburgh, found a significant correlation between time spent on social media and negative health effects, such as irregular meals, insomnia, or sleeping at too late an hour.

In addition, the ability of social media and electronic games to glue the user's attention to the screen for a long time has led parents, who need their child to be still or quiet, to actually encourage their use of electronic devices, especially from too young an age. While this may keep the child out of trouble, it is undoubtedly having some, as yet unknown, adverse effect on intellectual development, if toddlers are reared by using these devices as minders.



The mind, society, happiness, and degradation from online social media

If there is one way that can bring people together to share thoughts and feelings, there is no more efficient way than using social media. In one sense, online platforms are like a global intersection of ideas from people of all walks of life, nationalities, ethnicities, religions and races. Some come in good faith, seeking harmony and common cause. Unfortunately, there are those who come to these platforms to spread hate, evil ideas, and undermine civil society. Ironically, with all the potential diversity of ideas available on the Internet and social media, the ability to find niche groups with narrow interests means that online users tend to congregate mostly with those with similar interests (i.e., the “long tail” of the Internet). This has the effect of actually reducing exposure to a variety of opinions and solidifying one’s own outlook as the “right” one.

When searching for documents and information about the impact of social media, the issues that have received the most attention, both positive and

negative, are the emotional impact on the users and their relationship with society. This includes those in and around the virtual world. The initial intention of social media was to increase the space and channels for people to connect in this virtual society. But this is also having myriad effects on mental and social conditions of chronic users of online social media.

Social media plays a huge role in helping people who have lost contact with old friends or loved ones to find each other after a long time. This includes, of course, classmates from the earliest grades who were once close but drifted apart. Social media can even help people who met accidentally in the past, had a shared moment, and want to rekindle the connection.

Artificial intelligence and intelligent information technology mechanisms of social media are bringing these people back together again. This is making the physical world smaller, while vastly enlarging the virtual frontier.

Even people who see each other in person every day, such as family members or colleagues, there is

still a need to be connected to each other on certain social media platforms. This is because social media capabilities are not limited to those inhabiting the virtual world, but can provide a neutral space to track and share change of emotions, thoughts, feelings about each other that might be awkward to do in person. Close acquaintances share messages, images and symbols as a means of encouragement or love. Social media can be viewed as a form of mass communication that produces news of ordinary folks, not just celebrities, politicians or other high-profile newsmakers, or those in the public eye. Today, anyone can be a public figure, or even an idol. In addition, social media platforms are not just publishing news but also disseminating the identity of each person to others (Identity presentation), whether intentionally or unintentionally. Publishing (or posting) is an indication of what the author wants to say, whether it's a neutral feeling, a happy feeling, suffering, anger, negligence, movement and change, followed by the expectation of receiving certain responses. That is another distinction from traditional journalism; online social media as a two-way communication platform. It allows people to respond in a variety of ways and helps those feelings and movements receive responses. The response may be as simple as letting the author of the post know it has been read, or simple exchanges that are a form of moral support. This psychological effect in the virtual world can transition over to the physical world. People can seamlessly keep a dialogue going by alternating back and forth between the two worlds. The moral support may be supplemented by other support, whether it is assistance with information, money, or even introductions to other people that can be important resources. Social media is also an area that allows people to request spiritual healing and gives people the opportunity to show empathy and compassion for others at the same time.

In creating specific groups in various types of social media, whether its groups of old friends, workmates, family members, there is usually a process of strengthening the relationship among group members. This is especially important for family members who experience shifts in their relative socio-economic status, and move away from each other as new families are

แม่ชีคันสนีย์เผยแพร่เรื่องราวการต่อสู้กับมะเร็งของตัวเอง เพื่อเป็นกำลังใจแก่ผู้ป่วยโรคมะเร็งผ่าน Youtube



