

Thai Health 2024



Institute for Population and Social Research (IPRS)

Mahidol University

Thai Health Promotion Foundation

11 Indicators: *Digital Technology and Thai Health*

10 Outstanding Health Situations

4 Outstanding Accomplishments for Health

STRESS

The Silent Health Threat
in Thai Society

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Thai Health 2024





Preface

The Thai Health Report 2024 presents “Digital Technology and Thai Health” based on frameworks from: ① The Lancet and Financial Times Commission on Governing Health Futures 2030: Growing up in a Digital World, ② Classification of Digital Health Interventions by the World Health Organization, ③ Social Determinants of Health, and ④ Commercial Determinants of Health. It includes 11 health indicators as follows: ① Use of digital technology for health, ② Use of digital technology by healthcare providers, ③ Use of digital technology in the health care system, ④ Use of digital technology for data management and services, ⑤ Digital technology, living conditions, and quality of life, ⑥ Work environment with digital technology, ⑦ Education and digital technology, ⑧ Networks and online social media, ⑨ Lifestyles and digital technology, ⑩ Digital marketing, and ⑪ Guidelines for promoting digital technology to enhance Thai health.

The top 10 highlighted issues this year include: ① Mass shootings and gun control measures, ② How to address physician brain drain?, ③ Two decades of the gold card: Expanding health insurance to the fullest extent, ④ Online gambling: A trap for youth and adolescents, ⑤ Accidents keep happening! Accidents from large construction projects, ⑥ International mafia and addressing the problem of cross-border crime, ⑦ Thai labor in the Middle East: Crossroads between “wealth” and “security in life”, ⑧ Air pollution claims 30,000 Thai lives per year. It’s time to demand the right to clean air, ⑨ Transfer of authority for the THPH to the PAO: Background, problems and remaining challenges, ⑩ Thailand’s 3rd Health Constitution: Towards and equitable health system.

This year’s four outstanding stories include: ① Dr. Suwit Wibulpolprasert, Global Public Health Hero, ② The World Health Organization honors Professor Dr. Vichai Tienthavorn, ③ The International Network of Health Promotion Foundations. INHPF Bangkok Declaration: Towards equitable well-being, and ④ The Department of Health collaborates with online merchants to deliver healthy menus, reducing sugar, fat and salt.

The special feature “Stress: The silent health threat in Thai society” provides essential information on defining stress, Thai stress situations across all age groups, causes of the problem, and stress management strategies to help readers understand and cope with stress effectively.

The Thai Health Report 2024 team sincerely thanks everyone for their continuous interest and utilization of the Thai Health Report over the years. Your support in research, policy formulation, and implementation in the field serves as invaluable motivation for our team to consistently enhance the quality of the Thai Health Report.

Please continue to follow and read more about the Thai Health Report and its intriguing articles at www.thaihealthreport.com.

Thai Health Report Team

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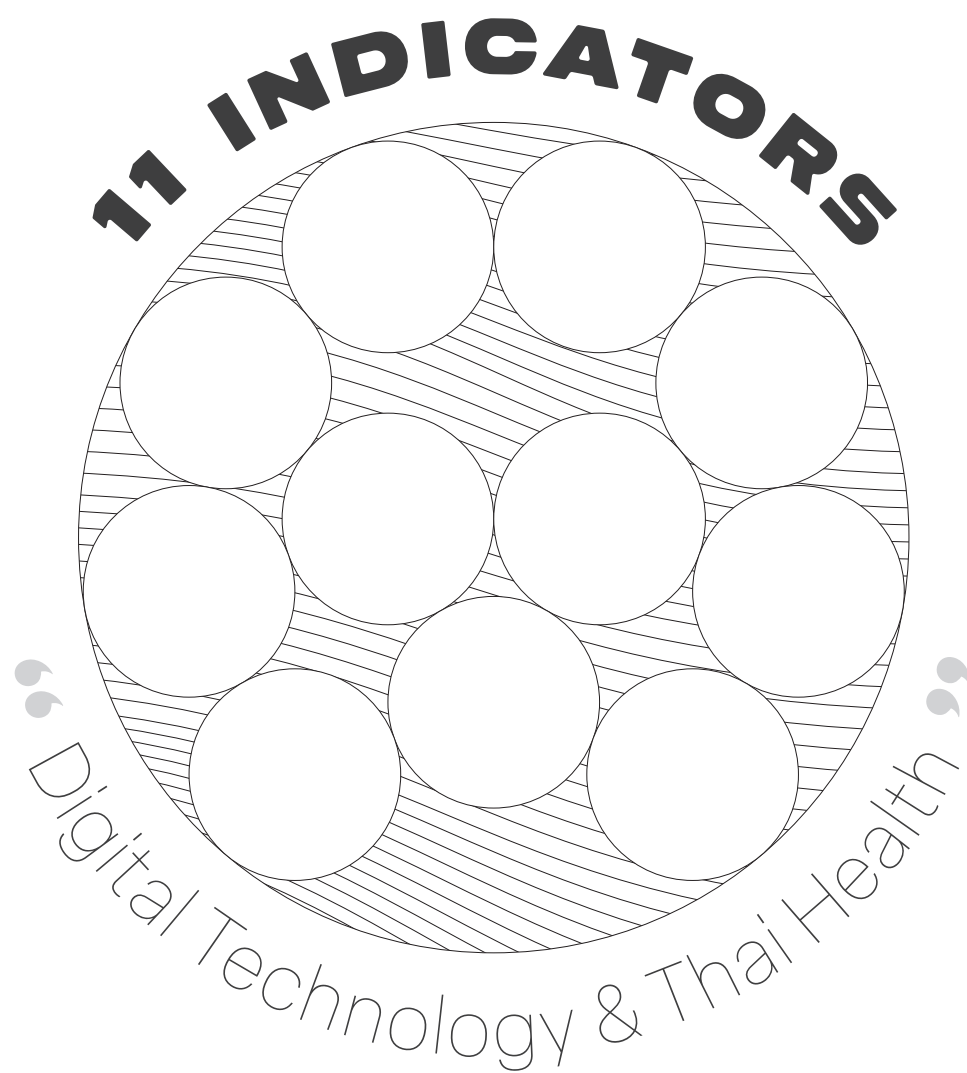
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“ 11 Indicators Digital Technology and Thai Health ”

This 2024 edition of the Thai Health Report presents health indicators on the theme of “Digital Technology and Thai Health” to illustrate the impact of digital technology on Thai health across various dimensions.

Today, digital technology plays an increasingly important role in providing healthcare services and facilitating the daily lives of Thai people. In this report, digital technology includes tools, devices, and digital systems used for generating, storing, and managing data to create benefits. These encompass computers, mobile phones, tablet computers, smart devices, robots, applications, social media, big data, information technology (IT), and artificial intelligence (AI).

Digital technology has both direct and indirect impacts on health. Direct impacts occur when digital technology is used directly for health purposes, such as:



Source: chulalongkornhospital.go.th/kcmh/category/health-knowledge

- 1 Personal use of digital technology for health, such as using the Internet to find information or using smart devices to monitor one’s health
- 2 Healthcare provider use of digital technology, such as telemedicine services and robotic surgery

- 3 Digital technology use for public health systems, such as patient queue management and distribution systems for medication and supplies
- 4 Digital technology use for data management services, such as employing blockchain technology for database management and presenting public health information through dashboards for easy access by both the public at large and service providers.



Source: unsplash.com/photos/a-close-up-of-a-person-wearing-a-smart-watch-_tLfi2wKxfU

Although digital technology in general may not be directly used for health purposes, its various uses impact health through the Social Determinants of Health, including the environment, living and working conditions, interactions with society and communities, and the lifestyles of people. These social factors indirectly influence the health of the population as well.

The section on health indicators “Digital Technology and Thai Health” presents data reflecting the impacts of digital technology on Thai health, both directly (Indicators 1–4) and indirectly (Indicators 5–10), concluding with recommendations to promote the use of digital technology to enhance the health of Thai people (Indicator 11).



Thailand is witnessing an increasing trend in the use of digital technology for health purposes. For the general population, Internet usage in this domain is predominantly for accessing news and health information. The Internet has made health information more accessible to the general population, but it also increases the risk of exposure to misinformation and fake health news. It is essential for individuals to have adequate knowledge to discern the credibility of online information sources.

Telemedicine services, which utilize digital medical technology, are worth paying attention to because they can help reach the population widely, save travel time, and reduce congestion within healthcare facilities. During the COVID-19 pandemic, there has been a rapid increase in the provision of telemedicine services. One thing to be cautious about when using digital technology for healthcare providers is the potential increase in costs from unnecessary technology usage.

Digital technology plays a role in enhancing the overall healthcare system of Thailand. In general, about half of the hospitals under the Ministry of Public Health (MOPH) are considered ‘smart’ hospitals, i.e., utilizing the technology to improve service efficiency, reduce management costs, and alleviate congestion in healthcare facilities. However, Thailand needs to monitor the disparities in technology that occur among hospitals in different areas.

Thailand continuously develops its information systems. It is considered to have a structure capable of supporting the exchange of good health data sets comparable to global standards. Nevertheless, there remain concerns about data security that need to be closely monitored to instill and maintain confidence among the public.

Digital technology can have indirect impacts on health through social determinants of health. In terms of living conditions, Bangkok, the capital city of Thailand, is ranked 88th out of 141 cities worldwide in terms of being a ‘smart city.’ This ranking has been declining since 2019. In terms of working environment, digital technology allows many people to work remotely from home, with over 4 out of 5 Thais still working remotely from home on some days. This helps reduce the daily commute, but may also lead to increased stress from prolonged computer screen time.

In the field of education, access to the Internet plays a crucial role in learning. In Thailand, there is still a significant disparity in Internet access among regions, with schools in the northern region having a higher proportion of schools with no Internet access compared to the national average, and more than 8 times the deficit compared to the central region. This is a concern that may contribute to future disparities in education.

Digital technology plays a role in many aspects of daily life for Thais, whether it is communicating with others, buying and selling goods, or conducting financial transactions. While digital technology greatly enhances convenience for many people, being vigilant against risks and dangers that come with it is essential. For example, using online social media may come with the risk of cyberbullying. Reports show that a significant number of Thai children aged 9–18 years have experienced cyberbullying, with up to 1 in 4 being adversely affected. Additionally, there are 570 cases of online scams reported daily, resulting in approximately 80 million baht in damages per day. These scams involve deceiving individuals into purchasing goods, transferring money for work, or obtaining loans. Moreover, there are risks associated with seeing advertisements that pose health risks, such as e-cigarettes, alcoholic beverages, and online gambling.

Digital technology has the potential to enhance the health of the population, improve service efficiency, and reduce health disparities. However, promoting the use of digital technology requires clear development guidelines, including:

- 1 Awareness that digital technology has become a significant determinant of health
- 2 Cultivating empathy and public confidence in using health-related technology
- 3 Developing unified guidelines for data collection and utilization
- 4 Investing in and planning for the appropriate use of digital technology for health

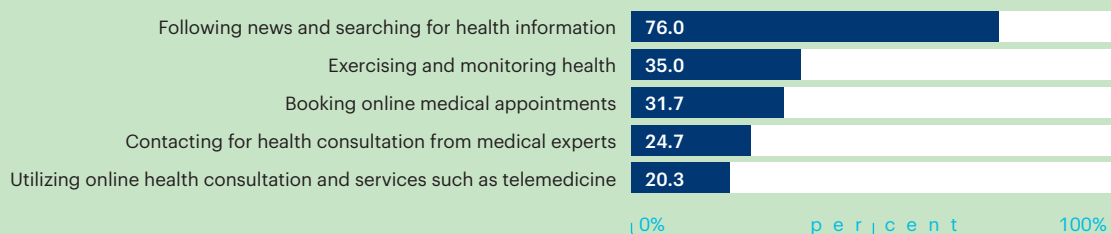
The Thai Health Report 2024 hopes that the health indicators on the theme of “Digital Technology and Thai Health” can illustrate the role of digital technology in influencing the health of all Thais, benefiting policymakers in the health sector, healthcare providers, and the general public.



Use of Digital Technology for Health by Healthcare Clients

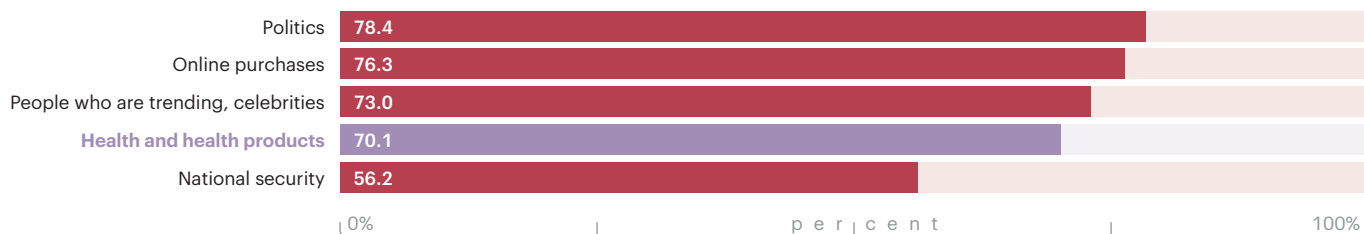
Thais use the Internet for following health news and searching for health information (76%), exercising and monitoring health (35%) and booking online medical appointments (31.7%).

Internet Usage for Receiving Online Public Health and Healthcare Services



Source: Ministry of Digital Economy and Society, 2022

The Top 5 Types of Fake News Most Encountered by Thai Internet Users



Source: Ministry of Digital Economy and Society, 2020

Does the Smart Watch help people be more physically active?

The general public's access to digital technology that promotes health has become easier, such as smart watches that can track heart rate and daily step count to encourage physical activity. However, in 2022, it was found that only

5.4%

of Thai Internet users connected to the Internet through a smart watch. Nevertheless, studies have shown that simply wearing a smart watch cannot reduce sedentary behavior without societal, organizational, and environmental policies accompanying them.

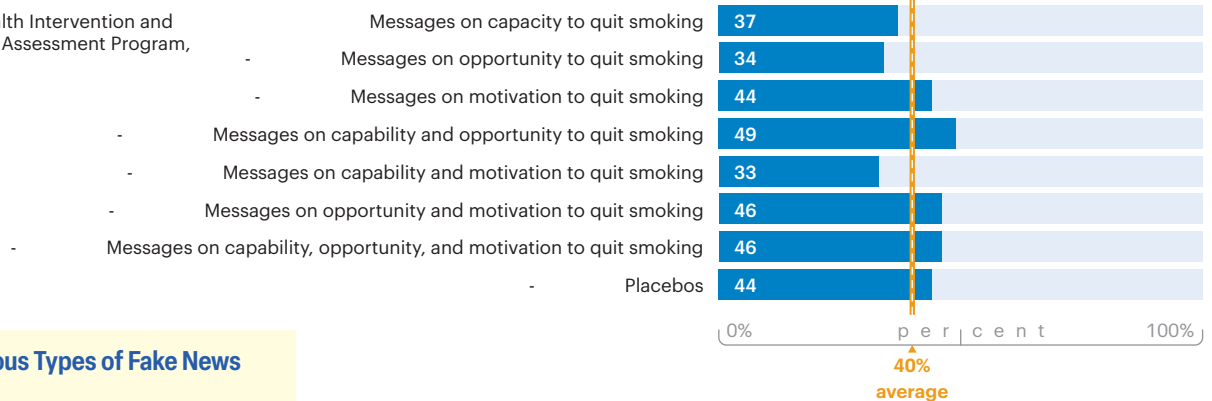
Source: Ministry of Digital Economy and Society, 2022, and Health Intervention and Technology Assessment Program, 2022

Digital technology is utilized to benefit the general public through various channels, such as searching for health information on the Internet, tracking one's health through smart wearable devices, promoting healthy behavior through mobile phone text messages, and increasing health knowledge through the use of applications.

Digital technology has greatly transformed healthcare for Thais, particularly in using the Internet to search for health-related information. However, easy access to health information often comes with risks. Regarding fake health news, in 2020, 70% of Internet users reported encountering fake health news and health product-related misinformation, which is among top 5 fake news encountered by Thai Internet users.

The Proportion of People Who Successfully Quit Smoking due to a Mobile Phone Text Messaging Intervention

Source: Health Intervention and Technology Assessment Program, 2022



Various Types of Fake News



Fabricated Content

Content is totally false.



Misinformation

Inaccurate information



Distorted Content

Exaggerated or manipulated information

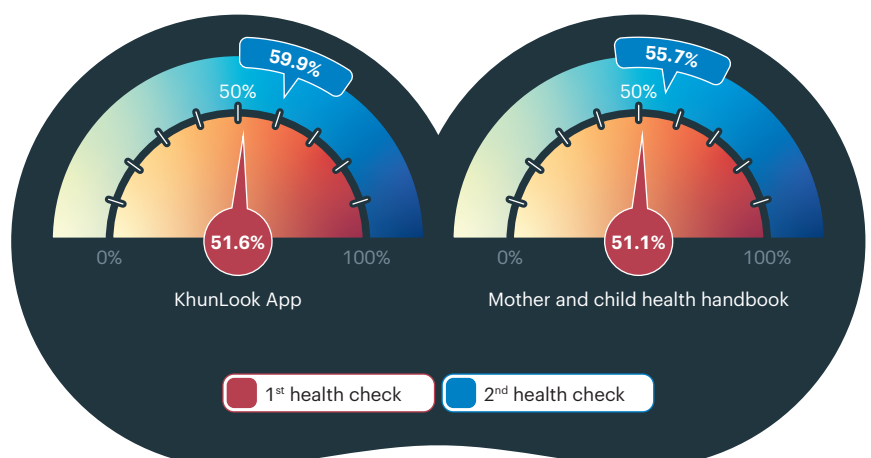
Sending messages through mobile phones is a way of using digital technology to encourage people to adopt healthier behaviors. Whether it is sending reminders to take medication, brush teeth, eat fruits and vegetables, or to support smoking cessation, studies have found that sending messages through mobile phones can increase the likelihood of quitting smoking and be cost-effective. On average, 40% of recipients of these messages were able to quit smoking. Moreover, if the messages contain both information to increase capacity and motivation, the proportion of smokers who successfully quit could increase to 49%.

Currently, health knowledge that used to be in hard-copy handbook format has been transformed into mobile applications for the convenience of accessing information. However, there is still concern about whether information in the form of mobile applications is as effective as books. A study comparing the effectiveness of using the “KhunLook” app with using a mother and child health handbook found that parents who used the app had a higher proportion of individuals with a ‘higher’ level of health knowledge. In addition to using the app, there is now widespread use of online social media to create online parenting communities, where advice and information can be exchanged among peers.

Digital technology has the potential to significantly promote the health of Thais more broadly. However, the success depends on the ability to access the Internet, the level of digital technology literacy, and the ability to appropriately filter information. These factors need to be promoted together to elevate the health of Thais.

The Proportion of Parents with a **High** Level of Health Knowledge Compared Between **KhunLook** App Users and Mother and Child Health Handbook Users

Source: Areemit et al., 2023

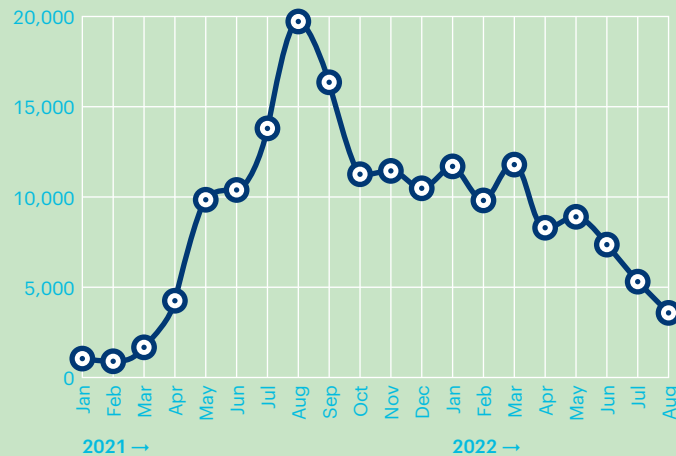


Use of Digital Technology by Healthcare Providers

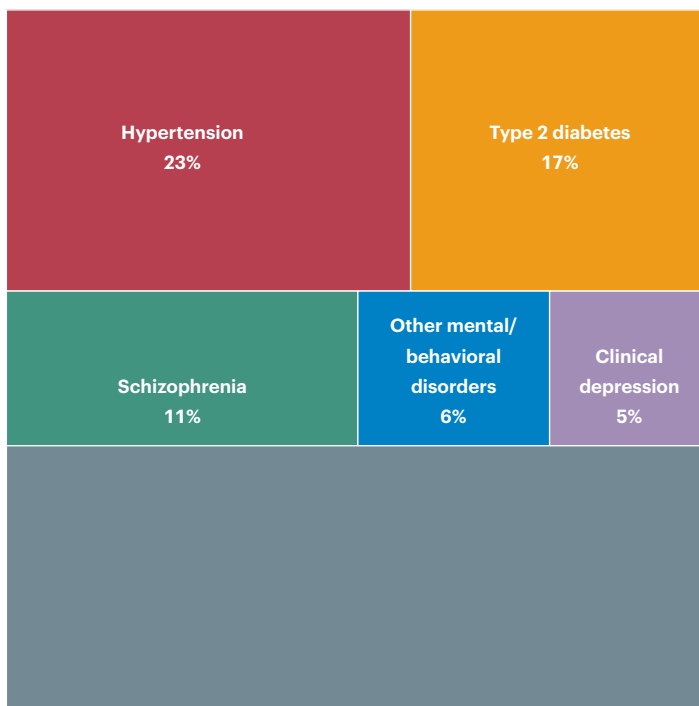
•• The use of telemedicine services increased by 1.2 to 3.5 times during the COVID-19 pandemic compared to before the outbreak. ••

Source: Health Intervention and Technology Assessment Program, 2023

Number of Telemedicine Services



The Top 5 Diseases in Telemedicine Service Utilization



Remarks : The data covers service usage from January 2021 to August 2022, specifically for patients under the UCS, utilizing reimbursement via the e-claim system. In total, 68,963 individuals used telemedicine services, accounting for a total of 177,296 times.

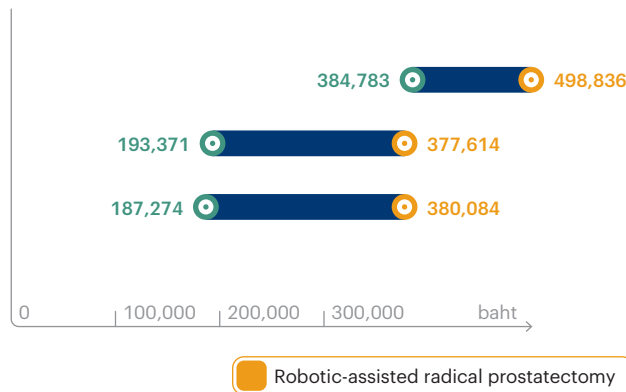
Source: Health Intervention and Technology Assessment Program, 2023

Digital technology can be used to enhance the services provided by healthcare professionals, whether it is telemedicine services, using surgical robots, patient screening, or precision medicine.

Telemedicine services are one of the channels that leverage digital technology advancements to enhance the efficiency of public healthcare services. In Fiscal Year 2021, the National Health Security Office (NHSO) included telemedicine services as a benefit in the Universal Coverage Scheme (UCS). From January 2021 to August 2022, the highest proportion of telemedicine users were individuals with hypertension (23%), followed by type 2 diabetes (17%), and schizophrenia (11%).

Robotic surgery is another technology that can enhance medical services. The use of robotic surgery tends to result in smaller incisions, faster recovery, and fewer complications compared to traditional methods. However, there are still questions regarding the cost-effectiveness, especially if the number of patients undergoing robotic surgery is not substantial. In the case of prostatectomy, the cost of robotic-assisted radical prostatectomy for prostate cancer treatment is higher than laparoscopic radical prostatectomy for patients at low to moderate risk, and there may not be significant differences in postoperative quality of life.

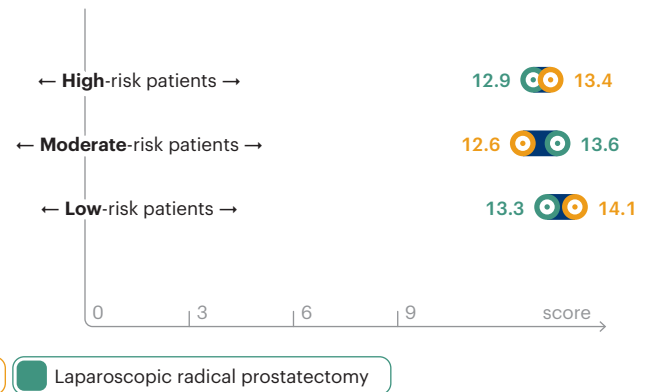
The Cost of Prostatectomy



Note: Data from patients diagnosed with prostate cancer and undergoing prostatectomy using the laparoscopic radical prostatectomy: 65 cases, and robotic-assisted radical prostatectomy: 104 cases, at Ramathibodi Hospital. Total costs include inpatient and outpatient expenses.

Source: Komvuttikarn et al., 2021

Quality of Life Scores After Prostatectomy



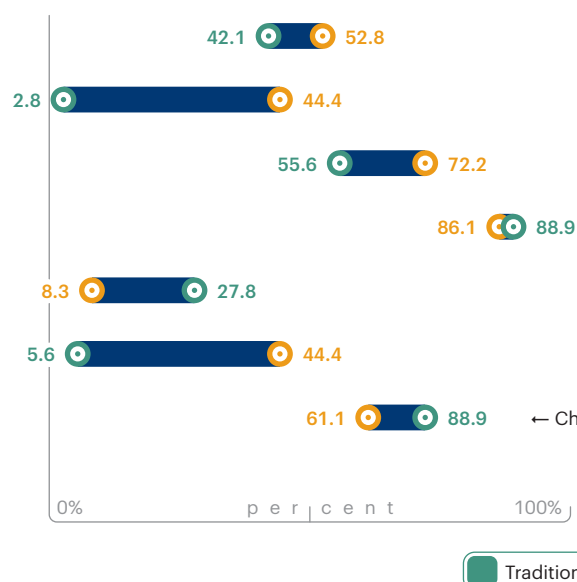
Note: The difference in quality-of-life scores between the groups is not statistically significant.

Digital technology has also been applied to enhance efficiency in healthcare services through the use of patient screening applications. A pioneering study found that using apps for patient screening or triage compared to conventional screening methods has the potential to increase accuracy in overall screening from 42.1% to 52.8%, and reduce the time spent on patient referrals from 95 seconds to 82 seconds. Nonetheless, the conventional screening method shows higher efficiency in terms of both assessment accuracy and duration for patients coming in with trauma.

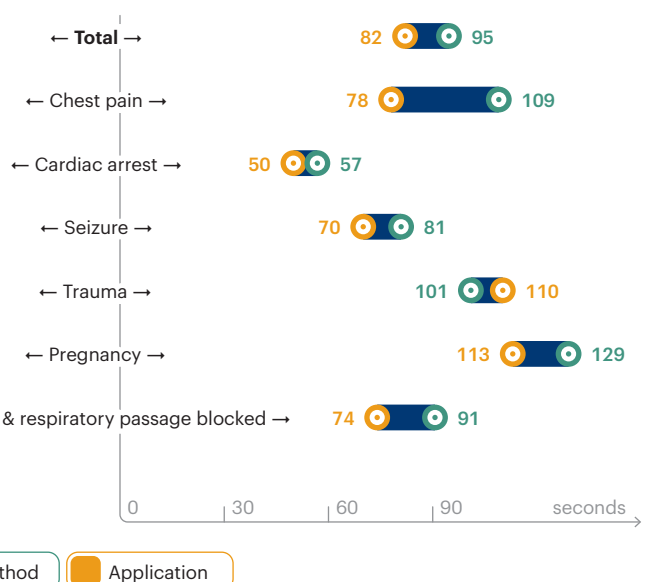
Overall, digital technology has the potential to enhance the efficiency of healthcare service providers. However, consideration must be given to the financial feasibility, as these technologies often come with high costs, leading to increased treatment expenses.

Comparing the Effectiveness of Patient Screening Between the Use of Applications and Conventional Methods

The Proportion of Accuracy in Assessing the Severity Level of Patient Symptoms



The Duration from Notification to the Time of Ordering Patient Referral

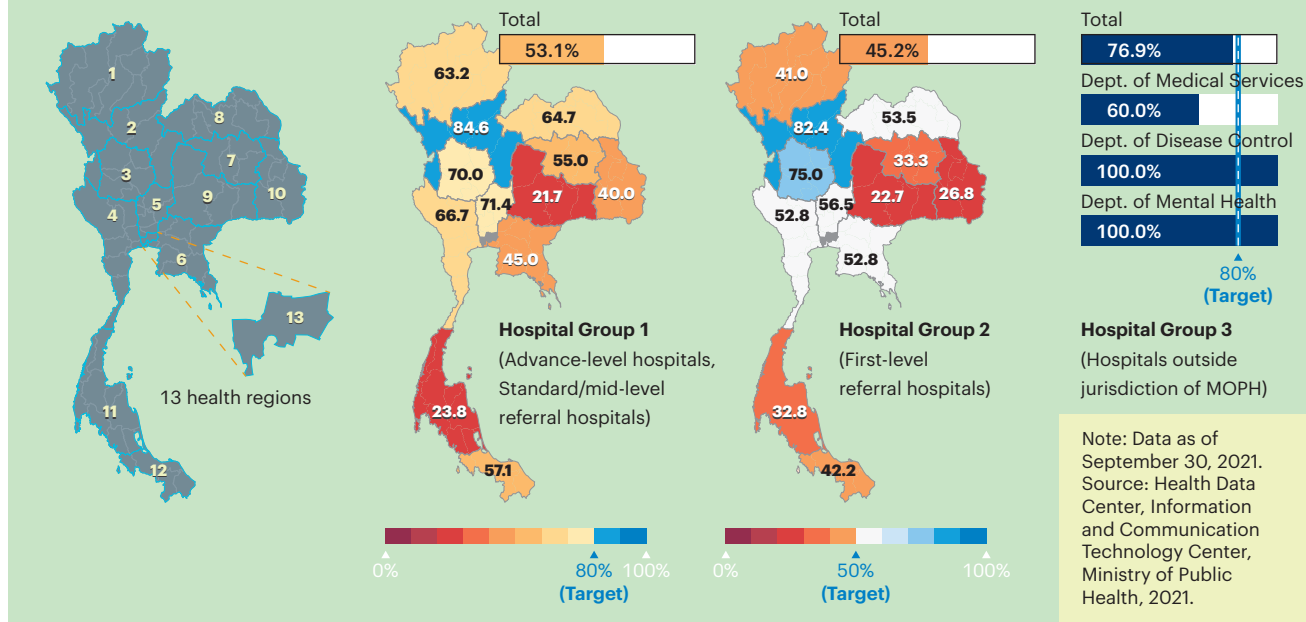


Source: Jengsuebsan et al., 2022

Use of Digital Technology for the Healthcare System

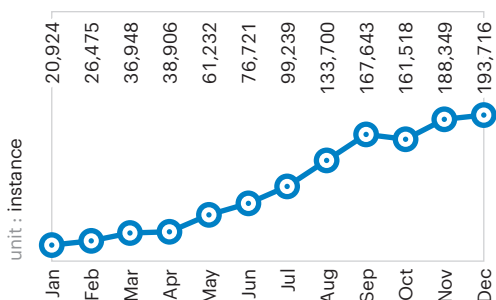
Thailand still needs to encourage hospitals to become **Smart Hospitals**. In 2021, only one health region was able to meet its target of becoming Smart Hospitals.

The Proportion of Healthcare Units That Are Smart Hospitals



Utilizing technology in healthcare management can enhance service efficiency, reduce administrative costs, and alleviate congestion in healthcare facilities. Efforts include advocating for healthcare facilities to become Smart Hospitals, developing systems for medication and supply distribution management, accommodating various forms of healthcare service delivery, and implementing telemedicine systems.

Number of Instances of Patients with Minor Symptoms Using Pharmacy Services



Note: Data as of December 28, 2023, at 17:30. Including repeat service users.

Source: Health Data Center, Information and Communication Technology Center, Ministry of Public Health, 2023.

Thailand is striving to push healthcare facilities to become 'Smart Hospitals' or hospitals that utilize digital technology to support internal service delivery, streamline workflows, and provide convenient, high-quality, safe, and modern services that are environmentally-friendly.

Reducing congestion in healthcare facilities can be achieved by allowing people with minor illnesses (e.g., fever, cough, sore throat, joint pain, muscle aches, rashes, abdominal pain, etc.) to access healthcare services without

Medication Management System

Some medications require efficient management, such as anti-toxins, which are used infrequently but are crucial and must be readily available for treatment. Managing medication stock data through the Vendor-Managed Inventory system, combined with GIS, enables healthcare facilities to search for anti-toxins and antivenoms through map coordinates to find the nearest available stock, ensuring rapid and efficient delivery.

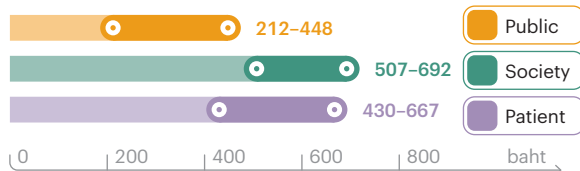
In the case of a 5-year-old child exposed to cyanide on January 6, 2024, and requiring urgent antidote, Khun Yuam Hospital, a community hospital in Mae Hong Son Province, did not have the necessary medication. They contacted Ramathibodi Poison Center, which coordinated with Srisangwan Hospital, which had the antidote in stock and was located in the area. This system allows each healthcare facility to avoid the need to stockpile all types of medications, reducing issues such as medication storage, shortages, and expiration.

Average Cost Savings per Visit for Treating Minor Illnesses, by Public, Society, and Patients

Compared with services provided at a **tertiary** level hospital



Compared with services provided at a **secondary** level hospital



Note: The **public (government) sector** comprises direct medical costs (e.g., medication, physician fees), while the **societal sector** consists of medical costs, indirect non-medical costs (e.g., transportation expenses), and incidental costs (e.g., waiting time for service). **Patients** include direct medical costs.

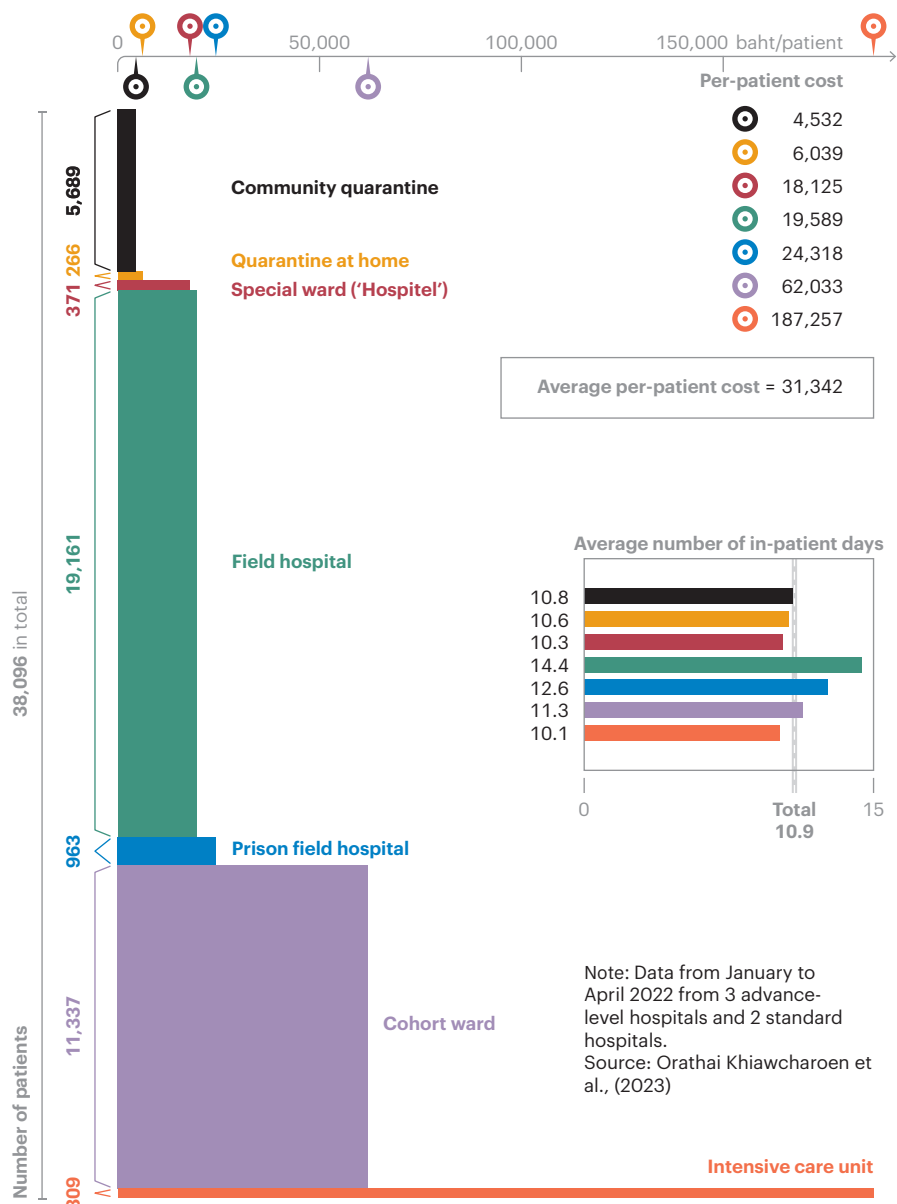
Source: Health Systems Research Institute, 2023

having to visit a hospital. The A-MED Care Pharma platform has been developed to connect pharmacies for recording data and processing healthcare expenses according to primary health insurance cards. This enables patients with minor symptoms to obtain medication from pharmacies, where pharmacists can dispense medication and provide advice. In 2023, there was a continuous increase in the number of patients using pharmacy services participating in the program, reflecting a reduction in the burden on hospital services and an increase in public access to healthcare services.

Additionally, the ability for patients with minor symptoms to obtain medication from nearby pharmacies helps save costs for both the government, society, and the patients themselves, ranging from 201 to 927 baht per visit.

Telemedicine services are another important avenue for reducing congestion in healthcare facilities and played a crucial role in managing public health systems during

Cost of Providing Services to Patients During COVID-19 by Service Format



Note: Data from January to April 2022 from 3 advance-level hospitals and 2 standard hospitals.
Source: Orathai Khiawcharoen et al., (2023)

the COVID-19 pandemic. With telemedicine services, patients with mild symptoms could choose to quarantine at home or in the community and still access medical personnel even if they did not go to the hospital. Apart from reducing the burden on frontline staff during a crisis, staying at home or in the community also helps reduce costs. Data from 2022 found that the cost of providing community and home quarantine services was 4,532 baht and 6,039 baht per case, respectively, much lower than the cost of hospitalization, which was as high as 62,033 baht per case.

Digital technology has the potential to elevate Thailand's healthcare system by reducing service congestion, cutting operational costs, and enhancing population access across all areas of the country. Promoting digital technology literacy among both service providers and recipients will further benefit the population at large and make the use of digital technology in the healthcare system more widespread and beneficial to all groups.

Use of Digital Technology for Data Management and Services

Thailand can share up to 95% of its population health data, ranking 4th compared to 22 OECD countries.

In the digital technology era, population health data is a crucial variable that helps elevate the efficiency of public health services. This requires the ability to share, exchange, and connect databases among organizations. However, health data is sensitive and must be kept private. Therefore, mechanisms to prevent personal data leaks are necessary to build trust among the population.

Digital technology is being utilized to support the use of data for public health services, whether through linking databases, analyzing big data, employing artificial intelligence, or enhancing transparency and trust in health data collection.

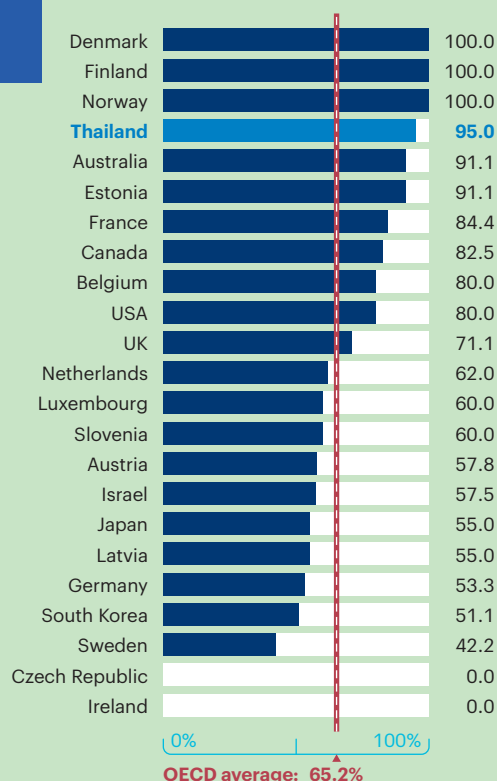
Connecting databases is crucial for Thailand's public health services because it can reduce redundancy of entitlements and provide convenience to the population. Currently, patients can immediately identify their healthcare entitlements using just one national identification card since the databases are interconnected. This is made possible through data exchange between Office of Civil Registration under the Ministry of Interior, the Comptroller General's Department, online real-time Social Security offices.

Advancements in genomics technology, including information systems, enable the rapid and efficient management and analysis of large-scale data. Thailand has initiated the Genomics Thailand to study the genetic profile of Thais to understand the mechanisms of various diseases, leading to improved diagnostics, treatment

The Digital Technology That Supports the Use of Data for Public Health Services

planning, and more “accurate” disease prediction. In the initial phase of the project (five years), the goal is to decode the genome of

Proportion of Health Data That Can Be Shared Among Organizations by OECD Country



Source: Office of the National Digital Economy and Society Commission, Ministry of Digital Economy and Society, 2023

Digital Technology	Example of Use in Thailand
Database integration	Integration of management systems for the registration of individuals' healthcare rights
Genomics technology	In 2019, the Cabinet approved the Thailand Genomics Integration Plan (2020–2024)
Using artificial intelligence	In 2021, the NHSO initiated a project to automate the verification of compensation payments using artificial intelligence. This aims to promptly detect abnormal data and efficiently verify large amounts of data.
Technology that helps build transparency and confidence in health data collection	In 2022, the NHSO, the National Telecommunications Public Company Limited, and Bitkub World Technology Company Limited signed a memorandum of understanding on the “Development of Navigation System for Health Services” project to promote the use of digital technology in healthcare services. This involves utilizing blockchain technology to manage databases used for identity verification in medical transactions to enhance security and better protect personal data.

Source: Adapted from Data for Better Lives, World Bank Group; Information System for Data Management in the National Health Security System, NHSO; 2023

50,000 volunteer Thais from five disease groups, including cancer, rare diseases, chronic non-communicable diseases, infectious diseases, and pharmacogenomics. This will serve as a database for assessing disease risks and providing appropriate treatment guidelines, particularly for the Thai population.

However, health data is information that requires high caution. Personal data breaches from hacking applications are one aspect that can greatly disturb the public. Therefore, healthcare units must be careful in selecting and storing user data only to the extent necessary, and develop robust data security measures.

Currently, Thailand has the National Health Act of 2007, Article 7, regarding personal

Data Services for the Population and Healthcare Providers

A **data dashboard** is a digital technology format for providing data services by consolidating various data into one place, designed to make accessing and understanding various health data easy. The NHSO is one of the agencies with a large amount of data related to Thailand's healthcare system. Therefore, it has developed dashboards to provide data to the public for their benefit, categorized into the following target groups:

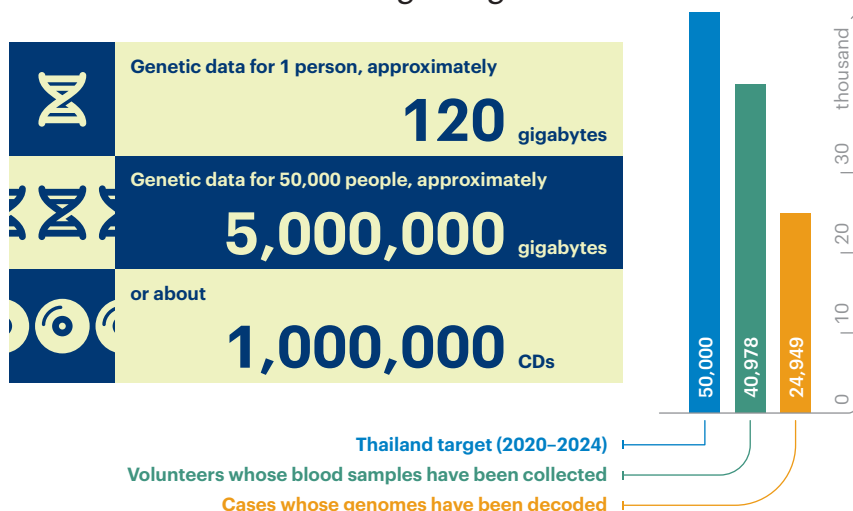
For the general public,

with data on service entitlements, COVID-19 patient services, chronic kidney disease patient services, and access to medications and medical supplies.

For healthcare units,

with data on service provision, payment data, and more.

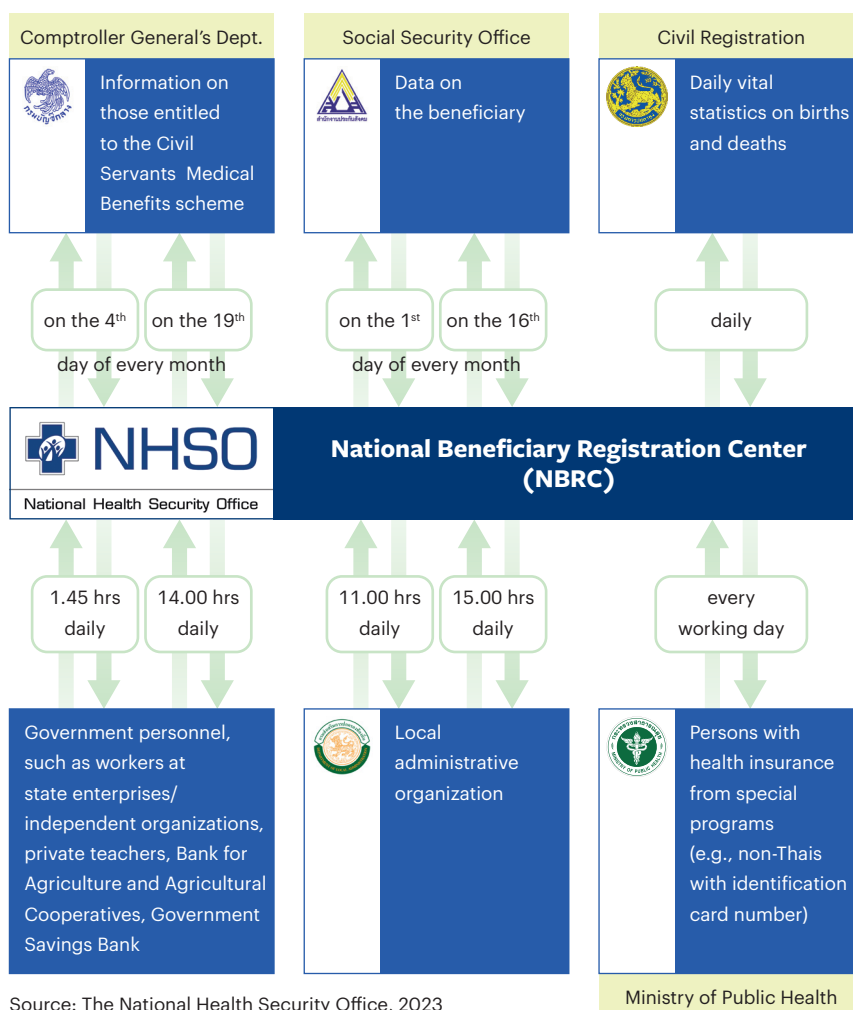
Numbers Involved in Creating a Large Thai Genome Database



Note: Information as of January 5, 2024.

Source: National Biobank of Thailand, 2023; Sissades Thongsima, 2023

Integration of Databases on Health Insurance Beneficiaries



Source: The National Health Security Office, 2023

health data, and the Personal Data Protection Act of 2019, which came into full effect on June 1, 2022, to protect personal data, including health records. The Act covers data protection from collection, usage, or processing, security measures, data transmission or disclosure, and oversight of personal data to help prevent violations of individuals' personal data.

●● Bangkok ranks 88th out of 141 cities in the **Smart City** index. ●●

Digital technology is being utilized to provide convenience, enhance security, and manage effectively both within households and urban areas. If this technology is used appropriately, it can elevate living standards and the quality of life for people.

Using digital technology to create online reporting systems for urban issues is one of the factors considered in ranking smart cities. Currently, the Bangkok Metropolitan Administration has increased its use of online systems for city management, such as ‘Traffic Fondue,’ a platform for managing urban issues. Data from the website reflects the types of problems encountered by Bangkok residents and reported complaints. Road issues, such as slippery roads, cracks, or pot-holes, are the number one reported problem.

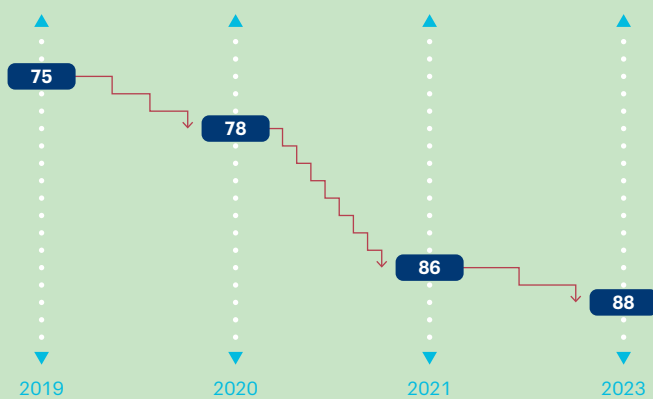
Utilizing digital technology to enhance urban living standards may come at the cost of privacy loss. For Bangkok residents, approximately 3 out of 4 are willing to disclose personal information or permit the use of facial recognition technology if it helps alleviate traffic congestion or crime issues in the city.

Top 5 Complaints About Getting Around in Bangkok

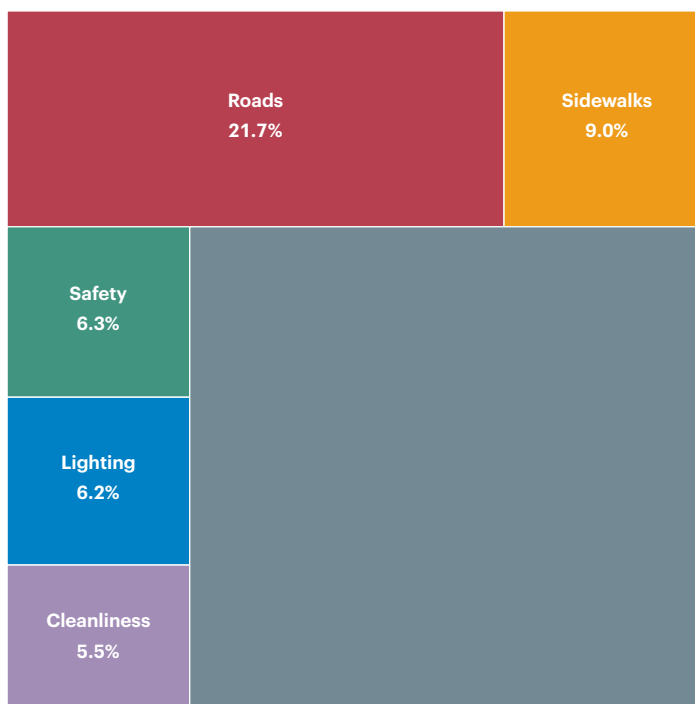
Traffy*

Note: Data as of December 20, 2023, at 3:30 PM.
Excludes others: 12.2%
Source: Traffy Fondue Citizen Engagement & Empowerment Platform, 2566

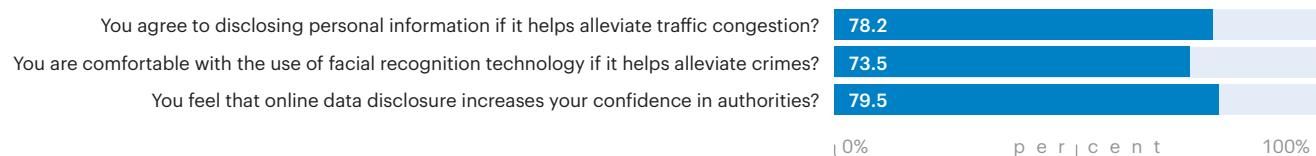
Thailand's Ranking Among Global Smart Cities (Bangkok)



Source: IMD/World Competitiveness Center, 2023
Note: The ranking of smart cities is based on the perception of residents regarding the city's infrastructure and technology across five dimensions: health and safety, mobility, activities, opportunities, and good governance.



The Proportion of Bangkok Residents Who Agree with Using Technology to Improve Quality of Life



Note: Percentage of respondents who agree or strongly agree with the statement
Source: IMD/World Competitiveness Center, 2023

Digital technology can help people adopt appropriate behaviors to protect themselves from environmental pollution. For example, Thais are becoming more aware of the issue of air pollution, and this is reinforced by the use of apps for checking air quality, allowing them to assess risk in their planned daily activities. Data from 2022 onward shows that at least one in three people regularly check air quality before going outside (except during July-September 2022 when regular checks were low due to low particulate matter levels).

Digital technology has increasingly penetrated households, with smart home devices aiding convenience in daily life, whether it is home cleaning, security, or energy saving. Thailand is seeing a growing trend in the use of these devices, with the number of 'smart homes' increasing from the previous year by 11.9%. Smart devices such as robot vacuums represent roughly half of the smart home market value, followed by security devices, and control and connectivity devices.

In the future, the use of digital technology to enhance quality of life is expected to continue growing. It is hoped that all Thai citizens will benefit equally from these advancements.

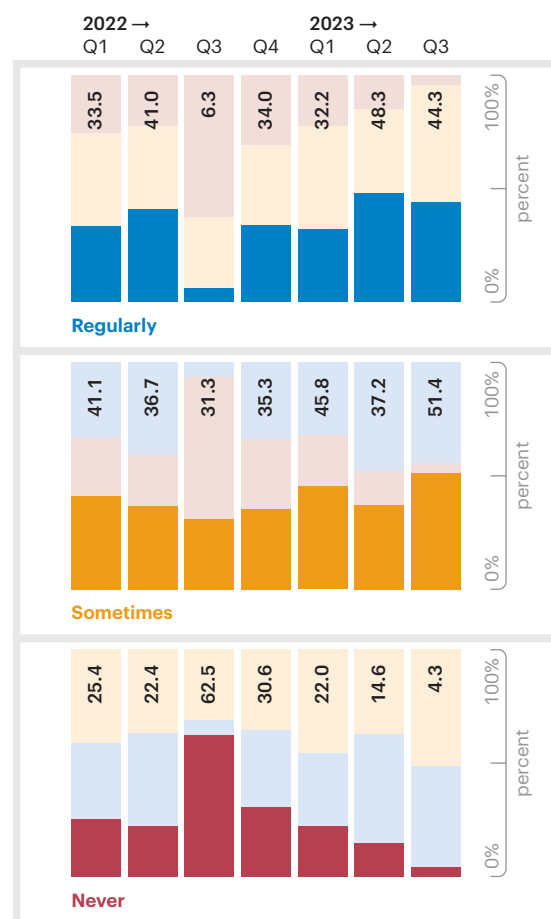
Smart Homes and Aging in Place

Aging in place refers to the ability to live safely, independently, and comfortably in one's own home and community, regardless of age, income, or level of dependency.

Smart homes are one technology that can help facilitate safe independent living for older adults. Installing sensors to monitor activities of daily living, such as entering and exiting the home, opening medication cabinets, or the refrigerator, can assist caregivers in tracking the daily routines of older adults and identifying abnormalities in their daily activities. Research has found that smart homes may extend the length of time older adults can live independently in their own homes by 1.7 years before needing to move to a long-term care facility.

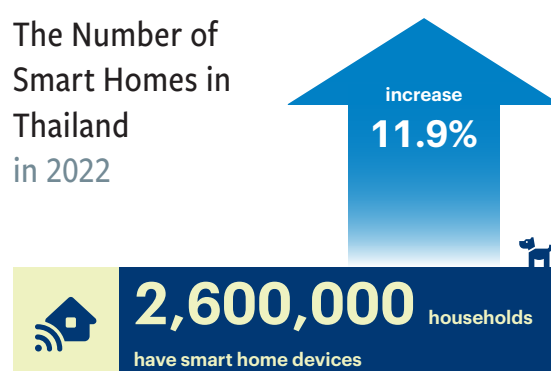
Source: Kim et al., 2017

Proportion of Population Who Check Air Quality Before Going Outside

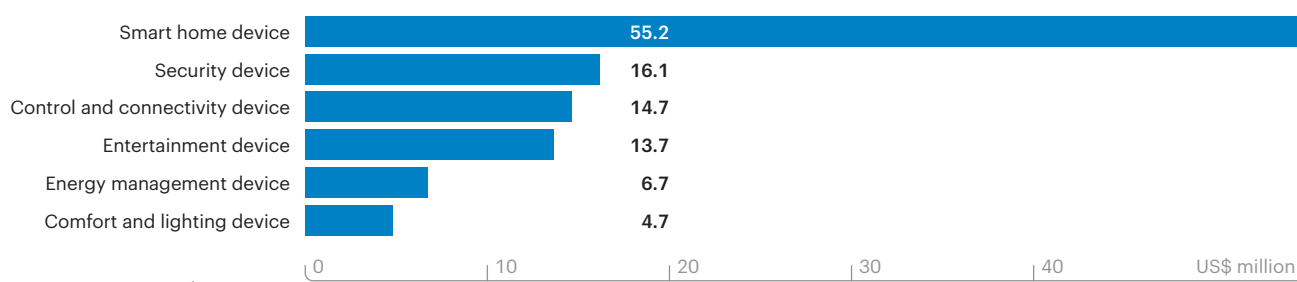


Source: Health Data Repository, Information Technology and Communication Center, Ministry of Public Health, 2023

The Number of Smart Homes in Thailand in 2022



Market Value of Smart Home Devices

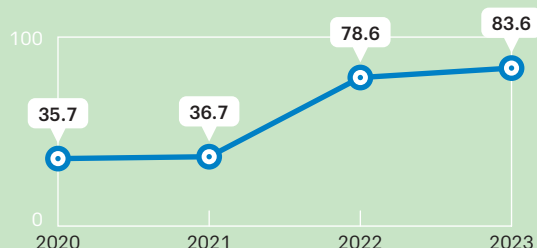


Source: We Are Social, 2022

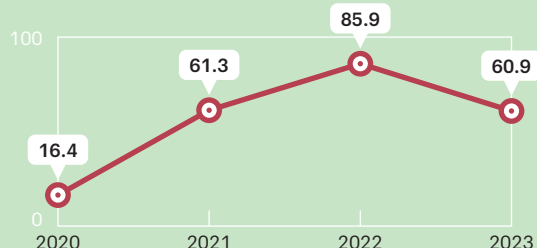
More than 4 out of 5 Thais still work from home (part-time). Spending long hours working on screens poses health risks that need to be monitored.

Working Remotely from Home and the Stress While Working with a Computer Screen

% of workers who use digital devices for work from home at least once a week



% of workers who experience stress when having to work at a computer screen for at least half of the workhours

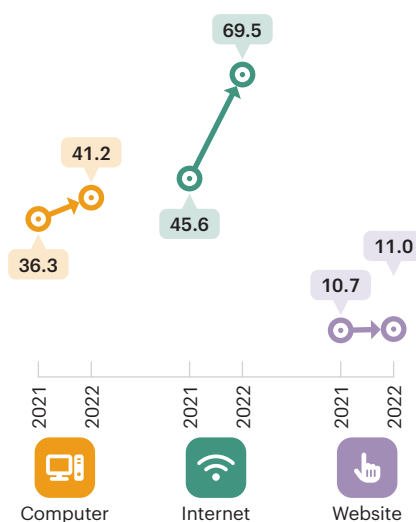


Source: Office of the National Digital Economy and Society Commission, Ministry of Digital Economy and Society, 2023

Currently, information and communication technology (ICT) plays an increasingly significant role in the work life of Thais. Various businesses tend to utilize ICT equipment and technology, such as computers, the Internet, and various online communication platforms, more frequently. This trend contributes to changes in the working environment and work patterns of employees.

The COVID-19 pandemic during 2020–2022 was one of the factors that accelerated this change. Working from home (WFH) with ICT equipment became a common practice for many workers and businesses to reduce the risk of infection and control the spread during that time. Adopting this work pattern has been found to affect both opportunities (such as increased time and interaction with family) and risks, particularly concerning the health of workers. Some impacts include reduced daily physical activity, increased abnormal sleeping patterns, and decreased adherence to balanced nutrition and timely eating habits.

Percentage of Workplaces That Use Computers, the Internet and Websites



Note: This is an overview of the activities of commercial and service businesses (excluding libraries, archives), manufacturing, private hospitals, and activities related to information and communication services (excluding telecommunications)
Source: National Statistical Office, 2022

Working from Home and Stress

A systematic review conducted in 2023 on remote work and stress found that significant influencing factors on the level of work stress for remote workers include

overall work environment of the organization

job satisfaction levels

balancing family and work life

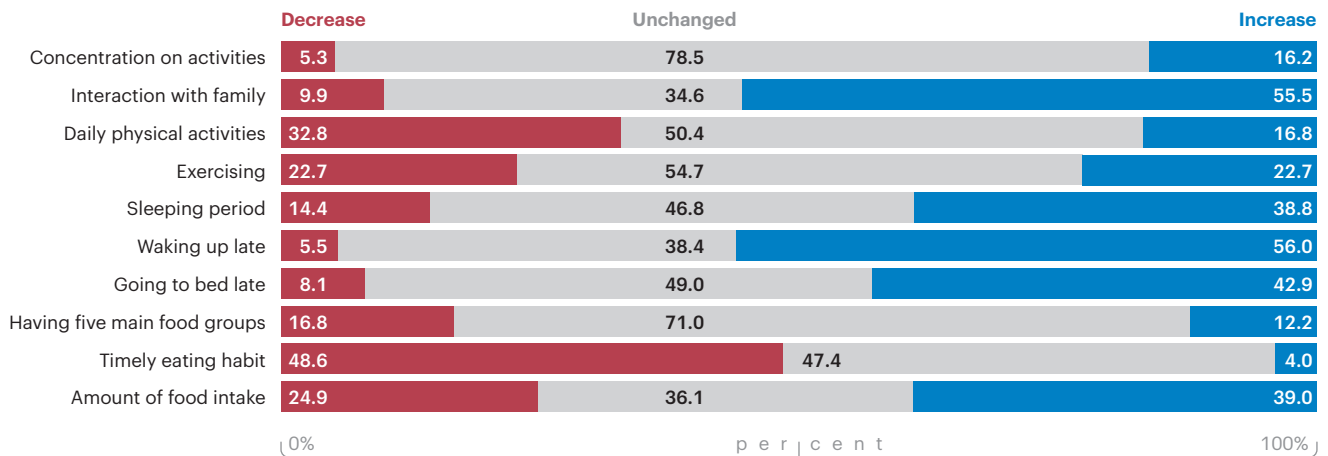
digital platforms used for work

autonomy in tasks

other changes that occurred in the workplace

Source: Dávila Morán, R. C., 2023.

The lifestyle of Thai workers has changed due to working from home during the COVID-19 period



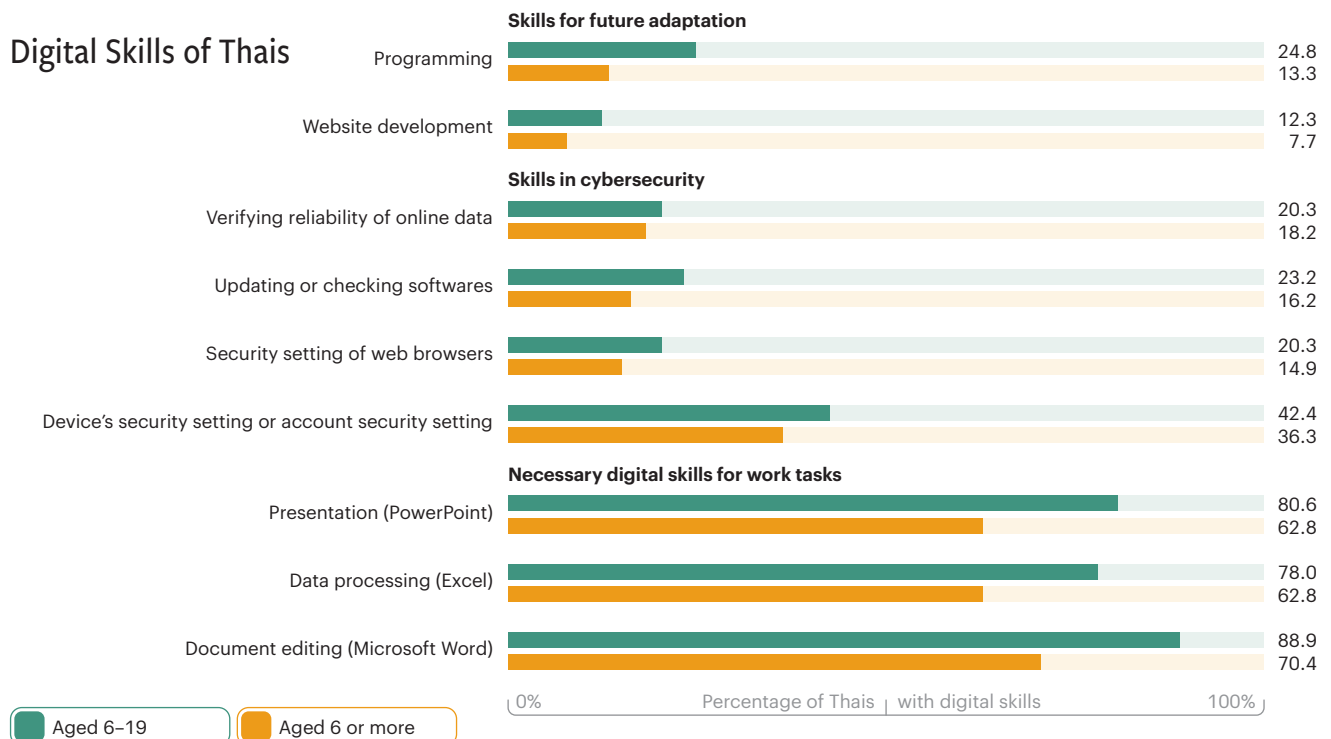
Source: Ekpanyaskul and Padungtod, 2021

Sample = 869

A survey in 2023 found that up to 83.6% of Thais still WFH at least once a week. Remote work through digital tools has several advantages, such as reducing costs and time spent on commuting, as well as lowering the risk of accidents during travel to work. However, it may also increase health risks due to prolonged digital work, requiring additional vigilance, especially regarding work stress exacerbated by the changing work environment. This situation necessitates adaptation and the enhancement of various digital skills essential for work in the new era.

Data from the period of 2021–2023 reveals that Thai workers who use computers for more than half of their working time, ranging from 61–86%, reported experiencing stress during work.

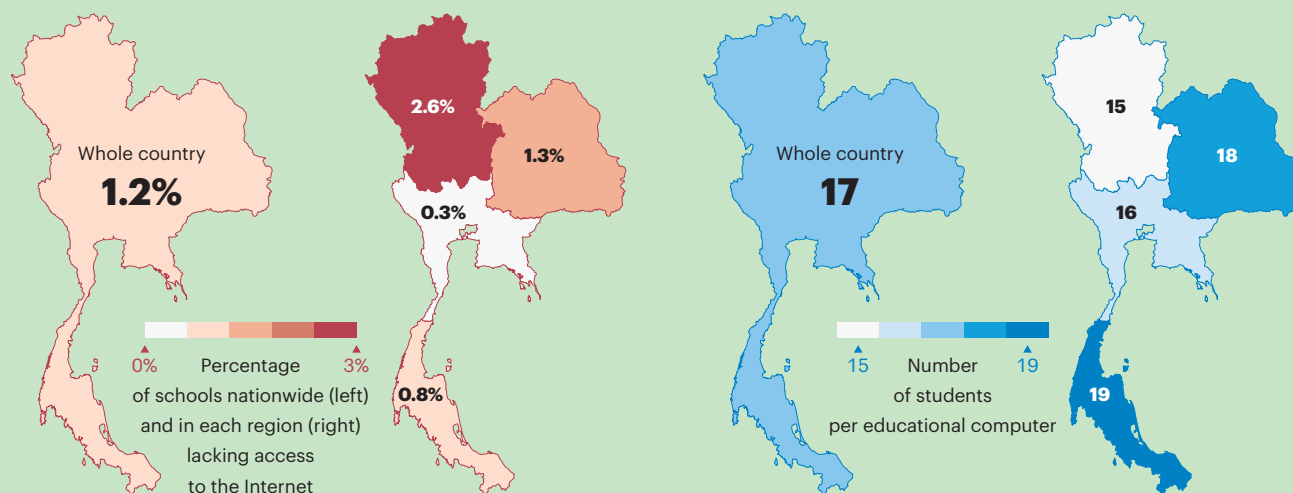
While the majority of Thais possess the necessary digital skills for work tasks (e.g., document editing, data processing, data presentation, etc.), a significant number lack skills in cybersecurity and advanced skills for future adaptation (e.g., programming and website development). In particular, older members of the work force require more adaptation and digital skills development compared to the younger generation.



Source: Office of the National Digital Economy and Society Commission, Ministry of Digital Economy and Society, 2023

In the northern region of Thailand, the proportion of schools lacking access to the Internet is the highest, while the southern region has the lowest ratio of computers per student among regions.

Internet Access in Schools and the Average Number of Students per Educational Computer, Categorized by Region

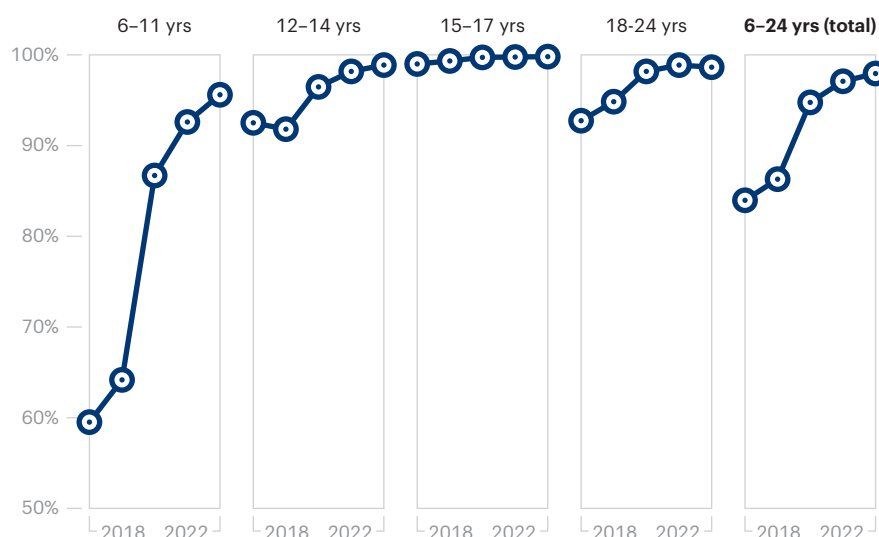


Note: (1) Only schools under the supervision of Office of the Basic Education Commission
(2) Data from the Ministry of Education, 2020.
Source: International Telecommunication Union Development Sector, 2022

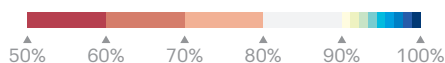
The key challenges of using technology in education are:

- 1 Lack of coverage and equity in technology access among both teachers and students;
- 2 Inappropriate or non-beneficial technology use for learning;
- 3 Education sector's slow adaptation to changing technologies; and
- 4 Lack of comprehensive consideration regarding the long-term benefits and potential negative impacts.

Percentage of Thai Children and Youth Aged 6–24 Years Using the Internet



	2018	2019	2020	2021	2022
6–11 yrs	59.5	64.2	86.7	92.6	95.6
12–14 yrs	92.5	91.8	96.5	98.2	98.9
15–17 yrs	96.3	97.5	99.0	99.1	99.3
18–24 yrs	92.8	94.9	98.2	98.9	98.7
6–24 yrs (total)	84.0	86.3	94.8	97.1	98.0



Source: National Statistical Office, 2022

The use of ICT for learning purposes, when appropriately implemented, can significantly enhance student learning outcomes. However, generalized usage may not yield significant results, and excessive use may even detrimentally affect learning. Presently, Thai children are

increasingly using the Internet. Of note is the age group 6–11 years, where the proportion of users has significantly increased—from 59.5% in 2018 to 95.6% in 2022. However, the majority of Internet usage among Thai children remains focused on social media and communication with peers, with educational activities or learning engagement accounting for less than 20% of the users. This aligns with the findings from a 2023 survey regarding online video content accessed by Thai Internet users, which revealed that only about 1 in 5 views were educational or instructional videos aimed at skill enhancement.

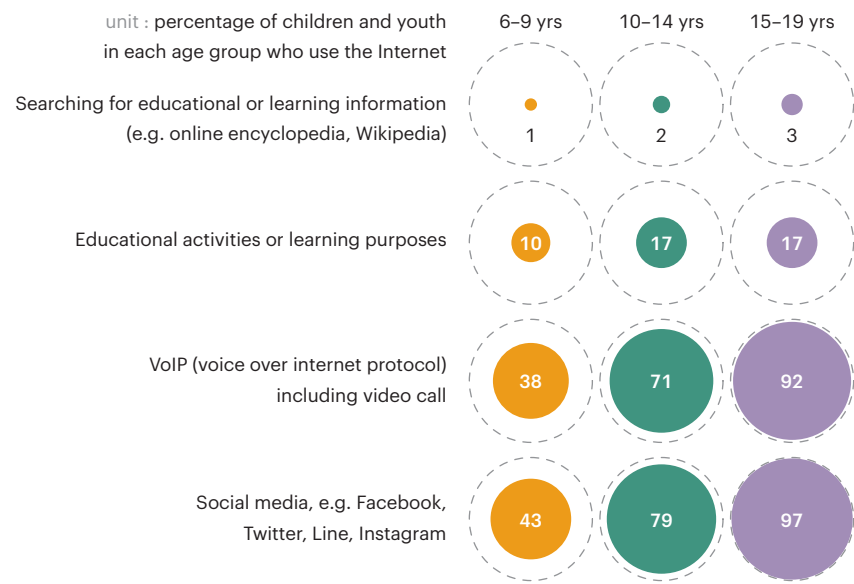
The development of online education platforms in various formats represents an opportunity to promote lifelong learning for people of all ages, including Thais. Statistics from the Thai MOOC (Thailand Massive Open Online Course) system during the period of 2022–2023 demonstrate a significant increase in both the number of students and the number of online courses offered, indicating a leap forward. However, the persistent disparity in access to basic educational resources and technology equipment, such as the Internet and computers, among educational institutions and student groups in each region, remains a significant challenge.

The Use of ICT and Students’ Learning Outcomes

Analyzing PISA 2018 data from 44 countries reveals an **inverse relationship** between the level of ICT use in schools and student exam scores, particularly in reading, mathematics, and science, and especially among developing countries.

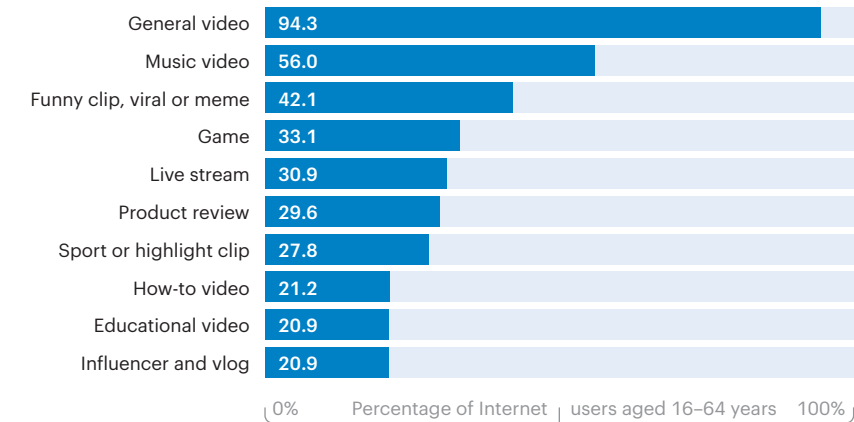
Source: Vargas-Montoya, et al., 2023

Type of Use of the Internet: Persons of School Age



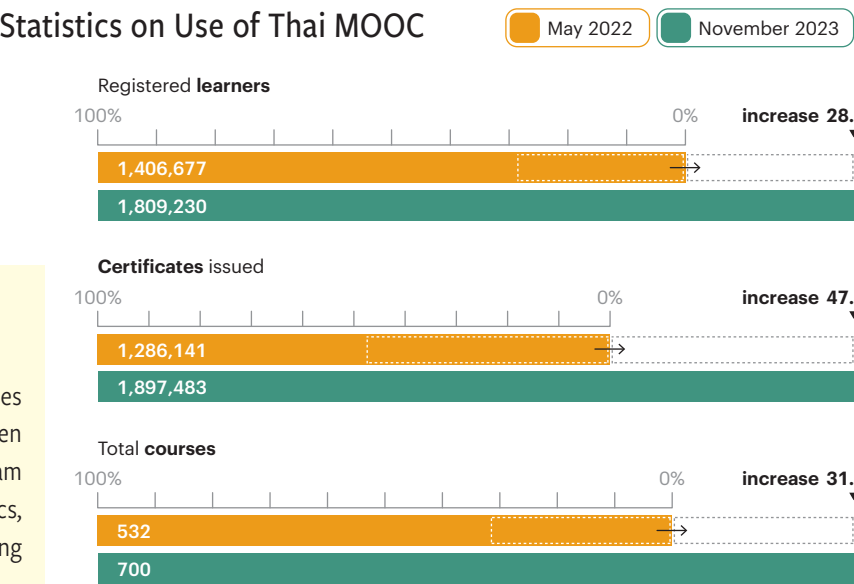
Source: International Telecommunication Union Development Sector, 2022

Type of Video Content Viewed by Thai Internet Users



Source: We Are Social, 2023

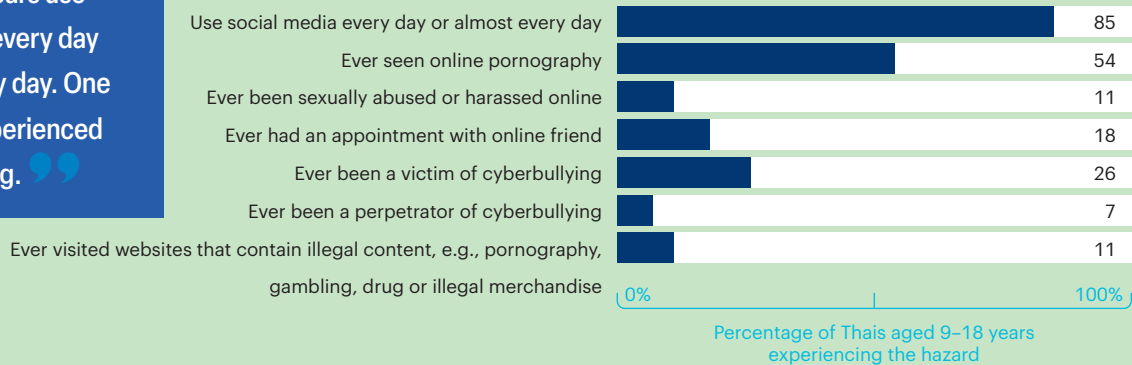
Statistics on Use of Thai MOOC



Source: Thailand Cyber University, 2023

Most Thai youth aged 9–18 years use social media every day or almost every day. One in four has experienced cyberbullying.

Thai Youth and Online Treats



Source: Internet Foundation for the Development of Thailand and Child Online Protection Action (COPAT), 2022

The current social network continues to expand widely without boundaries through various online social media channels, presenting both opportunities and increased risks from various online threats. Users of online social media must stay informed to keep up with these changes.

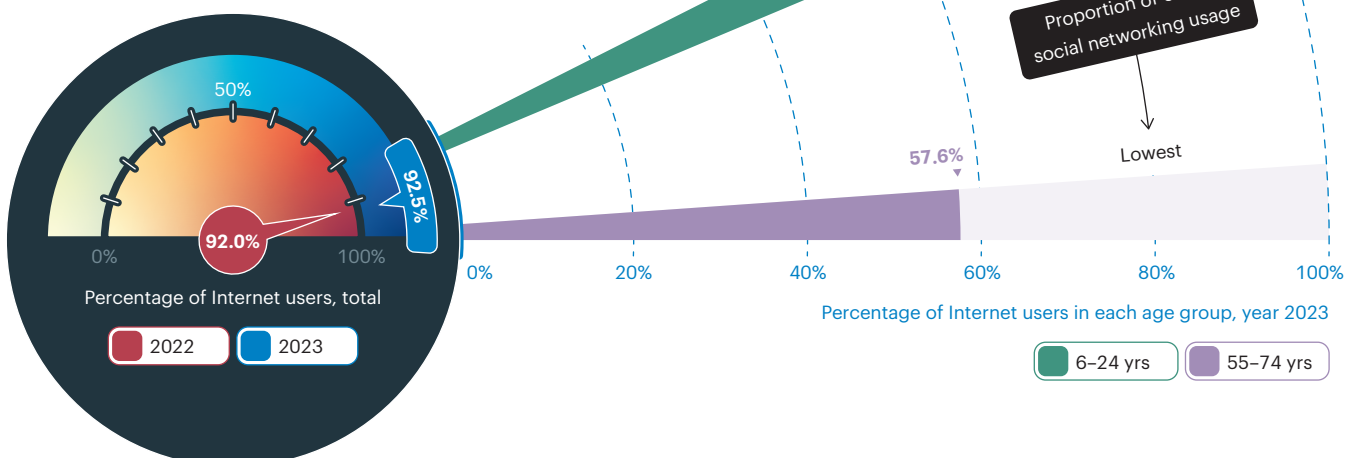
Over 90% of Thais use the Internet primarily to connect with social networks and online communities. The top reasons for using online social media include staying in touch with friends and family, following

general news, spending leisure time, and keeping up with trending topics or social trends.

Internet users age 6–24, particularly children and adolescents, constitute the group with the highest usage of online social media compared to other age groups. When used appropriately, this can greatly benefit education and learning experiences, as well as develop various social skills. However, there are also risks and negative impacts associated with the use of online social media, requiring vigilance and support from the society and relevant agencies to monitor and provide timely knowledge development for children and adolescents.

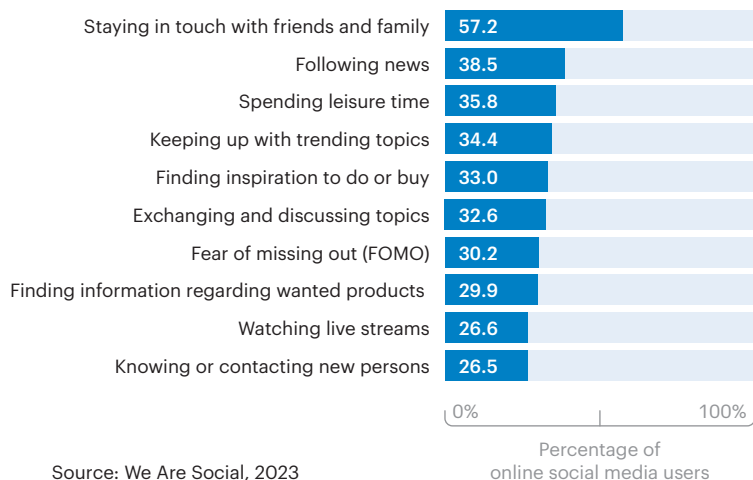
Use of the Internet for Online Social Networking 2023

Children and adolescents aged 6–24 years have the highest proportion of online social networking usage, 96.2% while those aged 55–74 years have the lowest proportion, 57.6%

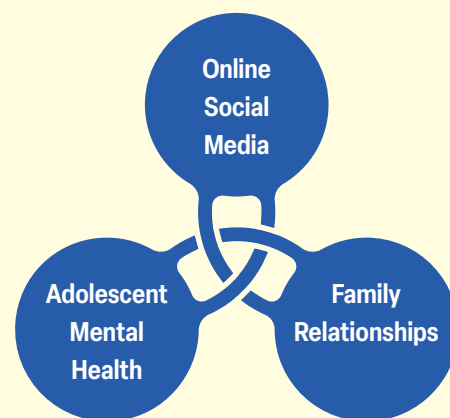


Source: Office of the National Digital Economy and Society Commission, 2023

Top 10 Reasons for Using Online Social Media Platforms 2023



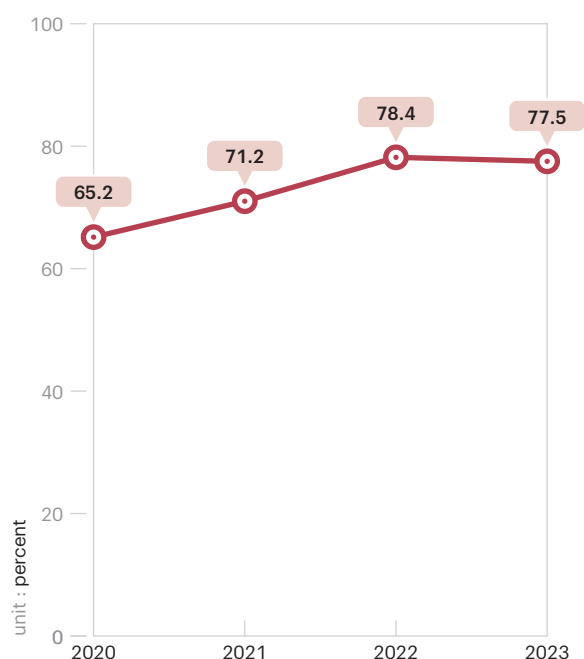
Previous studies have found that increased use of online social media is correlated with the risk of adolescent mental health problems, as well as impacting the level of attachment and quality of relationships within families. A survey conducted in 2023 revealed that more than three-quarters (77.5%) of Thai students age 15–16 felt anxious when unable to use or connect to the Internet for a period of time. This proportion has been increasing since 2020.



A systematic review found that spending time on online social media every 30 minutes is associated with an increased risk of self-harm and depression, as well as a decrease in self-esteem levels among adolescents. Additionally, using social media late at night adversely affects sleep quality and emotional well-being.^a In the family domain, both positive and negative relationships are found between the use of online social media and the level of family bonding. Some studies have found that social media usage can help to strengthen family bonds, while others have found negative impacts on the quality of family relationships.^b

Source: (a) Supak Luengroongroj et al., 2023 (ii) Tariq et al., 2021

Students Aged 15–16 Who Become Anxious When Deprived of Internet Access

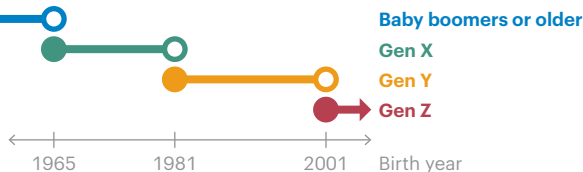


Source: Office of the National Digital Economy and Society Commission, 2023

The increased access to online social media, especially among children and adolescents, may lead to various online dangers. These dangers include risks stemming from their own risky behaviors on social media, as well as online threats from external sources or individuals. This could come from malicious media, websites, or pages with illegal content, sexual exploitation, as well as cyberbullying, both as victims and perpetrators.

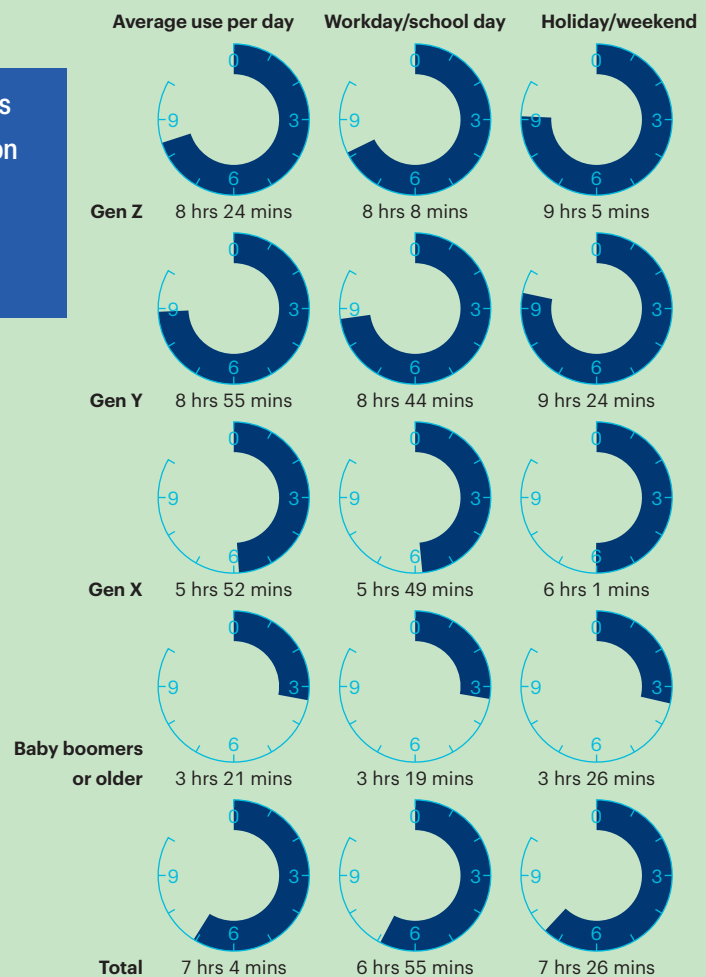
Lifestyles and Digital Technology

On average, Thais use the Internet for about 7 hours and 4 minutes per day. Gen Y occupies the highest position in terms of daily internet usage. Additionally, people of all age groups use the Internet more on holidays than on workdays or school days.

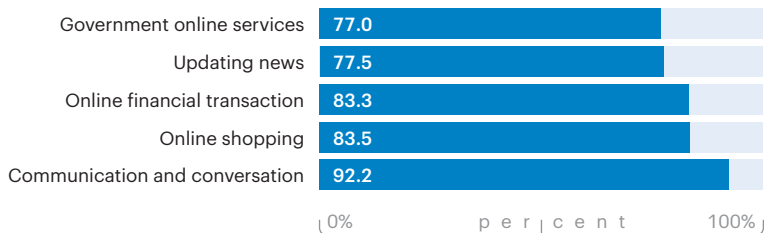


Digital technology plays a significant role in facilitating the daily lives of Thais, whether it is communication, shopping, financial transactions, or entertainment. However, the use of digital technology in daily life comes with risks, such as being deceived, being a victim of cybercrime, and suffering from adverse health impacts.

Source: Electronic Transactions Development Agency, Ministry of Digital Economy and Society, 2022



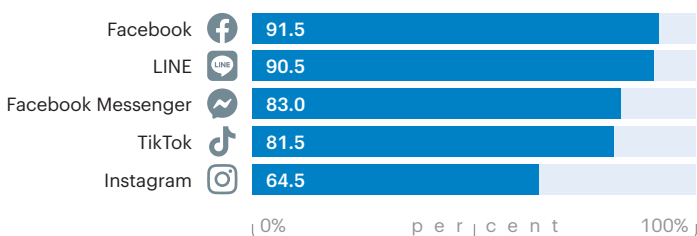
The Proportion of Thais Who Use the Internet by Purpose



Note: Multiple responses allowed.

Source: Electronic Transactions Development Agency, Ministry of Digital Economy and Society, 2022

The Most Popular Social Media Platforms Among Thais are:



Thais use an average of **6.7** social media platforms.

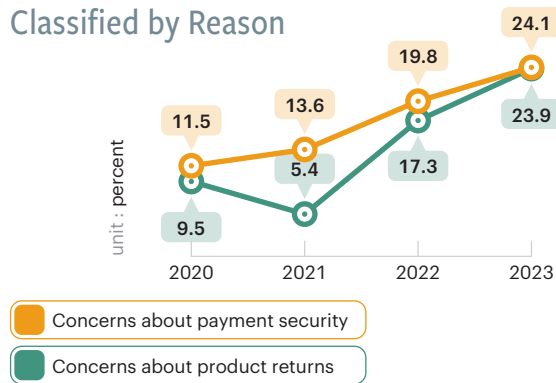
Source: We Are Social, 2024

Technology has revolutionized the way of life for Thais, becoming an integral part of the daily routine. Nowadays, Thais use the Internet predominantly for communication and conversations (92.2%), followed by online financial transactions (83.8%), and online shopping (83.5%).

Online shopping has significantly changed the spending habits of Thais. However, online buying and selling present considerable risks of fraud. Presently, there is a continuous increase in distrust in online shopping systems. In 2023, roughly one out of four Thais refrained from purchasing goods or services online due to concerns about payment security and/or product returns.

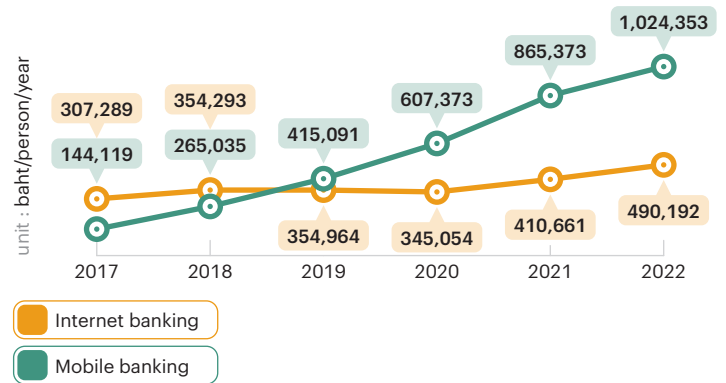
Online transactions rank third among Thais' Internet activities. Online payment transactions have steadily increased since 2017, especially through mobile banking, which has grown more than seven-fold.

The Proportion of Individuals Who Chose Not to Purchase Goods/ Services Through Online Channels Classified by Reason



Note: Multiple responses allowed
Source: Office of the National Digital Economy and Society Commission, Ministry of Digital Economy and Society, 2023

Monetary Value of Online Payment Transactions



Source: Office of the National Digital Economy and Society Commission, Ministry of Digital Economy and Society, 2023

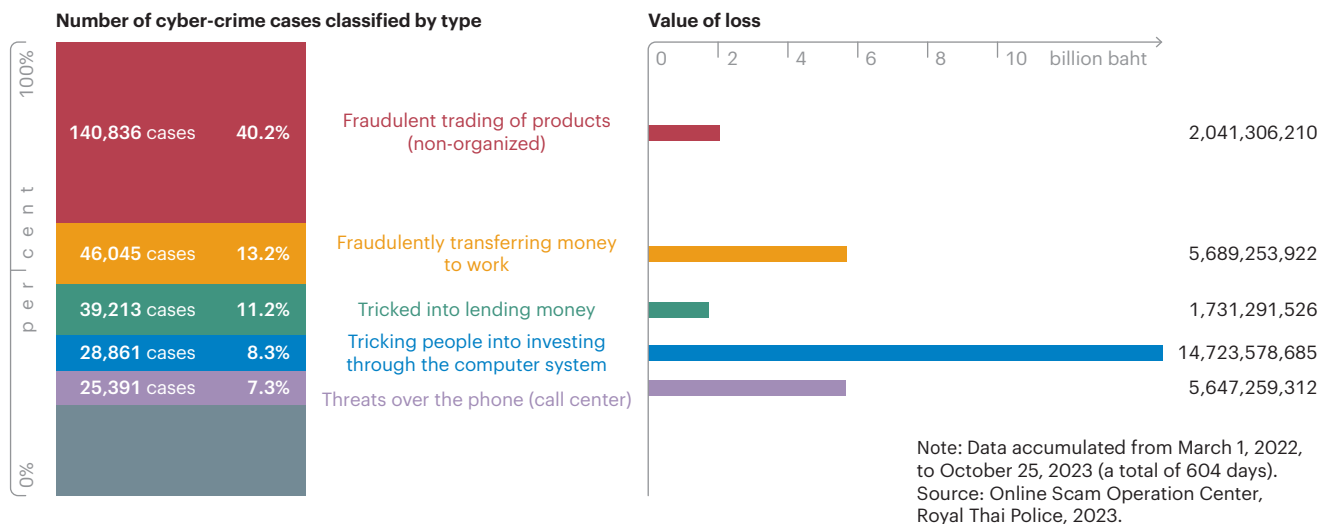
Top 5 Categories of Online Legal Complaints



Thais file online legal complaints: An average of **570** cases/day



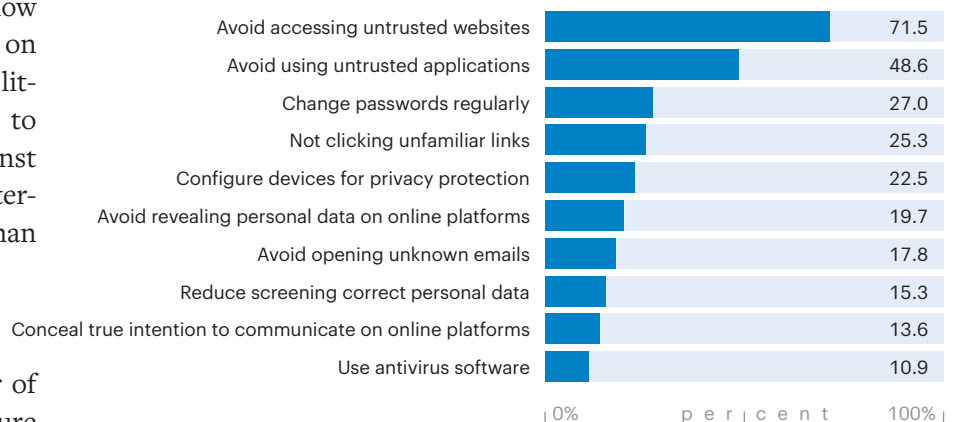
Estimated damages amount to around **80** million baht/day



Note: Data accumulated from March 1, 2022, to October 25, 2023 (a total of 604 days).
Source: Online Scam Operation Center, Royal Thai Police, 2023.

Digital technology, while making daily life more convenient, also brings along the shadow of technology-related crimes on the rise. Promoting digital literacy is a crucial approach to fostering prevention against security issues arising from internet usage. Currently, fewer than half of Thais avoid using untrusted applications, and about 1 in 4 regularly change passwords, steer clear of unfamiliar links, and/or configure devices for privacy protection.