[คลิปเต็มไม่ตัด] อย่ากลัวมะเร็ง! 'แม่ชีคันสนีย์' ใช้ 3 หลักรักษาเนื้อร้าย

213K views



1.6K



143



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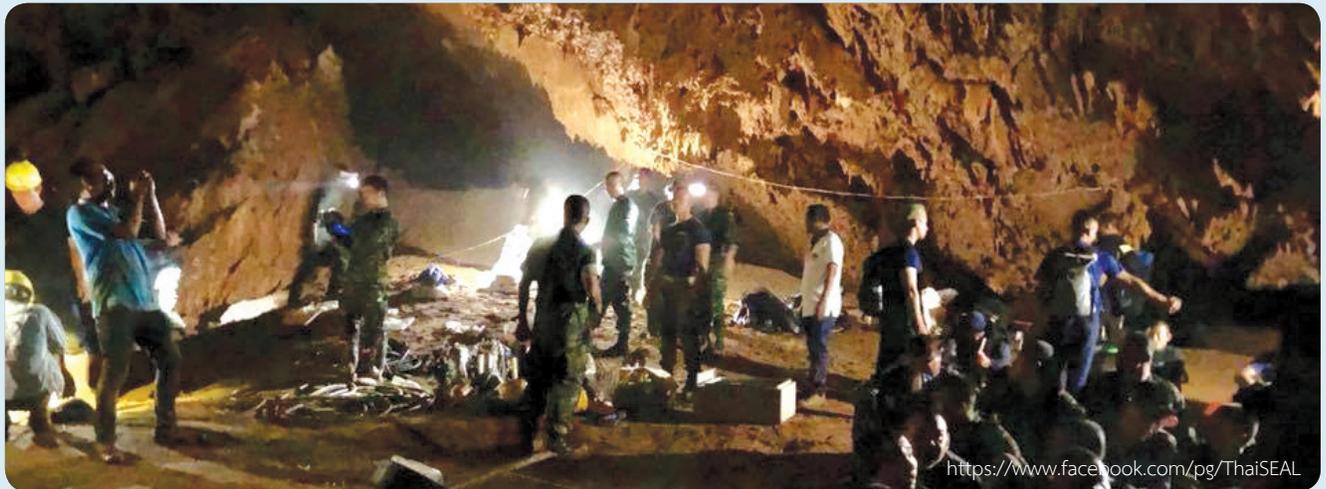


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<https://www.youtube.com/watch?v=Aw6kPk0iOoU>

formed. Even family members who live in proximity to each other have less time to meet as they increasingly lead multi-tasking lives. Social media has contributed greatly to create a space for family members to talk and share as often as needed. The “Family room” option in the LINE app creates the image of a living room or an old-fashioned patio where family members meet, sit, chat, or ask questions of each other and share important news. They express congratulations, share sorrows, and solve problems together. Even though social media communication is obviously no substitute for meeting in person and exchanging hugs and kisses, it helps to alleviate the feeling of isolation due to wide separation, and only occasional, in-person get-togethers.

The “Wild Boar Academy” saga (described earlier) is another important example of the power of social media as an intermediary to mobilize compassion that led to various forms of help from around the world. Social media helped turn an event that was very close to becoming a complete tragedy into a celebration of humanity’s cooperation. It could have been a different outcome in the era before online social media. The following is a closer look at that dynamic.



Online social media and the Wild Boar Academy student saga

“After the trapped soccer team members received some food (delivered by Thai Navy SEALs) to regain their strength, an army doctor examined each of the boys and their coach to assess their condition. The boys were then allowed to relay messages to their family via cell phones of the team of rescue divers.”

After posting the above message on his Facebook fan page, this Thai Navy SEAL acquired more than 2 million followers. His page received many encouraging comments and expressions of thanks to the coach who helped take care of the 12 boys to help them survive so many days in the cave. At the same time, the parents of the trapper soccer team were able to get news and updates from the SEAL’s Facebook page.

One of the Navy SEALs involved in the rescue of the 13 boys and their coach, published a video clip of the Wild Boar Academy soccer club, introducing one person at a time. Though having been in the dark cave with no food for many days, each boy had a bright facial expression and were still able to smile. The video clip shows the boys shrouded in the high-tech thermal blankets that were donated to help them maintain their body heat. Meanwhile, websites, such as YouTube and various news agencies rebroadcast these clips. This generated global jubilation that the boys had been found and were in reasonably good health.

As recounted in Chapter 8 of this volume, the saga of the trapped members of the Wild Boar Academy soccer

club in a cave in Chiang Rai Province during June - July 2018 became global headline news as the world followed the search and rescue of the boys. Initially, it was the Facebook page of one of the Thai Navy SEALs which informed the world of the real-time situation inside the cave and the status of the 13 boys and their coach.

This Thai Navy SEAL reported that the pumps had insufficient power to reduce the water that had flooded the cave after a sudden rainstorm trapped the boys, several kilometers inside the cave system. Continued rain meant that the pumps were fighting a losing battle to drain the cave. These reports helped explain why the situation of the boys was so dire. This increased the concern and attention of people around the world who were following this real-time saga which was made possible by online social media.