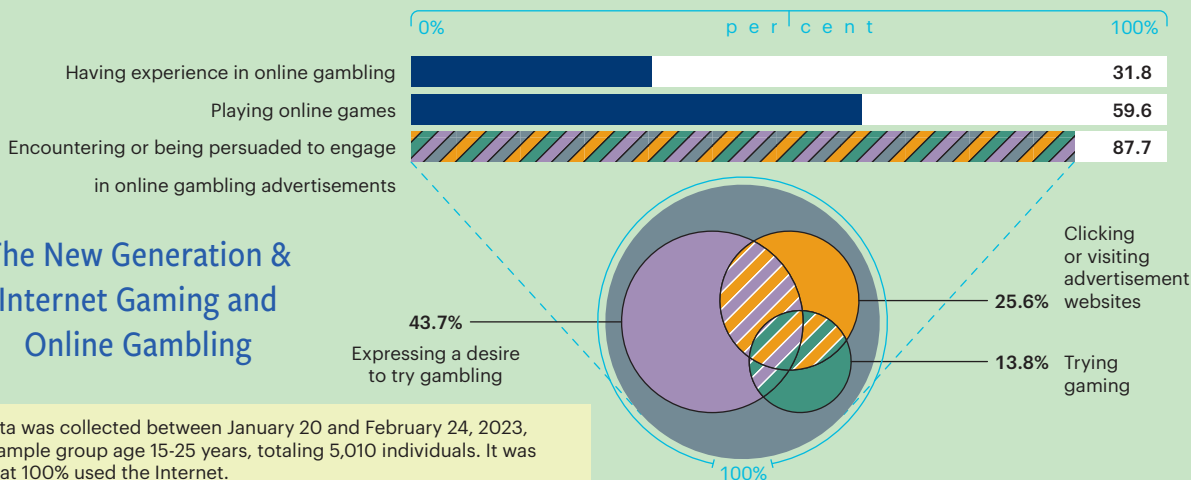
Methods of Improving Security for Users on the Internet



Note: Multiple responses allowed
Source: Electronic Transactions Development Agency, Ministry of Digital Economy and Society, 2022

“ The vast majority of Thai children and youth aged 15–25 years (87.7%) have encountered online gambling advertisements or been persuaded to engage in online gambling. ”

The New Generation & Internet Gaming and Online Gambling



Note: Data was collected between January 20 and February 24, 2023, from a sample group age 15-25 years, totaling 5,010 individuals. It was found that 100% used the Internet.
Source: Center for Gambling Studies, 2023

Digital Marketing

“ Promoting sales through digital media intentionally aims to have a greater influence on consumers through various methods and techniques. For instance, online marketers strategically target emotional mechanisms of consumers, such as creating a sense of shared emotion among consumers to facilitate media transmission within groups or to a wider audience (e-Word-of-Mouth). This includes using humorous storytelling techniques, hiring influencers or vloggers to advertise products, employing 3D simulations, online games, and creating virtual environments in media to attract and engage specific consumer groups. ”

Note: Translated from Thai language.

Source: Pan American Health Organization (2017); cited in Kanitha Thaikla, 2022

Platforms and online social media are increasingly being utilized for the digital marketing of products that are detrimental to health and substance abuse, particularly electronic cigarettes, alcoholic beverages, online games, and gambling. Setting measures and enforcing laws related to managing the commercial determinants of health through various online channels requires continuous monitoring and adaptation to keep pace.

The current and easy accessibility of news and information through online media, which largely consists of commercial and marketing platforms, is a significant determinant

The Influence of News & Information

on Behavior and Decision-Making Regarding Electronic Cigarette Smoking

1 Information is more about pros than cons (of vaping)

Electronic cigarettes are perceived as safer and less harmful to health than traditional cigarettes ❌

Electronic cigarettes are effective in aiding smoking cessation ❌

Negative aspects of electronic cigarettes are not adequately presented

2 The enforcement of electronic cigarette laws is not stringent

Lack of confidence in the law enforcement process

Not fearing legal prosecution

Penalties for violating electronic cigarette laws are minimal

3 The information about e-cigarettes is inaccurate or false

Unreliable sources of information are easily accessible

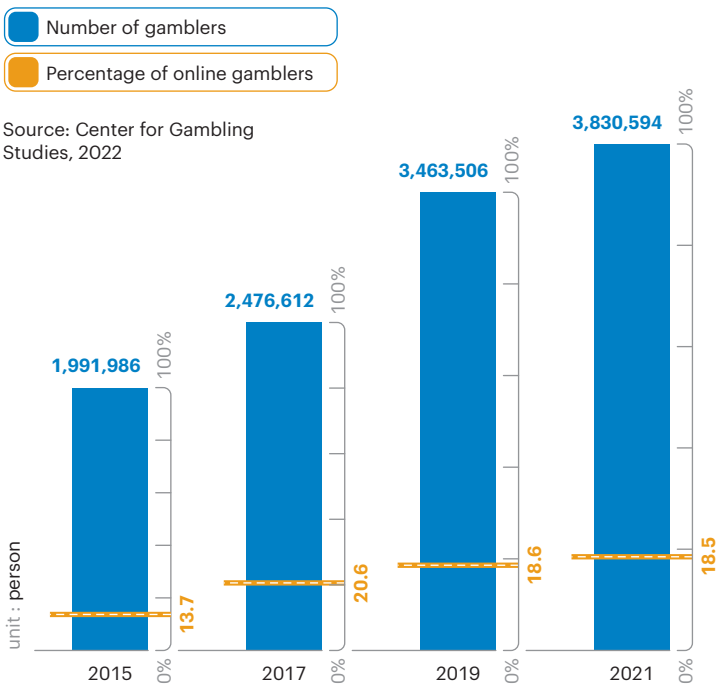
Inaccurate information about electronic cigarettes leads to confusion and misunderstanding

❌ False

influencing the behavior and health of the Thai population. A study in 2022 found that the positive-oriented information that outweighs the negative, a lack of information on strict enforcement of violations, and the available information at that time that lacked credibility and accuracy were the factors that significantly influence the behavior and decision-making regarding electronic cigarette smoking among users.

Regarding electronic cigarettes, although the proportion of the population age 15 years or older who vape is relatively low (0.1%), within this group, it has been found that more than two-thirds acquire electronic cigarettes from sources that advertise and sell through various online platforms. Managing and controlling this is difficult for relevant authorities, similar to the case of alcoholic beverages, where traders in various groups tend to increase online marketing. According to surveillance data on online alcoholic beverage marketing in Thailand in 2022, the majority (63.5%) is on Facebook, followed by TikTok, LINE, and Instagram, respectively. The most involved groups are restaurants and beverage outlets, accounting for 46.3%, and reviewers, bloggers, or influencers, accounting for 27.8%.

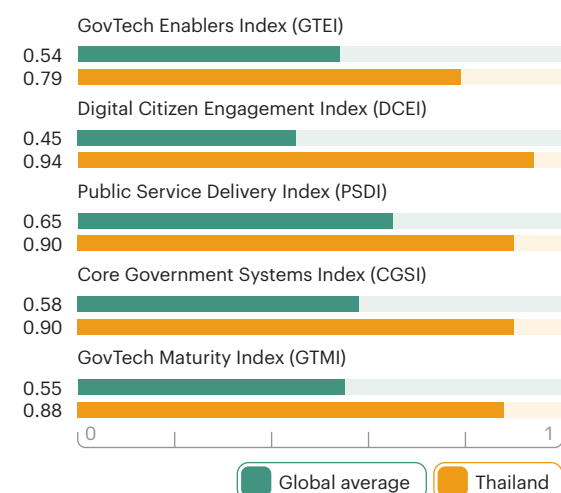
Football Match Betting, 2015–2021



- In general, Thailand has the infrastructure readiness in digital technology to enhance health promotion, but there is still a need to address disparities in access and knowledge of digital technology among the population, including processes for exchanging health data that meet international standards. ●

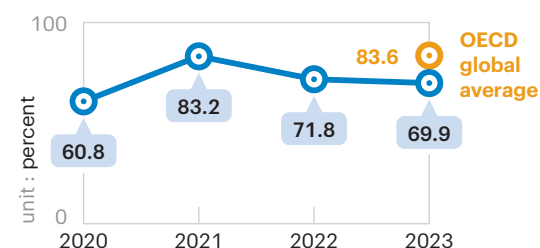
Digital technology plays a crucial role in shaping the future of health for Thais. The advancements in digital technology have the potential to enhance the health promotion of the population, improve service delivery efficiency, and reduce health inequalities. However, the use of digital technology in healthcare requires caution, and it is necessary to have guidelines to protect the population and mitigate potential risks.

GovTech Maturity Index (GTMI)



Note: Data from 198 countries
Source: The World Bank, 2022

Percentage of the Lowest 25th Percentile (Quartile 1, by Household Income) Which Uses the Internet



Source: Office of the National Digital Economy and Society Commission, Ministry of Digital Economy and Society, 2023

The Lancet and the Financial Times Commission have produced a report outlining guidelines to promote the sustainable use of digital technology for future health. These guidelines consist of four key points:

1 Emphasizing the Importance of Digital Technology as a Determinant of Health

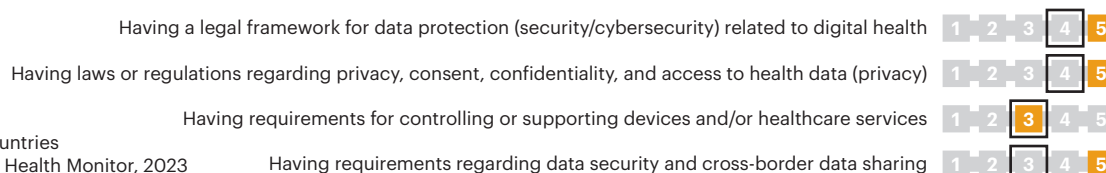
It is undeniable today that digital technology is a crucial determinant of health, and its role in shaping public health will only increase in the future. Therefore, upgrading the country's digital technology infrastructure is crucial for the health of the population. Thailand is considered to have a highly-developed digital technology infrastructure. The World Bank ranks Thailand's public sector readiness in digital technology at 'Level A,' with an average score and dimension scores higher than the global average.

However, despite Thailand's readiness score in digital technology, Thailand still needs to address disparities in Internet access, as it could lead to future health inequalities. Currently, only about 2 out of 3 individuals with low incomes in Thailand in 2023 use the Internet. This proportion is relatively low compared to the OECD country average of 83.6%.

2 Building Good Governance and Public Trust in Digital Technology Use in Health

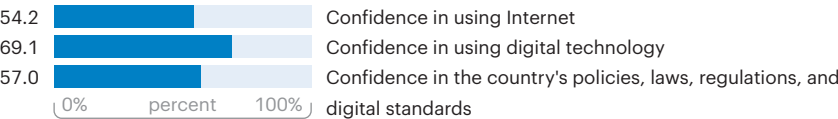
Building public trust in the use of digital technology is essential to promote its use in healthcare. This is because the general population must have confidence in the safety of using digital technology for it to be beneficial. Thailand is considered to have undertaken efforts to build good governance in terms of promoting the establishment of legal frameworks and regulations to ensure data security and privacy.

Action to Establish Good Governance for Data Security and Privacy Protection

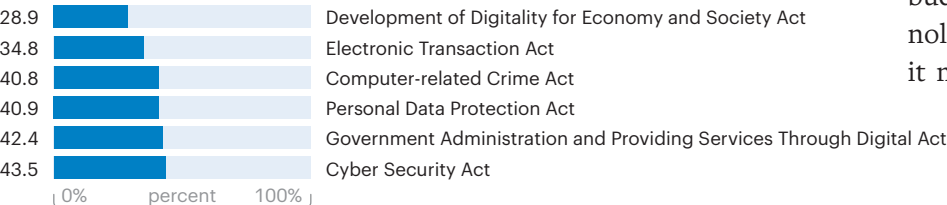


Note: Data from 67 countries
Source: Global Digital Health Monitor, 2023

Proportion of the Thai population that has confidence in using digital technology and the country's digital policies



Proportion of the Thai population that is aware of digital technology laws



Source: Office of the National Digital Economy and Society Commission, Ministry of Digital Economy and Society, 2023

Although Thailand is beginning to have laws protecting and safeguarding data security and privacy, the proportion of the population that trusts the use of the Internet, digital technology, and the country's policies, laws, regulations, and digital standards remains low (at 54.2%, 69.1%, and 57.0% respectively).

Furthermore, the majority of Thais is still not aware of digital laws, whether they pertain to cybersecurity, e-governance, and public service delivery, or data protection laws.

3 Developing Guidelines to the Governance of Health Data on the Basis of Data Solidarity

Health data is a crucial component of using digital technology for health. The government needs clear concepts and criteria regarding health data, including regulations and processes for sharing health data that align with international standards. For Thailand, the framework for digital health technology and/or health data exchange still falls below the global average score.

Guidelines for Storing, Sharing, and Utilizing Health Data

Note: Data from 67 countries
Source: Global Digital Health Monitor, 2023

Having a framework for digital health technology and/or health data exchange



Having standards for exchanging, transmitting, and maintaining the confidentiality of health-related data



Investing in and Planning for Utilizing Digital Technology for Health

Note: Data from 67 countries
Source: Global Digital Health Monitor, 2023

The government allocates budgets (including loans) for digital health technology sufficiently in line with the country's digital health technology strategy.



Having digital health technology as part of public health workforce training (before starting their profession)



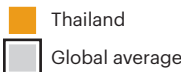
Having digital health technology as part of training for public health personnel (after starting their profession)



Training for the workforce in digital health technology is robust



Career pathways in the public sector related to digital health technology are established



4 Investing in and Planning the Use of Digital Technology for Health

Due to the potential of digital technology to enhance public health, investing in and planning the use of digital technology is crucial. Thailand allocates budgets for using digital technology for health planning, but it may not be sufficient to meet the country's needs.

Regarding training healthcare personnel in digital health technology, Thailand has done well in training those who have started working. However, career pathways for digital health technology personnel are still in their early stages and need further development.

The development of digital technology must be driven for the collective benefit. Thailand must prioritize creating an environment conducive to the development of digital health technology, fostering confidence in the use of digital technology and data storage, and emphasizing access to digital technology among vulnerable groups. Because today, digital technology is a social determinant of health of the Thai population.

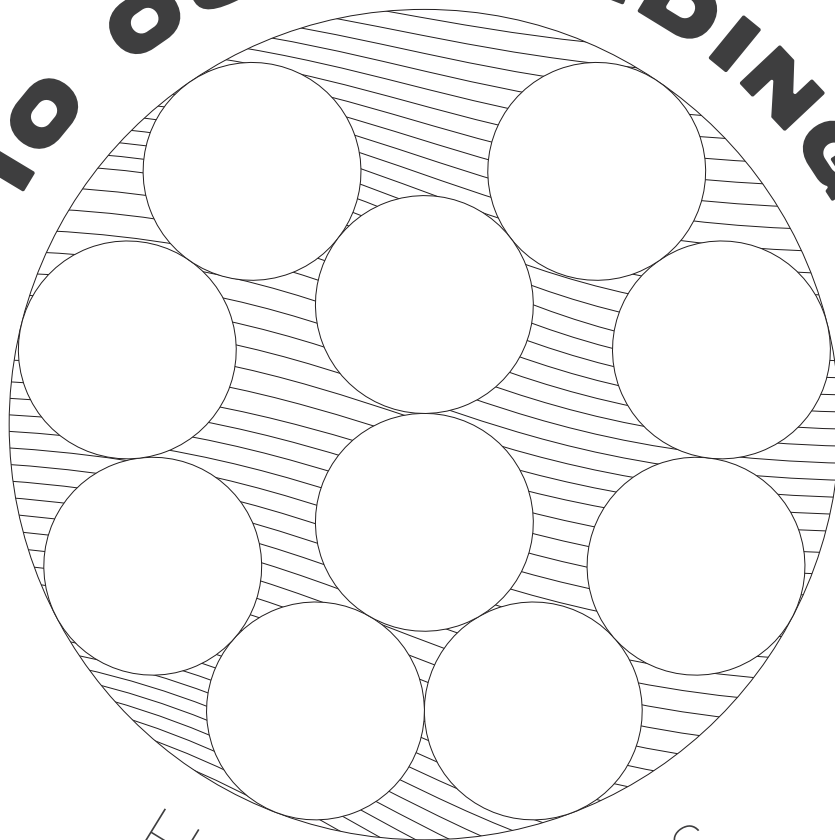
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10 OUTSTANDING



Health Situations

Mass Shootings and Gun Control Measures

Introduction

The shooting incident at Bangkok's Siam Paragon Mall on October 3, 2023, not only resulted in multiple fatalities and injuries, but also had a widespread psychological impact on the public and undermined Thailand's tourism sector. Some tourists suspended their plans to travel to Thailand as a result. Such shooting incidents are not unprecedented in Thailand; similar events have occurred multiple times, such as a rogue army officer shooting at civilians in a department store in Nakhon Ratchasima Province in February 2020, and the mass killing of daycare center children and staff

“ In 2017, Thais owned 10 million guns, averaging 15.1 guns per 100 people, the highest in ASEAN and 13th globally. Additionally, Thailand had 3,830 deaths from firearms in 2016, averaging 4.45 deaths per 100,000 people, ranking 11th globally. ”

by a former police officer in Nong Bua Lamphu Province in October 2022, resulting in nearly 40 fatalities. This article discusses shootings in Thailand, focusing on the proliferation of firearms, the role of online media, relevant gun control laws, access to firearms in Thailand, and proposing recommendations for better gun control.

Revisiting the Shooting Incident That Thais Never Forget

The term “**mass shooting**” may have different definitions depending on the context of the event and the number of fatalities. However, organizations tracking violence related to firearm use in the United States, such as the Gun Violence Archive, define “mass shooting” as the use of firearms resulting in injury or death of at least 4 people.¹ Regarding incidents of public shootings in Thailand, without political motive or related to conflicts in border areas, there have been five consecutive incidents over the past four years, as follows:

1 **The shooting incident inside a gold shop** in Lopburi Province on January 9, 2020, by Mr. Prasitthichai Khaokaew, also known as “Boss Golf,” a former director of a primary school in Singburi Province. He wore a full black disguise with a balaclava and a backpack, entered a gold shop in a Robinson Department Store, immediately fired a gun, killing three people including a store security guard, a gold shop employee, and a 2-year-old boy. Four others were injured before he fled with approximately 28 baht worth of gold on a motorcycle.

2 **The tragic mass shooting incident in Korat** on February 8, 2020, inside the Terminal 21 shopping mall in Nakhon Ratchasima Province, was perpetrated by Sgt. Major Jakrapanth Thomma, a specialist in long-range shooting. He initiated the shooting, targeting Col. Anantaroj Krasae, the commanding officer, and his grandmother, Mrs. Anong Mitchan due to festering grievances within the military housing complex. He then shot the duty soldiers to seize firearms before driving to Terminal 21 Mall to apprehend individuals as hostages and livestreamed the horrific massacre on Facebook. This event resulted in 31 fatalities and over 58 injuries.

3 **The shooting incident in Ubon Ratchathani Province** on August 4, 2022, at the Ubon Square market area, near the Big C shopping mall, was one of the most terrifying shooting events at the time, and caused great fear among people. It stemmed from a dispute between two teenage gangs, namely the “Kham Yai Gang” and the “Hat Wat Tai Gang,” resulting in the tragic loss of three lives and numerous persons with injuries.

4 **The mass shooting incident in Nong Bua Lamphu Province** within a childcare center in the afternoon of October 6, 2022, was perpetrated by Sgt. Panya Khamrab. It is suspected that the motive might have been due to being dismissed from his position due to drug involvement. This incident resulted in the loss of 36 lives, including 24 children and 12 adults. The youngest child fatally shot was only three years old.

Source: <https://www.thaipbs.or.th/now/content/787>

คำไว้อาลัยตำรวจที่เสียชีวิตจากการปฏิบัติหน้าที่ระงับเหตุกราดยิงที่โคราช

DigitalMedia
Thai PBS

5 A shocking mass shooting incident occurred in the Siam Paragon Mall, occurred on October 3, 2023. In this case, the shooter was a 14-year-old boy who used a modified blank gun. He carried out the shooting inside the shopping center, resulting in three fatalities and four individuals injured.

In addition, there were shooting incidents that caused a #shooting hashtag frenzy, similar to the above but without fatalities. For example, on December 10, 2023, within the artificial turf football field of 9 Up Arena, Pathum Thani Province, the perpetrator, a Cambodian laborer riding a motorcycle, fired gunshots into the air four times during a football match where more than 200 people were participating. Many ran for their lives in a stampede. Another instance was on March 14, 2023, when a police commander named Kant was shot in his residence. Although these events did not result in losses of life like other incidents, questions must be raised as to why such violent incidents seem to be increasing.

Analysis of Causal Factors Behind Mass Shootings Abroad and in Thailand

When shooting incidents occur, the immediate discourse often revolves around the basic assumption that the underlying causes are mental illness, stress, substance abuse leading to psychotic episodes, or behavioral mimicry from violent online games, all of which may stem from family issues. However, hastily concluding that shootings stem solely from these issues may not be entirely accurate.

How are shooting incidents related to mental health was discussed on the BBC Thai website² Dr. Jeffrey Swanson, a professor of psychiatry and behavioral sciences at Duke University in the United States, explained that the tragedy of mass shootings often prompts efforts to search for causes and solutions. However, the explanations often tend to be oversimplified, merely suggesting for example, “Oh, it’s because of mental illness.” Rushing to such conclusions tends to stigmatize and demonize individuals with mental health issues further, despite the already challenging lives they lead. In reality, only a small fraction of perpetrators of mass shootings suffer from severe mental illness such as schizophrenia, bipolar disorder, or severe mood disorders. Research in 2004 found that only 6% of perpetrators exhibited signs of mental illness. The most recent research from the American Psychiatric Association in 2016 found that less than 1% of individuals involved in gun-related homicides throughout the year had a serious mental illness.

On February 18, 2020, at Chulalongkorn University, there was an academic seminar on “Mass Shootings: Origins, Solutions, and Prevention.” Assoc. Prof. Dr. Somphot Eiamsupasit, a behavioral psychologist and former dean of the Faculty of Psychology at Chulalongkorn University³ explained that violent behavior can occur in ordinary people, and that everyone has the potential to commit violence, whether through actions or words, not just those who are considered abnormal. Some individuals with abnormalities may not behave aggressively, while some ordinary people, under certain circumstances or triggers, can exhibit violent or aggressive behavior. Aggression is a natural trait in both humans and animals, it is a very powerful behavior for survival. Therefore, what we should be aware of is the importance of controlling the expression of violence. We can observe that, in the past, such violent incidents were rare, and aggression was not expressed in this manner. However, over time, as more studies are conducted on the characteristics of society, we see that similar problems are occurring worldwide because Thai children are growing up in what we call a ‘high-tech society’.⁴ People are shaped by certain traits without being aware, unintentionally, but naturally. There is greater impulsiveness, as people are encouraged to do everything quickly, swiping, clicking, and pressing buttons on our phones for everything without waiting. Parents and teachers do not teach children enough about self-control, discipline, or acceptance of societal rules and norms. Following psychological principles,



The exterior of Siam Paragon mall during an incident.



Mass media report on a shooting incident outside Siam Paragon mall.



The special operations police officers have arrived at the scene of the incident.

Source: www.thaipbs.or.th/news/content/332409

individuals with a tendency toward high aggression often view the world negatively, feeling victimized and wondering why they are targeted. This may lead to oppositional behavior. Subsequently, when we look at issues, we tend to focus on others rather than ourselves, wondering why they behave a certain way or why society is like this. We may develop a mindset of “You do it to me, I do it you” or “I do it to protect myself.” Additionally, those who enjoy watching violent content tend to lean toward aggressive behavior in their daily life, although the opposite effect is also possible—saying some content as a way to release tension.

Dr. Nathee Chitsawang, a criminologist and former director-general of the Department of Corrections, pointed out that the factors contributing to criminal behavior are motives and opportunities. Motives involve the decision-making and behaviors of individuals, while opportunities refer to the timing and location that enable the commission of crimes, such as access to firearms and access to locations.

Statistics on Gun Ownership and Related Incidents in Thailand

A research institute in Switzerland called Small Arms Survey⁵ found that, in 2017, Thais possessed 10,342,000 firearms, averaging 15.1 firearms per 100 people. That made Thailand the country with the highest firearm ownership in ASEAN and ranked 13th globally. Regarding state authorities, the Thai military possessed 1,052,815 firearms.⁶ Ranked third in ASEAN, the police owned around 230,000 firearms in 2018. As for the use of firearms in incidents in Thailand, the latest data was collected by the Information Division of the Royal Thai Police.⁷ In 2019, there were a total of 31,419 incidents, divided into 6,410 registered cases and 24,348 unregistered cases of short firearms, while long firearms accounted for 661 incidents.

Regarding fatalities from firearm use, the Institute of Health Metrics and Evaluation (IHME) at the University of Washington in the United States produced a research report “Global Mortality from Firearms, 1990–2016.”⁸ That report stated that Thailand had 3,830

fatalities in 2016, averaging 4.5 deaths per 100,000 population, which is higher than the United States’ average of 3.9. If calculated based on the global average, Thailand would rank 11th globally.

This issue has prompted political movement to address it in Parliament. Dr. Amphon Jindawattana, a senator and a committee member of the Committee on Social Development, issued a post on November 7, 2022 to urge the Minister of Interior to expedite the control of firearms and related items. Thailand has around 10–12 million firearms owned by civilians, both legally and illegally, not including other imitation firearms such as blank guns and BB guns, which are widely traded. However, the control system is lax. Following the shooting incident at Siam Paragon Mall, this issue was further discussed in Parliament on October 6, 2023.⁹

It can be seen that firearm ownership in Thailand has long been a problem and is one of the factors contributing to incidents, whether it is disputes or suicides, often making headlines due to firearm use. This may be due to local customs where people prefer to own firearms for self-protection or to exert influence. Meanwhile, some individuals carry firearms to show off their status.

The Role of Social Media and Efforts to Control It

One issue that is often discussed when incidents of lethal shootings occur is the role of mass media and social media of the public themselves. Certainly, Thailand has a high degree of freedom in communication. People from all groups have rapid access to the latest technology to receive news and information. The rapid presentation of news and information may be beneficial for the public to be aware of the situation and to stay vigilant for safety. However, on the other hand, it can be a double-edged sword because presenting information on social media and mass media, besides panic, may also incite the perpetrators who are monitoring the situation they already fomented through social media. In addition to the situation at the time of the incident, the post-incident role of the media has also been criticized for potentially promoting imitation behavior. Furthermore, disclosing personal information of the perpetrators that affects their families, educational institutions, and communities is considered stigmatizing the perpetrators for life, which could potentially lead to repeat incidents in the future.

Dr. Thiti Sawaengtham, Deputy Director-General of the Department of Mental Health¹⁰ stated that presenting personal information of perpetrators, regardless of circumstances, after they have been punished, becomes a lasting scar for them. It leads to problems in continuing their lives in society, and leaves deep wounds in their hearts.

If possible, the goal of news presentation should be to raise awareness among those around during the incident, to inform them about how to handle such situations, or to warn them of impending events. Then, they can properly send the perpetrator's close relatives for treatment when incidents occur.

Meanwhile, Mr. Time Chuastapanasiri, a faculty member at the National Institute for Child and Family Development, Mahidol University, sees this phenomenon as concerning because it has significant impacts. One must be cautious when presenting news so that criminals do not become heroes or inspire others to commit criminal behavior. The behavior influenced by the media is 'copycatting.' If the media presents a gruesome event too extensively, there will be easily accessible information, leading to imitative crimes. Current crimes may not occur due to inadequate preparation since criminals need time to search for information, engage in careful planning, and undergo firearms training. When mass media focuses too greatly on the perpetrator, others may emulate that person, stimulated by the thought that, if they do this, the media will lionize them. In sociology, this feeling is called **15 minutes of fame—a moment of fame once in a lifetime**. Mass media will present names, images, sounds, and stories about a perpetrator's life, and those life stories are reported nationwide. Mr. Time believes that, while general mass communication platforms like radio and television are relatively cautious and have selective censorship, the problem lies with social media. Once an image leaks on social media, it spreads uncontrollably, and it is impossible to know where and how widely it will be shared. For instance, when media digs into clips of firearms training, people in society will scour news from the past, making it difficult for law enforcement to protect witnesses, even with existing laws.

Control of Firearms in Thailand

At present, Thailand has the Firearms, Ammunition, Explosives, Fireworks, and Imitation Firearms Act, B.E. 2490, with a total of 9 revisions. The most recent revision occurred in 2000, aiming to reduce crime

problems caused by the use of firearms specific to warfare or illicit firearms. This amendment opens the opportunity for individuals who wish to possess and use such firearms to obtain them, request permission to possess them, or hand them over to the local registrar. With the permission request and use of firearms, or Form P.4, individuals can possess the specified firearms indefinitely without the need for further licensing. This can be called a lifelong permit to possess and use firearms. This law is one way to reduce the problem of illicit firearms. Although it does not directly address the problem of mass shooting, after each shooting incident, the government is often asked to establish measures to prevent its recurrence. However, society tends to focus on the specific problems of each incident, forgetting the importance of broader prevention measures. For example, the incident at a shopping mall in Nakhon Ratchasima, while society was concerned about the unfair welfare loan practices in the military, attention was not given to measures to prevent state officials from carrying firearms in public.

Prof. Dr. Sunee Kanyajit, a faculty member of the Department of Social Sciences, Faculty of Social Sciences and Humanities, Mahidol University, specializing in Criminology and Criminal Justice (International Program), tried to extract lessons from the mass killing incident in Nong Bua Lamphu Province.²¹ She observed that, in many shooting incidents in Thailand, the perpetrators are often soldiers or police officers. These individuals have firearms in their possession, whether they are government-issued firearms or privately-owned ones. When they face problems that affect their thoughts or mental state, the firearms easily become tools for redressing grievances. In the case of military personnel or police officers performing their duties to maintain peace and order, they usually carry firearms for duty purposes. Some use government-issued firearms, while others use privately-owned ones. Under government employee benefits, they can purchase firearms at subsidized prices (which are lower than market prices). The shooting incident in Nong Bua Lamphu involved a privately-owned firearm by the perpetrator. After being dismissed from official position, the perpetrator still possessed the firearm legally. Permission to possess and use firearms was granted when the perpetrator was a police officer, which reinforced the ability of the perpetrator with a history of substance abuse to keep firearms until he committed such crimes. In contrast, in other countries like Australia, life-long firearm possession is not permitted. Those who hold firearm licenses and are involved in serious violent crimes have their licenses revoked immediately. Moreover, there are strict screening processes for those applying to own and use firearms, including background checks on criminal records and previous mental health assessments.

The shooting incident at Siam Paragon on October 3, 2023, where a 14-year-old used a modified blank gun to shoot lethal ammunition (resulting in three deaths and four injuries) was a wake-up call that prompted all sectors to question the seriousness of preventive measures. Thailand lacks laws controlling blank guns, as ownership or sale does not require a license. This has led to a reevaluation of firearm control measures.¹² **On October 5, 2023**, Deputy Prime Minister and Minister of Interior Anutin Charnvirakul convened a meeting **to consider controlling the possession and carrying of firearms, ammunition, and imitation firearms**, along with the Director-General of the Department of Provincial Administration and relevant agencies such as the Royal Thai Police, Customs Department, Ministry of Digital Economy and Society, and Ministry of Public Health.

Short-Term Measures

They include suspending the issuance of licenses for ordering, importing, or trading all types of imitation firearms, and not allowing new applicants to apply for a trading license for additional imitation firearms. Owners of blank guns, BB guns, or imitation firearms that could be modified into firearms were required to register and record their firearms with the firearm registrar. The Customs Department was instructed to inspect the importation of imitation firearms, especially blank guns. The Sports Authority of Thailand, which oversees registered shooting ranges nationwide, was instructed to prohibit individuals under the age of 20 years from entering shooting ranges unless authorized according to the regulations of the Sports Authority of Thailand. Provincial governors and the National Police Chief were instructed to suspend the issuance of personal firearm licenses. The registrar was instructed to suspend the issuance of import licenses for firearms from firearm shops starting immediately. Furthermore, measures were taken to crack down on and shut down websites and online pages involved in the illegal trade of firearms and modified imitation firearms, with results to be reported to the Ministry of Interior every 15 days.

The Proposed Long-Term Measures

The measures include amending the Firearms, Ammunition, Explosives, Fireworks, and Imitation Firearms Act, B.E. 2490. For example, individuals seeking to purchase firearms and ammunition must present a medical certificate from a certified physician certifying their mental health and psychological condition. Those wishing to purchase imitation firearms that can be modified into

firearms must apply to the firearm registrar and obtain a firearm possession and usage license (Form P.4). The license has an expiration date, and holders must report to the registrar every 5 or 10 years to renew their license, similar to a driver's license renewal process.

Currently, the measure to prohibit the issuance of firearm possession licenses is in effect for one year, as mandated by the Prime Minister's Office and the Ministry of Interior's Order No. 3877/2023 dated December 20, 2023. This prohibits the issuance of firearm possession licenses (Form P.12) temporarily.

Firearms Amnesty

Another significant issue is the problem of illicit firearms and modified guns, which are widespread. This led to attempts to address the issue of illicit firearms through amnesty to those holding firearms illegally. This issue was discussed at **the Cabinet meeting on March 14, 2023.**¹³ **The Cabinet resolved: The draft of the Firearms, Ammunition, Explosives, Fireworks, and Imitation Firearms Act (Version ...) B.E. ..., proposed by the Ministry of Interior, was approved, which is an additional amendment to the Firearms, Ammunition, Explosives, Fireworks, and Imitation Firearms Act, B.E. 2490**, as proposed by Asst. Prof. Dr. Tanansak Borwornnuntakul.¹⁴ The former Chair of the Criminology and Criminal Justice Program at Mahidol University pointed out that the reason remote provinces have a high demand for firearms is mainly for self-defense and protection of livestock and agricultural produce from thieves. When the Firearms, Ammunition, Explosives, Fireworks, and Imitation Firearms Act was enacted in 1947, it became more difficult for Thai people to possess firearms legally, and the prices of legally-owned firearms increased significantly. This led to the emergence of a homemade firearm market, known as "Thai-made guns," because the process of making a simple firearm is not overly complex. As a result, Thailand has a high firearm mortality rate, with approximately 82% of deaths caused by firearms originating from illegal guns.

Therefore, gun amnesty is not the correct solution. Amnesty would likely result in an increase in the number of illegal gun producers

and buyers due to their lower prices. Some point out that, such gun amnesty would be an easier way for individuals to turn their illegal guns into legal ones. Dr. Tanansak views that, to address the issue of firearms, it is essential to gather comprehensive data on the number of firearms, the number of firearms used in crimes, the demographics of perpetrators, and the underlying causes. This approach targets the root causes of the problem rather than merely implementing the amnesty.

As for the civil society sector, organizations like the Women and Men Progressive Movement Foundation and the Children, Youth and Family Foundation have also started to address this issue. This movement was initiated on November 30, 2023.¹⁵ Ms. Angkana Intasa, Head of the Gender Equality Promotion Department at the Women and Men Progressive Movement Foundation along with leaders from the Children, Youth and Family Foundation and 30 community leaders submitted a letter to Deputy Prime Minister and Minister of Public Health Anutin Charnvirakul to support gun control policies and make urgent proposals. This comes after the findings from the news that domestic violence in 2022 increased by more than three times, with alcohol consumption being a contributing factor, and firearms being the most common weapon used in violent incidents. **These two foundations, along with allied community networks, aim to reduce risk factors, and have presented their stance and proposals to the Ministry of Public Health as follows:**

1 Support for measures regarding firearms by the Ministry of Interior, including the requirement for additional medical certification for firearm possession and use, endorsement letters from supervisors/employers, prohibition of license issuance, proactive prevention and suppression, and prevention of firearm trading on digital platforms, with clear demonstrable outcomes desired

2 The permission for firearm possession and use should necessitate additional medical certification, explicitly stating the absence of mental illness or a history of violent behavior both within the family and in public.

3 In the case of individuals with existing firearm licenses, there should be measures to obtain medical certification as mentioned above, and periodic mental health checks with a physician's certification stating the absence of mental illness or a propensity for violence every five years, whereas previously firearm registration licenses were valid for life.

4 Request improvement in the work-force of personnel handling violence issues by increasing social workers assigned to local government agencies, emphasizing community-based prevention, monitoring, and coordination of violence-related cases, as well as requiring every local government agency to draft a clear policy statement to reduce violence against children, women, and families, including a zero-tolerance policy for sexual harassment within every local government agency

Summary

Mass shootings in Thailand have become more frequent in recent years. While they may be related to the behavior and mental state of the perpetrators, part of the problem stems from the possession of firearms, with over ten million guns in the country, not including modified weapons such as blank guns, which can be deadly. This proliferation of firearms leads to violent incidents, especially when firearm owners are influenced by various factors, including imitative behaviors observed through various social media reports of violent events. Therefore, updating outdated laws and implementing control measures that align with societal and technological advancements is crucial to prevent further shooting incidents. In 2023, the government introduced both short-term and long-term measures, including amendments to laws, to address the demands of society. One significant change is that firearm license applicants must undergo mental health assessments, and licenses are granted for limited time periods. However, some measures, such as granting amnesty to owners of illegal firearms or modified weapons, have raised questions about their potential impacts. Thus, close monitoring, evaluation, and adjustments to strategies are necessary to adapt to the evolving situation. Additionally, collaboration between the government and civil society, including NGOs, in community-based prevention, monitoring, and referral of violent cases is vital.

How to Address the Physician Brain Drain?

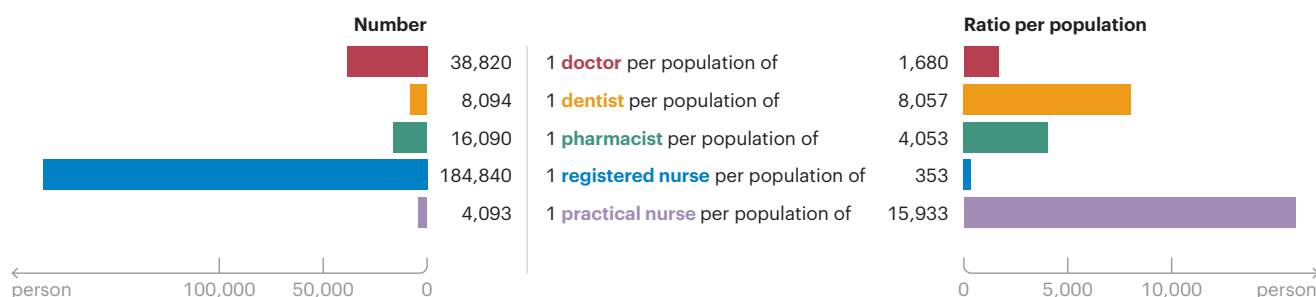
“ The Ministry of Public Health (MOPH) reports that, during the period 2013–2022, Thailand experienced an average of 455 doctors resigning annually. In addition, there were retirements of 150–200 people per year, resulting in the loss of an average of 655 medical personnel per year for the ministry. Some experts refer to the aforementioned phenomenon as *The Great Resignation* or a significant resignation of public health personnel. ”

Introduction

Currently, Thailand’s healthcare system is “grappling” with the issue of physician shortages, partly due to the widespread reports of medical personnel leaving the system in large numbers each year. **Over the past decade, it has been found that an average of 455 doctors resign annually, in addition to the 150–200 doctors who are retiring each year. With Thailand having an average physician-to-population ratio of about 1 to 1,680 which is lower than international standards,** this phenomenon has been linked to implications for public health services. The shortage of medical personnel is seen to impact access to healthcare services for the population, leading to heavier workloads for those still in practice, and extending beyond global standards. **In fact, the complexity of the healthcare service issue may stem from various causes** such as uneven distribution of physicians, with some areas facing shortages while others have excess; problems within the healthcare system, including inefficiencies in the public sector; the burden from the large number of patients utilizing the universal coverage scheme (UCS), resulting in some physicians being overworked; and structural issues within various healthcare facilities, characterized by inflexibility and limited resources. Therefore, it is necessary to adapt by increasing private or semi-governmental involvement to alleviate the situation. **This article discusses the situation of medical personnel resignations, analyzes the causes, impacts, and proposes solutions.**

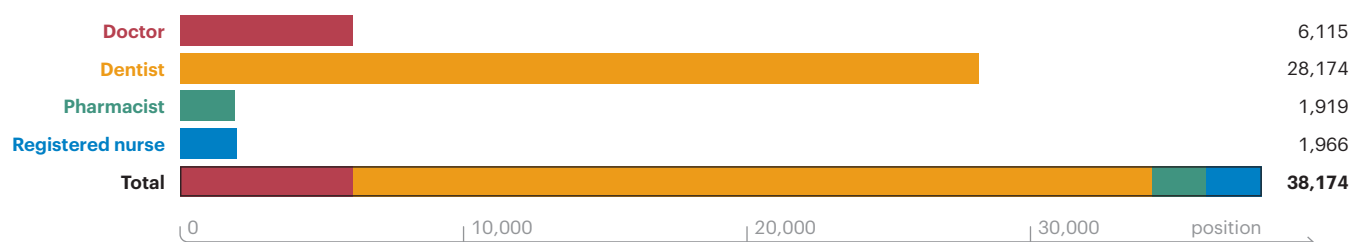
The World Health Organization (WHO) has set a standard of one physician per 1,000 population.¹ The standard ratio of nurses to population is set at 1 per 200 people.² As of February 23, 2024, data stored in the Medical Council database reveals that **Thailand has 71,611 licensed doctors**, comprising 37,685 males and 33,926 females. Additionally, it is further categorized that **69,603 doctors are contactable, with 33,499 practicing in Bangkok and 36,104 in provinces outside the capital.**³ From the aforementioned number of doctors, it is evident that Thailand has seen a significant increase in the number of physicians compared to the past. However, when it comes to adequacy, having a larger number will positively impact the service system, accommodating increased demand for healthcare services from the population and ensuring appropriate allocation of staff working hours. Although the Medical Council may register a considerable number of doctors, not all of them are directly involved in patient care. Some physicians divert their work to other areas such as administration, academia, or other non-clinical professions. According to **the National Statistical Office’s report on the ratio of medical personnel to population in 2021**, coverage is as follows: **one physician per 1,680 population**, one dentist per 8,057 population, one pharmacist per 4,053 population, one professional nurse per 353 population, and one practical nurse per 15,933 population.⁴ (See Figure 1.)

Figure 1 Coverage of Clinicians to the Population in 2021



Source: National Statistical Office. Data as of January 3, 2024

Figure 2 Shortage of Healthcare Workforce



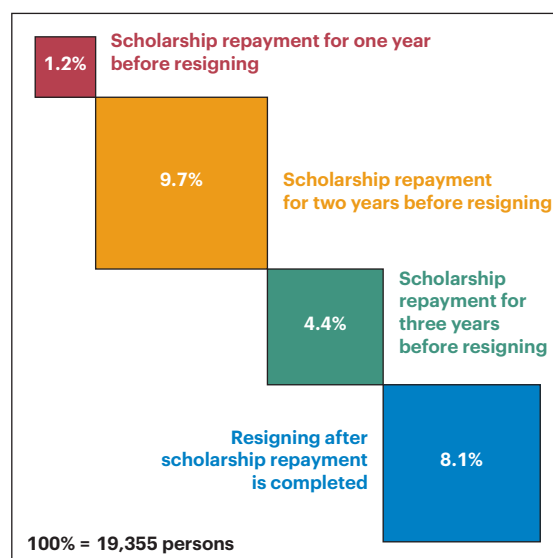
When comparing with the physician-to-population ratio standards set by WHO, it can be observed that Thailand still lacks an adequate number of physicians and medical personnel. Data from the Blueprint of Health Service and Human Resource of the Ministry of Public Health (MOPH) for the years 2020–2024 report the number of main healthcare professionals in Thailand, including physicians, nurses, pharmacists, and dentists. According to the statistics on healthcare workforce across all 12 health regions under the MOPH’s jurisdiction, it is found that there is still a shortage of a total of 38,174 positions for all four professions combined. This includes a demand for an additional 6,115 physicians, 28,174 nurses, 1,919 pharmacists, and 1,966 dentists.⁵ (See Figure 2.)

The Phenomenon of “Physicians and Medical Personnel Resigning”

The MOPH has published data on the number of physicians and physician resignations between 2013 and 2022. Over the span of 10 years, there were a total of 19,355 physicians enlisted in the system. The breakdown of physician resignations includes those who resigned after completing their mandatory compensation internship in the first year, totaling 226 individuals, representing 1.2% or 23 individuals annually; those who resigned after using their mandatory second-year internship, totaling 1,875 individuals, representing 9.7% or 188 individuals annually; those who resigned after their third-year internship, totaling 858 individuals, representing 4.4% or 86 individuals annually; and physicians who resigned after completing their internship obligations, totaling 1,578 individuals, representing 8.1% or 158 individuals annually. In sum, the average resignation rate per year is 455 individuals. Additionally, there were retirements of 150–200 individuals per year, totaling approximately 655 individuals annually. These issues have been persistent within the public health service system for a considerable period of time.⁶

The phenomenon of physicians resigning has been confirmed by Assoc. Prof. Dr. Borwornsom Leerapan, Deputy Head of the Policy and Health Management Center, Faculty of Medicine Ramathibodi Hospital, Mahidol University. He refers to this situation as “The Great Resignation” or “a significant resignation of public health personnel,” which has been a crisis in the Thai healthcare system for no less than 10 years. Addressing the issue with a quality-oriented approach does not just focus on the number of physicians and nurses produced, but also considers systemic issues in actual healthcare practices. This is crucial in finding solutions, as a significant part of the problem arises from the overwhelming workload of today’s physicians, nurses, and other clinical personnel, affecting patient safety and accessibility to healthcare services. Patients must receive sufficient, standardized care from a complete team of professionals, while the healthcare workforce also deserves a good quality of life.⁷ Furthermore, there is currently a significant increase in private healthcare facilities, along with the booming business of cosmetic enhancement, resulting in the attraction of physicians and nurses away from public hospitals to a great extent. This places a heavier burden on the remaining staff. Private healthcare facilities offer higher incentives, better

Figure 3 Resignations of Physicians Enlisted in the System from 2013 to 2022



working conditions, and lighter workloads compared to state hospitals. Additionally, the remuneration is also higher.⁸

The President of the University Hospital Network revealed that **the situation of healthcare personnel resigning from the state sector does not only involve physicians but also includes nurses, pharmacists, and other healthcare professionals.**⁹ The factors influencing the decision of physicians and healthcare personnel to resign prematurely stem from various reasons. For instance, a physician may complete their contractual term (to repay the government for subsidized medical education) and leave for another opportunity, or due to personal reasons. Other reasons include the heavy workload, lower compensation compared to the private sector, and a stressful working environment for newly graduated physicians in state hospitals. **The MOPH has thus devised a plan to produce more physicians by adjusting the production capacity framework from 2022 to 2027, aiming to produce 35,000 physicians by 2027, an increase from the previous target of around 10,000.**¹⁰

Reasons for Physician Resignation

From the situation of **the Great Resignation in the healthcare sector**, many parties acknowledge that this issue is a chronic problem that has been festering for decades. It is complex and may not be immediately solvable. Importantly, it is a ‘systemic issue’ that cannot be addressed solely through short-term policies or piecemeal solutions. **Analyzing the reasons for the resignation of healthcare professionals, especially physicians, can be summarized as follows:**

1 Heavy Workload

The workload in caring for Thailand’s medical and public health needs has significantly increased due to various contributing factors. These factors include changes in the structure of the population, with an increasing elderly population in the country, impacting the workload of Thai healthcare professionals. An analysis of the human

resource needs for Thailand’s primary healthcare system in 2026 indicated an increased demand for healthcare personnel in all fields. Thus, readiness in allocating adequate human resources to meet future demands must be prepared.¹¹

Furthermore, the UCS has promoted widespread and equitable access to healthcare services, enabling Thai citizens to access comprehensive healthcare services. However, this may result in increased workload for physicians and healthcare professionals in state hospitals. Even though the number of physicians has increased, there may still be congestion of patients in some hospitals. One factor contributing to the decision to resign from the public healthcare system may be the heavy workload. Data shows that physicians in some hospitals have to work long hours continuously throughout the week. This could be due to insufficient staff or ineffective hospital management, leading physicians to work extended hours beyond regular duty hours, sometimes even exceeding 100–120 hours per week.¹²

2 Low Compensation

The manpower planning for hiring physicians in the civil service system is capped at not more than 40% of the personnel budget, which means it is not possible to recruit all physicians as civil servants. Therefore, the surplus must be hired on a contractual basis, where the compensation from the government sector is lower than that in the private sector. As a result, many physicians choose to open private clinics or work in private hospitals for a better quality of life.

3 Benefits and Quality of Life Are Not That Great

Physicians not only have the duty to treat patients but may also need to work on documentation, filling out various forms, submitting to the National Health Security Office (NHSO) or preparing reports to support hospital inspections or the Hospital Accreditation (HA). Additionally, there are off-site meetings. Furthermore, for newly graduated physicians, low-quality housing for doctors is another significant problem that affects their quality of life compared to other professions. There are also issues regarding compensation and benefits, as well as the workload of senior physicians in each hospital in terms of consultation and assistance, and the fairness in workload distribution. For example, taking care of patients outside working hours and on holidays, and the risk of legal cases. Therefore, legal support from hospitals is crucial to help new doctors adjust and develop skills during their practice period, including supporting further education, as over 80% of physicians seek advancement in their career by pursuing specialization.

4 Negative Organizational Culture and Environment

It is widely acknowledged that the organizational culture among physicians tends to be hierarchical, where newly graduated physicians or interns often have senior physicians or staff as their mentors. However, some senior physicians tend to pass their workload onto junior physicians and may speak in a demeaning manner, creating a cycle of pressure that they themselves experienced when they were interns. Therefore, it is necessary to adjust the structure of the working system or modify the rules and regulations governing the relationships between individuals or units that need to work together. The complex and chronic problems do not only stem from individual behaviors but also from endogenous factors embedded within the system structure, which influence the personal behavior of individuals or organizations. Thus, it is imperative to bring about structural changes that will have a long-term impact on the behavior of individuals or organizations to address these issues sustainably.¹³

5 Increased Need for Physicians in Both the Public and Private Sectors

The shortage of physicians is occurring in many countries. Part of it arises from aging societies, leading to an increase in the number of patients seeking medical services. Another part comes from policies promoting medical tourism in several countries, creating a demand for medical and public health personnel, both in Thailand and abroad. The private sector has attractive factors such as higher compensation, better benefits, and quality of life at work, leading to the resignation of some physicians from the public sector to work in the private sector, both domestically and internationally.¹⁴

Guidelines for Addressing the Shortage of Clinicians

In addressing the shortage of medical personnel, relevant agencies may devise various strategies to tackle the issue, such as:

1 Addressing the Clustering of Medical Personnel

According to the resource data report of the MOPH for 2022, it was found that the ratio of medical personnel to the population at the national level is one physician per 1,665 people¹⁵ (which is close to the data from the National Statistical Office in 2021, reporting that Thailand had one doctor per 1,680 people). However, in reality, **the distribution of medical personnel is not evenly allocated across all regions. This results in some provinces having a higher proportion of doctors than the average population, up to 2–3 times.** Data from the Medical Council of Thailand reflects that currently, **medical personnel in Thailand tend to cluster in urban areas, with up to 48% in Bangkok.**³ In other areas, the proportion of doctors varies. Urban areas attract doctors due to economic incentives and amenities for daily living, resulting in a higher concentration of medical professionals. This poses a challenge for the

MOPH in addressing the issue, as it needs to expedite the distribution of doctors more evenly.¹⁶ From the research on “Policy Alternatives for Distributing Doctors to Under-served or Remote Health Service Units in Rural Areas,” two operational measures have been proposed:

Measures for preventing the loss of doctors from rural areas, including recruitment and retention strategies such as admitting more pre-med students from rural areas into medical schools, providing assistance to doctors in case of litigation, ensuring appropriate workload (work-life balance) for doctors, and decentralizing managerial power from central to local levels.

Measures for motivation and development, such as providing mentoring systems by senior doctors or experts, developing Telemedicine/consultation systems to disseminate knowledge and enhance confidence among rural doctors, providing fair and timely compensation, setting career progression based on knowledge and skills in rural practice without the need to move to positions outside the area, and designing health service systems to promote the utilization of resources from the public, private, and local sectors for collaborative service delivery.¹⁷

2 Increased Production of New Physicians

In the plan to produce doctors, new strategies are necessary to increase new medical personnel in the public health system. **The Ministry of Higher Education, Science, Research and Innovation has a plan to produce approximately 3,000 doctors between 2021 and 2027, totaling 33,780 doctors. Additionally, the MOPH has a project to produce over 1,000 doctors annually. If production continues as planned until 2027, there will be an additional approximately 11,516 doctors.**¹⁸ Dr. Viroj Na Ranong, Director of Health and Agriculture Policy Research at the **Thailand Development Research Institute (TDRI)**, has **proposed a solution to the physician production problem. He suggests considering capable private hospitals as medical schools and institutes for specialized physician training or nursing schools.** Over the past decade, many professors from medical schools have been recruited or hired by leading private hospitals, resulting in these hospitals having experienced and knowledgeable instructors. Therefore, it is advisable to utilize this expertise to address the shortage of specialized physicians.¹⁹

3 Allocate Compensation and Motivating Benefits

They are crucial factors in influencing physicians to continue practicing within the system. Key points that need to be expedited include **considering adjusting wages for medical personnel that are appropriate and can generate motivation to work within the system.** Adjusting physicians' work hours to be suitable, i.e., without creating an overwhelming workload as it currently stands. Additionally, there should be considerations for **educational benefits, study tours, or scholarships to enhance the knowledge, skills, and overall experience of physicians.** Organizational management, particularly in managing human resources within each healthcare facility, based on the differences in generational mindset (generation gap), is also important. **The Thai Medical Council has emphasized addressing physician resignations by adjusting compensation benefits, as well as ensuring fairness in workload management,** including patient care, legal risk and legal assistance, funding allocation, and education fund allocation.²⁰

4 Managing State-Owned Hospitals as Private Entities for the Benefit of the Public

Prof. Dr. Prawase Wasi proposed that the government change its **approach to managing MOPH hospitals by adopting a privatized management style.** This would enable state hospitals to improve their service delivery and enhance the quality of care to match that of privately-owned hospitals. **In Thailand, there are examples of state hospitals operating under a privatized model, such as Banphaeo General Hospital (public organization) in Samut Sakhon Province.** Banphaeo General Hospital has demonstrated flexible management under a privatized structure, increased the number of physicians, improved the working environment for staff, and provided excellent service to the public. As a result, most people in Ban Phaeo District prefer to receive healthcare services from the local Hospital. Privatized management of state hospitals can also facilitate networking and the adoption of expensive technologies.²¹

5 The Relevant Agencies Prioritize Addressing and Earnestly Tackling the Issues and Implementing Solutions

While the Thai Medical Council, as the regulatory body for physicians, places importance on addressing the issue of resignations from the public sector, only some aspects of the problem can be addressed. This is due to the complexity of the issue and the involvement of many related agencies. A significant concern is the shortage of physicians practicing in certain hospitals, leading to working double shifts and overburdened workloads compared to patient numbers. **The government must allocate budget to hire additional medical personnel from external sources, beyond those newly graduated. This may include retired civil servants or part-time physicians hired from other hospitals, aiming to provide quality care and implement health policies to reduce illness or facilitate patient access using various technologies,** as the MOPH is currently undertaking. In its capacity as the overseer of public healthcare facilities, the MOPH should have policies and guidelines for **ensuring healthcare workers can work happily and maintain a**

work-life balance to deliver quality services to the public. Meanwhile, **the NHSO should consider financially supporting service units to facilitate their operations and motivate physicians to work in community healthcare units.** Additionally, Asst. Prof. Dr. Thira Woratanarat from the Faculty of Medicine, Chulalongkorn University, **suggests improving the working environment and quality of life to “retain existing personnel.”** Otherwise, even if physician production is accelerated, the same problems will persist. This aligns with the opinion of Dr. Manwat Choksuwattanasakul, an obstetrician-gynecologist at Chok Chai Hospital in Nakhon Ratchasima, who suggests focusing on **providing adequate support to physicians within the system, especially by clearly defining the duties of interns or by adding permanent general practitioners to large hospitals to carry out some duties replacing some of the interns.**²²

Summary

The situation of the Great Resignation in the public health workforce has various causes, such as heavy workloads, low compensation, uninspiring benefits, organizational environments and cultures that pressure new physicians, inefficient allocation of personnel and resources in the government system, and the attractiveness of medical professionals to private hospitals. This great resignation is partly a systemic issue that requires collaboration from various sectors to address both short-term and long-term solutions. The widespread debate on this matter presents an opportunity to address systemic issues collaboratively. All stakeholders should expedite the review of measures to address various issues, with the overarching goal of distributing physicians to underserved rural areas. Efforts should focus on resolving issues faced by physicians in their work, such as reducing working hours to achieve a better work-life balance, not only limiting to medical professionals but also including other healthcare personnel in hospitals. Hiring part-time physicians, especially retirees, and restructuring state healthcare units to have more flexible management, similar to private sectors, such as Banphaeo General Hospital, are some strategies to consider.



Source: commons.wikimedia.org/wiki/File:Covid-19_San_Salvatore_09.jpg

Two Decades of the Gold Card: Expanding Health Insurance to the Fullest Extent

“ The operations of the National Health Security System (i.e., Gold Card) not only focus on expanding benefits to cover all medical treatments to reduce the financial burden of healthcare expenses on the beneficiaries, but also aim to expand services to cover every area, allowing the public to access healthcare services universally, conveniently, promptly, without congestion, and equally. ”

Introduction

The National Health Security Office (NHSO) has continuously improved Gold Card services. In 2023, a budget for capitated medical services was approved at 161,602.67 million baht, averaging 3,386 baht (about \$100) per eligible person. New services were added, including **care for high pulmonary blood pressure in newborns, prosthetic root canal treatment, quality state emergency room services, adult diapers, HIV prevention medication (PrEP), the addition of 14 items of essential medicines, semi-emergency patient care, care for poisoned patients, and expanded health promotion and disease prevention services.** Additionally, access to medications, including cancer treatment drugs and marijuana-containing medications (National Essential Drugs List), and type 2 diabetes and hypertension services, was increased by adjusting payment according to service lists. Contribution proportions to provincial rehabilitation funds were increased based on the readiness of each rehabilitation level. Knee replacement and arthroscopy surgeries were also increased. Moreover, the cross-region service system was expanded, all of which contribute to the continuous improvement of Thailand's healthcare service standards. This article summarizes the development of the National Health Security System, its background, Gold Card framework, benefits development from the past to the present, and suggestions and recommendations for the future of the Gold Card.

Background of the Gold Card

The National Health Security, through the Gold Card scheme, aims to achieve Universal Health Coverage (UHC) of affordable health insurance in Thailand. This is a policy that seeks to create equality and parity in healthcare for all citizens in the country.¹ This principle is also one of the Sustainable Development Goals (SDGs) set by the United Nations.² The universal coverage scheme (UCS) can be successfully achieved through the collaboration of various sectors, driven by the National Health Security, B.E. 2545, which is partly rooted in the mobilization of civil society.^{3,4} The essence of this Act lies in establishing a legal framework for the UCS, based on principles of good governance and the presence of governing bodies to foster connectivity between service providers and the public receiving healthcare. Emphasis is placed on the participatory process involving all stakeholders in the development and improvement of services to ensure the efficient allocation of funds from the National Health Security Fund and maximize benefits for all citizens, enabling access to quality and efficient healthcare services.

The NHSO was established in 2002 in accordance with the National Health Security Act, B.E. 2545, which defines the roles and responsibilities of the NHSO to address the essential healthcare needs of the population, ensuring equal access to essential public health services, and preventing extreme financial risk or ruin from healthcare expenses. From these roles and responsibilities, it can be seen that the NHSO is tasked with managing the UCS to provide the population with healthcare benefits as necessary (i.e., the Gold Card Benefits Package), which is considered the main product delivered to beneficiaries under the UCS. The key processes of management include policy design for the benefits package, budgeting, designing and managing provider

Conceptual Framework of the Gold Card System

payment systems, auditing billing and service quality, supporting service systems and standard-setting, as well as creating awareness and consumer protection to enable access to necessary healthcare services without imposing a financial burden. Eligible individuals under the UCS include Thai citizens not already covered by the Civil Servants Medical Benefits Scheme, the Social Security System and benefits for state organization workers. Health promotion and disease prevention services through the Gold Card system are available to all Thai citizens. The operational budget of the National Health Security Fund is derived from national budget allocations.⁵

The (i.e., Gold Card) aims to operate in line with the UHC concept, which aims to provide quality and financially-fair healthcare services to all individuals in the country, regardless of economic status, age, or social status. Generally, UHC aims to provide quality healthcare services that cover both the quantity and needs of all types of populations. The key principle is to comprehensive access to healthcare services to ensure that people can access essential, quality healthcare without financial To provide these rights, financial mechanisms and state treasury resources are necessary to protect households from financial risks, promote fairness, and reduce disparities in accessing healthcare services, especially for the impoverished who may not be able to afford expensive healthcare services or may suffer financial hardship from paying for healthcare services.

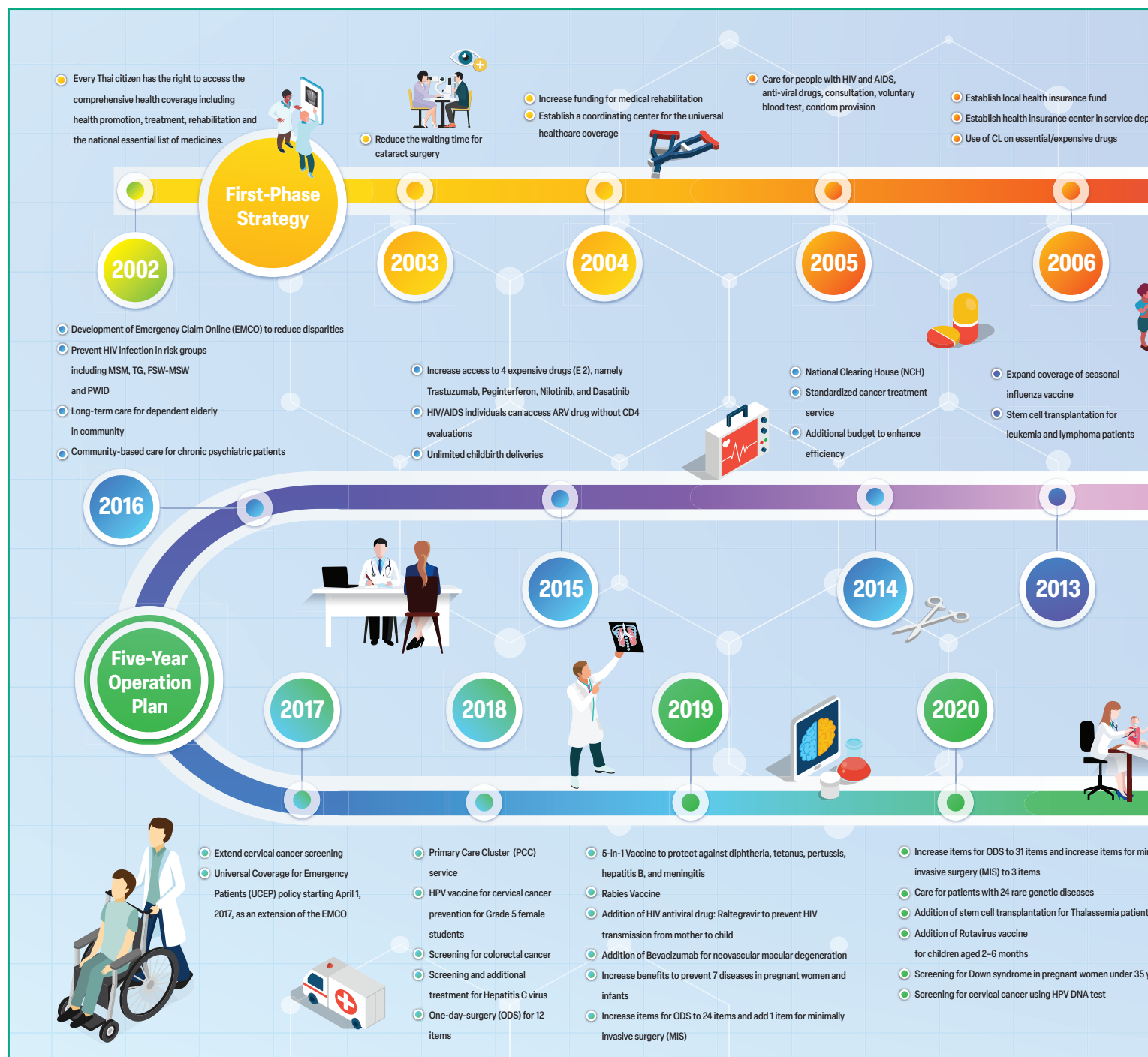
The path to Universal Coverage is likened to a cube (UHC Cube), which demonstrates three dimensions of health coverage:

- 1 **Population Coverage:** By expanding coverage to include populations eligible under the national health security scheme
- 2 **Benefit Coverage:** By broadening the scope and types of health services covered under the benefit package to meet the population's essential healthcare needs
- 3 **Cost Coverage:** By attempting to reduce healthcare expenses when accessing services, aligning with the main goal of the UCS to protect people from financial risks, avoiding financial burdens that may deter healthcare utilization, or lead to financial distress from healthcare expenses

Evolution of the Gold Card Benefits Package

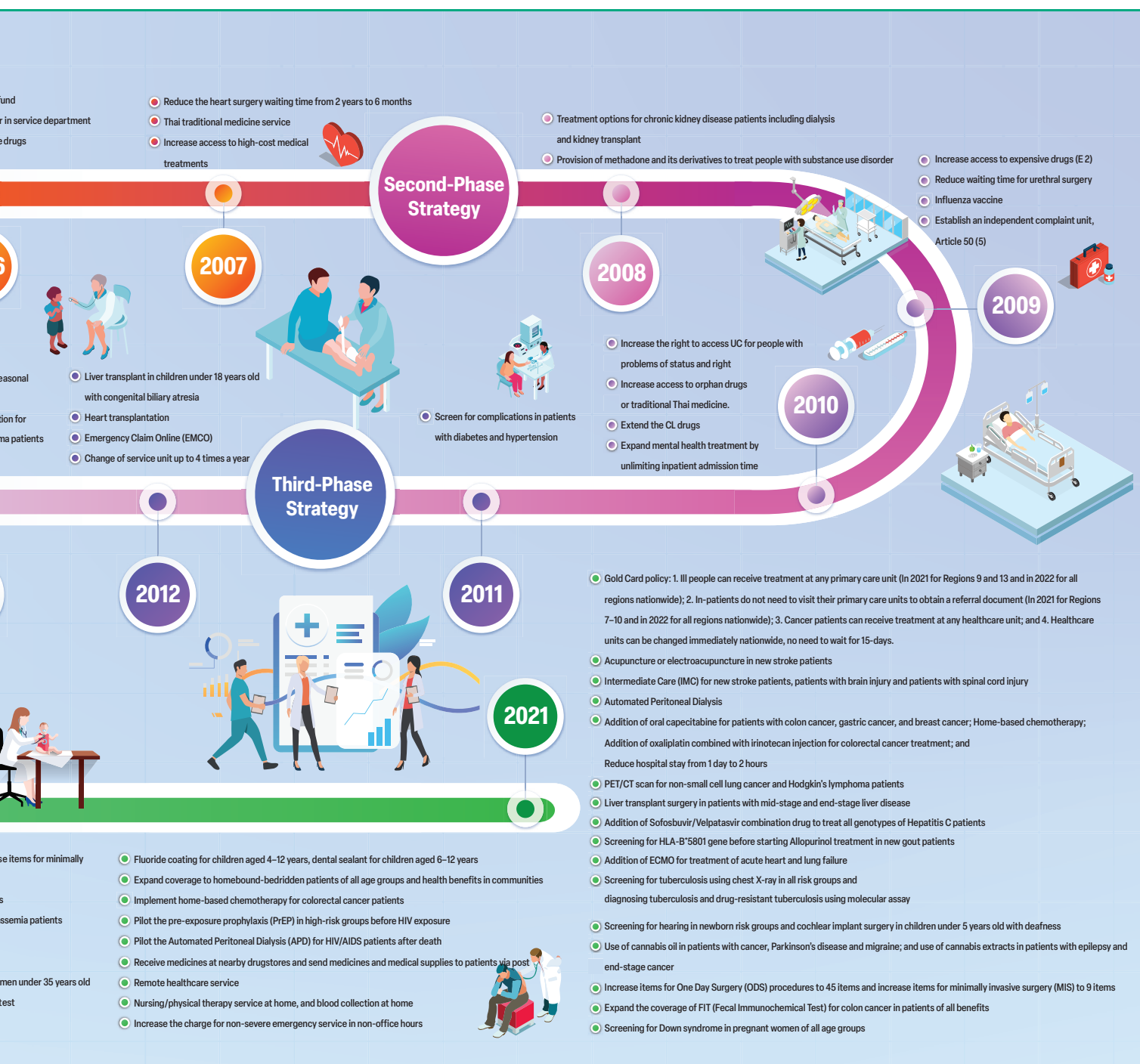
In the initial phase of defining the UCS benefit package, the NHSO collaborated with experts and stakeholders from various fields to establish the minimum elements of care for Gold Card beneficiaries. These were developed from existing benefit packages in other systems at that time (such as the Civil Servants Medical Benefits Scheme and the Social Security System). However, medical and public health technology and knowledge are constantly evolving, and the previous benefit package may not cover necessary healthcare measures or services of the present. In addition, there may be insufficient services, difficult access for the population, or high costs leading to inequitable access. Therefore, the NHSO recognized the necessity to announce additional benefit packages that are appropriate to the context and provide clearer guidelines for accessing services. A sub-committee was appointed to determine the types and scope of necessary healthcare services and life-sustaining services, responsible for evaluating essential and appropriate healthcare services to be included in the benefit packages of the UCS. Additionally, they provide recommendations to the National Health Security Committee for the development of the healthcare service system.⁶

The development of benefit packages for the UCS by the NHSO utilizes a method of annually soliciting proposals for health measures from stakeholders. The development process focuses on systematic operations, ensuring transparency to cover necessary health measures based on accessible criteria for the population. There is active participation from stakeholders in each step of the process. These proposals are prioritized and decided upon using various predefined criteria for reviewing and improving the benefit packages before the working group evaluates and decides on the selected benefits.



This process consists of four main steps:

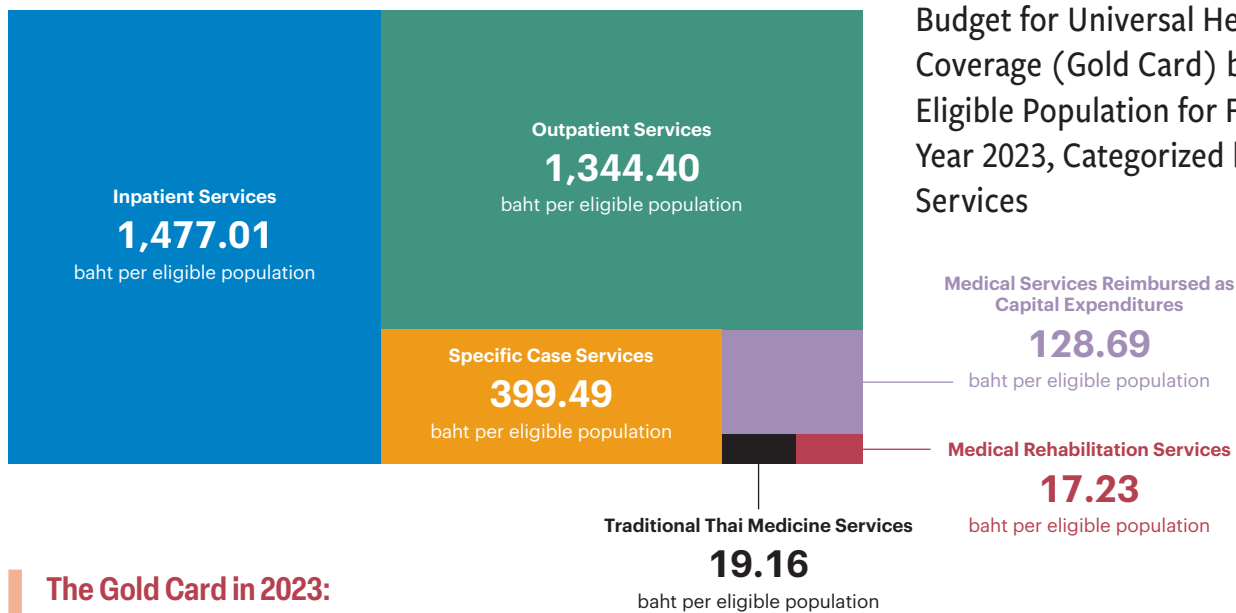
- 1 Proposal submission
- 2 Prioritization and selection of topics
- 3 Health Technology Assessment (HTA), evaluation of Effective Coverage, or Access to Care
- 4 Decision-making by policy-makers



Each step includes specifications, criteria, and guidelines for consideration. For each proposal type, such as new benefit proposals, initial screening criteria, prioritization criteria for evaluation, and decision-making guidelines regarding inclusion in the benefits packages, are established. The evaluation includes cost-effectiveness assessment and budgetary impact analysis.⁷ The development of benefits in the UCS is carried out continuously, as illustrated in Figure 1.⁸

Figure 1 Evolution of the Benefits Package of the UCS in 2002–2022

Figure 2 Average Per-Capita Budget for Universal Health Coverage (Gold Card) by Eligible Population for Fiscal Year 2023, Categorized by Services



The Gold Card in 2023: The Year of Total Coverage

In 2023, the Cabinet approved a budget for the National Health Security Fund, or the Gold Card, totaling 204,140.02 million baht. On a per capita beneficiary basis of 161,602.66 million baht or averaging 3,385.98 baht per eligible person, this budget was allocated as follows: outpatient services 1,344.40 baht, 1,477.01 baht, specialized services 399.49 baht, medical rehabilitation services 17.23 baht, traditional medicine services 19.16 baht, and medical expenses covered as investment 128.69 baht.⁹ **Additional important services have been added, totaling 13 items, including:** 1) Vital Pulp Therapy for treating dental pulp in permanent teeth, 2) Implant surgery for individuals without any teeth, 3) Hepatitis B surface antigen (HBsAg) screening in pregnant women, 4) Thalassemia screening in partners of pregnant women, 5) Syphilis screening in partners of pregnant women, 6) Hearing screening for all newborns, 7) BRCA1 and BRCA2 gene screening for breast and ovarian cancer patients with high risk and direct relatives with a history of mutation detection, 8) Newborn screening for metabolic genetic disorders using Tandem mass spectrometry (TMS), 9) Oral cancer and precancerous lesions screening, 10) Home blood pressure monitoring (HBPM), 11) Smoking cessation hotline and mental health hotline (call #1600), 12) Screening for risk factors for cardiovascular disease, and 13) Active case finding and tuberculosis screening in high-risk groups.

In developing the benefits package within the UCS, NHSO operates through the Universal Coverage Benefit Package (UCBP). As mentioned above, in the process of developing the benefits package, there are criteria for selecting the benefits, **one of the important criteria being cost considerations. There are two main aspects:**

Economic value criteria

Budget burden criteria

This means that certain technological groups or interventions with high costs may not qualify for selection as Gold Card benefits because of their exorbitant expenditure. However, NHSO is aware of the access issues for technological groups or interventions with high costs, acknowledging that this affects people's access to essential care and may lead some to financial instability after paying for treatment. The evaluation criteria for these benefits are not solely indicative of whether these technologies or interventions will be included in the benefits package, **but also consider other dimensions such as social and ethical aspects. These criteria are part of the decision-making process,**⁷ evident in several benefits with high costs. However, NHSO has designated them as benefits for the public to improve their quality of life, particularly benefits that support the elderly in their daily lives.

Dental Implants

The benefit of implants is a surgical procedure to insert artificial tooth roots into the jawbone as replacements for natural tooth roots that have been lost. This helps to anchor or support removable and fixed prosthetic teeth, improving chewing ability for patients who have problems with removable acrylic-based prosthetic teeth. The surgery to implant dental roots helps to enhance the quality of life for patients who need false teeth but face issues with loose dentures or inability to chew, allowing them to return to using teeth for chewing. NHSO has provided this benefit since October 1, 2022, onwards.¹⁰ The cost of providing dental implant surgery is 21,387 baht per person, and the maintenance cost is 1,224 baht per session.

Knee Replacement Surgery

This benefit is for debilitating effects of osteoarthritis, a silent health threat that menaces middle-aged and elderly groups, more prevalent in females than males. The primary cause is age-related risk, and the risk increases with heavy lifting or prolonged activities requiring the use of legs and knees. Knee replacement surgery is a Gold Card benefit aimed at helping patients with knee osteoarthritis access treatment and improve their quality of life.¹¹ The cost of knee replacement surgery ranges from 50,000 to 100,000 baht, depending on the hospital providing the service. If considering only the cost of the knee replacement itself, excluding treatment, it averages around 46,000 baht.¹² The NHSO provides knee replacement surgery as part of the Gold Card benefits, offering the treatment for free without any additional charges.

Cataract Surgery

Cataracts are caused by the deterioration of the eye's lens, often associated with aging. As one gets older, the normally-clear lens becomes cloudy, resulting in progressively blurred vision, double vision, glare from lights, distorted colors, difficulty seeing in bright light, and increased nearsightedness. If left untreated, cataracts can lead to complications such as acute angle-closure glaucoma or severe inflammation in the eye, which can ultimately result in "blindness." In the past, cataract surgery to implant artificial lens replacements was quite expensive, typically ranging from around 18,000 to 40,000 baht, depending on the hospital. Due to this financial constraint, many patients opted to forego treatment and endure, even at the cost of losing their vision entirely.¹³ But nowadays, Gold Card holders have the benefit of fully subsidized cataract surgery. This benefit covers everything from diagnosis to the surgery itself, including post-operative eye health check-ups, without any additional charges.

The above three benefits are examples of UCS services with relatively high costs. However, the NHSO has designated them as benefits for the public because they recognize the necessity of treatment to improve patients' quality of life and enable them to resume their daily lives after receiving treatment.

The Gold Card System and Future Challenges

Although, over the past two decades, Thailand has achieved success in implementing comprehensive health insurance policies through the establishment of the NHSO (Gold Card) and continuous development of the benefits package, there are challenges to the future viability of the UCS. In addition to expanding benefits to meet the needs of the population, the NHSO must also consider access to services for all Thai citizens and ensure the financial stability of the fund. The operation of the UCS faces various challenges from economic, social, lifestyle, and environmental changes, such as **changes in population structure**, e.g., with a significant and rapid increase in the elderly population, leading to increased health expenditures, particularly for those age 50–90 years. **Changes in disease patterns from infectious to non-communicable diseases** result from increased unhealthy behaviors, including inappropriate dietary habits, decreased physical activity, or risky behaviors such as alcohol consumption and smoking. Consequently, the continuous increase in healthcare expenditures for chronic non-communicable diseases is evident.¹⁴ **Environmental changes** are also impacting the public health, such as the emergence of new infectious diseases or insect-borne illnesses, respiratory diseases resulting from pollution, and threats to **sustainable financial management of health**

funds. As the NHSO adds new UCS benefits for the population each year and new medical technologies become more expensive, the trend of increased demand for healthcare services among the population rises. Managing the National Health Security Fund to maximize benefits within limited budgets is a significant challenge for the UCS.

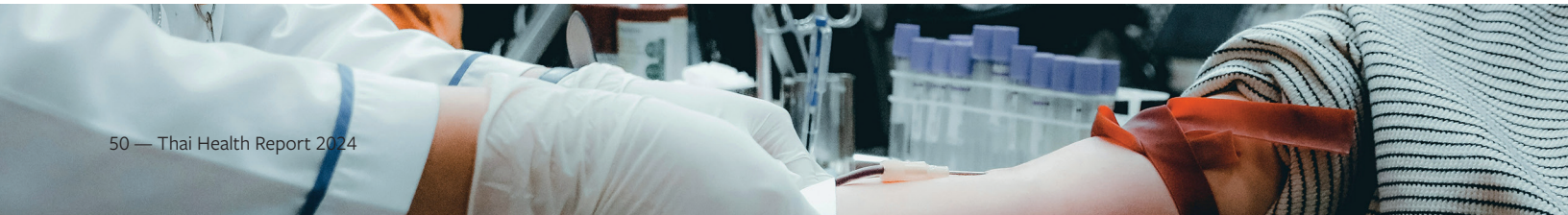
In the future, developing the UCS should aim to reduce the burden of hospital care, alleviate overcrowding and waiting times, improve access to healthcare services for the population, and enhance the quality of healthcare services. The following are some key areas of focus:

- 1 **Develop new benefits** to adequately cover the healthcare needs of the population and meet their service requirements
- 2 **Utilize technology for healthcare**, such as Telemedicine systems and new innovations, to care for the population
- 3 **Expand healthcare service units** by introducing new service models, such as minor ailment services available at pharmacies, mobile dental units, and blood test at medical technology clinics, to increase access to healthcare services, reduce waiting times, and alleviate hospital congestion
- 4 **Emphasize disease prevention promotion** as it addresses health issues at the root cause and is less costly than hospital treatment. Currently, there is a trend toward chronic non-communicable diseases, which are lifestyle-related. Comprehensive disease prevention can reduce future healthcare costs.
- 5 **NHSO must prioritize fund management, with a focus on budget management to maximize benefits and seek new funding sources for sustainable financial management.**

Summary

The operation of the UCS (Gold Card) does not only focus on expanding benefits to cover the treatment of diseases to reduce the healthcare expenditure burden on the people, but also aims to extend services to cover all areas, enabling people to access treatment conveniently, promptly, and without congestion. Furthermore, the UCS is dedicated to expanding the benefits package to ensure comprehensive access to healthcare services equally necessary for everyone. The expansion of benefits directly impacts the budget of the NHSO and the National Health Security Fund. Therefore, there should be budget preparedness for the future to accommodate the appropriate increase in such expenditures. This readiness should consider the potential of the healthcare system to cope with the increasing trend of these costs. In the future, developing the Gold Card system should aim to reduce disparities in hospital treatment, decrease congestion and waiting times for services, increase public access to healthcare services, and enhance the quality of healthcare services. At the same time, emphasis should be placed on health promotion and disease prevention to reduce the number of patients entering the healthcare system. A comprehensive disease prevention program could significantly reduce future healthcare costs.

Source: unsplash.com/photos/woman-in-white-long-sleeve-shirt-and-white-pants-doing-exercise-sTTeaN4wwrU



Online Gambling: A Trap for Youth and Adolescents

“ In a 2023 survey conducted by the Center for Gambling Studies among youth aged 15–25 in 19 provinces around Thailand, it was found that there is a high prevalence of gambling, with 42.1% engaging in gambling activities. This includes 11.9% participating in online gambling, 20.4% engaging in both offline and online gambling, with 1 in 4 being new online gamblers. ”

Introduction

Throughout 2023, various media outlets consistently covered news related to online gambling.¹ In particular, news of the arrest of major online gambling networks was highlighted throughout 2023, including raids to seize assets due to involvement in money laundering. Many of those apprehended were notable individuals, such as Yam Thamonphan, a former celebrity along with her programmer husband, the spouse of Yadtip, a former actress, and Boss Tan, former president of Lamphun Warrior Football Club. Additionally, government officials, particularly in the case of Police Inspector Sua, a major shareholder of a company under the Pentor Group, was implicated in connection to the online gambling website, Macau888. This connection, as revealed by Mr. Chuwit Kamolvisit, included Benz Demon, a supercar racer and a former boyfriend of Due Arisara who also revealed his involvement. Furthermore, there were cases of property-related crimes linked to online gambling, such as that of Sunthorn Foo, a distinguished Thai language teacher who became involved in gambling to the extent of deceiving victims into paying reservation deposits for accommodations via Facebook. Also, there were continuous news reports on the “Am Cyanide” serial killer case, where evidence suggests that the perpetrator was behind 15 murder cases across eight provinces between 2015 and 2023, resulting in 14 fatalities, and using the deceased’s money for online gambling, at times losing up to one million baht per day. This was followed by the dismantling of the FUN88 gambling website network, as examination of Am’s financial transactions revealed that accounts were opened for gambling with this website, with a history of circulating funds amounting to over 93 million baht.

Although online gambling may be a new phenomenon for many, it is no longer distant, especially for youth. Additionally, it is an activity that negatively impacts the mental health of players, leading to issues such as gambling addiction, financial instability, emotional outbursts, and even suicide. Research by David C. Hodgins and Rhys M.G. Stevens (2021), which reviewed 17 literatures on the impacts of gambling addiction, found that an increasing number of gamblers are found among both young and older age groups, comprising both males and females. They are mostly employed full-time with good income, but exhibiting symptoms of anxiety, depression, and unhealthy alcohol consumption. Reasons for increased gambling include boredom, stress relief, financial pressure, and an irrational desire to earn money for its own sake.² This article discusses the worsening problem of online gambling, both in the global context and specifically in Thailand, with a focus on adolescents and young adults. It also addresses Thai government policies and solutions to address the problem.

Online Gambling Around the World: When the Democratic Power of the State Fades Away³

Traditional gambling comes in many forms, broadly categorized as lotteries, sports betting, and casinos. Online gambling, on the other hand, involves playing various types of gambling games through the Internet. The prominence of online gambling has been evident since the 1990s, driven by advancements in computer and information technology. It has continuously expanded since then, with the first licensed online gambling website being the Swiss Lottery from Switzerland in 1993. During the same period, Microgaming from the Isle of Man successfully developed gambling software (1994), and Cryptologic, based in Ireland, began developing secure transaction systems for electronic financial transactions (1995). Additionally, Antigua and Barbuda passed legislation in 1994 to attract foreign investors to establish companies in the country under the Free Trade and Processing Zone Area Act, issuing licenses to online gambling operators. A significant milestone occurred in 1995 when InterCasino, the world’s first online casino website, was launched. Initially, the focus was on

sports betting, leading Antigua to become a model for many offshore countries, prompting other nations with strong domestic gambling industries to adapt. For example, in 1996, both the UK and Australia decided to open their online gambling markets for the first time, starting with sports betting. Clear examples include Eurobet and Centebet, with a sharper focus on gambling types becoming increasingly apparent from the early 2000s onwards, notably with the popularity of online poker, which had already seen significant development.

With easy accessibility and ultimate privacy, online gambling can be played from various portable devices, especially mobile phones, through websites or applications. It appeals particularly to the characteristics of a younger generation of gamblers who are tech-savvy and have relatively high social status, leading to rapid growth and expansion. Consequently, the largest share of the gambling market that complies with major legal regulations is in Europe. More than half of this gambling comes from sports betting. Moreover, there is also an underground online gambling market with significant monetary circulation in the Asian market. The COVID-19 pandemic has further propelled online gambling to seize opportunities from this crisis, enabling it to expand exponentially, contrasting sharply with the overall performance of the gambling industry, which has been severely impacted like never before.

In the eyes of the government, online gambling is more worrisome than traditional gambling because it has characteristics of ‘data breach.’⁴ Business operators invest in servers and seek licenses from countries that legally accept them. However, they target the main player groups residing in other countries where online gambling remains illegal. This is because it is difficult to enforce laws in the originating country due to conflicting policies and the global trend towards economic liberalization, reducing the role of the state. Some countries have adopted contradictory policies, emphasizing strict control and serious crackdowns. China, in particular, has launched operations to sever the online gambling chain, viewing it as economically harmful and leading to severe societal problems.

China pressures countries with legal online casinos in the Asian region, such as the Philippines and Cambodia, to cease operations within their borders in 2019. Cambodia has complied, while the Philippines has tightened licensing requirements. Additionally, China aims to apprehend individuals involved in this activity, whether within the country or collaborating with other nations. For instance, they target Sihanoukville (Cambodia) and Kings Romans (Golden Triangle, Laos) to prevent currency outflows resulting from gambling, which amount to over 1 trillion yuan annually.⁵

Online Gambling in Thai Society: From Football Betting to Online Casinos

Online gambling is not a new phenomenon, but it first made significant in-roads in Thailand about 20 years ago after the advent of Internet technology. The pivotal change happened with the spread of COVID-19. In the early 2000s, online gambling was limited to a small group and mainly involved betting on foreign football matches. Bets were facilitated by overseas online gambling companies, often sponsoring major football matches. For example, Ladbrokes sponsored the jersey of the BEC Tero All Stars team against Barcelona in 2002.

The reason why online gambling was not initially popular among Thai players was due to limited access to high-speed Internet and the English language barrier. However, its popularity gradually increased as technology developed, especially with the widespread use of smartphones. Additionally, the expansion of Thai-owned businesses, the introduction of Asian Handicap betting, and the ability to play in real-time all contributed to its growing popularity. Furthermore, stricter measures by authorities to crack down on illegal football bookmakers during major football tournaments also played a role,⁶ as that caused some gamblers to turn to online gambling.

The clear turning point occurred with the Thai epidemic of COVID-19. Various measures implemented by the government to control the disease, such as lockdowns and social distancing, resulted in disruption to traditional forms of gambling, particularly illegal gambling dens and border casinos.⁷ This had the effect of transforming online gambling into the “New Normal,” offering a convenient, accessible, and secure way to place bets, anytime and anywhere. That phenomenon has led to a steady shift of gamblers from traditional to online platforms.

The Center for Gambling Studies is an organization which monitors the situation, behaviors, and impacts of gambling in Thailand. The Center has conducted a survey of the situation every two years since 2010–11, 2013, 2015, and 2017, and has started to address the issue of online

gambling separately from traditional gambling in its surveys conducted in 2019 and 2021. After passing through the COVID-19 situation in 2021, the survey targeted the population age 15 years or older in 24 provinces, totaling 6,871 sample respondents. It found that online gamblers had increased by 135.8% (from 825,924 people in 2019 to 1,947,205 people in 2021), with a total circulation of 107,077 million baht, or an increase of 431.3% compared to the survey results in 2019 (Figure 1). Nearly all of the sampled group used mobile phones to place bets, with the majority favoring baccarat/pok deng (78.8%).⁸

Online Gambling and the New Generation

The latest survey in 2023 reveals more clearly that the group of people who prefer online gambling are, on average, younger than those who engage in traditional gambling. The main player group consists of youth, students, and individuals who spend their lives in constant connection with the online world. The 2023 survey conducted by the Center for Gambling Studies aimed to target the “new generation” demographic.⁹ **By collecting data from 5,010 individuals age 15–25 years** in 19 provinces nationwide, it was found that, within the past 12 months, **42.1% of these young adults engaged in gambling** (both offline and online). **Specifically, 11.9% played exclusively**

online, 20.4% played both offline and online, and 9.8% played exclusively offline. It could be said that approximately 32.3% of the new generation, or nearly three million Thais, participated in online gambling in 2022. **Roughly one in four online gamblers were new players** who had just started gambling for the first time in the past year, amounting to approximately 740,000 youth.

Moreover, it has been assessed that approximately 23%, or 690,000, are individuals who are classified as problem gamblers, and 48%, or 1.4 million, are at risk of becoming problem gamblers. The most commonly played types of gambling are slot machines/gambling machines, with 1.1 million users (via websites, primarily), followed by the underground lottery, government lottery (via both government apps and private online platforms), card games, and football betting, with 1.03 million, 980,000, 590,000, and 440,000 people, respectively. Mostly, individuals, or 44%, have seen advertisements and have been persuaded to gamble online, with 1.0% expressing a desire to try online gambling after seeing such ads. Approximately

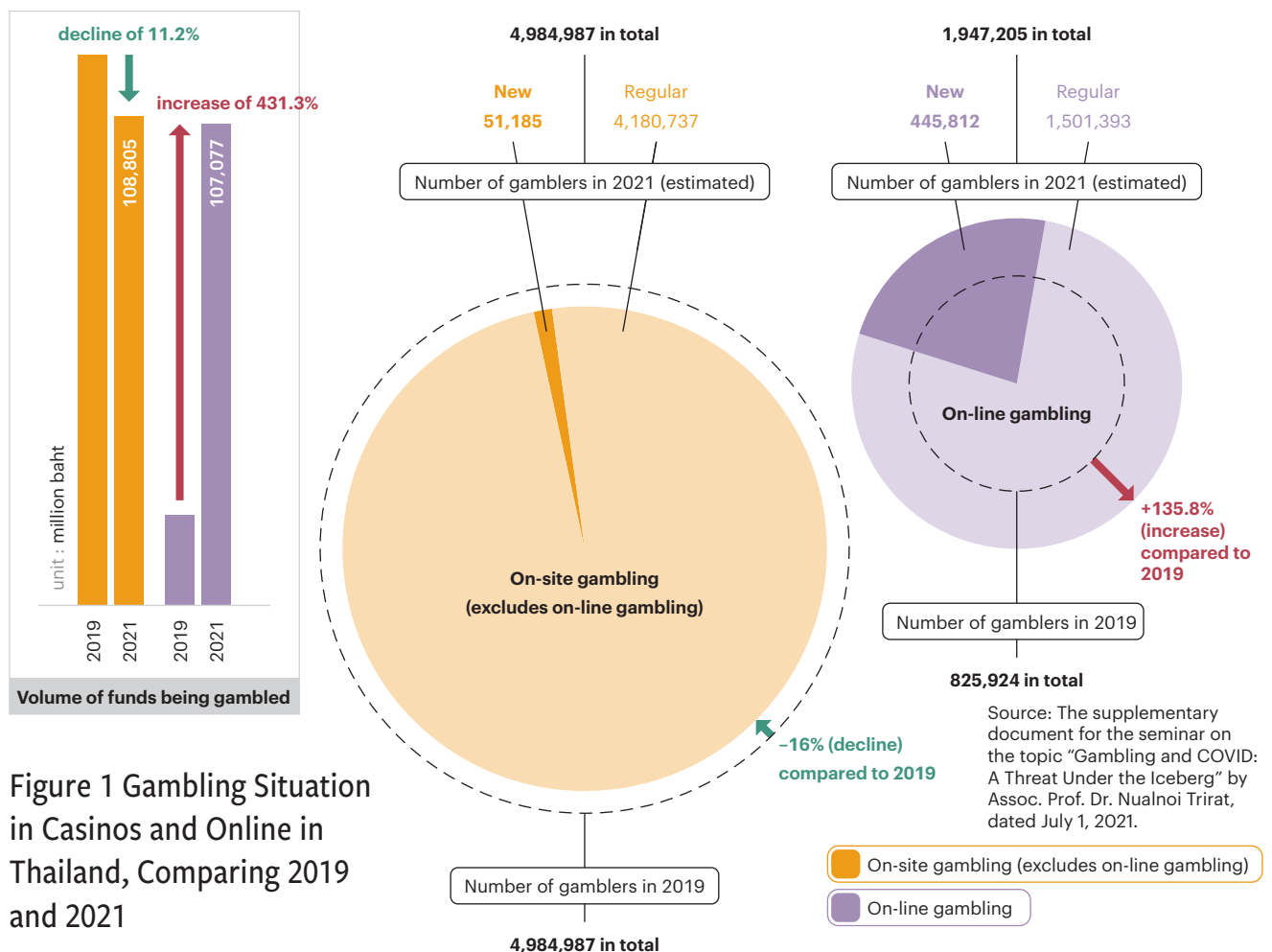


Figure 1 Gambling Situation in Casinos and Online in Thailand, Comparing 2019 and 2021

33.5% of the new generation who engage in online gambling (or about one million people), indicated that they have been adversely affected by online gambling. The main impacts reported include financial difficulty in daily life, stress/mental health problems, loss of work/study time, deteriorating health, and conflict with family members.

Online Gambling and the Grey Economy

Online gambling not only causes significant social and health problems, but it is also associated with transnational human trafficking. International criminal organizations lure job seekers from around the world by offering them high-paying online gambling jobs. Subsequently, they clandestinely transport these victims across borders to become cyber slaves for Internet scams or what Thais commonly refer to as “Call Centers,” mostly operating in areas known as ‘Spaces of Exception’ along the Mekong River basin. These areas, such as the Special Administrative Region, the Special Economic Zone, including places like Shwe Kokko and KK Park (Myawaddy, Myanmar), and Laukkai (Kokang, Myanmar) Poipet and Sihanoukville (Cambodia), serve as havens where laws are loosely enforced. These criminal syndicates emerge from the online gambling industry and utilize the thriving online gambling industry in this region as a shadow banking system for clandestine money movement and money laundering, increasingly and discreetly.

The Thai State and the State of Awkwardness

Thailand does not have a specific law to regulate online gambling. However, until about a decade ago, it continued to apply the antiquated Gambling Act, B.E. 2478. Under that blanket law, all forms of online gambling were considered illegal except for the state-sponsored lotteries.¹⁰

Being enacted after the revolution, this law divided gambling into the following two types:

Type A • Strictly prohibited from issuing licenses, such as three-card poker, hi-lo, baccarat, slot machines, except for state-owned casino establishments, which are only allowed by the Minister of Finance.

Type B • Can be licensed, such as cow fighting, horse racing, bingo, billiards.

Thailand’s perspective on gambling is relatively strict. The most popular legal gambling activity is the government lottery. Other legal forms include cockfighting, cow fighting, horse racing, and Thai boxing. However, it is not strictly regulated, and there is as an active underground lottery and sports betting (primarily on football).¹¹ In addition, illegal gambling dens continue to proliferate, as they are believed to be able to operate clandestinely due

to bribes being paid. Local authorities turn a blind eye to these activities.

The online gambling websites preferred by Thais offer various types of gambling options, including sports betting (not only football), baccarat, lottery, games (like fish shooting), and slots. **Service providers are divided into three main groups,** operating under different standards and levels of credibility, listed from least to most:

1 Sub-agents (purchasing ready-made software to establish their own market), operating clandestinely both within Thailand and in neighboring border towns with convenient access for Thais. Examples include websites starting with the words SBO, UFA, Galaxy, Royal.

2 Service providers operating casinos in neighboring border towns. Their highlight is the live casino format, simulating the experience of playing in a real casino, with live broadcasts from those casinos. An example is <https://www.myawaddy888.com>, owned by Myawaddy Complex.

3 International gambling companies registered properly in countries where online gambling is legalized. Examples of service providers include SBOBET (Philippines), bet365 (UK), and Bodog (Antigua).

While it is common to encounter various forms of online gambling advertisements, from billboards at European football stadiums during live broadcasts, especially on popular social media networks, which often utilize promotions, teach cheating techniques, and use Internet idols to attract new gamblers. However, according to **the Computer Crime Act of 2007, courts have the power to order the blocking of access to gambling websites** because they are considered to disrupt public order or undermine good morals. However, this measure has not been very effective. Additionally, the legal process is quite cumbersome and involves multiple agencies, including the Royal Thai Police, the Ministry of Digital Economy and Society (DE), and the National Broadcasting and Telecommunications Commission (NBTC). Even though the

court may issue orders to block URLs, gambling websites often reappear under new names almost immediately. Data from the DE confirms that they have blocked gambling websites in the 2023 fiscal year (October 1, 2022–September 30, 2023), with an average of 172 websites blocked per month, or about 5.6 websites per day.¹² Nevertheless, Thai authorities’ efforts to crack down on online gambling have been consistently increasing. Crime statistics show that state cases of online gambling have been steadily rising, both in terms of the number of cases and the number of suspects involved. This trend has been particularly notable since the onset of COVID-19 in 2020. However, there has been a significant decrease in 2023, with 38,283 cases and 56,734 arrests.¹³

At the same time, there has been movement to push for “online casinos” from some political parties, especially during elections. On May 14, 2023, the Move Forward Party campaigned on this issue, as part of their ‘transparent economy’ policy. The party saw it as a new revenue stream for the country. However, when there was a change in government led by the Pheu Thai Party, this policy was not included in the Prime Minister’s policy statement to the parliament. Instead, a committee was formed to study the establishment of full-fledged entertainment complexes to address illegal gambling issues and how it would benefit the country’s economy. This committee, appointed by the House of Representatives, specifically refers to land-based casinos. It is clear that all forms of online gambling are not within the scope of consideration for this committee.

Addressing the Challenge of Online Gambling

Online gambling remains a crime and social issue that is difficult to address due to the limited role of the state in controlling Internet technology. Additionally, laws are lagging behind online transactions, and many online gambling operations are cross-border. Both the government and civil society should make greater efforts to control the situation, perhaps starting by considering the following actions:

Firstly, there needs to be legal reform to modernize and make the laws regarding gambling adaptable and applicable to online gambling, which has high potential. Specific issues like penalties should differentiate between organizers, players, and advertisers, while adding liability for indirect supporters. Measures to control gambling advertisements should be implemented, including raising the minimum age for players.

Secondly, a national gambling regulatory organization should be established to formulate policies, define types of gambling eligible for licensing under the law, set operator standards, protect players, and aid in the

rehabilitation of problem gamblers. Any illegal gambling activities must be seriously prosecuted. In the case of online gambling servers located in other countries, international cooperation is essential for effective enforcement.