Soon, experts from around the world flew to Thailand to see how they could help. These experts came from many countries, and others expressed readiness to send a team to help if the Thai side needed. Significantly, the world’s best cave divers came to Thailand to help. Cave diving is a special kind of underwater diving that requires certain skills that ordinary divers may not possess. Thus, a crucial factor in the rescue was the involvement of experienced cave divers from different countries. Facebook and websites of news outlets declared the rescue a “Mission Possible” after the boys and their coach were brought out safely from the depths of the flooded cave.



<https://www.vox.com/2014/8/20/6040435/als-ice-bucket-challenge-and-why-we-give-to-charity-donate>

The Ice Bucket Challenge: A charity cause fueled by online social media

The Ice Bucket Challenge became important news after video clips began to spread virally on social media. The concept was to have people agree to have a bucket of ice water poured on them to generate empathy for victims of Amyotrophic Lateral Sclerosis (ALS) and solicit donations for research to find a cure. Participants in the challenge could choose between having the ice water poured on themselves or pouring it on others. Donations were directed to the ALS Association in the USA. Corey Griffin, former manager of Ben Capital Investment Company Limited, is credited as one of the initiators of the event. Griffin was inspired to start the charitable activity after his friend, Pete Frets, former captain of the Boston University baseball team fell victim to ALS. Griffin jump-started the project with a donation of more than 3 million baht. As news of this unusual activity spread, celebrities and newsmakers joined in, including Bill Gates, Mark Zuckerberg, Tim Cook, Darren Fletcher, Blake Shelton and Adam Levine, among many others.

In the early stages of the Ice Bucket Challenge, people understood what the challenge was all about. As the fad caught on though, people lost sight of the objective. Thus, the ALS Association came out to announce that, thus far, the Challenge had raised \$115 million for ALS research into the cause of the disease. Scientists revealed that they had identified the NEK1 gene as a factor in the cause of ALS, and published the findings in the journal Nature Genetics. That discovery may pave the way to a cure or prevention technology. Donations from the Challenge were also used to fund six projects in the field of medical research.

In Thailand, the Blognone website by Mark Blognone, a celebrity columnist for Thai Rath newspaper online, tried to catalyze a charity movement by motivating the public to donate for worthy causes. One such cause was a project to help widows who lost their husbands from the unrest in southern Thailand by giving them occupational training to earn money to support their households. The website for that project is taejai.

com. Blagnone also encouraged prominent figures on the Internet and in the IT industry in Thailand, including Khun Pawut (@pawoot), TARAD.com, Mr. Chakrapong (@jakrapong) from Thumbsup and Prof. Suphadej (@ripmilla), the host of the High-Tech Showdown, to take the Ice Bucket Challenge.

However, there are critics who say that using ice buckets for raising funds for other causes is a mistake, since it deviates too much from the original purpose of the project. Plus, it is not really a sustainable activity. For example, there were imitations of the Ice Bucket Challenge appearing on Twitter, Vine or Facebook with the hashtag #DontJudgeChallenge which tended

to show people with unattractive visages or unusual features, making a mockery of the activity in order to draw laughs and hits. The #DontJudgeChallenge campaign actually was originated by a woman who applied and removed makeup in a way to show people how outward appearances can be deceiving. Her point was that people should judge others by their heart and their actions, not their superficial looks. This message was misinterpreted on social media and ended up producing nothing of value.

<https://www.thairath.co.th/content/444109>

<https://www.posttoday.com/world/445380>



<https://www.pexels.com>

While tracking the activities and exploits of others on social media can be a form of recreation or entertainment, the darker side of this tracking is stalking of others, or becoming so envious of others' popularity on social media that it gives rise to hostile feelings or even hostile acts. When people see others having a more active life, being happier, richer, or generally better than oneself, their self-esteem may suffer (social comparison theory). Some people who become too insecure in themselves by comparison with others resort to online attacks or threats (cyber-bullying) which can spread from the virtual to the real world, often with dire consequences.