Lastly, it is important to remember that online gambling is easily accessible to young people due to their familiarity with Internet technology. However, online access also poses significant dangers, especially to those who lack prior experience. Both the government and civil society must work to create digital literacy and awareness about the negative aspects of online gambling, particularly targeting children and youth who are most vulnerable.

Summary

The COVID-19 pandemic is like a massive storm that has wreaked havoc on the global gambling industry, particularly affecting various dimensions such as gaming channels. This crisis has presented opportunities for the online gambling market to thrive. Over the past year, Thailand has seen numerous cases related to online gambling involving prominent figures from various sectors, including celebrities, government officials, police officers, and international businessmen. Many of these cases are linked to money laundering and other international crimes. Although almost all forms of online gambling are considered illegal in Thailand (except for government lottery tickets sold through e-wallet applications), efforts to control and manage this issue have been ineffective. Millions of youth are being drawn into online gambling, reflecting the severity of the escalating problem. This indicates that Thai society cannot ignore this issue any longer. It is imperative for all parties to reform laws related to gambling to be modern and flexible, and establish a national gambling regulatory organization to formulate policies and protect players. Additionally, measures must be taken to protect youth in the digital world, preventing them from becoming victims of gambling advertisements and other unsavory promotional schemes.

Accidents Keep Happening!

Accidents from Large Construction Projects

“ The construction industry has been a leading cause of workplace accidents for many years. In 2019, there were a total of 11,599 construction-related accidents, accounting for 12% of all 94,906 accidents. However, the proportion of fatalities from construction accidents was as high as 29%, with 186 cases out of a total of 639 fatalities. ”



The collapse of On Nut-Lat Krabang elevated road.

Source: 4occ.isoc.go.th/04news/?p=16780

Introduction

One of the major construction accidents in 2023 is certainly the collapsed On Nut-Lat Krabang elevated road.¹ The collapse resulted in two fatalities and at least seven injuries, as well as damage to the properties of those near the accident site. Additionally, in the same year, there were other serious accidents, such as the elevated expressway pillar casting incident.² In the construction project on Rama II Road, Soi 82, a collapse occurred, resulting in the death of one Myanmar worker and injuring another on December 15, 2023. This incident pertains specifically to the construction project on Rama II Road.³ In the same locality, there have been at least seven accidents over a period of three years, from 2021 to 2023.

In the past six years, many accidents occurred in big construction projects. On July 31, 2022, a five-ton concrete slab fell from a U-turn bridge on Rama II Road, crushing at least four cars and resulting in two fatalities. Additionally, in the Yellow-line Monorail Project, components of a construction crane fell onto a motorcycle while passing through the intersection of Srinakarin 1 Alley, Bang Kapi District, injuring the rider's left leg.

It can be seen that accidents from large-scale construction projects have become a distressing reality for Thai society. Consumer associations have collected data on construction accidents on public infrastructure between 2018 and 2023.⁴ It was found that there were 11 fatalities and 34 injuries from construction, with a trend of more frequent serious accidents as construction volumes increase without effective supervision. This article discusses the problem of accidents from large-scale construction projects, management of these issues, and systemic solutions to improve safety standards.



A five-ton concrete slab fell from a U-turn bridge on Rama II Road.

Source: www.thaipbs.or.th/news/content/318023

The Construction Industry and Accidents

Statistical data from the Compensation Fund⁵ reveals that **the construction industry has consistently been the leading cause of workplace accidents for several years when compared to other types of work.** Data from 2019 shows that there were a total of 11,599 construction-related accidents, accounting for 12% of all 94,906 accidents, ranging from work stoppages to loss of limbs, disabilities, and fatalities. However, **fatalities from construction accidents were disproportionately high at 29%**, totaling 186 cases out of a total of 639 fatalities. Furthermore, when analyzing 186 fatalities specifically from the construction industry, it was found that:

55 cases are from residential building construction	30%
37 cases are from non-residential building construction	20%
34 cases are from road, bridge, and tunnel construction	18%
18 cases are from public utility projects related to power transmission lines and communication signal lines	10%
19 cases are from electrical installation	10%
23 cases are from other types of construction work	12%

The above data is based on research titled “Assessment of Risk Factors Leading to Accidents in Construction Areas of Thailand’s Mass Rapid Transit Rail System Using Situation Index Format.”⁶ It has been identified that, **during the ten-year period between 2012 and 2022, during which construction of six railway lines in Bangkok and its metropolitan area took place, a total of 417 accidents occurred in the construction areas.** The year with the highest number of accidents was 2016, with a total of 71 accidents.

When compared to the United States, data from the 2021 National Construction Accident Statistics report⁷ shows that construction sites are considered high-risk workplaces for accidents and injuries alike. Twenty percent of workplace fatalities occur in the construction industry. The most common causes of construction accidents in the United States are falls or slips, being struck by objects, electrical shocks, and collapses or being trapped by objects.

The report from An Investigation of Fall Accident in a High-rise Building Project published by IOPscience⁸ echoes the findings in the United States, in that, **falls or slips are the leading cause of fatalities in the construction industry.** Data collected in Indonesia reveals that the highest risk areas for accidents are scaffolding areas at 52%, structural areas at 28%, and working structure areas at 20%.

In the future, Thailand is expected to see a significant increase in large-scale construction projects. This information is based on the SCB EIC Industry Insight Construction Outlook 2023⁹ which states that the government plans to invest in mega projects in Bangkok, its metropolitan area, and regions, particularly in the Eastern Economic Corridor (EEC), such as infrastructure, transportation, highway networks, and rail systems. The increase in these large-scale construction projects may lead to higher risks of accidents if Thailand does not have sufficient preventive measures in place.

What Causes Accidents in Large-Scale Construction Projects?

At 18:10 on July 10, 2023, a loud collapsing sound was heard throughout the On Nut-Lat Krabang elevated expressway area, accompanied by a cloud of smoke and resulting in significant loss of life and property. This shocking event raised questions in society about how it happened. As the smoke cleared, it was explained that the cause of the collapse was attributed to the concrete launcher equipment being unable to withstand the weight, leading to a tipping over, and the concrete roadway being installed between the pillars slipping off from the support beam.

Just two months prior, in the late afternoon of May 7, 2023,¹⁰ footage from a dashboard camera revealed the moment when a highway overpass on Rama II Road collapsed onto the street, resulting in one worker's death and damage to two cars. Mr. Surachet Laopoonsuk, the Director-General of the Expressway Authority of Thailand, inspected the equipment and materials at the accident site, along with experts from the Engineering Institute of Thailand. It was found that there were two causes of the accident:

1 The PT Bar material used in the construction was found to be defective, causing it to be unable to support the weight of the lifted load and to collapse. Although using four PT Bar rods can theoretically support up to four times the weight of the load, if the PT Bar equipment is reused multiple times it may experience material fatigue or impact damage, resulting in internal cracks or flaws that could lead to material failure when subjected to high pulling forces during lifting operations.

2 The workers did not adhere to the proper and complete construction procedures.

Following the aforementioned incident, the Expressway Authority of Thailand implemented safety measures to enhance construction on Rama II Road. Additional measures have been introduced in the short term, as follows:

Set a requirement for Ultrasonic Testing (UT) or Magnetic Particle Testing (MT) of PT Bar materials every 30 spans, previously conducted every 50 spans.

- 2.1 Installation of segments will only occur during road closures at nighttime until the wire pulling process is completed.
- 2.2 Contractors involved in incidents are required to replace the PT Bar set and inspect the material certification before commencing work.
- 2.3 Install primary sensor systems used in segment lifting equipment to monitor operations and provide alerts if equipment exceeds its lifting limits.
- 2.4 Install CCTV cameras to monitor high-risk areas in the launching structure equipment.

However, it seems that these measures have not been very effective, as there have been at least two more accidents in the same year on Rama II Road. On August 31, 2023, construction debris fell onto a tour bus, and on December 15, 2023, a construction steel formwork collapsed onto workers.

The Occupational Health and Safety at Work Association¹¹ has identified that 48% of accidents come from specific construction work, such as foundations, structures, and concrete; 17% come from civil engineering and heavy machinery work, such as bridges, roads, public utilities, and drainage systems; 16% come from building construction, houses, and renovation work; 12% come from electrical, plumbing, HVAC systems, and air ventilation work; and, lastly, 7% come from building decoration work, such as wall decorations, painting, and flooring.

The 2020 research by Suradech Nosoongneun regarding the causes of accidents in large building construction projects¹² included a survey of engineers and safety supervisors, and data analysis revealed that the majority of construction projects with a construction value between 100–500 million baht allocate less than 1% of the total project budget for safety management. **The factors contributing to accidents in construction work include:**

1 **Worker's negligence**, such as loose attire, overconfidence due to long tenure, and physical unfitness for work

2 **Nature of work with potential high risks**, such as temporary structure collapses, use of various tools, machinery, and equipment

3 **Working environment factors**, such as inadequate lighting, excessive dust, loud noise, and working in poorly ventilated areas

4 **Operational errors**, such as worker carelessness, hazards from tools and machinery, dangers from scaffolding, and collapse of material stockpiles

It Is Time to Prioritize Safety Management and Put an End to Recurring Accidents

Assoc. Prof. Dr. Komsan Maleesee, an expert in civil engineering and the President of King Mongkut's Institute of Technology Ladkrabang (KMITL), has come forward with his opinion following the collapse of a large precast concrete bridge segment onto Rama II Road, resulting in fatalities among construction workers. He proposed the following:¹³ **Safety systems in large construction projects should be elevated by enhancing corrective measures and preventive strategies to enhance safety in all construction projects located in areas with traffic and pedestrian movement, both current and future. Contractors should inspect equipment or machinery used in construction that may be defective (and related equipment) before starting work. Traffic lanes should be separated from hazardous construction areas during construction activities. For road users, they should avoid routes with ongoing construction, or if necessary, be vigilant for abnormalities while driving through construction areas.**

In the longer term, the Faculty of Engineering, Department of Civil Engineering at KMITL has also developed a curriculum to enhance knowledge for students who are about to become engineers. They will learn about civil engineering safety measures and undergo training starting from the third year, focusing on "Safety First". This aims to educate them about various types of hazards and safety precautions that may occur on construction sites and in surrounding communities.

Due to several severe accidents occurring in construction projects in 2023, various sectors have begun to awaken and take action regarding the management and control of large-scale construction projects. This movement has been initiated by the Thailand Consumer's Council¹⁴ which invited Prof. Dr. Suchatvee Suwansawat, former President of the Council of Engineers and President of KMITL, has joined in finding ways to prevent future accidents.

Dr. Suchatvee stated that Thailand needs an organization comprised of experts to establish and enforce safety standards. He invited the public to join in signing a petition to demand **the establishment of an independent organization for public safety. This organization would be responsible for overseeing safety independently from construction projects, and would operate with specialized expertise. Furthermore, if such an organization were to be established, it could conduct post-accident inspections to gather evidence according to academic principles, and prepare evidence for delivery to the police and prosecutors after an incident. This would lead to serious prosecution and provide fair and systematic relief to the public.** As of January 6, 2024, it was found that¹⁵ more than 6,000 people have signed up to propose legislation to establish the **"Organization for Public Safety."**

The Consumer's Council has observed a trend towards increasing fatalities from accidents each year due to the growing volume of construction without adequate oversight. Therefore, **the Council has proposed the following recommendations for road and public bridge construction:**

- 1 The Ministry of Transport or relevant authorities must inspect the safety measures of every construction project.** At the very least, there should be parallel safe routes.
- 2 Request that relevant agencies minimize construction time** and avoid prolonged construction periods, as seen with Rama II Road
- 3 Request that responsible agencies and contracting companies for each project have insurance coverage and compensate third parties for damages incurred.** Moreover, they should provide punitive damages, with specific rates, such as compensation of at least 7.5 million baht in case of fatalities.

From the government sector, Mr. Sarawut Songsivilai, the Director-General of the Department of Highways (DOH), has expressed his opinion on penalizing contractors who make mistakes and encounter problems. There is a consideration to downgrade the contractor's classification, delaying their eligibility for new projects, to ensure future work meets standards. The clearest case of penalizing a construction contractor is exemplified by Mr. Pakapong Sirikantaramas the Governor of the Mass Rapid Transit Authority of Thailand (MRTA), who suspended service for the Yellow Line metro system following an incident on January 2, 2024,

when a wheelset fell off a train and struck a parked taxi, causing damage. Similarly, in the case of an overhead wire detachment from the Pink Line metro system, which fell to the ground on December 24, 2023, there has not been a penalty issued due to the lack of an agreement specifying liability.

In this regard, Mr. Suriya Jungrungreangkit, the Minister of Transport, has summoned the company “EBM” under the BTS Group, as the rail operator, to explain the causes of the incident and to discuss penalties with the contracting company in the event of accidents involving train operations. Additionally, regulations are being prepared to penalize and potentially revoke the concession rights of rail operators in the future.

Promote Public Awareness and Knowledge About Safety

Construction sites of large-scale projects are posing a mounting risk to the public.¹⁶ **Waiting for the government sector to address issues alone is not sufficient to reduce loss of life and property among the public. Therefore, raising awareness can help people understand and avoid potential dangers. People need to be informed about the risks of construction projects in their locality through various signs indicating general hazards at construction sites, safety guidelines, and emergency contact information. Additionally, government agencies, local authorities, and construction companies must engage with the community, conduct meetings, training sessions, and address safety concerns for people in the area.**

However, it can be seen that, from the current situation, the approach of state agencies to problem-solving focuses on suspending work and penalizing contractors, without considering building understanding of accident prevention methods for the people in the area. This is no different from the private sector, which often only focuses on safety within the scope of their own operations, without considering the surrounding community. In terms of safety guidelines in construction areas, both from the government and private sector, one will find guidelines only for supervisors, contractors, and workers, without having safety guidelines from a community-based construction perspective.

Going even further, it involves embedding and incorporating safety awareness and precautions for construction sites into school curricula to impart knowledge to children about the dangers that occur. However, such curricula have not been discussed or exist in Thai society. However, when looking at case studies in other countries, it is found that in the city of Surrey, British Columbia, Canada, there have been inclusion of content on the theme “Awareness Building Activities”.¹⁷ This is designed for students in the city to learn risk assessment in various situations, such as identifying dangers when outdoors, planning to avoid potential risks, and teaching observation through learning to explore areas to train children to be observant of their surroundings.

Summary

Each year, there have been numerous accidents resulting from construction projects with several serious accidents occurring in 2023 in both state and private projects. Examples include the collapse of a large precast concrete bridge section onto Rama II Road, the construction of the special project Rama III-Dao Khanong-Outer Ring Road, and the collapse of the elevated construction project On Nut-Lat Krabang. These accidents resulted in numerous injuries and fatalities. To prevent and reduce accidents from large-scale construction projects, the Thai government must enforce stricter regulations and increase penalties for contractors responsible for accidents. Contractors themselves must comply with the law and safety requirements rigorously. Additionally, training for employees and relevant officials is crucial. In the civilian sector, it is essential to receive knowledge about safety and survival in accidents. Furthermore, civil society is striving to establish independent organizations for public safety to independently oversee safety, conduct post-accident investigations for evidence based on scientific principles, and deliver findings to the police and prosecutors after accidents, ensuring serious prosecution and fair compensation for affected citizens.

International Mafia and Addressing the Problem of Cross-Border Crime

“ Currently, international crime cartels have infiltrated and engaged in various illegal activities in Thailand, including illegal entertainment venues, drug trafficking, money laundering, call centers, human trafficking, etc. These mafias threaten to erode Thai society, pose threats to security, and negatively impact the economy. Moreover, some international mafia groups have been able to establish networks with Thai political factions and government officials, resulting in corrupt schemes in numerous projects. ”

Introduction

Since the end of 2022, there have been scandals related to economic crimes associated with numerous international gray economy groups. For instance, Mr. Tuhao has been involved in money laundering, drug trafficking, and illegal entertainment venues. The authorities have seized assets worth over 3,020 million baht, and there have been crackdowns on several ‘gray business’ groups, with many government officials implicated in illegal activities. This includes approving visas for criminal groups using certificates from foundations or language schools, involving over 3,000 people in 2023 alone. These issues have affected human trafficking, security, the informal economy, and society. This article discusses the problems of the activities of the international mafia in Thailand, including the types and forms of international crimes in Thailand, the infusion of gray business from neighboring countries, the impacts on security, economy, and society, and suggestions for solving these problems.

The Issue of International Mafia in Thailand: When the Problem Escalates

In recent years, international mafia groups have infiltrated Thai

society, becoming influential entities engaging in illegal businesses and transnational crimes. They have increasingly oppressed and exploited Thai people but have received protection from state authorities and politically-influential figures who share mutual benefits. However, since 2022, the severity of the problem has escalated. There have been scandals involving ‘gray business’ groups and various transboundary illegal activities linked to Chinese international mafias. These include cases of illegal entertainment venues, drug trafficking, money laundering, call center scams, human trafficking, organ trafficking, and many others, all of which erode Thai society and pose security threats that impact politics, the economy, and social stability.

The Office of the National Economic and Social Development Council (NESDC) reports that¹ transnational crimes have caused significant impacts on Thailand in the following four key aspects.

- [1] **Drug problems:** Importation of precursor chemicals and substances through borderlines and airports, resulting in a drug abuse cycle from production, distribution to consumption, significantly impacting society and the economy.
- [2] **Illegal cross-border labor issues:** Particularly concerning neighboring countries’ workers entering Thailand illegally, leading to criminal activities, public health issues, and becoming a burden on the state in terms of protecting rights and legal status, as well as public services in education, healthcare, etc.
- [3] **Human trafficking issues:** Linked to illegal entry into the country, child labor, and prostitution, Thailand being an origin, transit, and destination country for human trafficking, facing accusations of not complying with international human rights laws.
- [4] **Money laundering problems:** Associated with various illegal activities and connected to other transnational crimes such as terrorism, drug trafficking, human trafficking, intellectual property rights violations, arms trafficking, etc.

As Thailand serves as a hub for trade, investment, tourism, and vital transportation routes due to its strategic location in the region, many international mafia groups tend to infiltrate Thailand to avoid prosecution in their home countries, or to use Thailand as a base for criminal activities in Thailand and neighboring countries. These international

mafia groups often operate covertly, initially blending in as tourists before assuming roles as students, volunteers, or businessmen to reside and conduct business in Thailand. They typically engage in activities prohibited for foreigners, including various illegal businesses such as drug trafficking, human trafficking, and call center scams. Often, Thai individuals are involved as intermediaries for these criminal groups.

The case of Mr. Tuhao is considered an example of gray Chinese business that was exposed after police raided a clandestine pub called Jinling in Yannawa District in Bangkok, which operated without permission. This operation led to the arrest of 237 Chinese tourists and the seizure of a quantity of narcotics, resulting in charges of drug distribution, money laundering conspiracy, and involvement in transnational criminal organizations. Subsequently, investigations were expanded, leading to the arrest of individuals involved, with assets worth over 9 billion baht seized. Tuhao arrived in Thailand over 20 years ago and worked as a tour guide for Chinese tourists in Thailand. He later established relationships with influential politicians, donating 3 million baht to a certain political party. Tuhao obtained Thai citizenship through marriage and rapidly expanded his business empire, starting from the zero-dollar tour to other businesses, e.g., tour company, souvenir shops, latex pillow factories, 'bird's nest' tonic drink, and hotels, along with various illegal enterprises at the same time. Following the arrest of Tuhao, there has been a demand to crack down on gray international business in Thailand, leading to subsequent crackdowns on other criminal networks such as call centers and online gambling gangs.

International Crime Syndicates in Thailand

The problem of transnational crime in Thailand and ASEAN is related to the infiltration of international mafia groups from countries in East Asia, engaging in businesses such as drug trafficking, human trafficking, extortion, gambling, illicit arms trade, prostitution, etc.. Regarding human trafficking, international mafias have increasingly played a significant role because it is a lucrative business with low risks. As for the drug trafficking business, prominent international mafias operating in ASEAN countries mostly originate in Hong Kong, Taiwan, China, Japan, and Latin America.²

In the past, international mafias that have engaged in transnational crime in Thailand have come from various countries, primarily from Asian countries. The significant ones include the following:³ In the past, international mafias that have engaged in transnational crime in Thailand have come from various countries, primarily from

Asia. The significant ones include: ① Yakuza gangs from Japan involved in gambling and money laundering; ② European mafias such as those from Russia, England, and Germany engaged in money laundering, extortion, drug trafficking, and human trafficking; ③ Black money gangs from Africa involved in counterfeit currency production; ④ Chinese triad gangs involved in drug trafficking, human trafficking, sex trafficking, and smuggling of illegal immigrants; ⑤ Call center gangs, predominantly from Taiwan and China; ⑥ Middle East mafia, such as those from Syria, involved in passport forgery, drug trafficking, and human trafficking; ⑦ Cat burglar gangs from ASEAN countries, often involved in high-value thefts and purse-snatching in hotels and jewelry shops; ⑧ International mafias in the Pattaya area engaged in arms trafficking, extortion, sex trafficking, and credit card fraud; ⑨ Beggar syndicates from neighboring countries engaged in robbery; ⑩ Criminal gangs from Southeast Asia specializing in passport forgery; and ⑪ Myanmar criminal gangs focusing on human trafficking and drug trafficking.

Additionally, there is another type of transnational crime that poses a security issue, which is identity fraud. Thailand is used as a hub for forging passports and identities of international mafia groups, as it is a major tourist destination attracting a large number of foreign tourists. This makes it easy for criminals to commit theft of property and documents from victims. International mafia groups often forge passports, driver's licenses, and national identification cards, with their clientele being various criminal syndicates from different locations.

The Problem of Chinese Gray Business

Currently, the "gray Chinese business" or international mafia from China has rapidly expanded its business network to neighboring countries. This is because the Chinese government has intensified crackdowns on corruption and illegal businesses within China, prompting some Chinese business groups involved in gray activities, such as call centers and online gambling, to spread outside the country, especially in the Southeast Asian region, including Thailand. Thailand is a major

destination for Chinese tourists, making it difficult to distinguish between tourists and those traveling for other purposes. Additionally, Thailand's law enforcement of this scourge is ineffective, with some state officials even complicit in activities related to the gray Chinese business group and facilitating various operations.

Information from the Department of Business Development, Ministry of Commerce, reveals that there have been inspections of the “Chinese gray business nominee” group in Thailand in 2023.⁴ The department classified businesses related to gray Chinese business as follows:

- 1 Tourism-related businesses: 161 persons
- 2 Real estate, property holding, and property ownership businesses: 123 persons
- 3 Hotel and resort businesses: 41 persons

The aforementioned gray Chinese business nominees increased in number from 2021, totaling 145 persons divided into tourism-related and affiliated businesses (44), real estate and affiliated businesses (89), hotel and resort businesses (3), and service businesses (9).

Chairirk Keawpromman summarized the situation in an article, “From zero-dollar tour to gray Chinese capital: Implications for national security,” stating that gray Chinese capital groups engaging in gray businesses and criminal activities in Thailand currently consist of five major syndicates. These cartels enter the entertainment industry, and are referred to by the names of their nominees as follows:⁵

- 1 Mr. Tuhao, also known as Hao Che Tu, owner of the Jinling Pub and businesses related to Chinese tourism
- 2 Mr. David, also known as Xu Tai Wei, owner of the Baby Face Shop in Klong Tan District
- 3 Mr. Yu Chang Fei, owner of Club One in Pattaya
- 4 Mr. Tony, owner of Space Plus in Bangkok
- 5 Mr. Ming, Top One shop at Sutthisan

Each group will have networks and nominees to conduct gray business and various crimes. Currently, the police have been able to arrest four of the five nominees listed above, with only Mr. Ming remaining at large, who has fled the country.

On November 17, 2023, Police Lieutenant General Jirabhop Bhuridej, the commander of the Central Investigation

Bureau, announced the operation to dismantle a call center gang after deploying forces to search five target areas in Bangkok, Nonthaburi, Samut Sakhon, Chiang Rai, Surat Thani, and Sa Kaeo. They were able to arrest five suspects involved in the aforementioned operation, including Thai, Chinese, and Cambodian nationals, all of whom jointly faced charges of deceiving the public by importing false information into computer systems, participating in transnational criminal organizations, conspiring to launder money, and collectively engaging in money laundering.⁶

During the investigation, it was also discovered that there is a group of criminals who impersonated the Facebook pages of the Central Investigation Bureau and other agencies such as the Department of Special Investigation (DSI), the Cyber Crime Investigation Bureau (CCIB), and various non-existent organizations, including investment scam websites. More than 133 websites were used to deceive the public. They used Google Ads to target individuals searching for “file a complaint online” to offer consultation services regarding the cases they intended to report. They informed victims that the money they lost or were deceived into sending had been laundered through foreign online gambling websites, claiming that they could retrieve the money if they followed their instructions. Victims were then directed to fraudulent websites where they were required to pay additional fees. These fraudulent websites utilized IP addresses from Cambodia. The criminal group used ghost accounts to receive transfers from victims, then transferred the money to various other ghost accounts before converting it into cryptocurrencies through different platforms and forwarding it to higher-level



“Tuhao” along with his lawyer turned himself in at the Police Club.

Source: www.thaipbs.or.th/news/content/321855

commanders' or investors' wallets. Since June 2023, it has been found that the turnover of funds in the ghost accounts and digital wallets of the criminal group amounts to over 7 billion baht, leading to the arrest of 12 key suspects involved in the operation, including staff, programmers, money launderers, and high-level commanders or investors. Among them, there are eight Thai nationals, one Cambodian, and three Chinese nationals. One of them is Mr. Hong Wei Liang, a Chinese national believed to be a key suspect and the owner of the aforementioned fake website.

These transnational crimes not only permeate Thai society at large, but also penetrate into the policy level of the government through the establishment of associations that play a role as networks, evolving into a national-level corruption scheme in various projects. The most recent case involves the illegal importation of pork, with tens of thousands of containers valued at over 6 to 7 billion baht causing damage through false declarations. State officials have been implicated in these activities as well. The quality of the pork cannot be controlled, especially the diseases that come with this pork, which could lead to serious health complications.⁷ For example, there could be food poisoning, or outbreaks of disease transmitted through the pork that could spread to animals, causing contagious diseases in pigs as well. The Department of Special Investigation, or DSI, refers to these operations as “criminal organizations affecting food and agriculture security.”⁸ Next, police arrested Sheng Jiao Li⁹ or Hia Kao, a cartel leader who also held the position of chairman of the Thai-Asia Economic Exchange Trade Association, and his son, along with others, totaling four arrests. They were apprehended after evidence was found of clandestine smuggling of counterfeit chicken feet abroad, and links were discovered to the aforementioned counterfeit pork case as well. There were reports that, among those arrested were individuals closely associated with former government ministers, including company directors involved in the counterfeit pork trade and groups involved in money transfers, with clear financial connections.¹⁰

Prof. Dr. Pinkaew Laungamsri from Faculty of Social Sciences of Chiang Mai

University,¹¹ analyzed these various cases and found that there are several factors contributing to the expansion of the “gray Chinese capital” group beyond their own country. The first factor, starting from 2018, is that the Chinese government began cracking down on organized crime in the country, known as the “sweeping dark and evil forces,” followed by the enactment of laws against organized crime in 2021. The second factor was the emergence of the Belt and Road Initiative (BRI), or One Road, One Belt which opened up opportunities for gray businesses to tap into the BRI trend by creating a new image for gray businesses, such as building new cities connected to the BRI route to cover up illegal activities. The third factor is that most countries in Southeast Asia have largely welcomed investment from Chinese investors, leading gray Chinese capitals to use these countries as bases for illegal activities. Lastly, despite China’s heavy crackdown on organized crime, it has not significantly reduced the demand for online gambling, allowing online gambling and call center gangs to relocate their operations to countries with lax legal systems.

Impact of the International Mafia Gangs

The report “Transnational crime problems in Thailand” by the Royal Thai Police¹² summarized the impact of transnational crime as follows: The United Nations has considered transnational crime as a new threat that affects the security of states and their people in society. It undermines the strength of political institutions, economies, and societies, as well as reduces the level of trust in the state to maintain peace and protect its citizens. This could potentially impact the country’s development by reducing the state’s ability to provide basic services to its people and causing significant damage to the economy, up to 3.6% percent of global GDP. The UN estimates that money laundering alone accounts for up to 2% of international GDP.

Transnational crime has implications for the security of countries in multiple dimensions, and in some countries, transnational crime is closely linked to political institutions and law enforcement agencies. Therefore, governments need to establish policies and legal measures to address transnational crime appropriately and effectively to minimize losses and damages resulting from the illegal activities of transnational criminal organizations. Collaboration should be sought with various countries at the government, business, and citizenry levels. The impact of Chinese gray business groups engaging in business or committing crimes in a country can be considered from three perspectives,¹³ as follows:

Economic • Competition with Thai entrepreneurs is intensified by Chinese capital groups entering to purchase Thai businesses, factories, hotels, land, and Thai-owned

enterprises. This poses a threat to the livelihoods of Thai people because these Chinese funds use nominees to enter into business acquisitions or establish companies, bypassing taxes that Thai entrepreneurs are required to pay. Foreign investors only need to find “nominees” to lease agreements to establish businesses without paying taxes, and the majority of their income is sent back to their home country. Moreover, Thailand is also used as a base for laundering money obtained from transnational crime and gray businesses abroad. This money laundering can be conducted through various methods, such as buying and selling stocks on the Thai stock market, where Thailand lacks regulations to verify the sources of funds used to purchase stocks.

Political • Since these gray Chinese capitals aim to establish networks to facilitate gray business operations or various criminal activities, these capitals must seek cooperation with politicians. For example, Tuhao provides support to political parties or establishes close relationships with politicians. As seen later, after the Jinling Pub was raided in October 2022, on November 1, 2022, the police raided the house of a former minister, accusing him of involvement with gray Chinese capital. This created political instability and became leverage for opposition parties to attack the government. Additionally, it may also affect the relationship between Thailand and China because the gray Chinese capitals use Thailand as a base for call centers that scam people in China.

Societal • The spread of drug addiction, which impacts the health of Thai people, leads to various crimes every day. Part of this arises from the fact that people can easily access drugs through the services provided by gray Chinese business, often with the help of corrupt government officials. For example, in the case of Tuhao alone, more than 100 government officials, including immigration officers, local police, special investigation department officers, prosecutors, and administrative officers, were accused of involvement. Additionally, there have been many instances of setting up foundations and informal schools in the northeastern and northern regions to camouflage and assist Chinese nationals, providing visas for students and volunteers totaling 7,000–8,000 annually.¹⁴ This has led to the rapid growth of the gray Chinese economy movement, and its erosion of Thai society. Furthermore, there have been attempts of foreign gang members to marry Thais to obtain Thai citizenship, or even when a Chinese woman becomes pregnant, she requests a Thai man to acknowledge paternity so that the child can obtain Thai citizenship. Chinese individuals have been known to carry Thai national ID cards, as well as engage in surrogacy.¹⁵ These are forms of human trafficking, and shows that the perpetrators do not fear prosecution in Thailand.

Suggestions for Combating the International Mafia

Although Thailand has the Anti-Participation in Transnational Organized Crime Act, B.E. 2556, to combat involvement in transnational organized crime, that law has not kept pace with the cunning tactics of gray capital. The report “Strategies for Preventing and Addressing Transnational Crime Problems, 2015–2021” by Office of the National Security Council under the Office of the Prime Minister,¹⁶ summarized the evaluation of the implementation of activities related to preventing and controlling international crime syndicates, and identified significant problems and obstacles as follows:

- 1 On the national policy front**, Thailand focuses on economic development, promoting tourism, and becoming a regional hub in various sectors. This provides opportunities for individuals to easily engage in illegal activities.
- 2 Regarding the state mechanism**, there are significant challenges including governance, enforcement of law and database systems, state personnel, tools and technology, and budget allocation which can be exploited.
- 3 In terms of public awareness**, the majority of the population still lacks awareness of the dangers and impacts of transnational crime, viewing them as distant from their daily life. This results in some segments of the population becoming victims, and a lack of citizen cooperation with the government investigations.
- 4 In terms of international cooperation**, there is a need for increased collaboration with neighboring countries to address transnational crime. This includes proactive measures to seek benefits from frameworks or mechanisms of cooperation at both interregional and multilateral levels.

As far as problem-solving strategies outlined in the **Strategies for Preventing and Addressing Transnational Crime Problems, 2015–2021** by Office of the National Security Council, the following key strategic points have been identified:

1 Regarding law and law enforcement, there should be a review and improvement of laws, regulations, measures, practices, and penalties to make them contemporary, effective, and suitable for addressing the situation and problems. Laws should be rigorously enforced to prevent and combat individuals, groups, movements, or organizations involved in transnational crime in all forms.

2 In terms of intelligence, emphasis should be placed on intelligence to prevent and monitor the expansion or development of transnational crime. Strengthening the efficiency of mechanisms and coordination systems between intelligence agencies to promote platforms for dialogue and exchange of information and intelligence, situation assessment, and knowledge on transnational crime problems should be prioritized.

3 Cooperation with Thai citizens should focus on enhancing the capacity of individuals and communities, especially in vulnerable areas. Promoting social institutions/organizations such as family institutions, educational institutions, religious institutions, etc., to strengthen the resilience of the population, emphasizing the role and participation of local communities, and promoting relationships and cooperation between Thai border communities and neighboring countries in monitoring transnational crime problems should be emphasized.

4 Collaboration with the private sector should involve developing mechanisms or promoting partnership projects between the public and private sectors concretely to prevent and address transnational crime. Promoting corporate governance principles and developing measures to promote transparency in private sector business should be prioritized.

In addition to addressing the above-mentioned issues, **cooperation between the Thai government and China is particularly important in helping to alleviate the problem of gray Chinese business.** This issue is a cross-border problem that affects the relationship and sentiment of people in both countries. Thai society itself must not condone participation as nominees or provide assistance to transnational mafia groups.

Apart from state-level problem-solving, citizens themselves can also play a crucial role. Currently, many educational institutions are beginning to organize group activities to educate youth about the problems arising from transnational criminal groups, such as the issue of call center, as seen in the “Uncle, Auntie, Please

Don’t Fall for These Money Scams” project by the Faculty of Social Sciences, Kasetsart University.¹⁷ That project provides knowledge to older Thais about the operation of call center gangs and the resulting impacts. Additionally, there are several foundations that are increasingly focusing on the issue of transnational crime. For example, the Immanuel Foundation, established by the Immanuel Church, fights against human trafficking in Thailand. They provided assistance to 266 Thai individuals who were deceived into working in the city of Laokai in Myanmar and had to flee and fight for their lives.¹⁸ The Immanuel Foundation took on the task of coordinating assistance for the victims with the Thai embassy in Myanmar until they finally were able to return to Thailand. Another case is that of Mr. Chuwit Kamolvisit, a former politician who exposed information about Tuhao, the owner of the Jin Ling nightclub, by releasing CCTV footage from inside the club. This revelation sparked widespread public outcry, leading to the eventual intervention of state agencies to clean up these influential groups.

Summary

Thailand has long faced the problem of transnational crime, with international mafia groups taking advantage of Thailand’s open policies promoting tourism and attracting foreign investment as avenues to engage in illegal activities. They exploit Thai intermediaries and collude with state officials. However, following crackdowns on transnational crime syndicates in China, many grey business groups have relocated to Thailand and neighboring countries in Indochina. Over the past 4–5 years, they have engaged in various forms of transnational crime, impacting Thailand in multiple aspects. However, the state has been ineffective in addressing the transnational mafia issue. Therefore, it is imperative for the government to elevate transnational crime as a national agenda, improve legal systems and mechanisms to tackle the issue, cooperate closely with neighboring countries, coordinate with citizen networks to empower the people and society in monitoring, coordinate news, and raise awareness widely among the public to prevent them from easily becoming victims of transnational mafia.

Thai Migrant Labour in the Middle East: Crossroads Between **Wealth** and **Security in Life**

“ Although Thailand has continuously designed systems for exporting and monitoring the quality of life and work of Thai labour in the Middle East, it cannot be denied that there are still vulnerabilities that lead to problems and challenges in various aspects.

Justice – War – Health are the three challenges challenging the security of life for Thai labour. ”

Introduction

The war between Israel and Palestine since October 2023 has significantly affected a large number of Thai labourers. Many Thai workers have lost their lives, and several others have been detained as part of the conflict. Additionally, thousands of Thai labourers have been repatriated to Thailand. According to the Ministry of Labour, as of September 2023, there were a total of 28,364 Thai workers in the Middle East, with the vast majority working in Israel, totaling 25,887 individuals. The losses experienced by these Thai labourers reflect the risks and challenges faced by Thai workers in the Middle East, including conflicts among ethnic and religious groups, escalating geopolitical tensions, debt issues from loans taken for overseas employment, deception, working conditions, and labour protection problems. This article discusses policies and measures for the deployment and protection of Thai migrant labour, the employment situation of Thai workers in the Middle East, their welfare, various challenges, and approaches to protect them.

Six Decades of Thai Labour in the Middle East

The decade following 1967 was a significant milestone when a large number of Thai labourers began traveling abroad for work under the state's support. The government started sending labourers to countries that had been inspected and authorized since 1973. Several factors promoted this, including:

[1] In 1975, Thailand faced economic and political challenges after the withdrawal of American military bases from the country. This left many Thai labourers who had previously worked at these bases suddenly unemployed, prompting them to seek new employment opportunities, including in the overseas labour market, particularly in the Middle East.

[2] During the same period, Middle Eastern countries such as Saudi Arabia, the United Arab Emirates, Libya, Iraq, Iran, and Kuwait were prospering due to oil sales. They embarked on major infrastructure development projects, opening up their labour markets to foreign workers. Thai labourers were in demand in the Middle East due to their skills, many of whom had prior experience working at US military bases, as well as ability to speak various languages.¹

In the Middle East region, the deployment of Thai labourers is often facilitated through job placement agencies, which offer high wages and compensation rates. This enables Thai workers to have sufficient income and remit a significant amount of money back to their families, thereby improving the quality of life for both the labourers and their families. The two decades from 1967 to 1987 were considered the golden era for Thai labourers, to the extent that the saying “If you want to be wealthy, go dig for gold in Saudi Arabia” emerged. However, in 1990, the Middle East region was beset by the Gulf War, which subsequently led to a decline in the Thai labour market in the Middle East region.

As a result, Thailand has expanded its labour exports to other regions, particularly in the East Asia region. Currently, the main markets for Thai labourers consist of four regions:

1 East Asia: Main target countries/territories include Taiwan, Japan, and Hong Kong. Thai labourers mostly choose to work in the manufacturing and construction sectors in this region.

2 Middle East: Main target countries include Israel, the United Arab Emirates, Qatar, Kuwait, and Bahrain. Thai labourers enter various sectors such as construction, nuclear plants, service industry, and agriculture.

3 European Union: Thai labourers traveling to work in the European Union often possess specialized skills, such as Thai cuisine chefs, Thai traditional massage therapists.

4 North America: Thai labourers who travel to work often take up positions as chefs or service staff in Thai restaurants, but mostly engage in undocumented work, and are referred to as “Robinhood.”²

The Israeli market for Thai labour began to grow in 1995 when Israel increased the quota of Thai labourers they would permit to work there. This happened concurrently with a period when Taiwan, which used to be a significant labour market for Thais, decreased its demand for Thai labourers. As a result, some Thai labourers turned to become agricultural workers in Israel.³ The Overseas Employment Administration Division of the Thai Ministry of Labour, posted data showing that, as of September 2023, **there were still 128,982 Thai labourers working abroad. Among them, 28,364 were working in the Middle East, with Israel having the highest number at 25,887.**

Information from Thai embassies in various countries in the Middle East, e.g., United Arab Emirates, has revealed trends and opportunities for Thai labourers. There is demand in the construction sector for skilled labour, including welding, carpentry, and service sector jobs like massage therapist and chef, through government-to-government employment schemes. However, Thai labourers need to develop their skills, especially in English language proficiency, more broadly and specifically.⁴

Want to Go Gold Mining or Continue to Struggle to Survive?

Although there is a saying that working in the Middle East is like gold mining, easily understood that it offers higher wages and compensation than work in Thailand. In reality, there are other factors that motivate and drive Thai labourers to move abroad. Sansanee Chimchome’s

research has reviewed literature and summarized the ideas related to Thai labourers’ decision-making process to work abroad, identifying three main aspects, as follows:⁵

1 Economic incentives: Due to better wages and a conducive environment that matches their skills, they have opportunities for work relocation. They already have jobs but seek advancement or relocation for better positions.

2 Social incentives: This includes motivation related to higher education and family-building.

3 Lifestyle motivations: These individuals seek a change in lifestyle due to boredom, dissatisfaction with their current lifestyle, or a desire for a more vibrant and exciting life.

In their study on the motivations for Thai nurses to relocate abroad, *Krisada Sawae-ngdee et al.* found that the **main incentives** for nurses to move overseas were:

- 1 better compensation
- 2 seeking new experiences
- 3 building a future for their families
- 4 pursuing a better quality of life
- 5 seeking educational opportunities

Additionally, they identified three **factors that discouraged nurses** from continuing to work in Thailand, including:

- 1 dissatisfaction with the working conditions and environment
- 2 lack of personal and professional advancement
- 3 inadequate compensation not commensurate with workload⁶

If we examine the motivations for traveling to work in the Middle East region, Peera Chaichan's study indicates that the reasons Thai workers choose to travel abroad for work include the desire for higher income to improve their living standards, seeking new experiences, earning money to redeem mortgaged assets, and to repay debts.⁷

Policy to Export and Protect Thai Migrant Labour in the Middle East

The demand for work in the Middle East by Thai labour has led both Thai government and related agencies in Thailand and destination countries to design systems and measures to support the recruitment, reception, and protection of labour comprehensively and efficiently. **Currently, there are five legitimate channels for sending labour to work abroad, including**

1 Employment agencies

2 **The Thai Department of Employment's employment services**, a government service that sends people abroad for work without charge, except for necessary expenses such as airfare, visa fees, airport taxes, fund membership fees, and accommodation expenses before traveling

3 **Traveling to work independently**, where job seekers contact foreign employers directly or workers who have completed their contract agreements and wish to return to work again must notify the Department of Employment at least 15 days before traveling

4 **Employers in Thailand taking employees to work abroad**, with employers in Thailand that have affiliated companies overseas or engage in overseas bidding, sending employees from Thailand to work, but they must obtain permission from the Department of Employment

5 **Employers in Thailand sending employees for training abroad**⁸

An example of a project facilitated by the government to work in the Middle East is the **Thailand-Israel Cooperation on the Placement of Workers (TIC) program**, aimed at **sending Thai labourers to work in agriculture in Israel**. This is a state-to-state employment system managed by the Department of Employment, the Overseas Employment Administration Division, Ministry of Labour. To apply for this program, applicants must meet specified criteria, such as being age between 23 and 39 years old, having never worked in Israel before, and being in good health with no color blindness. The pre-travel expenses for working in Israel amount to 70,350 baht. The selection process involves screening qualifications, suitability for the job position, interviews, and submitting a list to employers and recruitment agencies in Israel for job confirmation before preparing for the journey. **The Ministry of Labour reported that the average income for Thai workers in Israel is approximately 55,000 baht per month. The permission to work there will be valid for 5.3 years only.**

For the deployment of labour to work in Saudi Arabia, there are currently more than 20,000 Thai workers in the country, particularly in the western region, with around 15,000 being contractually deployed workers (legally), and approximately 4,000 being Umrah visa-holders or those seeking alms and about 11,000 evading work (illegally), 11,000. However, Thailand has sought to restore its relations with Saudi Arabia and has made efforts to negotiate a memorandum of understanding on labour cooperation between Thailand and Saudi Arabia. If successful, this could result in Thai workers having the opportunity to return to work in Saudi Arabia once again after Saudi Arabia suspended issuing work visas to Thai workers for over 30 years. Initially, the process of deploying Thai labour to Saudi Arabia would be state-to-state to prevent commission fee or fraud and to ensure the rights and welfare of Thai workers are protected. Moreover, Saudi Arabia itself has measures to ensure the quality of life and welfare of foreign workers, including the E-Contract Program, which aims to maintain the rights of employees and reduce conflict between employees and employers through electronic employment contracts.⁹

The Thai government established a strategy for managing the sending of workers to work abroad for the period 2017–2021 under the vision “Thai Workers Working Abroad Have Potential, Receive Protection According to International Standards, and Sustainably Enjoy a Good Quality of Life.” This strategy consists of four key strategies:

- Strategy 1** is to develop an integrated system, mechanism, and database for Thai workers abroad
- Strategy 2** is to enhance the potential and readiness of Thai workers before going to work abroad
- Strategy 3** is to promote the return of workers with sustainable good quality of life
- Strategy 4** is to maintain and expand the Thai labour market abroad.¹⁰

“Justice – War – Health” Three Challenges to the Stability of Thai Workers’ Lives

Although the Ministry of Labour has been striving to design systems for the dispatch and monitoring of the quality of life and work of Thai labourers in the Middle East continuously, it cannot be denied that there are still loopholes that lead to problems and challenges that Thai workers must face and cope with in various aspects. It is possible to summarize at least three significant problems, as follows:

The Issue of Fair Employment Practices

BBC-Thai exposed various forms of discrimination and violations of Thai labour rights in Israel, ranging from receiving compensation below the legal minimum to working conditions not in line with contracts. Many work six days a week, with working hours exceeding 10 hours per day. In October 2017, Thai workers had scheduled a work stoppage protest due to employers not paying salaries for more than two months. Additionally, a study in 2021 by *Kav LaOved* (an organization assisting foreign workers in Israel) and *Physicians for Human Rights–Israel* revealed that foreign agricultural labour work hard in hot weather conditions, sometimes facing dangers from the heat, and reside in substandard accommodation.¹¹

Conflict and Instability in the Middle East

This is considered a long-standing and escalating issue, especially with the frequent outbreaks of violence. In particular, the conflict between Israel and Hamas has had a significant impact on Thai workers in Israel, totaling approximately 30,000 individuals. During the escalation of conflict on October 7, 2023, it was found that over 5,000 Thai workers were in high-risk areas. As of November 21, 2023, data shows that more than 39 Thai individuals have lost their lives due to violence between the two sides, and 26 have been detained.¹² This reflects threats to life of Thai workers and their escape for survival from war.

Health Risks

BBC-Thai reported on issues regarding the health and living conditions of Thai workers in the Middle East. The living conditions are described as unsanitary, with many living in makeshift accommodations resembling slums. Additionally, it was found that workers handle pesticides without adequate protective equipment. This frequent exposure to pesticides affects their respiratory and nervous systems. Subsequently, the Israeli government enacted regulations stipulating that workers who handle pesticides must wear protective clothing, masks with filters, boots, and gloves.¹³

In addition to the aforementioned issues, **Thai workers also face at least three more challenges.**

- 1 Lack of education and language skills,** such as English and Arabic, which are relatively low among Thai workers, making it a weakness in accessing higher-level jobs.
- 2 Challenge to adjust to the local life-style** due to the predominantly Muslim nature of Middle Eastern countries, which have different customs, cultures, and restrictions compared to Thai society. For instance, alcohol consumption, gambling, and extramarital relations are prohibited, with severe penalties, leading to difficulties in adaptation and potentially mental health issues.
- 3 Discomfort with extreme weather conditions,** both extremely hot and cold

In response, various Thai government agencies have attempted to address the issues and challenges through a variety of approaches and activities. For instance, they have established a **LINE app Official Account called “Thai Workers’ Support Abroad”** by the Institute of Occupational and Environmental Medicine, Nopparatjathanee Hospital, to provide assistance and health-related information to Thai workers abroad. This platform offers various functions, including medical history consultations, doctor appointments for workers needing medical advice on illnesses, and disease knowledge related to work. Additionally, to address unfair employment practices, Thai workers can directly file complaints with overseas labour offices where they are employed. Furthermore, **a fund has been established to assist those seeking employment abroad**, with members entitled to increased benefits.¹⁴ Moreover, there are efforts to **enhance the skills of Thai workers**, such as providing training to improve foreign language skills. This training is primarily hosted by government offices and skill development institutes, covering languages such as English, Chinese, Japanese, Korean, and languages of ASEAN member countries.

In addition, other sectors also make efforts to protect and assist Thai workers. A clear example is **the establishment of a legal aid center by the Thai Lawyers Council to assist Thai workers affected by the unrest in Israel**. This center provides legal consultation, disseminates legal knowledge, facilitates access to legal representation, seeks facts and evidence, and serves as a central coordinating body to collaborate with government and private sector agencies, both domestically and internationally, to assist Thai workers.¹⁵

The Israel-Hamas Conflict and the Protection and Assistance for Thai Workers

When the recent conflict between Israel and Hamas erupted, Thailand implemented measures to protect and assist in evacuation. The Thai government arranged flights to evacuate at least 9,000 Thai citizens back home. Coordination was made with the United

Arab Emirates to facilitate the accommodation and transportation for Thai workers more efficiently and in larger numbers. However, there has been criticism that the Thai government’s assistance came later than it should have, resulting in the loss of lives of up to 39 Thai workers, and 26 being detained. Suthasinee Kaewleklai, Deputy Director of the Labour Rights Foundation, revealed to the BBC that the government’s assistance to workers in Israel came very late after the attacks by Hamas on October 7, 2023, and lacked timely information.¹⁶

As for **the measures for relief and assistance to access new employment**, there are at least four main measures, including:

1 Relief: Thai workers who are members of the Fund for Thai Workers Seeking Jobs Abroad will receive immediate financial assistance of 15,000 baht from the Ministry of Labour upon their return to Thailand, as part of their welfare benefits. In addition, families of deceased workers will receive 40,000 baht for funeral expenses, and each family will receive 40,000 baht in relief. Injured workers will receive 15,000 baht in relief.

2 Finding new jobs, both domestic and overseas: The Ministry of Labour will negotiate with Thai workers who have not yet completed their contracts and wish to return to work in Israel when the situation stabilizes. They will also inquire about the willingness of workers. If they do not wish to return to work in Israel, they can express their desire to travel to work in another country. For those who wish to work in Thailand, the Ministry of Labour will find jobs for them.

3 Skills training for new occupations through the Department of Skill Development: Workers can receive additional vocational training and engage in livelihood pursuits.

4 Ensuring benefits and unpaid wages: Coordinating with employers to arrange for payment of outstanding wages. Additionally, there are assistance measures from the Israeli government. In case of injuries, if the injury is between 10% and 19%, compensation of 1.4 million baht will be provided. If the injury exceeds 20%, lifelong care will be provided. In case of death, the wife will receive a monthly allowance of over 30,000 baht until remarriage, and children will receive care ranging from 10,000 to 15,000 baht per month until the age of 18.¹⁷

Policy Recommendations

Due to the various problems and challenges faced by Thai labourers in the Middle East, the relevant sectors should engage in discussions and exchange policy perspectives to enhance the quality of life and safety of Thai workers. **The Central Labour Market Information Administration Center has made some interesting recommendations**, as follows:

- 1 Government agencies and related organizations should raise the standards of Thai labour skills, especially in language and technology**, to reduce the disadvantages of Thai workers. This can be achieved by expediting the development of theoretical and practical curricula for teaching and learning.
- 2 Negotiations should be conducted with host countries to address issues faced by Thai workers in cases of problems arising from foreign employers.**
- 3 Large-scale data should be compiled for studying behavior, work patterns, income, and other information to improve the deployment of labour abroad**, protection and care for workers, repatriation of workers, and reintegration upon their return from abroad.¹⁸

Regarding the protection of labourers from the volatile situation in the Middle East, Suthasinee Kaewleklai, Deputy Director of the Labour Rights Foundation, suggested through BBC-Thai that the government should handle at least four aspects, namely:

- 1 The government should assess the potential risks of each country before signing Memoranda of Understanding** to send Thai workers abroad.
- 2 The Thai government should take action or impose penalties on agencies or employers who exploit Thai labourers in risky areas** instead of repatriating them.
- 3 The government should focus on creating job security domestically by ensuring fair and adequate wages**, providing another option for Thai workers who do not wish to travel abroad for work.
- 4 Approval should be granted for a special fund of 15,000 baht to assist workers abroad. Their families should receive this fund immediately** without the need for documentation to prove the actual impact.¹⁹

Summary

The migration and relocation of lives to work in the Middle East have been ongoing for a long time. Economic factors, particularly the relatively high compensation, are significant attractions. However, Thai labourers in the Middle East still face social, health, and security challenges due to frequent unrest, affecting their lives and well-being. Additionally, unfair employment practices exacerbate their vulnerability. All parties should continuously address these challenges. The government has introduced innovations and improved communication systems to better protect Thai labourers. However, there are many other tasks that need serious attention. For instance, there is a need to protect Thai workers from forced labour by cooperating with destination country governments to regulate employers, providing welfare and well-being support in remote and risky areas. Most importantly, there needs to be more effort to develop the skills and expertise of Thai labourers to negotiate with employers and assert their rights effectively, as well as enhancing opportunities and potential for returning workers in Thailand.

Air Pollution Claims 30,000 Thai Lives per Year: It's Time to Demand the Right to Clean Air

“ The Ministry of Public Health reports that in 2020, there were a total of 6,880,709 cases of illnesses possibly related to air pollution nationwide. The majority were respiratory diseases, followed by skin inflammation, conjunctivitis, and cardiovascular diseases, including stroke. The World Health Organization (WHO) reported in 2018 that Thailand had 33,456 deaths attributed to air pollution. ”

Introduction

In 2023, air pollution and dangerous PM_{2.5} levels covered Thailand from the northern regions to the upper Gulf of Thailand for an extended period, resulting in significant health problems for many people. Surveillance data of illnesses related to air pollution between January 1 and March 19, 2023, found a total of 1,730,976 cases, with respiratory diseases, skin inflammation, and conjunctivitis being the most prevalent. **PM_{2.5} can infiltrate the body and damage various organ systems, leading to chronic diseases and cancer. It can cause a wide range of illnesses, including respiratory diseases, emphysema, skin diseases, cardiovascular diseases, and conjunctivitis.** The incidence of lung cancer in Thailand has been increasing annually, with 122,104 reported cases in 2020, equivalent to 186.26 per 100,000 population. This article discusses the issue of air pollution, particularly PM_{2.5}, and its health impacts in Thailand, emphasizing the need for PM_{2.5} standards, legislative developments, and problem-solving strategies.

Air Pollution and Health Impacts

Thailand is one of the countries facing high levels of pollution, ranking 28th out of 98 countries worldwide in the 2019 World Air Quality Report by IQAir. This especially affects areas like Bangkok and Chiang Mai, where the Air Quality Index (AQI) has risen to potentially hazardous levels. Particulate matter with a diameter of 2.5 micrometers or less, known as PM_{2.5}, has exceeded the WHO recommended levels by up to double.¹

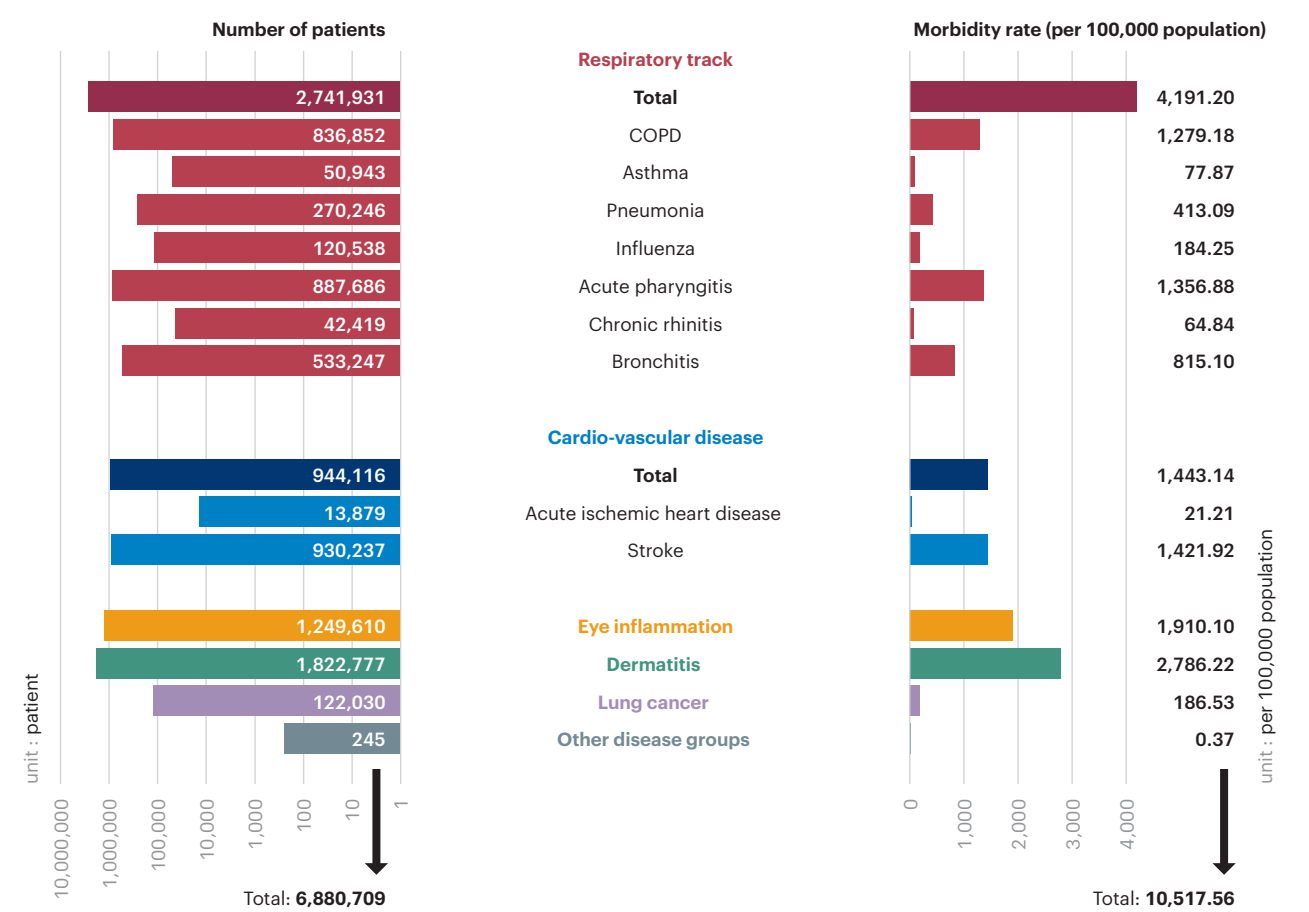
The health impacts of PM_{2.5} affect both external organs such as the eyes and skin, as well as internal organs along the pathways into the body. This includes the respiratory tract, starting from the nasal cavity, throat, airways, and alveoli in the lungs, affecting the respiratory tissue, immune system, and other lung structures. It extends to impact the bloodstream, particularly the vessels in vital organs like the heart and brain, as well as various internal organs throughout the body. Air pollution thus becomes a significant health risk factor, increasingly recognized both academically and policy-wise over recent years. **The health consequences of PM_{2.5} exposure include acute and chronic effects, contributing to increased respiratory infections and, importantly, non-communicable diseases of various organs.**²

In this regard, **deaths attributed to air pollution in Thailand, as reported in the WHO database in 2018, amounted to a total of 33,456 individuals, or approximately 48.71 deaths per 100,000 population. These fatalities were categorized into five disease groups: lower respiratory tract infections, lung cancer, ischemic heart disease, cerebral vascular disease, and chronic obstructive pulmonary disease.**³

Although reports on diseases related to air pollution in Thailand from the WHO database, coupled with Thailand’s recurring air pollution episodes over the past decade, have raised widespread awareness about air pollution, health impact data remain severely limited. Even if state agencies rely on data from the WHO, the completeness is questionable as sources are not clearly cited for public scrutiny, nor are the data collection methods well-explained. Moreover, presentations of health impact data in Thailand from various sources, including the Thai government, vary significantly. **While death data from all disease groups in Thailand are available for all 77 provinces, only a few provinces have sufficient air pollution and meteorological data.** This limited availability of data impedes the Ministry of Public Health’s ability to analyze the relationship between air pollution and mortality in some provinces, as it has only begun such analyses in recent years. Therefore, the development of Thailand’s health impact data remains constrained and necessitates extensive research and data collection efforts.

Accordingly, in 2021, the Ministry of Public Health (MOPH) started collected data related to air pollution from various health regions nationwide. **In the Health Situation Report from the Health Data Center (HDC) 2020, it was found that the number of patients with diseases potentially related to air pollution in Health Regions 1–13 was significantly high, totaling 6,880,709 cases, equivalent to a morbidity rate of 10,517.6 per 100,000 population.** The respiratory disease group was the most prevalent, with 2,741,931 cases (a morbidity rate of 4,191.2 per 100,000 population), followed by skin inflammation with 1,822,777 cases (a morbidity rate of 2,786.2 per 100,000 population), conjunctivitis with 1,249,610 cases (a morbidity rate of 1,910.1 per 100,000 population), cardiovascular diseases including stroke with 944,116 cases (a morbidity rate of 1,443.1 per 100,000 population), lung cancer with 122,030 cases (a morbidity rate of 186.5 per 100,000 population), and other diseases with 245 cases (a morbidity rate of 0.37 per 100,000 population) (Figure 1).⁴ In this regard, the upper northern region, which comprises a group of provinces in the northern part of Thailand, has the highest number of patients, primarily with respiratory tract obstructions, conjunctivitis, and skin inflammation.

Figure 1 Number of Cases of Illness Possibly Attributable to Air Pollution in 2020



For the Bangkok metropolitan area, in the Health Situation Report monitoring the health impact of PM_{2.5} air pollution from January 1, 2020, to October 26, 2021, it was found that there was an increasing trend in the number of patients with respiratory and cardiovascular diseases during periods of elevated PM_{2.5} levels. According to hospital diagnosis reports from the surveillance network hospitals, during the period of PM_{2.5} air pollution (November 2020 - March 2021), there were 2,631 patients treated, consisting of 970 cases (36.8%) of asthma, 912 cases (34.7%) of chronic obstructive pulmonary disease (COPD), 730 cases (27.8%) of other respiratory diseases, and 19 cases (0.7%) of acute myocardial infarction. Among these patients, 1,664 (63.2%) were treated in the emergency department, and 967 (36.8%) were treated as outpatients. In sum, when comparing disease incidence to the average PM_{2.5} levels, it was observed that there was a consistent increase in patient numbers during periods of air pollution crisis and elevated PM_{2.5} levels, from late November to March of the following year.⁵

Setting Standards for PM_{2.5} Levels and Health Measures

The severity of diseases and illnesses among the public caused by exposure to fine particulate matter has a direct correlation with the intensity of PM_{2.5} concentration. Therefore, setting standards is crucial. WHO has announced recommended standards, specifying that there is no safe level of PM_{2.5} concentration. Every country should strive to achieve the lowest possible levels of PM_{2.5}, tailored to its specific context. **In September 2021, WHO released the new edition of “Air Quality Guidelines” (AQGs), marking the first update in 16 years since the last revision in 2005. The revised guidelines state that the annual average PM_{2.5} concentration considered safe should not exceed 5 micrograms per cubic meter, and the 24-hour average should not exceed 15 micrograms per cubic meter.**

Due to Thailand’s inability to lower PM_{2.5} standards, the Center for Air Pollution Mitigation (CAPM), established under the National Environmental Board, expressed that these PM_{2.5} standards are “quite low” and should not be compared with standards of other countries, as they “may not reflect the context of many countries.” However, due to pressure from various stakeholders, especially the public closely monitoring this issue, **on June 1, 2023, Thailand announced the adoption of the Air Quality Index (AQI) based on the new PM_{2.5} standards, adjusted from 50 micrograms per cubic meter to 37.5 micrograms per cubic meter.**

Additionally, there has been an adjustment to the notification of PM_{2.5} pollution whereas, previously, the red level on the Air Quality Index (AQI) was set at 91 micrograms per cubic meter, now has been adjusted to 75.1 micrograms per cubic meter. This adjustment aligns with the (draft) Announcement of the Pollution Control Department Regarding the Air Quality Index of Thailand, B.E..... aiming to redefine the meaning and content of health advisory notifications for the public. This marks the most significant progress in Thailand’s standard adjustment since the initial establishment of standards in 2010.⁶

However, from the perspective of academia and the public, it is still seen that notifying at-risk groups with the average 24-hour Air Quality Index (AQI) may not adequately reflect and protect the health of the population in a timely manner, especially for vulnerable groups such as children, the elderly, and patients. Therefore, there has been a proposal for the concept of a three-hour rolling average, similar to those used in other countries like the United States and Canada, which have been studied at the regional level with supporting research showing that reporting during those time intervals can indeed reflect and protect the health of at-risk groups. This concept has been advocated to the MOPH, but the project has not yet been implemented because Thailand still faces issues regarding the availability of sufficient localized data, as well as concerns that the public may be confused with the current reporting of Air Quality Index by the Pollution Control Department.

Following that, the civil society network in Chiang Mai under the Campaigner for Air implemented this concept in conjunction with mobilizing teams of academics from Chiang Mai University. They installed affordable, standardized measuring tools called *DustBoy*. They distributed them across the area, collected data, **and reported it as an hourly Air Quality Health Index (AQHI) covering health-related information.** Additionally, various localized measures were implemented, such as dust-free rooms and simple dust-filtering equipment for household and community use, serving as a model for protecting the health of people in the area and finding solutions at the source by advocating for clean air legislation at the community level. On

the other hand, the government also took measures to protect the health of people in various areas, such as distributing sanitary masks to protect against PM_{2.5} dust, and empowering the Provincial Governor to order school closures. However, these ad hoc methods only address specific issues and cannot be sustained continuously and universally when compared to the scale and severity of the problem.

At the health policy level, **the MOPH, as the primary agency responsible for this issue, has established the Public Health Emergency Operation Center, set up a health surveillance network, and opened pollution clinics. In addition, the MOPH has issued regulations for hospitals to investigate diseases caused by air pollution and communicate health-related information to the public.** These measures serve as guidelines for operations in areas at risk of air pollution, including urban areas, smog-prone regions in nine northern provinces, and the Na Phralan sub-district in Saraburi province.

Looking Deeper than PM_{2.5} to Identify the Sources of Pollution

The key point in analyzing the origins of PM_{2.5} and addressing the problem at its source is to examine the toxic substances in PM_{2.5} to determine if the levels of each type of toxin are within the internationally-defined standards. However, **Thailand has not set standards for many types of pollutants in the air**, such as Polycyclic Aromatic Hydrocarbons (PAHs), dioxins, or heavy metals like mercury and cadmium. Furthermore, pollutants at the same concentration in different areas or at different times in the same area may have different health impacts due to the **“components”** of pollutants in the air. Therefore, it is necessary to consider the **“origins”** and **“emissions”** of these substances.

In terms of **“origins,”** it is necessary to consider from which sources the pollutants originate and what components are produced at each source. Additionally, how these pollutants are **“emitted”** must be taken into account, such as through processes like agricultural burning, industrial factories, and vehicle emissions. Therefore, individuals residing or living in areas with **“origins”** that produce hazardous pollutants, where there is significant **“emission”** of pollutants without proper capture or disposal, are at a higher risk of health impacts compared to others. In areas with high concentrations of pollutants, the population is therefore more vulnerable to health impacts.

In addition to considering pollutants from their sources, another factor to consider is the **“quantity”** of PM_{2.5} and other air pollutants that enter the body in that period, which depends on the rate of breathing and the amount of air drawn into the lungs with each breath per unit time. Therefore, individuals who breathe quickly and deeply may receive a much higher amount of pollutants than others. However, each person responds differently to health effects, even if they receive the same amount of PM_{2.5} and have the same composition. **This can be described as varying susceptibility to different pollutant exposures, influenced by individual body factors that increase the risk of health impacts from PM_{2.5} than other individuals, particularly the age-related risk group such as children, the elderly, and those with existing ill-health conditions.**



A device that measures particle matter called DustBoy.

Source: www.prd.go.th/th/content/category/detail/id/39/iid/228445

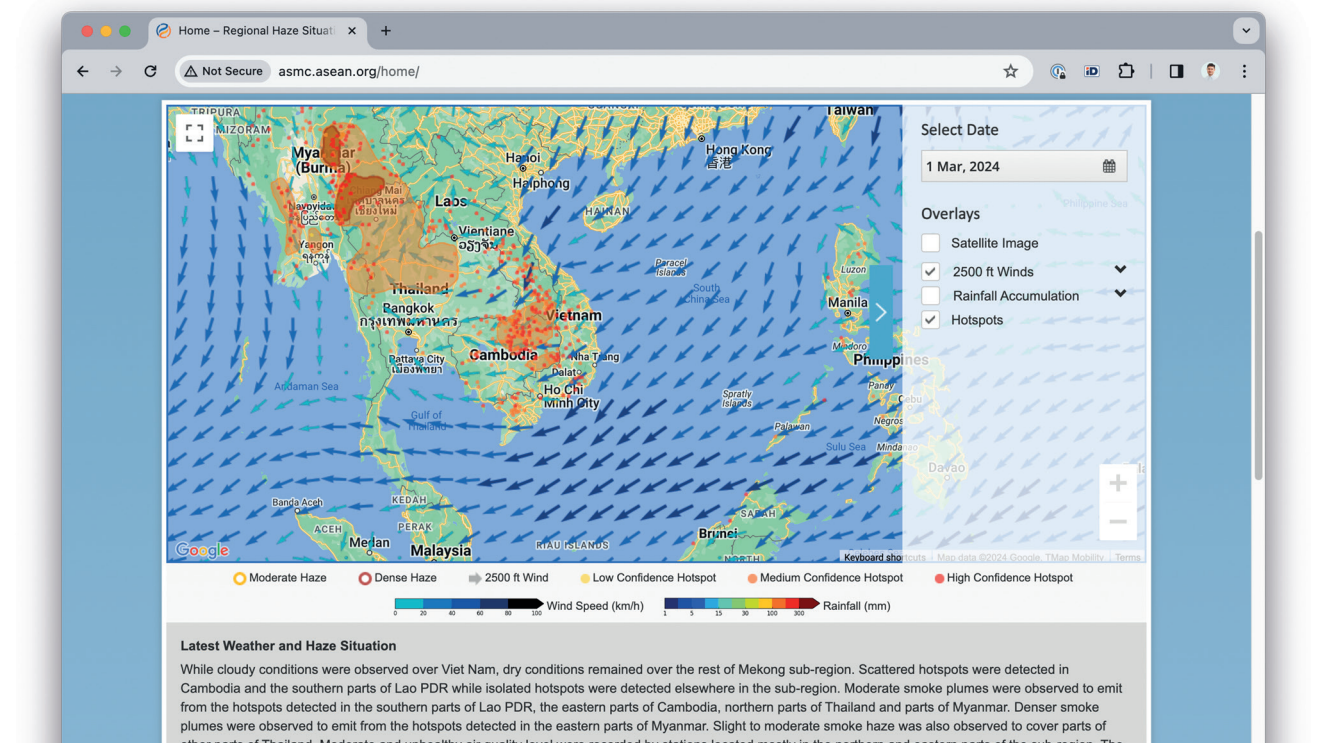
Measures to Reduce Health Impacts of Air Pollution

Air pollution has caused significant damage to Thai society, reflected in healthcare expenses, lost work opportunities, deteriorating health issues, and the costs of purchasing protective equipment such as sanitary masks and air purifiers. This has resulted in a decrease in people's well-being. Estimates suggest that **these losses could amount to as much as 2.1 trillion baht, equivalent to 12.6% of the GDP**. These figures are considered conservative estimates of the minimum damage incurred.⁷ Although there has not been a comprehensive economic impact assessment, it is evident that air pollution has significantly undermined the public health, society, and the economy. To successfully mitigate the health impacts of PM_{2.5}, it is necessary to reduce the generation and release of pollutants at their source.

In 2019, Thailand launched an action plan as a national agenda to address fine particle matter, outlining short-term and long-term measures to address pollution from various sources comprehensively. The plan covers key sources and specifies measures and targets for each, as highlighted below:

- 1 Car:** Control and reduce pollution from vehicles, such as increasing alternative transportation options for the public, replacing old government vehicles with electric cars, setting area limits and measures to restrict the number of vehicles entering downtown areas, and enforcing emission standards for new vehicles: Euro5 by 2021 and Euro6 by 2022.
- 2 Control and reduce pollution from open burning/ agriculture,** such as limiting the amount of sugar-cane burning allowed at sugar factories to no more than 20% per day by 2021, and eliminating sugarcane burning entirely by 2022, managing biomass waste to prevent open burning, regulating agricultural burning, controlling and reducing pollution from construction and urban planning, increasing green spaces in urban areas to international standards, and enforcing strict laws against construction debris falling, leaking, or scattering onto roads.

A map displaying the spread of haze available on the website of the ASEAN Specialized Meteorological Centre (ASMC).



3 Control and reduce pollution from the industrial sector by setting air emission standards considering the air pollution absorption capacity of the area, installing air emission monitoring systems at the outlets of certain types of industrial factories and reporting results through an online system to the Ministry of Industry, and compiling a registry of pollutant releases and movements.

4 Addressing transboundary pollution issues by implementing the ASEAN Transboundary Haze Roadmap, driving operations according to the Chiang Rai Action Plan 2017 to prevent transboundary haze pollution, and coordinating cooperation between countries to prevent and address transboundary haze issues.

Summary

However, over the course of four years under the aforementioned plan, most measures were unable to achieve the targets, resulting in “policy failures” due to lack of coordination among various agencies, no genuine leadership to command, no earnest policy oversight agencies, but rather superficial problem-solving measures such as cracking down on black smoke-emitting vehicles in Bangkok and its suburbs. Some policies, such as stopping open burning, failed because authorities were hesitant to enforce laws seriously and could not control burnt sugarcane from spreading into factories. Furthermore, many policies made little progress, such as reducing diesel cars in urban areas, introducing Euro5 diesel to reduce black smoke, enforcing laws against burning, aiding farmers in plowing under crop residues, utilizing agricultural waste, reducing forest fires in conservation areas, and negotiating and implementing measures to reduce cross-border smoke from neighboring countries.

However, following the 2023 elections, **during the meeting of the House of Representatives on January 17, 2024, a resolution was passed with 443 approvals, 1 abstention, and acceptance of the draft Clean Air Act proposed by the cabinet (of Prime Minister Srettha Thavisin). Additionally, they accepted the draft clean air legislation from more than 22,000 individuals and political parties, including the Pheu Thai Party, Bhumjaithai Party, Palang Pracharath Party, Move Forward Party, and the Democrat Party, totaling seven versions.** However, the drafting process still has another legal step to go through after previous attempts to propose the clean air legislation during the administration of Prime Minister Prayut Chan-o-cha were unsuccessful.

The public believes that, for Thailand to have clean air laws similar to developed countries, the legislation must be effective and efficient. The law should have environmental levy provisions, making polluters pay and using the funds to restore the environment and aid those affected. Otherwise, it would merely assign responsibilities and powers to relevant agencies for budget allocation. Furthermore, a significant difference between the public’s draft legislation and the government’s proposal is the discussion of people’s rights to breathe clean air and the restructuring of oversight agencies to involve public participation in such organizations.⁸

In recent years, Thailand has seen an increasing number of patients suffering from diseases related to air pollution each year. Additionally, there have been tens of thousands of deaths attributed to air pollution annually. Various research studies have proven that PM_{2.5} is the cause of illnesses and fatalities, making Thailand one of the countries facing high levels of air pollution issues, especially during the dry season from November to March each year. Although the government formulated the National Clean Air Action Plan in 2019 to comprehensively address air pollution problems, there has been a lack of serious implementation. Consequently, there has been mobilization, especially from civil society and health-related agencies, to improve air quality standards, raise public awareness, and empower individuals to take better care of themselves. This led to the adoption of stricter PM_{2.5} standards and efforts to study and set standards for various toxic substances found in PM_{2.5}. Furthermore, there has been a push for clean air legislation as clean air is considered a fundamental right of the people that requires protection and regulation enforcement by relevant oversight agencies.

Transfer of Authority for the THPH to the PAO: Background, Problems, and Remaining Challenges

“ The mission of transferring the authority over the Tambon health promotion hospitals (THPH) and health centers to local administrative organizations (LAO) is aimed at making local agencies accountable for the primary healthcare centers for the community in the area. This enables them to carry out public health activities, including health promotion, prevention, basic healthcare, and potentially enhance healthcare services to a higher level. Such transfers are conducted in accordance with the law, which relevant agencies must adhere to. ”

Introduction

Thailand's primary healthcare system is undergoing a major transformation with the decentralization of power through the transfer of Tambon (Sub-district) health promotion hospitals or THPH and health centers to Provincial Administrative Organizations (PAO) in the Fiscal Year 2023, **as approved by the Cabinet on March 15, 2022. This transfer involves 3,264 health centers and THPH, with a total staff of 23,117. The objective is to decentralize healthcare authority. The Ministry of Public Health (MOPH) retains its role and responsibility in controlling healthcare service standards,** including medical treatment, disease prevention, rehabilitation, health promotion, emergency medicine, and consumer protection. However, despite the benefits such as increased funding and staffing from local administrative organizations (LAO), the process faces several challenges, including the readiness of each LAO, welfare and professional development of healthcare personnel, and local political issues. This article discusses the concept, challenges, and proposed solutions regarding this transfer process.

Background and Concept of Transferring Authority for the THPH

The transfer of THPHs and health centers may seem to have started with the announcement of the Decentralization to the Local Government Organization Committee regarding criteria and procedures for transferring the duties of health centers and Tambon

health promotion hospitals to provincial administrative organizations on October 5, 2021, and published in the Royal Gazette on October 19, 2021. However, the story actually goes back more than 20 years ago **to the 1997 Constitution of the Kingdom of Thailand, which stipulated the enactment of the Decentralization of Plan and Process to Local Administrative Organization Act in 1999, outlining the transfer of six public services to local authorities.** Under this Act, the committee issued plans and operational procedures for decentralization to LAO (versions 1 in 2000 and 2 in 2008), which included **the transfer of health stations to municipalities and Tambon administrative organizations (TAO). It also established Regional Health Committees (RHCs) to support local-level mechanisms.** However, the implementation of this transfer has been slow, with only 84 THPHs and health centers transferred to municipalities and TAOs in over a decade (from 2008 to 2020).¹

The Decentralization of Plan and Process to Local Administrative Organization Act, B.E. 2542 (1999), Article 17 (19), and the Ministry of Interior Regulation, issued in accordance with the Provincial Administrative Organizations Act, B.E. 2540 (1997), **stipulate that PAOs have the authority and responsibility to ensure the provision of provincial hospitals, medical treatment, disease prevention, and treatment of communicable diseases.** Additionally, in the decentralization act to LAOs (Version 2) B.E. 2551 (2008) and the Operational Plan for Defining the Process of Decentralization to Local Administrative Organizations (Version 2), **the MOPH is mandated to transfer health stations, community hospitals, and general hospitals to LAOs that are ready, and ultimately transfer them to PAOs.**²

In 2022, **the transfer of more than 3,000 THPHs and health centers to the PAOs is one of the significant events in Thailand's healthcare sector.** This transfer accounts for approximately one-third of all THPHs and health centers nationwide. This event can be considered a

pivotal milestone in the major transformation in the history of Thailand’s healthcare, involving the transfer of roles, powers, duties, and resources of the healthcare sector in a “big bang” manner. **It signifies the shift of caretaking authority from the MOPH, which used to oversee the entire Thai healthcare system, to the Ministry of Interior, namely the PAO, to now be responsible for local healthcare systems.**³

The mission of transferring authority of THPHs and health centers to LAOs is aimed at establishing local agencies as healthcare centers for the people in the area. The objective is to tailor the services in public health, health promotion, prevention, basic healthcare to the needs of the local resident population and, thereby, elevate healthcare services. This transfer is legally mandated and announced for enforcement, requiring relevant agencies to comply. There are no exceptions allowing government entities to exercise discretion in deciding against the transfer. Such actions would constitute offenses under the Criminal Code, Sections 157 (dereliction of duty) and 165 (obstruction of justice), punishable by imprisonment for up to one year. The penalties would be imposed on the heads of government departments. Therefore, the delegation of authority is not a trivial matter but rather a legal obligation as proclaimed in the Royal Gazette.⁴

The MOPH’s perspective on transferring authority for THPH and health centers aligns with the principle of decentralization. This process requires readiness for transferring responsibilities of both units beforehand. Following the approval of the Cabinet on March 15, 2022, and July 26, 2022, a resolution was made to transfer authority over 3,264 health centers and THPHs, totaling 21,829 personnel. The staff composition includes 11,992 civil servants and 9,837 other types of employees. When categorized by job function, it was found that medical service personnel accounted for 13,034 individuals, representing 59.7% of all personnel desired for transfer. Support and administrative staff accounted for 8,795 individuals, representing 40.3%.⁵ The Cabinet also approved a budget of 5,932 million baht to support the transfer, along with establishing a working group to monitor the transfer process of personnel, assets, and service duties, as well as to address any issues that may arise during the transition period. It was confirmed that health services for the public would continue as usual.⁶

Guidelines for Implementing the Transfer of Authority over THPHs

If we look back at the process of transferring administrative authority for THPHs and health centers, we must mention **the announcement of the criteria and procedures for transferring the duties** of both agencies to the PAO, signed on **October 19, 2021**, and published on the Royal Gazette website. The objective was to ensure that the transfer of duties was efficient and truly met the local population’s health needs. The criteria and procedures for transferring duties to the PAO were as follows:⁷

- 1 “LAO” refers to other local administrative organizations such as municipalities, Tambon Administrative Organizations (TAO), and Pattaya City, and other similar organizations established by law.
- 2 The PAO receiving the transfer of THPH and health center duties shall have the authority and responsibility for disease prevention and treatment, promoting public health, providing basic healthcare, medical rehabilitation, and consumer protection.
- 3 The PAO receiving the transfer of THPH and health center duties shall be allocated budgets from the state appropriately and shall not impose financial burdens on that PAO.
- 4 The structure and staffing of the transferred THPHs and health centers to the PAO should at least correspond to the structure and staffing of THPHs and health centers under the MOPH.
- 5 The transfer of personnel from THPHs and health centers shall be based on their willingness. If personnel are unwilling to transfer to the PAO receiving the transfer of duties, they shall remain with the original PAO and government agencies, following the guidelines set by the decentralization committee on devolving authority to LAO.

- 6 In cases where other LAOs are ready and desire to receive the transfer of THPH and health center duties, and the duties have already been transferred to a PAO, the transfer shall proceed to the other LAO based on the criteria and procedures set by the decentralization committee on devolving authority to LAO.
- 7 All government agencies, relevant units, and PAOs shall comply with the criteria and procedures for transferring THPH and health center duties to the PAO according to the guidelines set by the Decentralization to the Local Government Organization Committee.
- 8 The Decentralization to the Local Government Organization Committee shall enforce this announcement and have the power to interpret problems, establish criteria, and define methods for implementation.

In carrying out the aforementioned tasks, the decentralization committee appointed **the Sub-commission on Implementation Plan to Transfer Mission to the Local Government Organization**, with Mr. Lerpong Limrat as the chairman. The sub-commission is responsible for matters related to the transfer of THPHs, and it opened applications for PAOs nationwide that were ready to receive the transfer of THPHs and health centers. This received responses from 49 interested and prepared PAOs. Upon evaluation, it was found that 45 PAOs passed with an ‘excellent’ rating and four with a ‘very good’ rating, resulting in the transfer of THPHs and health centers to these PAOs in the first round on October 1, 2022 (Fiscal Year 2023), totaling 3,384 hospitals and centers.⁸ Within this number, there was a 100% transfer in six provinces, namely Mukdahan, Nong Bua Lamphu, Roi Et, Khon Kaen, Prachinburi, and Suphanburi.⁹ Efforts have been made to address issues in the area through **the mechanism of the Health Region Committee, by supporting budgets for THPHs according to the size of the structure: Small (S), Medium (M), and Large (L)**, each receiving 400,000 baht, 650,000 baht, and one million baht, respectively. Various ideas and proposals have emerged, both in managing at the local level and in policy-making, to ensure the smooth continuation of the transfer process and the provision of services to the local population.¹⁰

Pros, Cons and Challenges That Remain

After the announcement of the criteria and procedures for transferring health centers and THPHs to PAOs, a wave of change has occurred widely. There have been discussions about the pros and cons of the transfer, including opinions, both in favor and against it.

One main point that has been repeatedly raised, and is expected to continue being discussed even after the transfer process, is **the positive impact of transferring for the THPH**. Some staff members feel that there has been a decline in professionalism among those working in THPHs and health centers, post-decentralization. They believe that THPH and health center personnel have not been treated fairly, lacked support, and have not progressed in their careers. Additionally, THPHs and health centers have lacked sufficient manpower, budget, and resources to carry out their work effectively over time. Therefore, **transferring management responsibilities to PAOs was seen as a hope and a bright prospect for staff members who desire change. There is hope that new systems will be established to address and improve primary health-care services in the local areas.**

The aforementioned opinion is one of the reasons that prompted the announcement from the Office of the Decentralization Committee, and has had a continuous impact on the transfer of primary healthcare service provision to local areas, resulting in a phenomenon that could be described as “blood-letting” from the MOPH.¹¹ Initially, the expectations of personnel being transferred were hopeful, in terms of what the benefits of the transfer might be. Personnel should have the opportunity for career advancement in their field, and the decentralization was seen as **a new opportunity for advancement to more specialized** (expert) positions. In other words, those personnel felt they had less advancement potential under the MOPH administration, and were hopeful that, being under the PAO would increase their potential. Moreover, they hoped to **receive increased budgetary support** since there would be no need to wait for budget allocation from the National Health Security Office (NHSO) alone. Instead, local areas would be authorized to allocate additional budget, averaging one million baht per THPH. **Additionally, when under local jurisdiction, there would be the possibility that more**

personnel could be assigned to a TPHP to meet or exceed the allocated structure, compared to the number allocated by the MOPH.⁶

However, these hopes were not always realized. In the early stages of Fiscal Year 2023, there began to be complaints and reports of **problems and obstacles in the process of devolution**. For example, it was reported that administrative operations varied significantly in different localities, leading to issues such as **difficulty in transferring land rights, buildings, and equipment**. There were also **changes in regulations and criteria from MOPH regulations to those of the Ministry of Interior**, affecting various expenditures such as allowances, compensation, or **procurement processes**. Additionally, there were **issues regarding public health operations when transferring authority**, as the network-style service delivery system that existed before the transfer disappeared. **This caused THPHs and health centers to lack support from the parent contracting unit for primary healthcare (CUP) in terms of budget, medicine, and personnel**, leading to insufficient services. Furthermore, there were challenges and obstacles in coordinating between THPHs/health centers and district-level agencies, district public health offices, community hospitals, and other THPHs themselves.

The novelty and lack of preparedness of the TAOs to take over administrative authority meant that the THPHs/ health center suffered from **delays in filling staff vacancies in the Health Division of the PAOs**. Those problems had ripple effects which undermined health services for the catchment populations of the THPHs/health centers. There could also be **problems if the policy and implementation strategy of the THPHs differed from that of the politicians in the locality**.¹²

The Thailand Center for Health Services System, Chulalongkorn University, and the Health Systems Research Institute (HSRI) have produced the **“Evaluation Report on the Health Impact on the Population after the Transfer of Tambon Health Promoting Hospitals to Provincial Administrative Organizations in Fiscal Year 2023, Phase 1.”** The report examines and summarizes the changes that have occurred with THPH following its transfer to PAO, which may have implications for the health of the local population. These changes are divided into three aspects, as follows:¹³

- 1

Changes in resource management: In the aspect of human resource, it has had the highest impact on sufficiency, academic competency, and motivation. Financial resources affect operations and task priorities. **Resources in the medication, medical supplies, and medical equipment groups, which have seen reduced support from the parent hospital, including decreased assistance from hospital pharmacists and support for other services** such as the cancellation of chronic disease outpatient clinics previously held at THPHs.
- 2

Changes in service delivery, as a continuous result of resource allocation, including changes in personnel allocation and the relationship between departments and personnel teams in the area, have led to **a lack of services previously provided to the community**, such as chronic disease clinics (NCD clinics), and home visits for paliative patients, postpartum and home-bound patients.
- 3

Changes in public health operations, as a continuous result of **resource allocation**, including changes in **personnel allocation** and **the relationship between departments and personnel teams** in the area, have resulted in reduced reporting and investigation of diseases in several areas. It has been observed that **THPHs tend to discontinue or reduce MOPH’s policy operations in areas not aligned with the problems in the area or those not supported by equitable budget allocations**.

At the one-year anniversary of the “big-bang” transfer of THPHs and health centers to the PAOs on October 1, 2023, there was a study on the effectiveness of this transfer in some provinces. For instance, research conducted by Assoc. Prof. Dr. Thatchalerm Sutthiphongpracha from Thammasat University Research and Consultancy Institute focused on the area where the transfer of THPH occurred in Prachinburi Province, which was a pioneering area for devolution of authority over the THPH within the province. The study’s findings can be summarized as follows.^{14,15}

- 1 Prachinburi Province has comprehensive leadership in both local and national political arenas, with a shared vision and stability, resulting in cohesive leadership and common goals.
- 2 Public participation reveals that representatives of civil society in Prachinburi Province have confidence in the PAO's role in health.
- 3 Regarding management, there has been a good relationship between the PAO, Provincial Public Health Office (PHO), and THPHs even before the transfer. There is mutual reliance, clarity, and respect, facilitating a smooth transfer of duties.
- 4 In terms of structure and staffing of the public health function within the Prachinburi PAO, similar issues were faced nationwide. However, after the transfer, the Prachinburi PAO appointed a THPH director as Acting Director of the Public Health Department of the PAO, alleviating limitations and boosting confidence among other THPH personnel in the field.
- 5 The management style of the primary healthcare system in THPHs under the Prachinburi PAO shows a diversity of fund allocation systems between the National Health Security Fund and the parent hospital, resulting in varied healthcare service models across districts. Further development is needed in several aspects, indicating the necessity of ongoing improvement in the primary healthcare system in the area.

Approaches to Mitigate the Impact on the Population

From the data provided in the “**Evaluation Report on the Health Impact on the Population after the Transfer of Tambon Health Promoting Hospitals to Provincial Administrative Organizations in Fiscal Year 2023, Phase 1**” by the Thailand Center for Health Services System, Chulalongkorn University, and HSRI, recommendations and guidelines for systemic management have been proposed. These recommendations include suggestions for financial management tools, information systems, and legal aspects, as well as policy recommendations. They are categorized into three areas, namely:¹⁶

1 Collaborative Networking Among Stakeholders in the Local Area

It is crucial for successful operations and is greatly facilitated by establishing networks for operations in the area. Approval from the policy level in the area, whether local political entity or government agency, further reinforces operational agility. Additionally, relationships between agencies and personnel are equally significant. Therefore, structuring collaborative work among organizations with aligned public health goals is a key component for successful community health development.

2 Supporting Information and Technical Data

It is vital to ensure the smooth transfer of THPH operations, enabling targeted problem-solving and genuine healthcare provision aligned with the goal of decentralization. Information and research data are considered essential tools for reflecting issues and needs in the area, allowing managers and workers to effectively manage the area according to actual requirements and in line with real problems.

3 Allocation and Management of Resources

It covers personnel, budgets, medication, medical supplies, and equipment, and should consider adequacy, quality, compatibility between tasks and resources, and shared utilization to optimize the limited healthcare resources of both the locality and the country. Allocation and management of resources should be considered and prepared for in both normal and emergency health crisis situations.



Ban Hora Sub-district Health Promotion Hospital in Tamnan Sub district, Phatthalung Province

Source: maung.ptho.moph.go.th/web/hosp.php#menu1

In addition to the above guidelines, in practical operations, the MOPH should ensure understanding with provincial public health offices, district public health offices, and all supervised healthcare facilities regarding support for medication, medical supplies, and personnel funded by the National Health Security Office (NHSO). These operations should proceed as usual to maintain fairness and equality for both THPHs and other units under the technical guidance of the MOPH, ensuring that the local population is not adversely affected by the transfer of THPHs and health centers and can receive continuous services. Furthermore, if the PAOs need to procure medications and medical supplies beyond the basic entitlements, it can do so according to the regulations of the Ministry of Interior regarding the funding for hospitals and public health service units under local administrative organizations in Fiscal Year 2018.

To address the issue of personnel shortages, the PAOs should establish staffing ratios based on the size of THPHs or health centers, receiving budget allocations from the government for salaries, compensation, and benefits no less than what they previously received under the jurisdiction of the MOPH. This is needed to motivate personnel to decide to transfer to be under the jurisdiction of the LAOs.

To resolve confusion in **professional practice control** during the transition of jurisdiction from the MOPH to the Ministry of Interior, when transferring duties of THPHs and health centers, **the provincial public health offices should initially oversee professional practice for THPH. This aligns with the exceptions specified in the Medical Profession Act, B.E. 2525 (2002) and relevant MOPH regulations, allowing licensed medical professionals to be in charge.**

During the transition period, efforts should be directed towards developing a seamless healthcare service system that integrates primary healthcare with specialized and tertiary services. This can be achieved by establishing a collaborative responsible service system through contractual agreements to ensure efficiency, quality, and standardization. Cooperation between the MOPH, the Ministry of Interior, and PAOs should be fostered. Additionally, forums or platforms for knowledge exchange and lessons sharing at both national and provincial levels should be organized to facilitate collective problem-solving, development, and improvement efforts.¹⁷

Summary

The transfer of administrative authority over Tambon Health Promotion Hospitals (THPH) and health centers to Provincial Administrative Organizations (PAO) is an effort to decentralize power for the long-term development of the healthcare system, following the country's development direction to reduce state power and central responsibilities in favor of local communities for increased self-governance. Despite criticisms and debates regarding the pros and cons of the transfer, as well as varying opinions both in favor and against it, challenges and obstacles encountered may be seen as minor hurdles that must be overcome. The path ahead is long, and all parties must continue to collaborate to develop a seamless healthcare system, integrating primary healthcare with specialized and tertiary services. This involves establishing networks for operational activities in the area, which is a crucial factor for successful operations, as well as developing and compiling information and research data to reflect local problems and needs. This helps in managing the area according to the community's requirements and allocating shared resources effectively, considering adequacy, quality, and efficiency, including addressing practical issues during the transition period. Cooperation between the MOPH, Ministry of Interior and PAOs is essential in addressing these challenges.

Thailand's 3rd Health Constitution: Towards an Equitable Health System

“Thailand's 3rd Constitution on the National Health System aims to establish a ‘fair health system’ that emphasizes the importance of marginalized or neglected groups in society. It protects vulnerable groups and fosters community resilience through inclusive processes involving the participation of the public and all sectors of society. In essence, it is a health system that is fair in terms of physical, mental, intellectual, and social health for all demographic groups across all ages.”

Introduction

The National Health Act, B.E. 2550 established the legal status of the Constitution on the National Health System, stating that **it serves as a framework and guideline for formulating policies, strategies, and implementing health-related activities of the country.**¹ What is more, **the Constitution on the National Health System, which has been approved by the Cabinet, binds government agencies and other relevant organizations to carry out their duties accordingly.**²

In practice, **the Constitution on the National Health System holds the status of being the “framework of Thailand's health system,”** akin to an “umbrella” that reflects the goals and strategies in health. **It links the national strategy, national plans, and operational plans or plans at all levels within the health system.** It is important to note that the Constitution on the National Health System is not an operational-level plan, but rather serves as a “common agreement” or “shared understanding” that all sectors comprehend. If there are any actions that deviate from the Constitution on the National Health System, there should be mutual understanding, agreement, or recommendations for actions that align with it.

The Constitution on the National Health System serves as a framework and guideline for formulating policies, strategies, and implementing health-related activities of the country.³ The content of the Constitution on the National Health System must be in accordance with the Constitution of the Kingdom of Thailand and must at least include important aspects related to: ① the philosophy and fundamental concepts of the health system, ② desired characteristics and goals of the health system, ③ ensuring and protecting health, ④ health promotion, ⑤ disease prevention and control and health-threatening factors, ⑥ public health services and quality control, ⑦ promoting, supporting, using, and developing local health wisdom, traditional Thai medicine, folk medicine, and other alternative medicines, ⑧ consumer protections, ⑨ creating and disseminating health knowledge, ⑩ disseminating health information, ⑪ producing and developing public health personnel, and ⑫ health finance and treasury.⁴

The law stipulates that there must be a review of the Constitution on the National Health System at least every five years.⁵ Currently, **the Constitution on the National Health System has been declared as the 3rd edition.** The first two editions of the Constitution were declared in the years 2009 and 2016 by the National Health Commission (NHC).⁶ With the Prime Minister as the chairman,⁷ the NHC is responsible for drafting the Constitution on the National Health System. Once completed, it is submitted to the Cabinet for approval. Upon approval by the Cabinet, it is reported to the House of Representatives and the Senate for acknowledgment and announced in the Royal Gazette.⁸

During the Cabinet meeting on December 20, 2022, the “Constitution on the National Health System, 3rd Edition, 2022” was approved. This 3rd edition of the Constitution serves as a “roadmap” or a compass for Thailand's health policy, developed through a wide-ranging participatory process involving government agencies, businesses, civil society, and youth. **It is guided by the principle of “a fair health system, leaving no one behind, and contributing to Thailand's recovery.”** The aim is to create a fair health system in both healthcare services and health promotion systems, as well as addressing the social determinants of health (SDH) with focuses on vulnerable groups, community strengthening and participatory approach. This article analyzes the 3rd Constitution on the National Health System, highlighting its significance, content, strengths, challenges, and advocacy strategies.

Situation and Factors Affecting the Health System in Five Years

In the Constitution, there are seven factors and situations affecting the health system.

1 Changing Demographic Structure and Age Disparities

Changing demographic structure and age disparities contribute to budgetary burdens in caring for the elderly. The number of working-age population reduces. This shifts also creates gaps and differences between age groups in various dimensions, including thoughts, social perspectives, cultures, lifestyles, political views, governance, expressions, and ways of life. Failure to acknowledge and accept this diversity may lead to societal conflicts, divisions, and violence.



2 Changes in Epidemiology and Health Issues

Changes in epidemiology and health issues, including the trend of non-communicable diseases (NCD) such as cardiovascular diseases increasing while communicable diseases like AIDS, malaria, and viral hepatitis decreasing. However, unexpected outbreaks like the COVID-19 pandemic demonstrate the potential for sudden emergence of new and recurrent infectious diseases, often unforeseen.



3 Urbanization Trends

Urbanization trends bring economic and social benefits. However, urban expansion parallels clusters of development that exacerbate issues like pollution, social problems, international labor migration, income inequality leading to household financial burdens.



Rapid Technological Advancements

Rapid technological advancements both positively and negatively impact health systems. Positively, they enhance data collection, analysis, hospital connectivity, quality assurance, disease control, telemedicine, and treatments for certain individuals. Negatively, they facilitate the spread of misinformation and online sexual exploitation, adversely affecting physical, mental, and intellectual health at personal, familial, community, and societal levels.



Environmental Changes, Climate Conditions, and Global Warming

Environmental changes, climate conditions, and global warming trends pose rapid and severe alterations, leading to increased natural disasters, impacting biodiversity, ecosystems, and health systems, including disease mutation, severer seasonal diseases, the emergence of new and recurrent infectious diseases and diseases related to work and environment.

Resource and Budget Shortages

Thailand faces the high public debt that exceeds the country's finance ceiling. Moreover, Thailand was one among top countries with highest level of household debts. These debts and income disparity pose challenges to the financial stability of the healthcare system, and shortages of drugs, vaccines and medical supplies. All these necessitate equitable resource distribution to ensure universal access among people equally and thoroughly.





7 Global Political Polarization and International Trade

Global political polarization and international trade come with impacts on the health system. Armed conflicts, and various forms of warfare, along with trade barriers and economic interventions, impact intellectual property laws, access to medicines, medical technology, and healthcare, depriving people of effective and modern healthcare due to shortages and high prices.

These trends and factors mentioned above underscore the need for development efforts to prioritize addressing systemic issues aimed at eliminating poverty and reducing inequality in society. This should be done while upholding the principles of good governance and governing by the rule of law.