Although communicating through social media is an exchange of information between willing participants, it is not dissimilar from communicating through other channels. However, the context and atmosphere of communication in social media can take a dark turn, especially if the participant can remain anonymous. In the physical world, when two or more people converse they have to show themselves and, in that way, each can assess the emotion, tone of voice and characteristics which reveal the intentions of the person they are conversing with. In many online social media platforms, users use 'avatars' or symbols in place of their photo or live image. That opens the door to trolls, or loss

of control of one's emotions when provoked. In the physical world, people see warning signs of this and can back off or choose to walk away. That is much harder to do when addicted to social media and one's image there. In addition, relationships on social media seem to be numerous and superficial, rarely with in-depth exchange or extended one-to-one conversations. This may be a function of the striving for "likes" from as many followers as possible, or just the erosion of attention span as the speed of communication continues to increase daily. If more people prefer to communicate via social media, then they will naturally lose social skills when interacting with people in the physical world. That manifestation is more prevalent for the younger generation who may never had the opportunity to learn socialization skills before reaching adulthood. That awkwardness just pushes these misfits back into the virtual world where they are most comfortable. This phenomenon is most distressing when seeing young couples or even families who are sitting together yet each one is focusing on their electronic device instead

of each other. Even recreational activities such as on-line games are often played by individuals living in different locations, anywhere in the world actually. Games used to bring people together. With online social media, no one needs to see their playmates when engaged in gaming. Addiction to Internet games is also becoming a serious problem for youth and young adults in many countries around the world. Some countries (e.g., South Korea) even have programs for helping to rehabilitate youth who became so addicted to Internet gaming to such an extent that their health and ability to carry out daily life activities was collapsing.

Thus, social media connects with all dimensions of well-being, whether intellectual, physical, emotional, or social. Some of the health effects can be positive by reducing loneliness and spurring creativity. However, as noted above, excessive or hostile use of social media can have deleterious health effects on oneself and others. The trend in social media technology seems to be an intensification of these effects on health, both positive and negative.





Using Social Media to Promote Health

“What has happened is always good.”

Actually, social media is just one communication innovation. There is no intrinsic goodness or badness in and of itself. How it is used and the effect it has depends on the user. In other words, the user of online social media is in control of what happens to them in the virtual world. However, once they relinquish that control, bad things can happen. Just as atomic energy can be put to beneficial use for the public good, it can also destroy civilizations. The invention and development of online social media is an important achievement in communication science. Users need to understand the platforms they participate in and how to use them for the benefit to themselves and others.

One of the important benefits of social media is freedom of access and information creation by users themselves. Online social media is for people of all ages, classes and nations. The major challenge then is how to maintain this freedom of access without allowing exploitation of the platforms for malicious intent. The

frightening proposition that we are facing today is that it may be too late to control social media on the Internet to prevent or minimize criminal use of this vast empire. Some would like to see more rules, mechanisms, or large structures to filter access, define and monitor usage behavior, to ensure that the virtual world is safe to visit and be in. However, that would be like building a “panopticon” along the lines of prison architecture of Jeremy Betham, which was often used in both the prison and mental treatment facilities at the end of the 18th century. Surely setting up such “gateways” to deny access to some or screen information to root out criminal activity would not be acceptable to most users of the Internet, and it may not even be feasible. There would have to be great sacrifices of privacy and constraints placed on technological potential in order to make all social media safe from abuses or cyber-crimes.

Given a situation in which there is no way to create complete control over the use of social media,

users have a duty to monitor their own use and help each other identify and expel various threats to society and close acquaintances, especially those who are vulnerable, such as children or seniors who can be easily exploited by bad actors on social media. Social media awareness or online literacy is essential today where the real and the virtual worlds overlap more and more. Before mindlessly receiving and forwarding content just to appear active or in-the-know, users need to use critical judgment of that content and, if necessary, verify its validity and safety. This is a way to cultivate online social media ethics and etiquette. The process of instilling these ethics must start at a very young age as more and more children are gaining access to the Internet through various portals. Adolescents and adults also need to be reminded of their role and responsibility in making the virtual world safe and civil, just as they would in their own physical neighborhood. Often abusive behavior on social media may be unintentional, e.g., by using certain words or phrases that offend some but not others. Ethics in social media should be based on general ethics, and there needs

to be a special sensitivity to issues surrounding sex, ethnicity and religion, which can be volatile if shared too widely. There has to be respect for individual user's privacy and dignity, as well as being understanding and recognizing the value of differences when using social media and encountering others from a different culture. That will allow people in social media to live together constructively and creatively in order to create maximum benefit for society. Online social media has tremendous potential to tap into positive energy of both individuals and groups. If done properly, users will create an informal mechanism for monitoring social media (online social media surveillance) without having to impose external controls.

In any event, promoting online social media surveillance must begin at the individual user level. If it is effective, it can be institutionalized, first at the family level, to protect the most vulnerable (i.e., children and the elderly). Then, the surveillance can be extended to the peer groups and broader networks. Adults should keep track of access to and awareness of various information by children, including being vigilant





for the emergence of unusual behaviors that may be caused by social media use. There should always be a time limit on the use of online social media, and adults must be a role model in this regard.