Framework of Ideas, Philosophy, and Common Goals of the Healthcare System in the 3rd Constitution

The conceptual framework of ideas, philosophy, and common goals of the healthcare system in 3rd Constitution is aligned with the national strategy for the years 2018–2037, which aims for sustainable development in accordance with the principles of good governance, elevating development to achieve the vision of “Thailand as a stable, prosperous, and sustainable developed country through development based on the principles of a self-sufficient economy.”

The 3rd Thai Health Constitution aims to create a “fair healthcare system,” prioritizing marginalized or neglected groups in society. It emphasizes protecting vulnerable populations and strengthening communities through inclusive participatory processes involving all sectors of society. In essence, it envisions a healthcare system that is equitable in terms of physical, mental, intellectual, and social health for all demographics throughout all stages of life. It seeks to reduce disparities, avoid discrimination, and is comprehensive in health promotion systems, including managing social determinants of health and healthcare services. Importantly, it is a healthcare system that is adaptive, responsive, resilient, and capable of embracing and facilitating transformative changes to sustainably improve and develop, leaving no one behind. It acknowledges differences and is sustainable. The attributes of the ideal healthcare system include the following:

1 Process of Good and Participatory Public Policy Formulation by All Sectors

The process of good and participatory public policy formulation by all sectors aims to create a “fair healthcare system” through economic and social policy processes that consider the impact on health according to the Health in All Policies (HiAP).

Its important measures include sustainable development through public policy processes from communities and state policies at various levels following the Health in All Policies. It aims to promote the role of various sectors in managing social and health issues nationally and locally, creating mechanisms, tools, and platforms such as health assemblies, health constitutions, on-topic or regional issues, etc., to enable all people to cooperate and take ownership in society and health at all levels, allowing vulnerable or socially-disadvantaged groups to participate in public policy processes fairly and equally without exacerbating social and health disparities, power monopolization, and patronage system.

Health Promotion and Management of Social Determinants of Health

They aim to create a healthcare system that establishes policies to support an environment and social factors conducive to health for all people in Thailand, from birth to the end of life, enabling them to maintain and develop balanced health in terms of physical, mental, intellectual, and social aspects.

Key measures include promoting the concept of social capital creation and social cohesion leading to the development of healthy city and community in line with World Health Organization standards, promoting community policies and public spaces both physically and virtually that promote and raise awareness about the importance of conserving and restoring natural environments and biological diversity, supporting communities to develop local health community systems with indigenous health knowledge based on “Community and Family Forest Guidelines for Sustainable Conservation, Protection, and Utilization of Herbs.”

Management of the Healthcare Service System

It aims for everyone in Thailand to access fair, quality, standardized, safe, and human-centered healthcare services equally for both service providers and recipients, from primary to tertiary healthcare levels.

Key measures include using primary healthcare systems as the basis for ensuring fair access to services, developing and designing models for community/city-specific health services, including virtual and online communities, that can meet the needs of all groups, improving the quality, standard, and safety of all forms of healthcare services, both public and private, developing community health and public health infrastructure and services based on strong local health knowledge, connecting them with the country’s main healthcare system, managing and caring for socially and health-vulnerable groups, strengthening the mechanisms of volunteer/mental volunteer work to promote the healthcare service system, and promoting and developing mechanisms for education, research, and research management/knowledge creation in healthcare.

Analysis of the Key Features and Challenges of the 3rd Health Constitution

The Constitution on the National Health System (3rd Edition) emphasizes the creation of a healthcare system that reflects fairness in access, coverage, and quality across the board. **The content of the healthcare constitution emphasizes “creating opportunities for groups with health vulnerabilities” to access equitable, universal, and fair healthcare.** This aligns with Articles 5 and 6 of the National Health Act, B.E. 2550.⁹

The challenge of the 3rd Health Constitution lies in advocating for implementation to effectively achieve the objectives. Although the legal status of the Constitution serves as a framework for government policy, **it lacks the authority to enforce the law. Therefore, advocating for the Constitution relies on the voluntary cooperation of various governmental agencies to advance it forward.** The primary goal of the collaborative effort is **to elevate the Health Constitution to a guiding principle, linking strategic goals and health plans at various levels to achieve a common goal in promoting health equity. It takes on the character of a social contract, understood, accepted, and implemented by all sectors.** Therefore, the process of merging benefits, fostering participation, and ownership in the Health Constitution is crucial and requires the combined efforts and cooperation of all parties involved.

Advocacy for the 3rd Health Constitution

The working group on advocacy for the 3rd Constitution, appointed by the National Health Commission Office (NHCO), has undertaken the dissemination and promotion of the Constitution through various channels, including:

1 Dissemination Through Documents and Electronic Channels

The Constitution materials have been disseminated to local government organizations, all ministries' ministerial offices, all departments within the MOPH, state organizations, the National Health Assembly network, relevant committees, and commissions. Additionally, these materials have been distributed electronically and as an E-book, along with QR codes on the NHCO website. Furthermore, an English version of the Constitution on the National Health System, 3rd Edition, has been produced, along with a condensed version or policy brief and infographics for easy comprehension and practical use.

2 Collaboration with Various Strategic Sectors

The 3rd Health Constitution emphasizes policy development at all levels to bring about structural changes in the economic, physical, and social domains. It promotes systematic participation from stakeholders to ensure that all groups benefit universally, comprehensively, and transparently from health policies. Coordination with network organizations at the strategic level is also undertaken by various entities as follows:

Ministry of Interior

Ministry of Interior utilizes key measures from this Constitution as a framework for developing Ministry's policies and strategies, developing plans at provincial and local levels, and action plans at provincial and district levels, as well as for monitoring and evaluating outcomes. It also supports the development of participatory regional health constitutions through local government organizations at all levels, including school health constitutions under local government organizations.

Thailand Board of Investment

Thailand Board of Investment drives the creation of strategies, policies, and investment promotion criteria aligned with national strategies, national reform plans, and the framework of the 3rd Constitution. It also develops guidelines for evaluating investment promotion efforts in line with the goal of achieving a fair healthcare system and sustainable social development.

Ministry of Education

Ministry of Education employs measures from the 3rd Constitution as a framework for developing policies and strategies. Additionally, it promotes the development of participatory school health constitutions to guide the direction/agreement in health system development, health promotion, disease prevention, knowledge dissemination, and health awareness creation.

Ministry of Public Health

Ministry of Public Health translates key measures from the Constitution into operational plans, and conducts monitoring and evaluation to ensure fair and sustainable practices. This includes topics such as health manpower, public health services, mental health, as well as strengthening the development and implementation of sustainable joint health systems. This aims to achieve a fair society and health system.

Office of the National Economic and Social Development Council

Office of the National Economic and Social Development Council drives efforts towards social and health goals that are fair. It also fosters partnership development in driving population development plans for sustainable national development from 2022–2037. This is to ensure mutual understanding in developing provincial development plans for the governor’s consideration, leading to ongoing collaborative efforts and joint work on both issue-based and area-based agendas, aiming to achieve a “fair society and health system.”

Ministry of Social Development and Human Security

Ministry of Social Development and Human Security applies these measures to drive activities at the local level with all target groups, such as the Children and Youth Council mechanism and the senior citizens’ network in various communities. Moreover, it develops systems for the right to express non-desire for public health services under Article 12 of the National Health Act, B.E. 2550. It also promotes the development and advocacy of national pension policies/income security principles and drives community welfare through the development of provincial community welfare plans.

Advocacy with Local Administrative Organizations

Initially, representatives from Provincial Administrative Organizations (PAO) from 10 provinces participated, including Phayao, Roi Et, Nakhon Sawan, Trat, Sing Buri, Rayong, Kanchanaburi, Nakhon Ratchasima, Phatthalung, and Surat Thani. They participated in activities such as the development of primary healthcare systems with Phayao PAO and driving the “Roi Et Provincial Health Constitution.”

Future Action Plans

The future implementation plan may focus on education institutions to develop health constitutions at the school level. This could involve supplementing the existing school constitutions with additional content related to health in four dimensions, making it easy for teachers, students, and parents to understand. Each educational institution may add different content to ensure diversity and suitability according to the community’s social conditions and culture. In driving the school-level health constitutions, collaboration with the Intellectual Media and Health Promotion Unit of the Thai Health Promotion Foundation may be considered.

Summary

The Constitution on the National Health System, B.E. 2565 (3rd Edition) arose from a participatory process involving various stakeholders. It was formulated as a framework for guiding the country’s health policies. Despite being a legal framework for setting national health policies, it lacks legal enforcement power over various agencies. Therefore, driving the implementation of the National Health Constitution has been a significant challenge. Over the years, various dissemination methods have been employed, including distributing paper and digital documents, use of expanding electronic channels, and aligning with different strategic plans, particularly those of state agencies, local administrative organizations, and the civil society sector. In the future, cooperation with diverse networks will be essential. For instance, schools across the country will need to collaborate to establish a comprehensive healthcare system covering physical, mental, intellectual, and social health for all age groups, in line with the shared philosophy and goals of the healthcare system outlined in the Constitution on the National Health System, 3rd Edition.



Dr. Suwit Wibulpolprasert

Global Public Health Hero



Dr. Suwit Wibulpolprasert during an NHSO board meeting

Source: hcrp.nhso.go.th/news/4098

On April 5, 2023, the World Health Organization South-East Asia Region (WHO SEARO), New Delhi, held an award ceremony for the “Heroes of Public Health” for the year 2023. The award was presented to Dr. Suwit Wibulpolprasert for his outstanding contributions in strengthening Thailand’s public health system. He played a key role in establishing the Rural Doctor Society and expanding medical services to rural areas in Thailand. He also advocated for policies and mechanisms that led to the implementation and development of the Universal Coverage Scheme in Thailand, which has been recognized and praised globally. His efforts have enabled low-income Thai citizens to access essential medications.

Apart from his significant roles in Thailand, Dr. Suwit has also played a crucial role on the global public health forums continuously over time. He has been invited as the Co-Chair of the Global Fund for AIDS, Tuberculosis and Malaria, participating in negotiations at the World Health Organization (WHO) Summit in Geneva. Additionally, he represents Thailand as an Executive Board Member of the WHO, as well as serving on

the Executive Board and Advisory Committee of the WHO SEARO. He is the Chair of the Asia Pacific Action Alliance on Human Resources for Health (AAAHH), the Chair of the Asia Pacific Observatory on Health Systems and Policies (APO), and a committee member of the International Organizing Committee for the Prince Mahidol Award Conference (PMAC),¹ among many other honors.

Currently, Dr. Suwit holds positions such as member of the National Science and Technology Development Committee, member of the National Health Security Committee, advisor to the International Affairs Section, Office of the Permanent Secretary Ministry of Public Health, Chairman of the International Health Policy Program Foundation, Chairman of the Creativity and Wellness Foundation, and Chairman of the Road Safety Policy Foundation, among others.

WHO SEARO annually presents the Award for the Heroes for Public Health to honor individuals whose work contributes to the promotion of health and well-being in the region. Beside Dr. Suwit, WHO SEARO also awarded the 2023 honor to Dr. Virna Maria Gusmao dos Reis Martins from Timor-Leste and Dr. G. Nageswara Rao from India. Dr. Virna Maria Gusmao dos Reis Martins played a significant role in promoting immunity among children in Timor-Leste, while Dr. G. Nageswara Rao co-founded the “L.V. Prasad Eye Institute,” which has helped over 30 million people in India.

The World Health Organization Honors Professor Dr. Vichai Tienthavorn



Professor Dr. Vichai Tienthavorn received the Sasakawa Health Prize.

Source: apps.who.int/gb/awards/e/Sasakawa.html

On February 7, 2023, during the 152nd session of the World Health Organization Executive Board meeting, it was announced that Thai public health personnel, including Professor Dr. Vichai Tienthavorn, the President of Praboromarajchanok Institute, was awarded the Sasakawa Health Prize for 2023. This recognition was bestowed upon him for his role in advancing primary medical care, and for his efforts in the prevention and control of thalassemia in Thailand.¹

During his tenure as the Director-General of the Department of Health, Dr. Vichai initiated the campaign “Choose Partner, Choose Pregnancy, Choose Delivery, Thalassemia-Free” to reduce the incidence of severe thalassemia in Thailand. Also, during his time as the Dean of the School of Medicine at University of Phayao, he launched the “Ping Pong - Life Traffic Light” project, which is a communication tool to help people improve behaviors to prevent and control diabetes and hypertension. The tool serves as a basic disease screening aid to reduce travel expenses and healthcare costs, and alleviate the workload of public health personnel.

Furthermore, efforts were made to encourage the Praboromarajchanok Institute to admit high school students residing in border and remote areas for education and training in health science programs. Upon completion of their studies, graduates can return to serve their communities. He promoted nursing assistant training programs for village health volunteers to enhance their ability to provide community health-care services.² In addition, Dr. Vichai has focused on primary healthcare, emphasizing continuous “health promotion” efforts based on the belief that “people have the potential to manage their own health.”³

The “Sasakawa Health Prize” was established in 1984 to be awarded to individuals, institutions, non-governmental organizations, or entities that have achieved success in innovative work in developing primary healthcare services. The prize has been awarded since the World Health Organization announced its global health promotion strategy, “Health for All by the year 2000,” which in the past has seen two Thai public health personnel receive the Sasakawa Health Prize. They are Prof. Dr. Amorn Nontasut in 1986 and Dr. Paisan Ruamviboonsuk in 2022.

The International Network of Health Promotion Foundations (INHPF) Bangkok Declaration: Towards Equitable Well-being

During November 8–10, 2023, the Thai Health Promotion Foundation (ThaiHealth) collaborated with the International Network of Health Promotion Foundations (INHPF) to host the 20th International Network of Health Promotion Foundations, or The 20th INHPF Annual Meeting 2023, under the theme “The Next Step of INHPF: Accelerating Health Promotion Innovations towards Equitable Well-being.” The event brought together over 300 participants from various countries.

Dr. Supreeda Adulyanon, the Chief Executive Officer of the ThaiHealth, stated that 23 years ago, the INHPF or the health promotion network was established to enhance the capabilities of countries interested in population health promotion through the operations of health promotion funds. The next step of the global health promotion network aims to drive innovative strategies to create equitable well-being for everyone. It will continue to advance and progress in ongoing social campaigns, and develop innovations in health promotion, especially focusing on issues such as smoking, alcohol consumption, and unhealthy food consumption, with an emphasis on ensuring good health for children and adolescents, who are crucial populations for national development. This meeting aims to strengthen the INHPF network through knowledge and experience sharing, promoting partnership and collaboration, jointly declaring positions, and elevating health promotion work to the global health agenda.¹

On this occasion, during the INHPF meeting, together, participants declared the INHPF Bangkok Declaration to elevate health promotion toward equitable well-being. It calls upon member organizations of the network to mobilize resources to sustainably drive the infrastructure of health promotion adequately and sustainably. It aims to raise awareness of the changing health determinants, gather shared learning practices, strengthen digital literacy, and increase



The INHPF network declared the Bangkok Declaration on November 9, 2023, at the Thai Health Promotion Learning Center.

Source: www.thaihealth.or.th/8-องค์กรเครือข่าย-inhpf-ร่วมป

access to digital health technology, focusing on vulnerable groups. It promotes transparency, responsibility, and public confidence in health promotion, as well as fostering collaboration with networks both domestically and internationally. Equitable well-being entails ensuring health as a right for everyone without discrimination, whether it be social status, economic status, or ethnic differences. The Declaration aims to improve health systems, promote health beyond healthcare systems, emphasizing social and economic factors that impact individual and community health, with the goal of making health a right which everyone in every society can enjoy.²

Furthermore, the Declaration proposes a call to United Nations agencies to support efforts in resource mobilization and infrastructure development for health promotion, strengthening the governance of health promotion towards sustainable development goals. It also invites governments to develop comprehensive health plans, advocate for legislation, support resources, and develop infrastructure for health promotion, create and expand social welfare systems, accelerate progress towards global health goals. Ultimately, the Declaration encourages stakeholders to promote and expand multi-stakeholder networks, coordinate cross-sectoral action, and promote sustainable financial mechanisms to build equitable well-being societies at all levels.

The Department of Health Collaborates with Online Merchants to Deliver Healthy Menus, Reducing Sugar, Fat, and Salt



Collaboration on healthy menus for food delivery

Source: anamai.moph.go.th/th/news-anamai/43262

The Department of Health reports that, currently, the working-age group often faces health problems, partly due to risky eating behaviors that include consuming foods with sweet, fatty, and salty tastes, and lacking exercise. According to data on dietary behaviors from the National Statistical Office for the years 2017–2019, it found that Thais consume 2.5–2.6 million tons of sugar per year, with an average of three glasses of sugary drinks per day in 2019. Additionally, according to data from the Thai Health Promotion Foundation and the Nephrology Society of Thailand, Thais consume excessive sodium, up to 3,636 milligrams per person per day, exceeding the recommended limit of 2,000 milligrams per day. This leads to an increasing trend in chronic non-communicable disease mortality rates, with the top three causes of death being cancer, stroke, and ischemic heart disease, resulting in mortality rates of 123.3, 47.1, and 31.8 deaths per 100,000 population, respectively.

Therefore, the Department of Health signed agreements with several online service providers in early 2023 to promote healthy and low-sugar menus for consumers. These food delivery services include such brands as LINEMAN, Wongnai, and Robinhood. The objective is to reduce the consumption of sugar, fat, and salt, and align with the current lifestyle of Thais that increasingly order food

through food delivery platforms. According to research by Kasikorn Research Center, in 2021, Thais ordered food through online food delivery platforms more than 330,000 times per day, or more than 120 million times per year, an increase of more than threefold compared to 2019. Before the Thai COVID-19 epidemic, there were around 35–45 million orders per year.¹

Furthermore, the collaboration with various online food service providers is aimed at providing the public with increased access to healthier food options and promoting knowledge and understanding among the population in selecting nutritious food and beverages. This initiative encourages a sustainable change in dietary behaviors for better health through the implementation of the campaigns: “Less Sugar is Orderable” and “Healthy Menu.”

After implementing the project for a period of 10 months (January–October 2023), it was found that both retailers and consumers were genuinely interested in reducing the sweetness of beverages. It was observed that beverage shops nationwide became more aware, offering more options with reduced sweetness, with the number of such shops increasing to over 35,000, a five-fold increase. Furthermore, the proportion of orders for beverages with reduced sweetness (less than 100% sweetness) accounted for as much as 57% of total beverage orders. Additionally, the majority of consumers (or more than 850,000 glass-equivalents), opted for beverages with 50% sweetness. In summary, this project helped reduce sugar consumption among Thais by over 10 tons within the ten-month project period.²

STRESS



The Silent Health Threat in Thai Society

**FEATURE
ARTICLE**

“Who wants to be stressed out?”

It might be a question that no matter how people answer, whether directly or indirectly, philosophically profound or just casually, it would probably leave one message in mind: “What a dull question!” (or perhaps stronger than that).

Is there anyone in the world who wants to be stressed? Even for a kind of ‘ray of sunshine’ kind of person and constantly reminds oneself of its positive aspects, stress can be viewed as a bitter medicine with beneficial effects, like adversity that enhances wisdom, or like obstacles that challenge and drive us towards success... Ideally, of course, it would be better not to stress at all!!

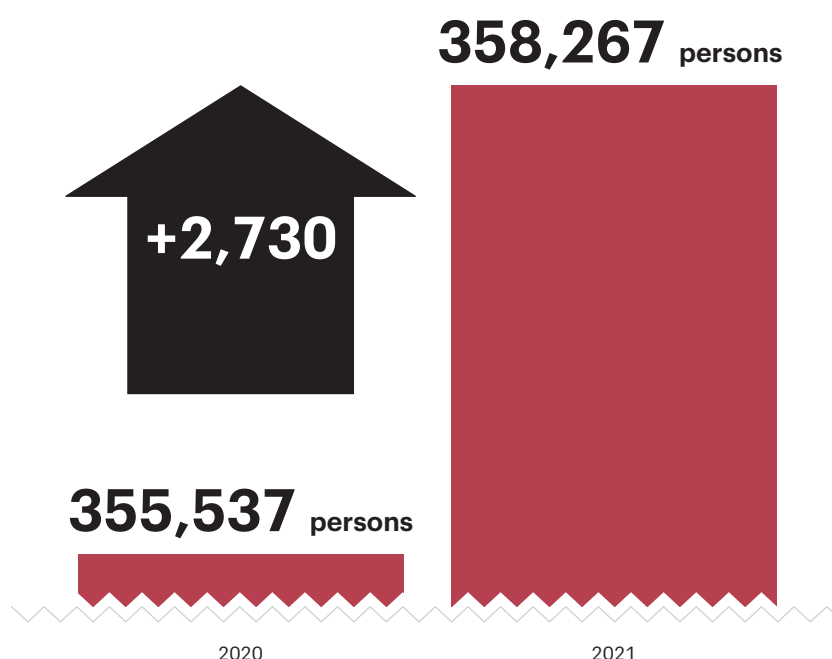
And, in fact... **who among us has never been stressed out or managed to fully escape from stress?**

Day by day, stress can become a cycle that is the root cause of various adverse consequences, not only affecting mental health but also impacting the body, such as loss of appetite or overeating, decreased efficiency of the digestive system, insomnia, etc. In particular, when stress is prolonged and becomes chronic stress, that can lead to excess alcohol consumption, smoking cigarettes, substance abuse,¹ or even suicide. These negative health consequences of stress accumulate and cascade out to become societal

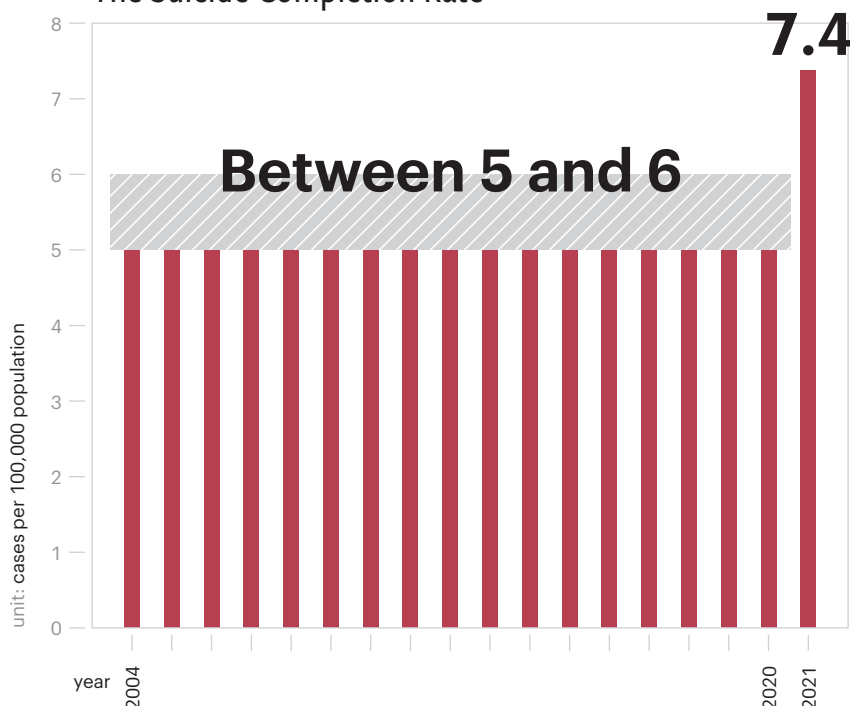
impacts, from within households to communities both near and far, particularly in today’s social media-driven world where the boundaries of its influence can extend greatly. As for economic impact at the household level, it includes lost income and savings, and preventable expenses incurred in addressing both the root causes and consequences of stress, such as various mental health conditions. The effects of stress can be felt at the national level where productivity of human resources declines. This is such a serious issue that the World Health Organization has declared stress as the “Health Epidemic of the 21st Century.”²

In the Social Situation Report for the fourth quarter and overview of the year 2022, the Office of the National Economic and Social Development Council (NESDC) stated that the prevalence of depression and

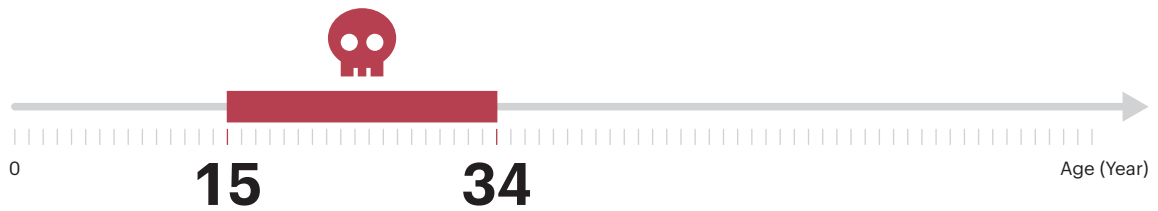
The Number of Thai People Suffering from Depression and Committing Suicide due to Mental Health Issues



The Suicide Completion Rate



The Age Group with the Highest Suicide Rate



suicide due to mental health problems among Thais has increased. In 2020, there were 355,537 cases, which rose to 358,267 in 2021. The suicide rate in 2021 was 7.4 per 100,000 population, an increase from the period of 2004 to 2020 during which the rate ranged from 5 to 6 per 100,000 population. The age group with the highest suicide rate is the 15–34 age group.³

Among these suicide cases, there are also instances where individuals kill their entire families before committing suicide, as reported at least once a year in Thailand. For example, in the case of a former member of the Nakhon Si Thammarat Provincial Administration Organization (PAO) in November 2021;⁴ and in the case of the deputy inspector at the Thung Khru Police Station, Bangkok, in June 2022.⁵

Although the report for the third quarter of the year 2023 has indicated a slight decrease in the trend of individuals experiencing stress, at risk of depression, at risk of suicide, and/or experiencing burnout compared to the same period in 2023,⁶ it is still a cause for concern.

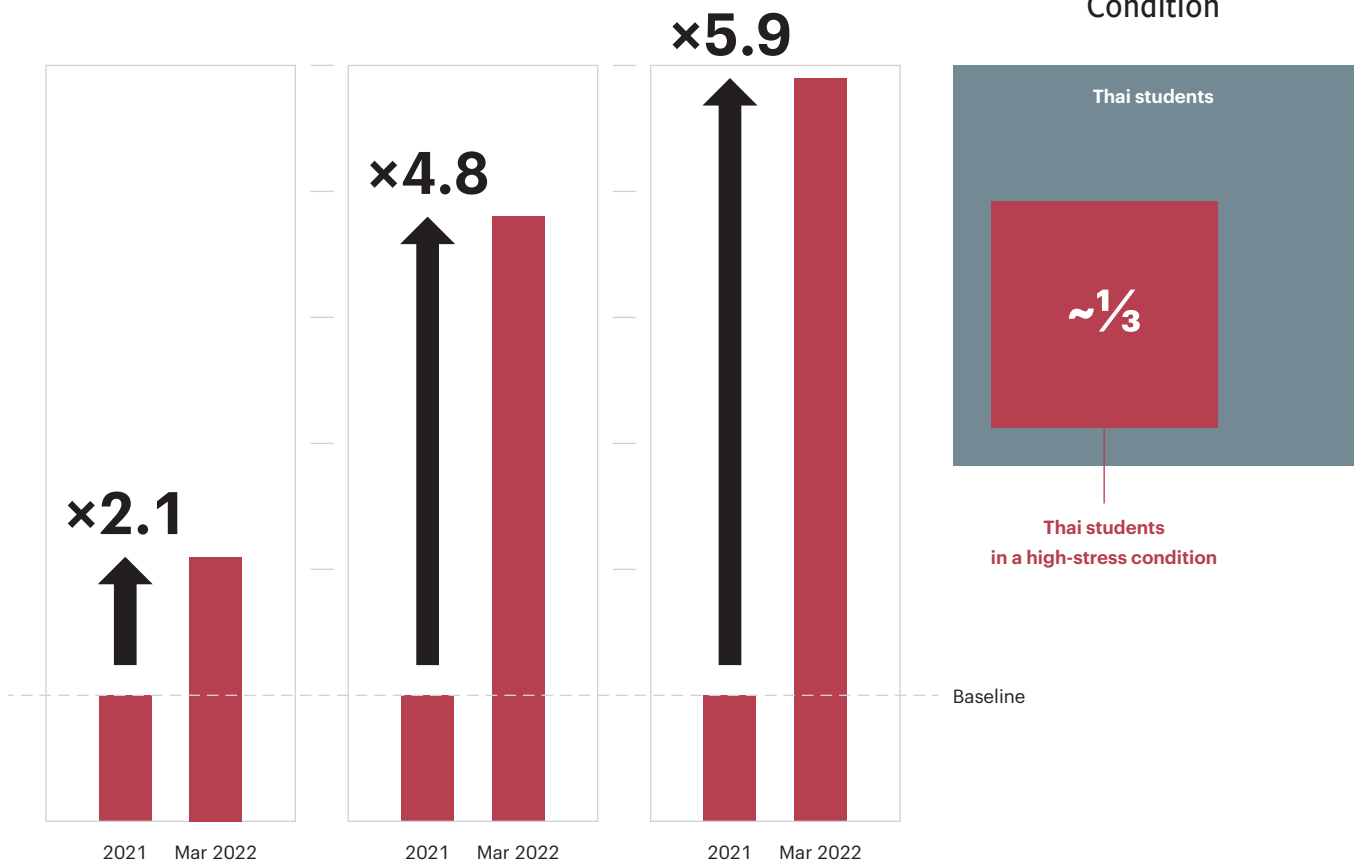
Data from the Department of Mental Health reported in March 2022 found that the general population experienced a 2.1 times increase in stress, a 4.8-times increase in depression, and a 5.9-times increase in the risk of suicide compared to 2021.⁷ Furthermore, in the report “Strengthening Mental and Social Support Systems and Services for Children and Adolescents in Thailand” by the Institute for Population and Social Research, Mahidol University (supported by UNICEF), it was reported that

Level of Stress

Level of Depression

Suicide Risk Level

Nearly One-Third of Thai Students Are in a High-Stress Condition



suicide is the leading cause of 1 in 3 deaths among children and adolescents in Thailand.⁸ What is more, the health behavior survey of Thai students by the Social Research Institute of Chulalongkorn University, supported by the Thai Health Promotion Foundation (ThaiHealth), found that nearly 1/3 of Thai students are in a high-stress condition.⁹ Thus, it is estimated that Thais spend over 21,500 million baht to manage chronic stress issues.¹⁰

The Silent Prevalence and Stress

There are quite a few people who suppress stress because they were taught that experiencing stress or showing it is a sign of weakness, failure, or some sort of deficiency, and they hold back under the guise of normalcy, as if nothing is happening. This is, ironically, an expression of mental strength. For example, leaders may hide their stress to prevent subordinates or superiors from feeling shaky or to maintain control over situations. Junior staff may hide stress to appear strong and able to uphold their responsibilities at work in the hope for advancement in the job. Spouses may shield their stress from children and family members because they do not want to impose worry or suffering on others. Indeed, children may hide stress for the same reasons, or for fear of criticism, and must strive to cope with stress by themselves in order to meet others' expectations.

Seeking treatment for stress, especially by consulting a psychiatrist, psychologist, and/or utilizing various therapy methods, is something that society and individuals may question or exhibit a skeptical or alienating attitude toward, eventually leading to stigmatization, thus, becoming a recurring social punishment which only serves to exacerbate any feelings of stress.

When this concealed mass of stress festers too long, it may become a time bomb to be exploded or a simmering volcano is waiting to erupt. These outbursts cause damage to the sufferers themselves and those around them.

Stress may be a more common experience for at all levels of society, and tends to escalate in severity more abruptly. However, **what exactly is stress? Does everyone experience stress in the same way, or does it vary depending on age and individual personality? And, when faced with stress, what methods do people use to cope with it?**

This featured article of the Thai Health Report 2024, we explore various health dimensions of stress, to help us better understand this phenomenon, and how to cope with it consciously, thus, promoting overall well-being.

Definition of Stress

Everyone knows what stress is, but nobody really knows.

Hans Selye, a pioneering Hungarian endocrinologist, was instrumental in studying stress,¹¹ and has been quoted as saying that “Everyone knows what stress is, but nobody really knows.”¹²

The word “stress” is commonly used and broadly spoken to express negative emotions and feelings. There are varying levels of intensity of these emotions or feelings, to the extent that anything not related to happiness or positive emotions is often categorized as stress. Thus, it can be difficult to precisely define stress as distinct from other negative emotions such as sadness, disappointment, frustration, resentment, etc.

Alternatively, stress can be considered a derivative of these negative emotions and feelings. In other words, stress is something that arises after experiencing certain negative emotions and feelings, such as becoming stressed after feeling disappointed, saddened, or frustrated.



Hans Selye, a Hungarian endocrinologist who pioneered the study of stress

Source: commons.wikimedia.org/wiki/File:Portrait_Hans_Selye.jpg

If that is accurate, then the next question would be whether there are instances where certain negative emotions or feelings occur without subsequent stress, or if stress always accompanies them. Alternatively, stress may depend on the level of intensity of the negative emotions and feelings. For example, there must be a certain level of negativity before stress occurs, whereas a lower level of negativity may not result in stress. What are the mechanisms and conditions for the occurrence of stress?

These questions lead to a differentiation to more accurately understand the distinction between stress and other negative emotions and feelings, in order to determine whether what is being experienced is indeed stress or just general discomfort, minor disappointment, or dissatisfaction, and has not yet reached the level of having “stress.”

From the Study of Stress in Lab Mice to the Study of Stress in Humans

Turning the clock back around 80 years ago, in the late 1930s, when Hans Selye was still a 29-year-old medical student studying at McGill University in Montreal, Canada, he was interested in the hormonal changes in experimental mice. He found that the mice not only responded to hormone injections and placebos but also reacted to stress from the experiments.

In the experimental dissection of mice receiving hormone injections and placebos, Selye observed **similar three clear changes, known as the “stress triad,”** which includes:

- 1 Dilated adrenal glands with congestion (hyperemia);
- 2 Shrinking of the thymus gland and lymph nodes;
- 3 Inflamed and hemorrhagic gastric erosion.

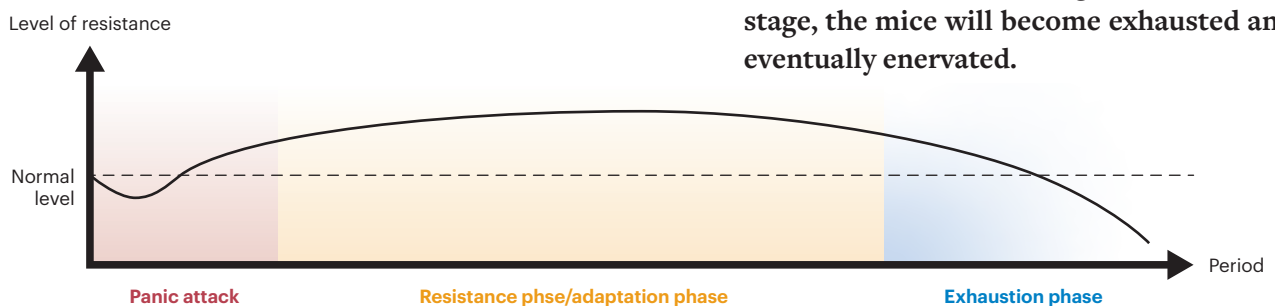
Selye published an article “A syndrome produced by diverse noxious agents” to describe his findings¹³ in the journal *Nature* in 1936. He wrote only 595 words (about

half of an A4) detailing the symptoms resulting from stress in mice. The paper proposed that stress in mice occurs in three stages. The first stage occurs within 6–48 hours after the mice were experimented on. In this stage, there is a clear reduction in the size of the thymus gland, spleen, and lymph nodes. Adipose tissue disappears, swelling occurs in the thymus, and the connective tissue around the abdomen produces fluid in the pleura and peritoneal cavity. Muscle tension decreases, temperature drops, and **there are sudden ulcerations in the digestive tract, especially in the stomach, small intestine, and cecum. Secretions from the adrenal glands decrease, and sometimes there is reddening of the skin, prolapsed eyes, increased secretion such as tears and saliva, and cloudy eye lenses. In severe cases, partial destruction of the liver may occur.**

The second stage begins after 48 hours of experimentation, at which time the adrenal glands will enlarge, and secretion will begin again. Swelling in cells decreases, and there is an increase in basophil cells in the pituitary gland and thyroid gland. **The body ceases to grow, reproductive organs shrink, and in mammals that nurse their young, milk production stops. The pituitary gland ceases to produce growth hormones, hormones related to reproduction, and hormones that stimulate milk production.** This form of stress also stimulates the body to produce hormones from the thyroid and adrenal glands, leading to an emergency state. If the experiment continues, animals will develop resistance, causing various organs to return to normal functioning.

However, if the experiment continues for another 1–3 months, **the lab mice will lose their ability to resist and defend themselves, and they will revert to symptoms similar to the initial stage. In this third stage, the mice will become exhausted and eventually enervated.**

General Adaptation Syndrome (GAS)



Source: Adapted from Selye, H. (1936). A syndrome produced by diverse noxious agents. *Nature*, 138(3479), 32-32.

These three stages have become a model for the response to stress called **General Adaptation Syndrome (GAS)**, with the first stage being the alarm reaction, the second stage being resistance or adaptation, and the third stage being the exhaustion phase.

However, in the introductory article of stress studies, the word “stress” does not appear at all. Instead, it first appeared in Selye’s 1950 monograph titled “The physiology and pathology of exposure to stress.”¹⁴ In that special technical publication, Selye proposed a definition of stress as **“A nonspecific response of the body’s endocrine system to any demand placed upon it.”**¹⁵ Later, Selye dropped the phrase “endocrine response” because other systems in the body are also affected by one or more stages of GAS in a similar fashion.

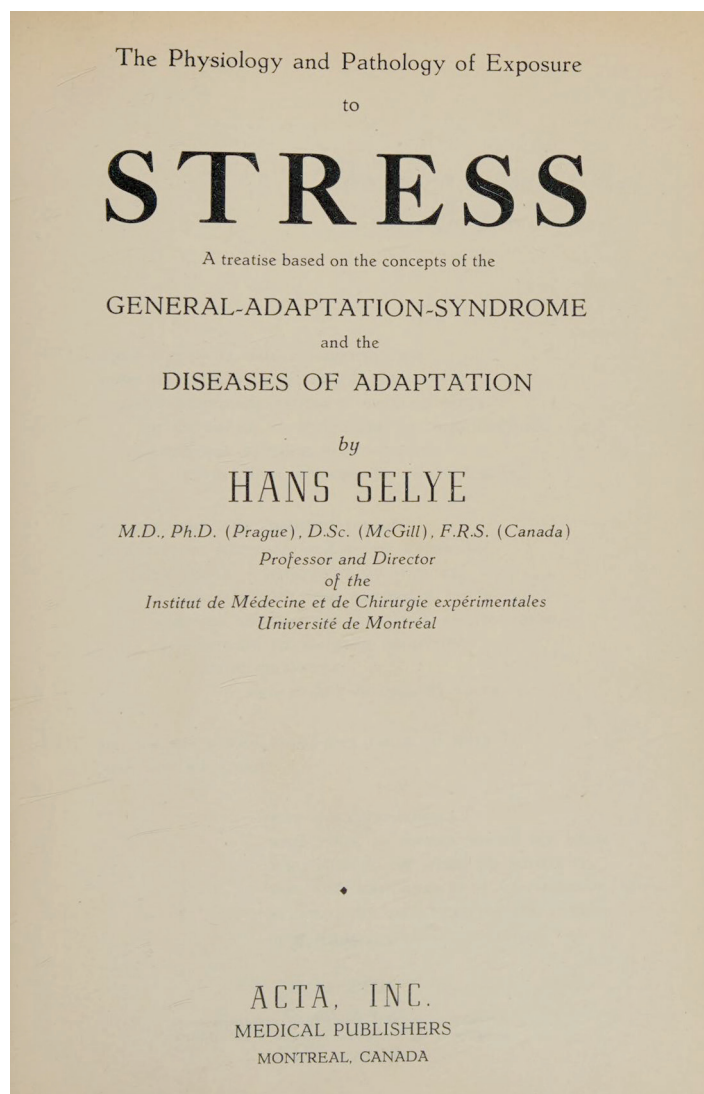
Selye’s continuous discoveries and studies on stress earned him the title of the “Father of Stress,”¹⁶ And which led to a burgeoning field of stress studies.

Mechanisms of Stress in Humans

Claude Bernard, a French physiologist, studied the role of the internal environment of cells (*milieu intérieur*).¹⁷ Not only does that environment serve the function of nourishing cells, but it also maintains balance when cells face various disruptions, such as changes in acidity or gases. Later, Bradford Cannon developed the concept of **“homeostasis,”** and wrote about it in his 1939 book “Wisdom of the Body.”¹⁸ Homeostasis refers to the body’s internal mechanisms to adjust when faced with any challenge in order to maintain balance by adjusting the body’s biochemical state. Additionally, Claude Bernard found that in the alarm stage (the first stage of GAS), animals make a **“fight-or-flight”** decision, and that process is technically termed “acute stress response.”

Later on, the concept of homeostasis (i.e., stability through constancy), was challenged by Peter Sterling and Joseph Eyer,¹⁹ who introduced the concept of “heterostasis,” which is the idea of maintaining stability through change.

Stress involves physiological processes and mechanisms that occur within the human body. When a person encounters any stressful event, the hypothalamic-pituitary-adrenal (HPA) axis and the autonomic nervous system (ANS) spring into action. The hypothalamus synthesizes and releases corticotropin-releasing factor (CRF), which, when released, stimulates the pituitary gland to release adrenocorticotrophic hormone (ACTH) into the bloodstream. ACTH then stimulates the adrenal cortex to produce glucocorticoids (GC), which are primary stress hormones. This leads to an increase in the concentration of free cortisol circulating in the bloodstream. As all of this continues to increase, CRF is inhibited, causing a decrease in ACTH and cortisol levels. This process is called the negative feedback loop of hormones.



Cover of a monograph of Selye in 1950 on the topic of “The physiology and pathology of exposure to stress”

Source: archive.org/details/physiologyandpathologyofexposuretostress/hans-selye

In response to stress, the body inhibits the immune system's processes, draws on stored energy, and stimulates certain processes of the central nervous system, such as learning and memory.

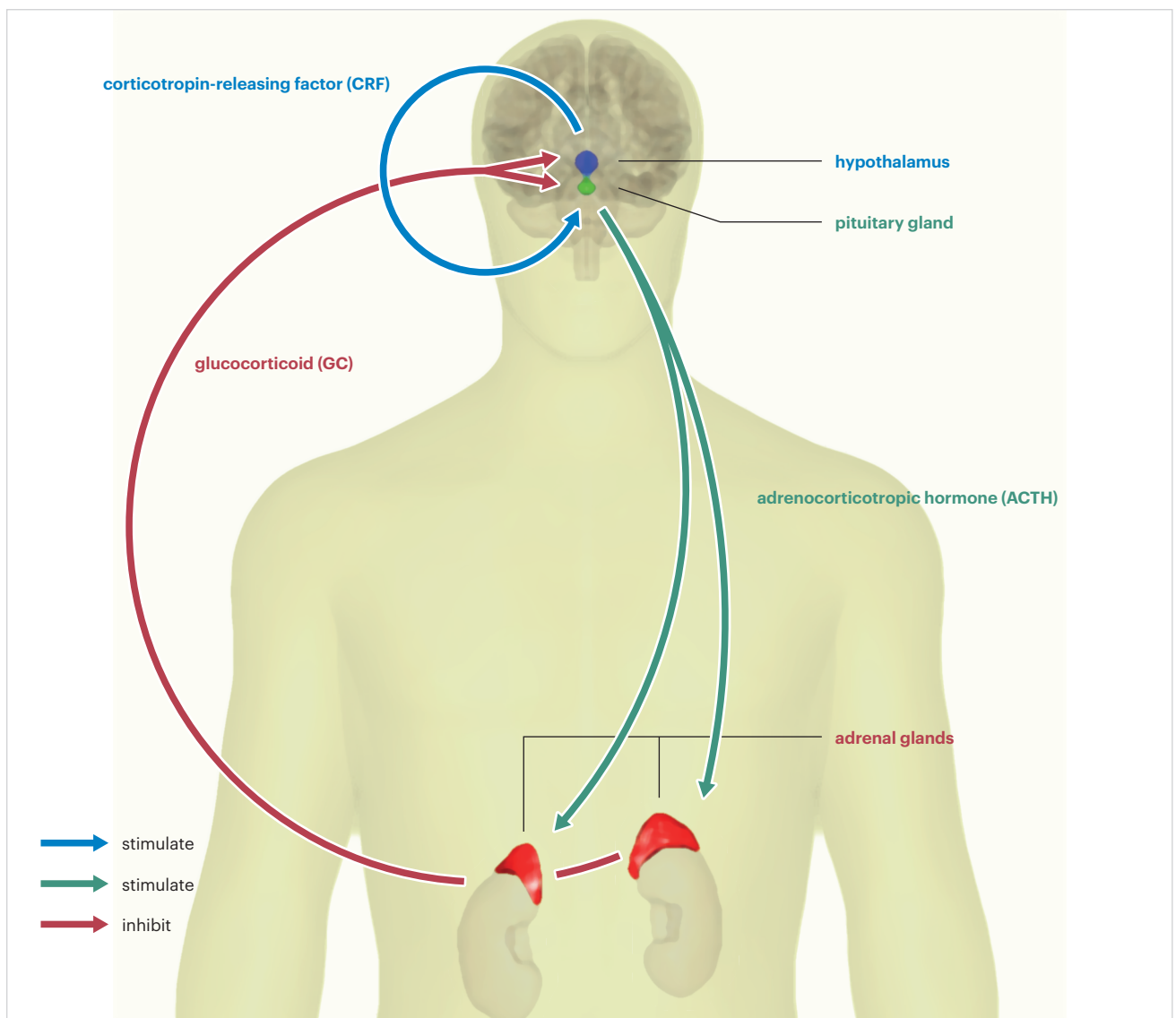
However, prolonged elevation of CRF and cortisol levels can lead to adverse effects, such as **cognitive disturbances, mood swings, anxiety, instability of the immune system, and increased risk of heart disease, diabetes, and stroke.**

Over time, there has been an increased interest in the effects of genetics on stress in humans. For example, a study by Avshalom Caspi et al in 2002 concluded that having an **excess of the enzyme monoamine oxidase A (MAOA) could make one more susceptible to depression.** Similarly, the serotonin transporter (SERT) gene helps individuals resist highly stressful life events.

The Environment vis-à-vis Psychological Stressors

While Selye's definition of stress (along with the propositions of other physiologists) has been criticized for being overly focused on the biological mechanisms of stress (somatic stress or biological stress), **it cannot be denied that a working definition of stress is crucial for the development of treatments for those affected by stress, whether through medication or other medical techniques.** Furthermore, the biological mechanisms may be the least understood aspect by the general public, despite occurring in everyone's body when stress occurs.

Hypothalamic-Pituitary-Adrenal Axis



Source: Adapted from [commons.wikimedia.org/wiki/File:HPA-axis_-_anterior_view_\(with_text\).svg](https://commons.wikimedia.org/wiki/File:HPA-axis_-_anterior_view_(with_text).svg) and [commons.wikimedia.org/wiki/File:HPA_Axis_Diagram_\(Brian_M_Sweis_2012\).svg](https://commons.wikimedia.org/wiki/File:HPA_Axis_Diagram_(Brian_M_Sweis_2012).svg)

For psychological stress, the most referenced definition comes from Lazarus and Folkman:²⁰ **“The relationship between individuals and their environment, in which individuals perceive that environmental demands exceed their resources and threaten their well-being.”**²¹ In this definition, it is evident that more emphasis is placed on the environment than internal mechanisms.

Even in genetic studies of stress, which explain that the ability to control stress is influenced by hereditary factors, there is still considerable emphasis on the influence of the environment. For example, the study by Fergusson et al (2011)²² examined **gene-environment interactions (GXE)**. However, their conclusions may not be very definitive and the research in this direction is still in its early stages.

The findings from the study of stress in physiology by Jeansok Kim and David Diamon (2002),²³ suggest that the quantity of stress results from three components:

- 1 Excitability/arousal
- 2 Perceived aversiveness
- 3 Uncontrollability

All of which are closely related to external environmental factors.

The origin of stress studies and the definition of stress, both in physiology, which is the complex narrative that occurs at the cellular and genetic levels of the body, and in psychology, which integrates the influence of external factors, demonstrate that effective stress management requires understanding and addressing all dimensions. No aspect, whether it is internal physiological mechanisms or external environmental conditions, can be overlooked or neglected.

In each stage of life, individuals inevitably encounter all three of these factors, which differ at each age. Whether in childhood, working age, or old age, these factors lead to facing stress with varying characteristics. Even in childhood, where many people think there should not be any responsibilities or stressors, children experience their own unique stresses that many adults overlook or do not understand. This may be because adults have forgotten their own childhood experiences, or because times have changed, along with changes in perceptions, the environment, and the prevailing values and norms. At the same time, children may not understand the stress of adults because they have not yet experienced certain things that older persons have the opportunity to do.

The content in this section depicts the varied stress scenarios experienced by individuals in all three stages of life, namely childhood and adolescence, working age, and older age. It presents information gathered from surveys on mental health or stress-related factors, including those associated with stress in different groups of people and how they express themselves when under stress.

Different People, Different Age Groups, and Different Stress



Stress can occur at every stage of life, from childhood, adolescence, adulthood, to old age. This is because individuals in each stage of life face physical changes, experiences, illnesses, relationships with others, obstacles, and challenges that vary across different ages and times. Therefore, each person's stress situation is associated with numerous and complex factors.

A deeper analysis of mental health issues finds that stress is related to three main factors.

- 1 **Physiological factors** unique to each individual such as physical illnesses, brain abnormalities, and genetics
- 2 **Psychological factors** such as a person's emotional foundation, personality traits, coping abilities, and problem-solving skills
- 3 **Environmental factors** such as family upbringing, education, socio-economic status, culture, information, and assorted other dimensions

Stress in Childhood and Adolescence



The “Mental Health Check-In”²⁴ survey found that Thai adolescents tend to experience higher levels of stress, with stress levels in March 2022 being up to four times higher than working-age adults. This stress caused adolescents to exhibit more aggressive behavior, stemming from relationship issues, academic stress, insufficient financial resources, and being criticized for being distracted, leading to conflict and ultimately escalating into violence.