Schools can play a very important and creative role because it is a place where children and youths spend at least 40 hours each week, especially at the pre-university level. Currently some countries (e.g., France) have clear requirements regarding the use of social media in the classroom so that students do not spend more time on the Internet than necessary. In addition, schools should have clear guidelines for online activity during the school day.

Social media can be used for the benefit of teaching and learning by creating a community to develop and share knowledge. In addition, students should see online social media as a communication tool, an intellectual treasure, and a modern learning medium that requires intelligent, power, and ethical use. They should also surveillance to spot and report inappropriate behavior by classmates or others on online social media.

Meanwhile, online social media and fitness apps

have tremendous potential to have a positive impact on individual and societal health. However, as with all information on the Internet, health information on social media needs to be vetted for accuracy, especially if one tries to apply it to their own life or loved ones. Some unscrupulous marketers of health products can use social media to portray their medicines and tonics as certified and effective as advertised – when neither, in fact, may be true. Thus, public health institutions and consumer protection agencies have the responsibility to monitor health product/service information on online social media and crack down on fraudulent operations.

At the national level, the state must create mechanisms to define policy for social media usage and create an online communication architecture that is not only focused on access but also on creating intelligent surveillance systems that are not too intrusive or stifling of diverse opinion and creativity. Furthermore, there must be absolute clarity on the unacceptable uses of social media which undermines civil society and the cultural norms. Hence, the goal of the country is to promote creative social media to stimulate positive development for all levels and sectors.



The Process of Producing the “Thai Health Report 2019”

Part 1

12 Indicators of Health of Vulnerable Populations

Process

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

Guidelines for health indicator contents

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

Part 2

10 Outstanding Situations

Criteria for selecting the health issues

- Occurred in 2016
- Have a significant impact on health, safety, and security, broadly defined
- Include public policies with effects on health during 2016
- Are new or emerging
- Recurred during the year

4 Four Outstanding

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

Part 3

The special Issue

Procedur/e for ranking the issues

- A survey was conducted using a questionnaire listing significant issues in 2016 before the survey date. The situations obtained from the survey were ranked using a Likert scale with three levels: high (3 points), medium (2 points), and low (1 point).
- The ranking data were analyzed using the SPSS statistics package. Issues with high mean scores were given high priority

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:

1. Political significance
2. Public benefits
3. 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

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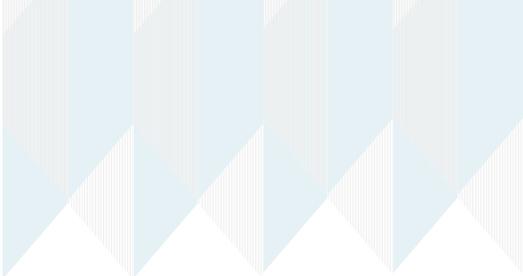
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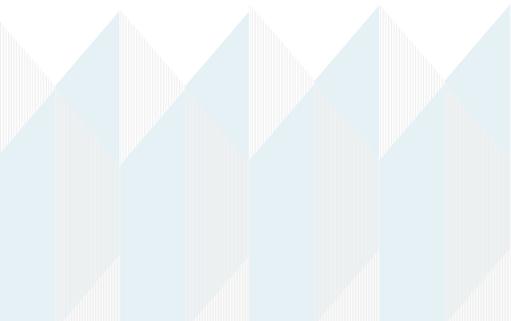
Acknowledgements

This 2019 report of the Status of Thai Health was made possible by the support from the Committee for all of the featured health projects. The Committee members provided valuable opinions and direction for the focus of the content. Importantly, there were highly qualified experts who read the entire report carefully, and their feedback greatly improved the final product. In particular, special thanks is expressed to Dr.Suwit Wibulpolprasert, Dr.Amphon Jindawattana, Dr.Vichai Chokevivat, and Professor Churnrurtai Kanchanachitra.

The Thai Health Working Group would like to thank all participating agencies for their support, statistical data, as well as useful suggestions for compiling this year's health indicators category. We also wish to thank the writing team for preparing the first draft of the report, and compiling and synthesizing the data for the ten outstanding health situations chapters.

Importantly, we would like to thank all the interested readers that tracked our progress and encouraged us to complete this edition of the “Thai health Report,” including providing comments to the Working Group to improve the final product so that it is such an excellent resource.

Thai Health Working Group



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