Analysis of stress factors among young people (age 15–24 years) using a survey of 19,034 samples from **Kid for Kids** (Think for Kids) to understand the factors and coping mechanisms for stress among young people found that they experienced continuous stress primarily due to education and work, scoring 3.1 points (on a stress scale of 0–5).²⁵

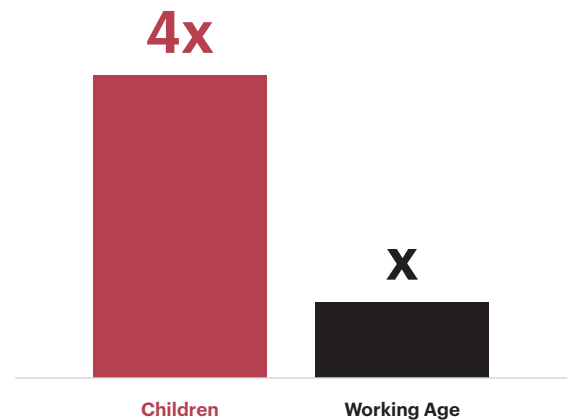
Stress-Related Factors for School-Age Youth

The Academic System and Expectations of Parents/Guardians

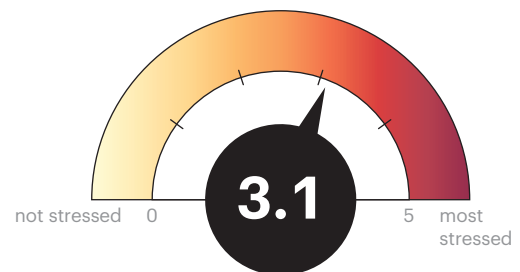
Data from ThaiHealth indicate that Thai children engage in the highest amount of study time compared to their counterparts in Japan, resulting in around 900,000 dropouts per year, with an increasing trend. The high number of study hours, ranging from 8 to 10 sessions per day, makes adolescents feel bored and unwilling to learn. Importantly, children often do not communicate or consult with their parents about their frustration. While the vast majority (87%) of youth talk with their parents daily, those conversations last only for about ten minutes a day. That finding aligns with data from Nation Master²⁶ which surveyed study hours and found that **Thai children have the highest number of hours spent in academic study compared to youth of other countries, averaging 1,200 hours per year, excluding extra/tutorial study hours.**

Sometimes, academic pressure arises from parental expectations or the child’s own desire to excel or gain admission to prestigious institutions. In those circumstances, the child must bear unrealistically high expectations from both family and society. Moreover, the school environment fosters intense competition and comparison among students rather than focusing on individual development and the joy of learning. Additionally, bullying exacerbates the situation through various manifestations.

Stress Levels in March, 2022



Stress Scores of Young Adults (Aged 15–24) Experiencing Chronic Stress due to Education and Work



When unable to meet the academic goals, children may feel insecure, pressured, and stressed and, thus, prone to sudden outburst if the stress is allowed to fester. Some students develop test anxiety, or feel anxious as exams approach due to fear of performing poorly or angering their parents. This can anxiety can undermine health, leading to clinical stress and depression. This stage of distress is often manifest by undesirable behaviors such as quarreling, violence, and self-harm.

●● The mother of a 12-year-old girl shared that her daughter had dreamed to study further in a high school in Bangkok. However, the pre-teen received the lowest score in class and was terrified of having to repeat the class and not being able to enroll in junior high school. This anxiety was made worse when she was mocked by classmates for her low score on the exam. It got to the point that she was so overwhelmed that she planned to hang herself. ●●²⁷

The number of study hours for children, apart from being an issue within the education system, also stems from changes in social conditions, which lead children and adolescents to face a condition known as **“hurried child syndrome”** more than ever before.

In this context, being hurried refers to parents expecting their children to do things beyond their psychological, social, or emotional capability, over-scheduling their lives, pushing and pressuring them heavily for academic success, and expecting children to speak, think, and behave like adults, which goes beyond their developmental stage and seems to turn them into small adults.²⁸

This pressure can lead to stress, and may result some youth to seek relief through substance abuse and alcohol and, as noted, some will descend into suicidal ideation, and many succeed in ending their life each year. The number of teen suicide accounts for 5,000 persons annually. The stress can also lead to premature sexual activity and unplanned pregnancy at a dangerously-young age.²⁹

The pressure on children and adolescents partly stems from being raised in single-parent families. When one parent must work hard, that parent may push the child to mature faster than their age. When both parents work full-time, there is often little time for nurturing and care. There is high expectation placed on the child, often encouraging them to act like adults before they are ready, to compete constantly, and to strive to be a “super kid.”

When children do not meet their parents’ standards, they feel immense stress, believing they cannot live up to their parents’ expectations. Additionally, influences from various platforms lead parents to expect their children to become “superheroes” like those portrayed in the media. Consequently, parents rush their children to develop rapidly in all aspects. However, regardless of how much parents nurture their children, if the child is not ready and lack maturity, ability to take responsibility, and the ability to adapt and cope with adult-like conflicts, such challenges can lead to feelings of anxiety, fear, and intense stress.

Furthermore, parents’ anxiety about their child’s progress is another factor that contributes to pushing children. Single parents may feel lonely, afraid, isolated, or insecure due to marital separation or divorce, leading them to feel the need for their child to excel as compensation. They may want their child to be self-dependent in every aspect, driven by their determination and expectations in raising their child during that time. This can also add pressure to push the child to mature faster than their age allows.

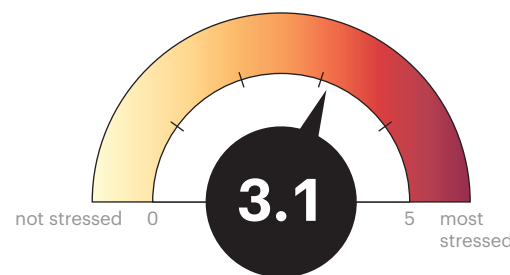
When parents push their child’s development too quickly and relentlessly, it can lead to the child experiencing pressure from expectations and inappropriate

experiences for their age. The child may not have time to play or live a life as a child should, resulting in an accumulation of stress in the long term. Stress experienced by children who are rushed can have adverse effects on the “cortisol hormone,” which deals with stress, and can also damage the child’s brain and memory.³⁰

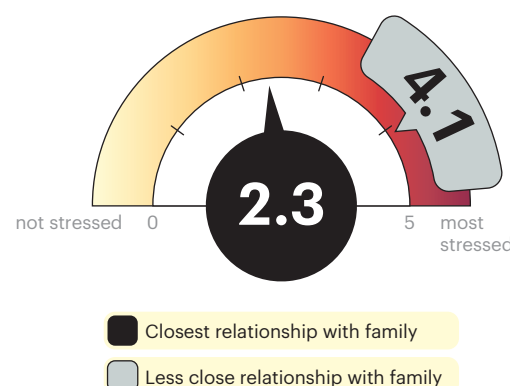
Relationships in the Family

A study found that, among a sample of adolescents age 15–24 who experienced chronic stress, the level of stress regarding family relationships was as high as 3.1 (out of 5 points total). Upon further investigation into family issues, it was discovered that adolescents with less closeness to their families had stress levels as high as 4.1 points, whereas those with the closest family relationships had stress levels as low as 2.3 points.

Stress Scores of Youth Aged 15–24 Experiencing Chronic Stress Related to Family Relationship

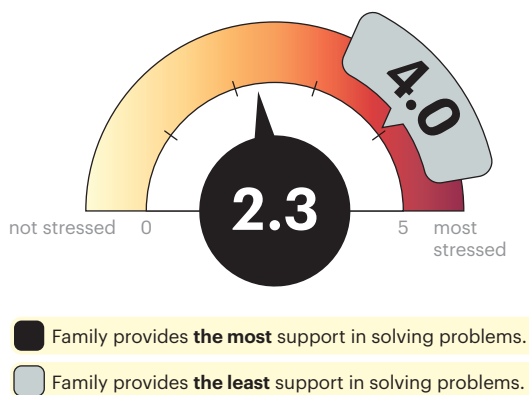


Stress Scores of Youth Aged 15–24, Categorized by Closeness with Family



When asked how much the family could help solve problems or provide support, it was found that the sample group with the least family support had stress levels as high as 4.0 points. Conversely, adolescents who received the most support from their family had stress levels as low as 2.3 points. This reflects that family support plays a crucial role in reducing stress and encouraging adolescents to confront various life challenges in a constructive way. However, if adolescents have significant conflicts with their family, that will only exacerbate the stress level. It was found that the group with the most conflict with their family had stress levels as high as 3.6 points, while those with the least conflict had stress levels as low as 2.3 points.³¹

Stress Scores of Youth Aged 15–24,
Classified by Levels of Family Support



Stress Scores of Youth Aged 15–24,
Categorized by Family Conflict



Childrearing

Families that employ strictness, pressure, verbal and physical threats, or engage in frequent arguments and violence neglect the emotional needs of their children. Such environments can leave children feeling lonely, abandoned, and lacking in support and love. Moreover, these children may experience educational neglect, particularly in cases where parents are absent and children are left in the care of grandparents or other relatives. This accumulation of stress can lead to difficulties in emotional regulation and an increased likelihood of exhibiting violent behavior as they grow older.

Studies have indicated that violence in childrearing, especially during early childhood and adolescence, where children grow up lacking love and warmth in the family, being abused or neglected leads to the accumulation of violent tendencies, manifesting in interactions with objects, pets, and friends without a sense of wrongdoing, eventually becoming habits and lifestyles that lead to violence against others and crime.³² Therefore, it can be said that **“improper child-rearing creates juvenile delinquent.”**

A Changing Society That Does Not Accommodate Everyone

The increasing mental health problems among today’s youth partly stem from growing up in a rapidly changing society with high competition. This environment often undermines the dreams and aspirations of youth. Additionally, societal beliefs and cultural barriers, such as those related to sexuality, force children to conform or express themselves in ways that society dictates for acceptance, contradicting their true desires.

As a result, many youths lack a sense of self and even struggle to choose a career path. Sometimes, they have to settle for survival jobs due to societal structures, inadequate education quality, and economic status, preventing them from pursuing their dreams. Some adolescents see no point in dreaming big, feeling constrained and in pain. Importantly, the voices of youth often go misunderstood by adults.³³ Often, these afflicted youth are seen as complainers, impatient, or lacking adaptability. They are then viewed as wrongdoers, misfits, or the perverse.

In some societies where male dominance is prevalent, there is often an expectation for male youth men to project toughness. Showing weakness is considered embarrassing. Young men are expected to be the backbone of the family.³⁴ This leads young men to bear the pressure and stress that may be difficult to express to anyone, ultimately undermining their mental health.

Top 3 Stressors Among Working-Age Individuals



Stress in the Working-Age Population



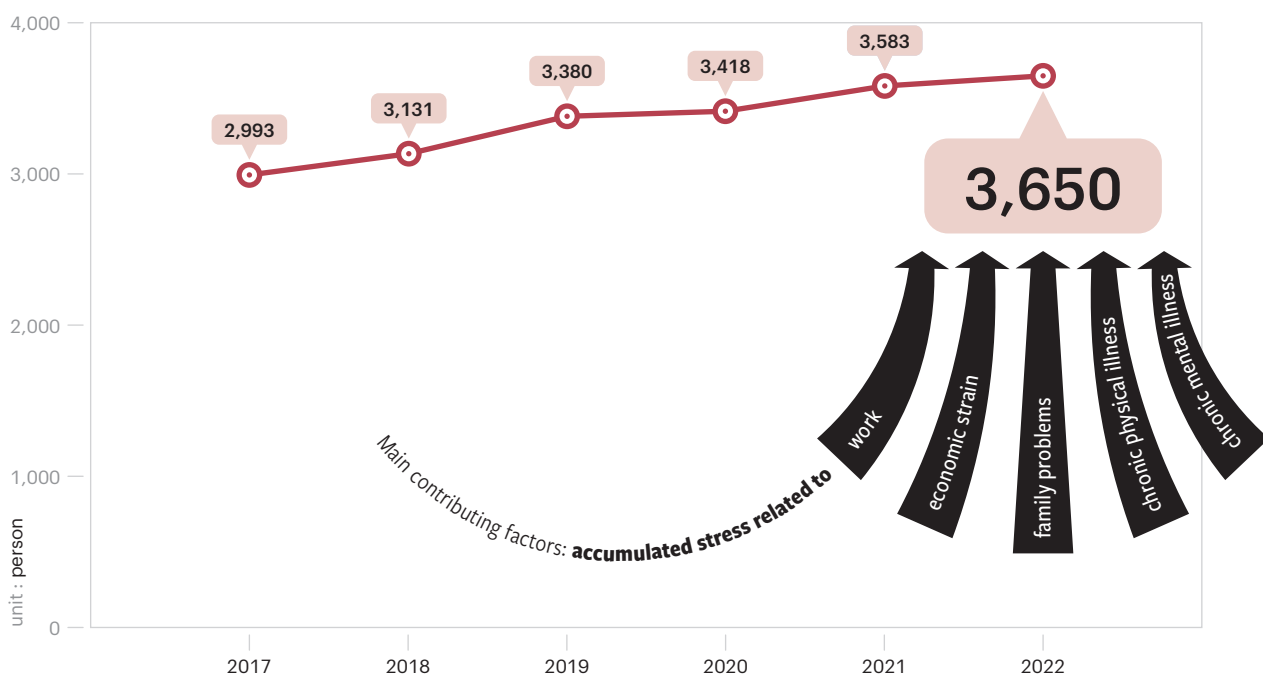
In 2018, the Thai Department of Mental Health conducted a mental health survey among working-age individuals in Bangkok, age between 15 and 59 years old. It was found that the top three stressors among working-age individuals were: stress from economic factors at 30.8%, with similar numbers for both men and women; stress from social conditions, ranking second at 20.3%; and stress from family problems, ranking third at 14.5%. Additionally, stress from excessive media consumption and interpersonal relationships accounted for 13.2%.³⁵

In 2022, the Department of Mental Health reported an increase in the number of suicides among working-age

Thais (age 20–59) to 3,650 cases, up from 3,583 in 2021. The main factors cited were accumulated work-related stress, economic pressure, family problems, as well as chronic physical or mental illnesses.

The NESDC Thailand's Social Outlook for the first quarter of 2023 warned that working-age individuals are increasingly at risk of chronic illness, particularly Coronary artery disease, obesity, stress, and suicide.³⁶ The Mental Health Department's Suicide Prevention and Surveillance Center revealed that there is an increasing trend in suicide rates among working-age individuals (Figure 1). The

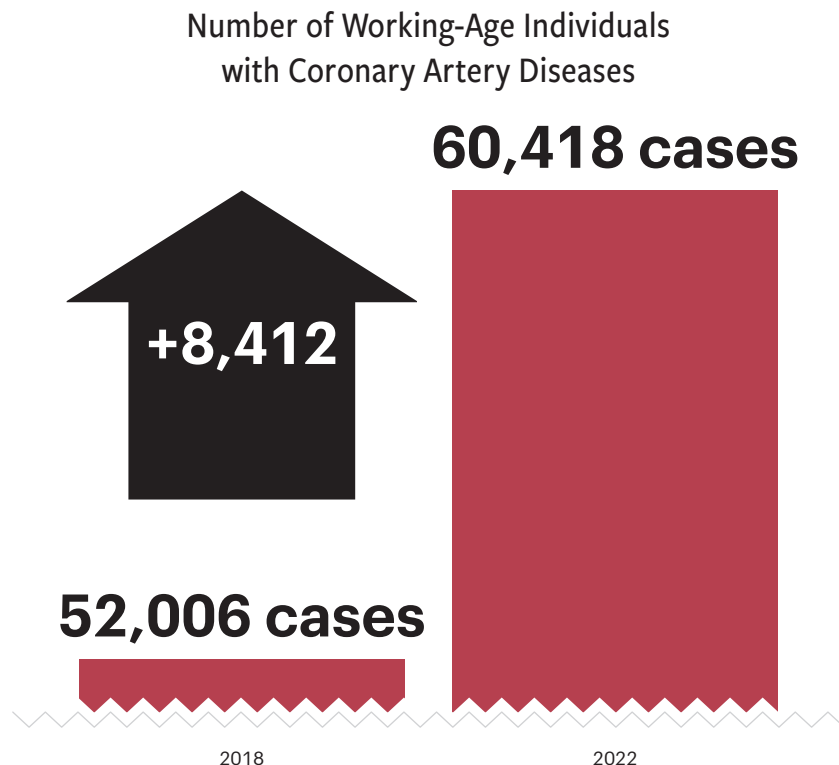
Suicide Among the Working-Age Population (20–59 years): 2017–2022



Source: Suicide Prevention and Surveillance Center, Department of Mental Health, Ministry of Public Health

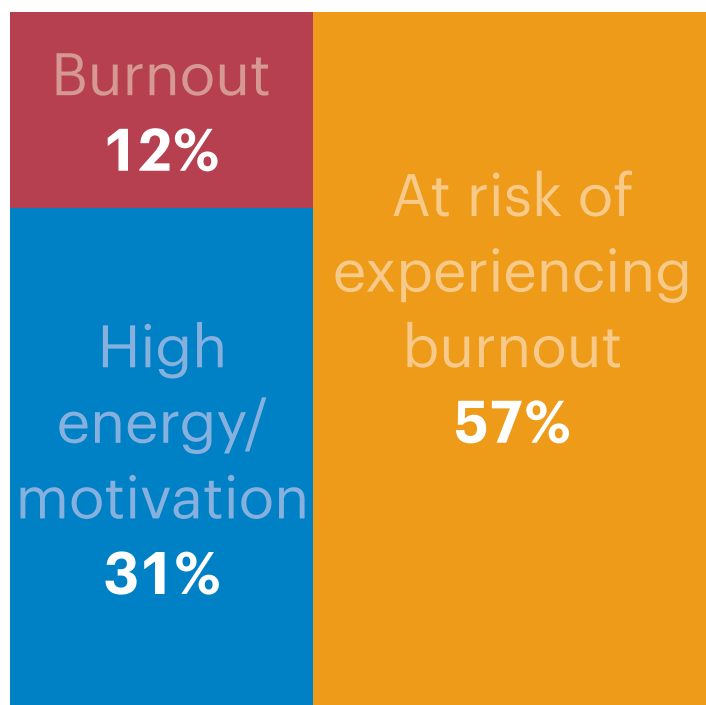
main contributing factors include accumulated work-related stress, economic strain, family problems, as well as chronic physical/mental illnesses.

Furthermore, stress also leads to various health problems. According to 2022 data from the Health Data Center of the Ministry of Public Health, a significant number of working-age individuals (60,418) suffered from coronary artery disease. This number has been consistently increasing since 2018 when there were only 52,006 reported cases.³⁷ Not only unhealthy lifestyle habits but also accumulated stress factors likely contribute to the increasing trend of coronary artery disease among the working-age population.



Stress-Related Factors Among the Working-Age Population

Classification by Work Enthusiasm Among the Working-Age Population in Bangkok

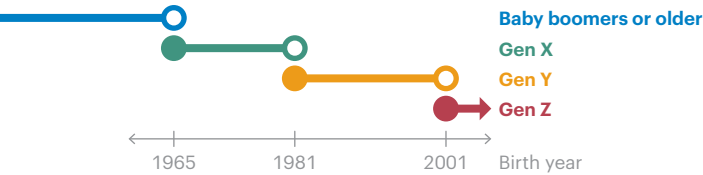


Work Burden

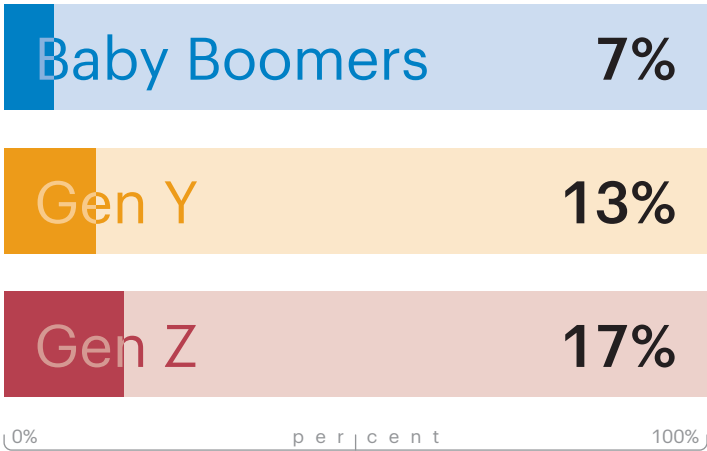
Burnout syndrome is a stress-related condition among working individuals, posing a silent threat to their health behaviors and quality of life, particularly prevalent in urban societies. **In 2019, the World Health Organization declared burnout syndrome as a health issue requiring care and treatment.** Research from various countries has indicated that burnout syndrome can lead to long-term depression, and is the second leading cause of death, especially among younger cohorts of workers. Various surveys have consistently supported these findings.

According to research from the “Burnout in the City” study conducted by the College of Management of Mahidol University, it was found that, among working individuals in Bangkok, while 31% were in a state of “high energy/motivation,” 12% were in a state of “burnout.” Additionally, there is concern for the remaining 57% who are considered at some risk of experiencing burnout.

Furthermore, it was found that younger workers had a higher likelihood of experiencing burnout. The Gen Z group (those under 22 years old) are experiencing the highest rate of burnout at 17%, while the Gen Y group (age 23–38 years) are close behind at 13%. In contrast, the Baby Boomer group (age 55–73 years) has the lowest rate of burnout at just 7%.³⁸

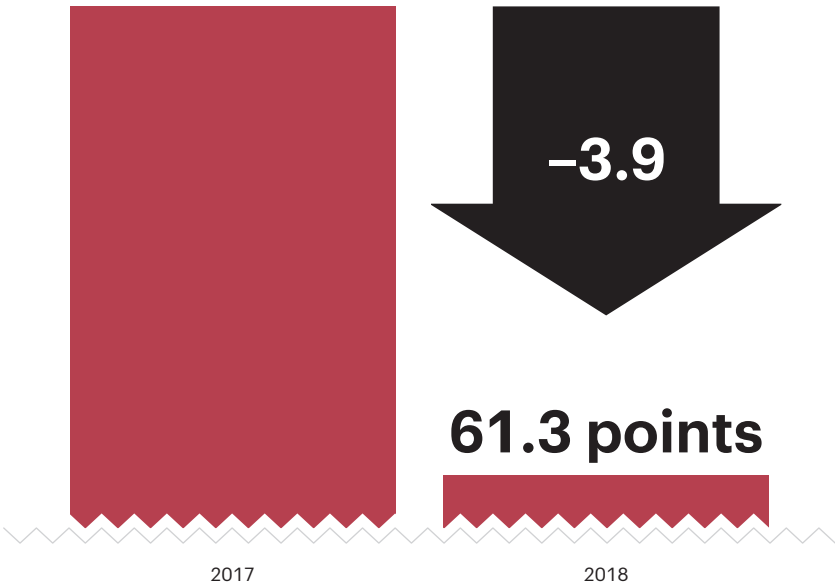


Percentage of Individuals Experiencing Burnout

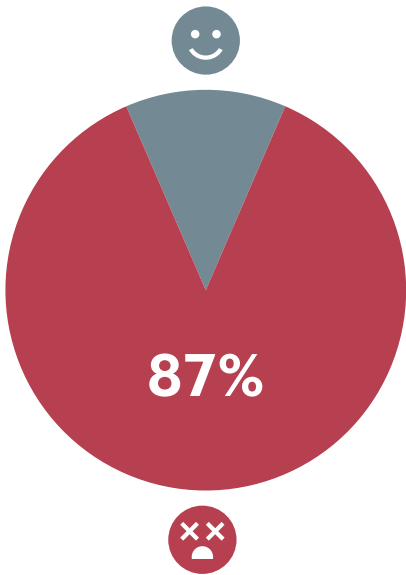


Health and Well-being Scores in a 360-Degree Perspective of Thai Individuals

65.2 points



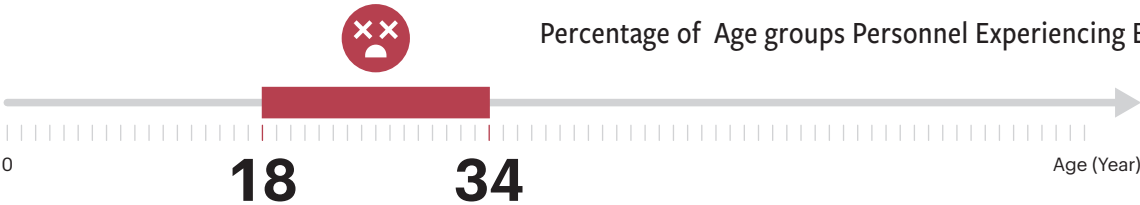
87% of Working-Age Individuals Experience Stress from Unsatisfactory Work

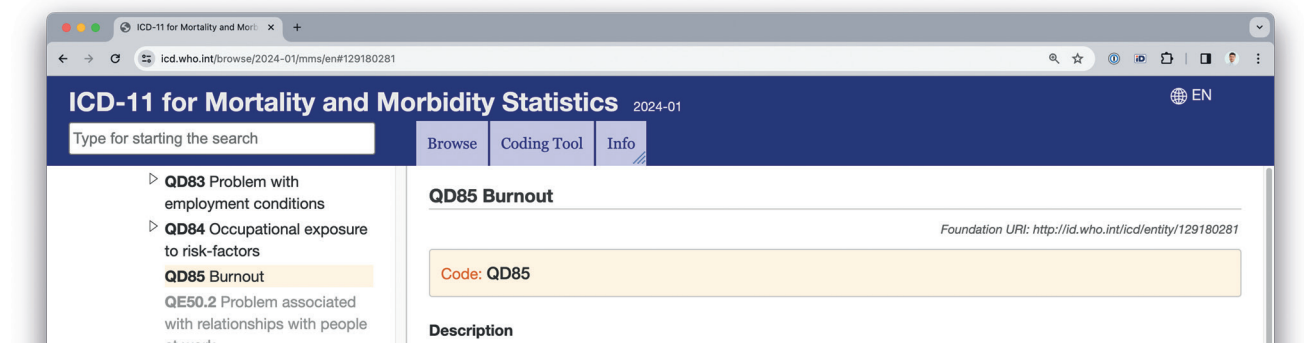


In 2018, Cigna Insurance Company conducted a 360° health and well-being survey among Thai individuals, revealing a decrease in the overall score from 65.2 in 2017 to 61.3. This decline is attributed to the majority of working-age individuals experiencing stress and concerns regarding financial stability and family caregiving ability. Meanwhile, the age group between 18 and 34 years reported feeling the most stressed about work-related issues.³⁹

Data from 2022 reinforces the extent of work-related stress, **with over 87% of working-age individuals experiencing stress from unhappy work conditions.** There was a significant number of resignations, totaling 77,143 individuals. Moreover, in January 2022 alone, 392 calls were made to the mental health Hotline by working-age individuals seeking assistance for stress, anxiety, and dissatisfaction at work, accounting for 6.5% of the total 5,978 Hotline calls received.⁴⁰

Percentage of Age groups Personnel Experiencing Burnout





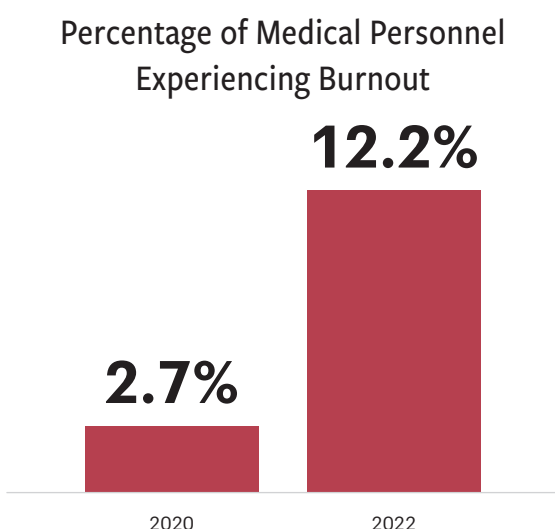
Burnout appears in international disease classification.

Source: icd.who.int/browse/2024-01/mms/en#129180281

Professions with Risk of Stress

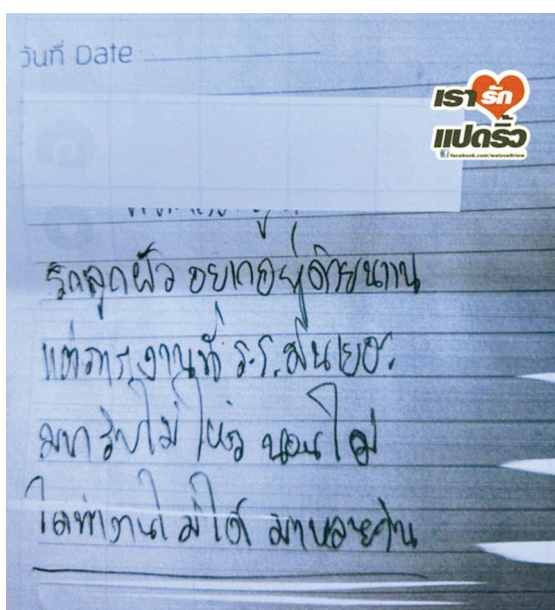
Some professions inherently induce stress due to the pressure, responsibility for lives or safety, continuous work hours without breaks, lack of work-life balance, or strict regulations. Examples include military personnel, police officers, teachers, doctors, nurses, lawyers, as well as performers and actors who have irregular work hours and breaks.

Data from 2022 reveals that medical professionals have recently experienced nearly five times increase in burnout syndrome, rising from 2.7% in 2020 to 12.2% in 2022. This increase correlates with a significant rise in the number of individuals seeking treatment for mental health issues in 2022. The limited availability of medical professionals has led to an increased workload, a major factor behind burn-out.⁴¹



Work Pressure

Some professions entail pressure from various aspects of their work, which can be intricate and complex. This pressure can stem from having to adhere strictly to regulations and guidelines, mismatched job assignments, being overloaded without adequate compensation, experiencing bullying or harassment, or being subjected to verbal abuse that causes embarrassment or loss of face. Other stressors include excessive workload, dealing with multifaceted problems, interacting with multiple aggrieved parties, lack of cooperation in the workplace, and high expectations from management. The teaching profession is frequently highlighted in the Thai media as vulnerable to experiencing these hardships.



Suicide note from a teacher who was overwhelmed with the workload

Source: <https://highlight.kapook.com/view/225031>

Impact of Stress

“A teacher was heavily stressed because she was forced to find new students to enroll according to the target number. Just before the semester started and the number has not been met yet, consequently, she was scolded and verbally abused until she felt pressured and hopeless. She tragically jumped from the fifth floor of the school building to end the suffering for good.”

—— Manager Online, May 5, 2022⁴²

Causes of Stress

“The root cause of my depression started right here. It is when they do not let us do the tasks we excel at, but assign us tasks we are not good at. I am an English teacher, but they gave me tasks related to chemistry, which is not my expertise at all. And they kept giving me these types of assignments continuously...”

—— The Matter, April 26, 2023⁴³

“Everything within 24 hours, ‘Teacher... my child was hit by a car.’ ‘Teacher... my child ran away to a friend’s house.’ We try our best to play our part, but at the same time, we do not receive cooperation from the parents. It is one of the things that makes us feel like we have tried, but when the youth leave the school gates, it is not like we did not follow (the student’s progress). We did follow, but the parents don not. This is disheartening for us. It is like we had this image of what we hoped it would be like—but it did not turn out the way we wanted, so we feel bad.”

—— The Matter, April 26, 2023

“I took just one day off and the school master give me a look. What about other colleagues? He asked someone will have to substitute you. If not, the class has to be canceled and students do not study. Parents complains afterwards.”

—— The Matter, April 26, 2023

Some teachers become so depressed due to work-related stress that they vent on social media to seek validation and support from the broader community.

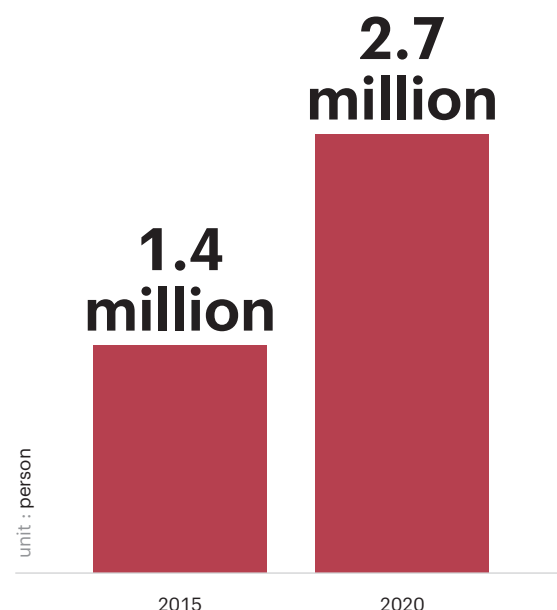
Groups in professions subjected to such pressures often experience high levels of stress. Some individuals may express this stress through violent behavior towards themselves, family members, coworkers, or strangers in such public space as street. Therefore, before stress escalates into violence, experts recommend that those around them observe the behaviors of their colleagues for signs of a breakdown. For example, if someone who doesn’t usually talk much suddenly starts sharing various problems, the appropriate response is to listen without rushing to give advice.⁴⁴ In the workplace, there should be systems in place to provide counseling and close monitoring by experts, which can help reduce the inappropriate expression of stress.

Economic Causes and Effects

The economic strain can have a significant impact on the health of workers. This was especially the case during the Thai COVID-19 epidemic, when many businesses and individual vendors suffered losses, collapsed, or had to reduce their workforce, leading to mass unemployment. The subsequent fall-out included stress and mental health issues among working-age individuals whose incomes have decreased due to layoffs. The COVID-19 crisis seems to have caused more stress than other crises because people could not go anywhere; they had to stay at home and kept distancing and there was uncertainty about the duration and resolution of the crisis.

Although the COVID-19 crisis has passed, the economic situation in many parts of Thailand has not fully recovered. Working-age individuals still face problems such as insufficient income to cover expenses, accumulating debt, and the challenge of reviving businesses that collapsed during the epidemic. Some have to work temporary jobs to make ends meet while returning to their regular employment may be difficult or impossible due to various factors. Some are pressured by joblessness, and lack of income/savings, creating stress for both workers and families, leading to despair and even self-harm or harm to family members.

The Percentage of Patients Receiving Medical Treatments Nationwide



●● The spare battery is in the compartment. There's 200 baht on the shelf at home. Take good care of yourself. Goodbye. ●●

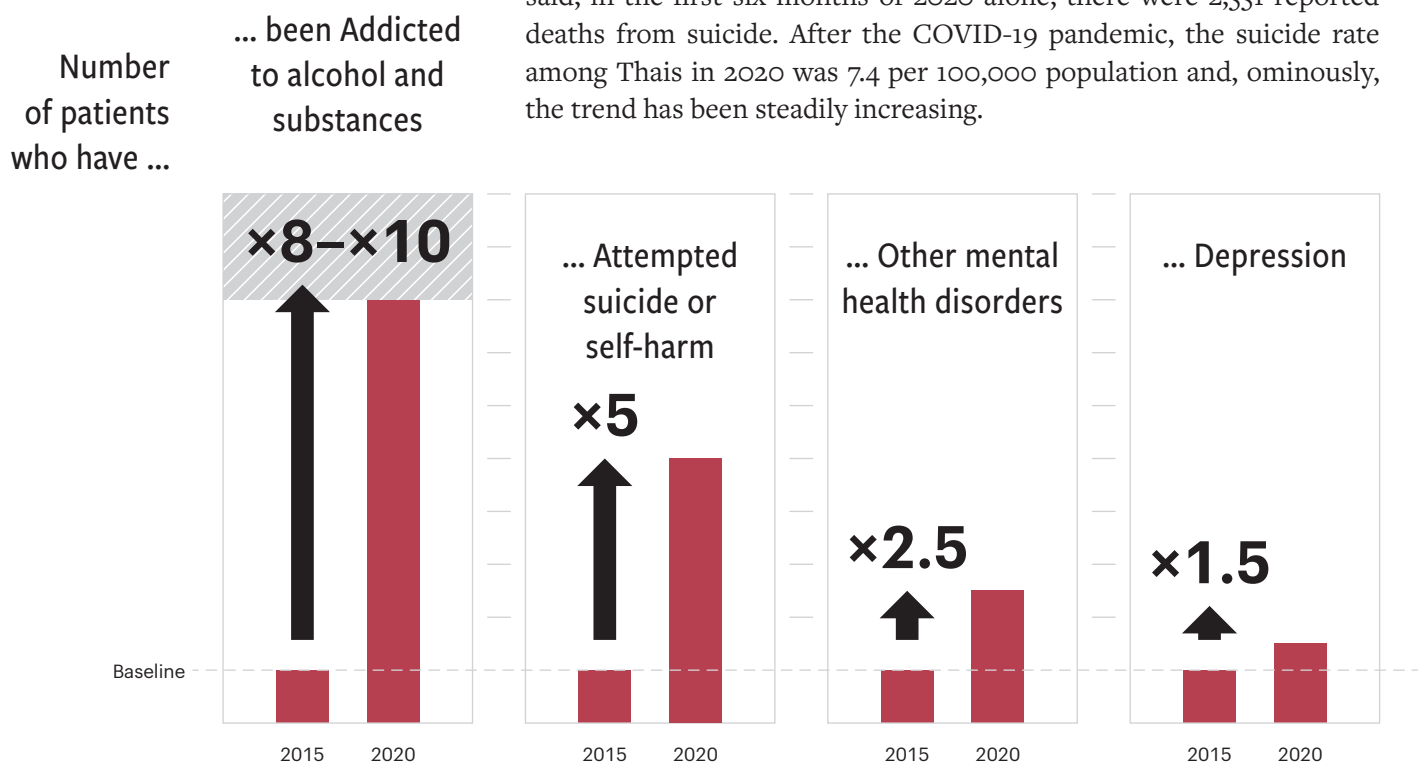
These were the last words the child heard over the phone before the father and mother committed suicide because they could not re-pay the debt to the loan shark that was coming due. Their profession had been selling fruit around the neighborhood. However, after COVID-19 struck, and everything closed down last year, they could not sell their goods. They tried different ways to make ends meet and took out loans, more than 15,000 baht per time, to buy fruits and sell them. Their debts got accumulated, then their unpaid car was repossessed later.

—— BBC News – Thai, July 5, 2021⁴⁵

●● My husband returned to drinking during the COVID-19 epidemic because he lost his job. Previously, he had been working as a freelance driver delivering goods and doing construction work in Bangkok. When he lost his job, alcohol became his companion. When he got drunk, he would often beat me. It happened so often that I could not bear it anymore. I felt stressed and wanted to die, so I grabbed some paracetamol tablets into my mouth. The medicine made me a bit unconscious, and I took a knife and stabbed my legs and arms. I wanted to know if I still had any feelings left, asking myself why I had endured this. My brain could not stop thinking, constantly aware that I wanted to die but never actually died. In the end, I jumped out of the 2nd-story window and broke my ankles. ●●

—— The101World.com, April 20, 2020⁴⁶

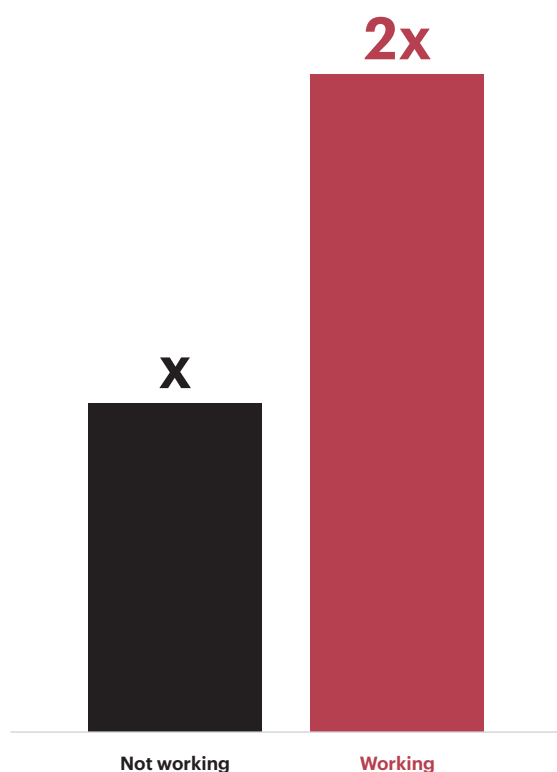
Data from the Department of Mental Health found that the number of patients seeking medical services nationwide from 2015 to 2020 has nearly doubled. The caseload increased from 1.4 million in 2015 to 2.7 million in 2020. When categorizing patients by disease type, it was found that, from 2015 to 2020, the number of patients with alcohol and substance use disorders increased by 8 to 10 times. Patients attempting suicide or self-harm increased by 5-fold, and other mental illnesses increased by 2.5 times. Cases of depression increased by 1.5 times. However, the number of patients with psychotic and anxiety disorders decreased overall. That said, in the first six months of 2020 alone, there were 2,551 reported deaths from suicide. After the COVID-19 pandemic, the suicide rate among Thais in 2020 was 7.4 per 100,000 population and, ominously, the trend has been steadily increasing.





Older Thais often face both physical and mental health issues due to the aging process, during which various organs start to deteriorate and function slows down. Common problems among seniors include anxiety, depression, insomnia, and dementia, which may largely stem from stress, feelings of loss or changes in life, especially the loss of leadership roles, a once large family now reduced to a smaller one, or having to care for themselves, being abandoned by their younger relatives. Past events may trigger feelings of disappointment, sadness, boredom, loss of appetite, and fear, leading them to withdraw from society, increasing the risk of poor mental health and subsequent health problems. Older individuals who understand life can accept various changes, engage in beneficial activities, thus promoting optimal physical and mental health.⁴⁷

Stress Levels of Elderly Individuals in Urban Areas



Health Problems

A study on stress among older Thais living in urban areas found that those who are physically strong and able to help themselves, and have good relationships with their families, have lower levels of stress. Meanwhile, those seniors who are still working experience significantly stress two times higher than those who are not working, especially if their occupation is uncertain and income is low, such as in temporary jobs. Furthermore, if the older person has chronic illnesses and still needs to work to survive, their stress levels tend to be even higher.⁴⁸

The number of older Thais suffering from chronic disease or debilitating condition is increasing. These illnesses/conditions undermine their quality of life and lead to a state of vulnerability. Particularly concerning are those seniors who are both afflicted by chronic disease and in a state of dependency, lacking caregivers or receiving inconsistent care. In some cases, caregivers lack sufficient knowledge in geriatric care.⁴⁹ The lack of adequate care and attention leads older persons to feel lonely and struggle in life, greatly impacting their mental well-being. They may experience sadness, despair, and even lose the desire to live. Particularly concerning is the data from 2021, which found that over 800,000 older persons suffer from dementia, with over 90% of them facing mental health issues.⁵⁰

Approximate Number of Elderly Individuals with Dementia, Categorized by Mental Health Challenges



Succumbing to Change

Older persons experience different changes in their mental well-being, but one commonality is that they all face significant changes that come with aging. These changes can occur in various aspects such as physical health, illness, economic status, employment, social life, environment, culture, and relationships.

Older persons who can adapt will try to find ways to cope and maintain a sense of worth in life. For example, engaging in enjoyable activities, pursuing small hobbies within their capabilities, and fulfilling their roles within the family, such as helping to care for grandchildren or preparing meals.

Some older persons also prepare themselves to face approaching death, accepting illness and decline. Studies have found that those who remain strong and can care for themselves well, can use their existing knowledge and abilities to earn a living, allowing them to adapt to changes more effectively. Those seniors are less likely to experience stress or depression, especially in societies with adequate support or social benefits, enabling them to live comfortably, even with low income.⁵¹

Some older persons may not be able to accept various changes related to advanced age, and the transition in mental well-being can lead to several adverse consequences. One clear observation is an increased self-interest and egocentricity. Additionally, a senior's ability to suppress anxiety during times of emotional distress decreases. Consequently, when faced with problems, the older person often experiences significant stress and anxiety.^{52,53} Moreover, the aging household member may exhibit irritability, easily become angry, feel resentful, bored, hopeless, and melancholic, to the extent that it could develop into clinical depression.

Lack of or Adequate Income

One of the greatest concerns of entering old age is financial stability because most people will not know how much their

livelihood will be affected when they age into advanced years, and no longer have income from work. Therefore, it is crucial for senior citizens and their families to plan ahead to cope with this.

In cases where older persons live with their families, and their children or grandchildren work and have sufficient resources to support household expenses, there may not be much of an income issue. However, for older persons who do not live with family or in a financially-struggling household, having to work and earn money on their own can lead to insufficient income and significant debt. Income-related issues are strongly associated with stress and the quality of life for older persons. Research has found that older persons who receive income from their children or relatives tend to have less worry or stress since that is one challenge that is taken care of. However, there are many older persons who do not receive little/no income from their children or relatives, and have to work to support themselves. These seniors undoubtedly are experiencing moderate stress due to financial strain and anxiety about the future.⁵⁴

Promoting the mental health and providing psychological care for older persons not only involves preparing older persons and their families, but society also has a role to play in promoting and providing services, creating a supportive environment, and facilitating various conveniences for its senior citizens. This includes having plans or policies to support older persons in engaging in social activities, helping them to feel emotionally stable, reminding them that they are valued, and helping them to lead comfortable and independent lives as much as possible. By doing these, mental health problems in senior people can be reduced.

Relationships with Family Members and Attention Paid to the Older Household Members

Currently, older persons are often left isolated because their children have to work, leading to diminished relationships and care for older persons. Additionally, the respect and consideration for older persons among the younger generation have changed. When older persons are treated poorly, disrespected, or subjected to inappropriate remarks and facial expressions when they express dissatisfaction, it causes them stress.

Furthermore, the lack of attention and care from family members and close ones, and the family's failure to listen to their opinions or warnings, make older persons feel undervalued and unwanted, leading to similar stress.

However, despite experiencing stress, engaging in activities with family during leisure time, meeting new people, and exploring new places can reduce stress for older persons.⁵⁵

Coping with Stress

One complexity in coping with stress is that stressors (i.e., the causes of stress) may vary in intensity from one person to another, at different times, and in different situations, or may not cause stress at all in some cases. Therefore, coping with or managing the stressors differs for each individual, depending on the circumstances and locations.

Coping with stressful events involves behavioral and psychological aspects, except in cases where medical treatment or medication is required, administered by a psychiatrist, especially for stress that cannot be alleviated by changing one's thoughts, feelings, or behaviors.

"Tips for coping with stress" is a popular topic seen in various forms such as articles, books, and Internet blogs, written by both laypeople and professionals in the field of psychology, including psychiatrists, psychologists, and human resource development specialists. This reflects the perpetual interest in stress among people in society, and the ease and speed with which information can be obtained and applied.

If you search for information from various sources, you will find that each author provides information in their own way, some similar and some different, based on their experiences, beliefs, and opinions. Some may offer tips, or even just one piece of advice to live by, e.g., meditation or let-go of everything

So, in total, **how many ways are there to cope with stress? And what determines which coping method one should choose?**

Resources for Coping with Stress

In psychosocial studies concerning coping with and treating stress, there is a general consensus about the conditions for tailoring a stress-coping method best suited for each individual. This involves one significant factor called **"stress-coping resources,"** which varies from person to person, leading to differing limitations in their ability to cope with stress. Consequently, the selection of **"coping strategies"** varies accordingly.⁵⁶

However, upon careful observation, one will notice that individuals tend to exhibit consistent behavior in selecting their own stress coping methods, eventually forming their personal **"stress-coping style."**

Resources for coping with stress is crucial for evaluating whether a situation or event constitutes stress. If a situation demands or forces one to do something beyond their control or resources, stress may occur.

These stress-coping resources fall into two categories: **personal characteristics** and **social resources**. Both groups of resources are important in building stress resilience as supportive buffers. They influence whether individuals perceive an event as stressful and how they respond, cope, and address the situation to reduce or eliminate stress.⁵⁷

In a broad sense, **personal characteristics** are considered internal resources within individuals, encompassing



Source: unsplash.com/photos/person-surfing-on-sea-waves-during-daytime-c_s_z_7gJjs

various sub-traits across dimensions such as status, physique, appearance, education, ethnicity, knowledge, abilities, and more. Ultimately, two key factors have the most significant impact: **the sense of whether things are under one's own control or not** (referred to as “sense of control” or “locus of control”)⁵⁸ and **one's sense of self-esteem**.

These two personal characteristics are interrelated. That is, individuals who believe they can solve problems or control situations, even in the face of adversity, even if it stretches their abilities, persist in the conviction that they can handle it. They perceive themselves as the ones responsible for taking charge, preferring not to burden others, a characteristic known as **having an internal locus of control**.

On the other hand, those who think that things are not something they need to handle or manage but rather something for others or external factors to control, are said to have **an external locus of control**. Therefore, **individuals who have confidence in their ability to control themselves tend to have a high sense of self-esteem** and possess various advantageous personal traits, including intelligence, education, knowledge, abilities, status, as well as ethnicity and external appearance.

From this perspective, it is noted that individuals with certain personal characteristics

are more advantageous than others. This makes them more confident in their internal control and have higher self-esteem. **They are considered to have more resources to cope with stress than others**, and have a comparative advantage over others. **It becomes a matter of concern regarding the issue of inequality in problem-solving and dealing with various stressful situations**.

In simpler terms, those with higher status are more likely to develop advantageous personal characteristics than those with lower status. This means they have a better chance of managing and coping with stress, as well as alleviating its impacts on mental and physical health. They may also have fewer encounters with stress.

Furthermore, it is also observed in another direction that some personal characteristics may lead to encountering stress, such as being over-confident, embracing a challenge, and tackling difficult tasks. They may perceive stress as a flavor and color of life, or being insecure to the point that any challenge becomes stressful.⁵⁹

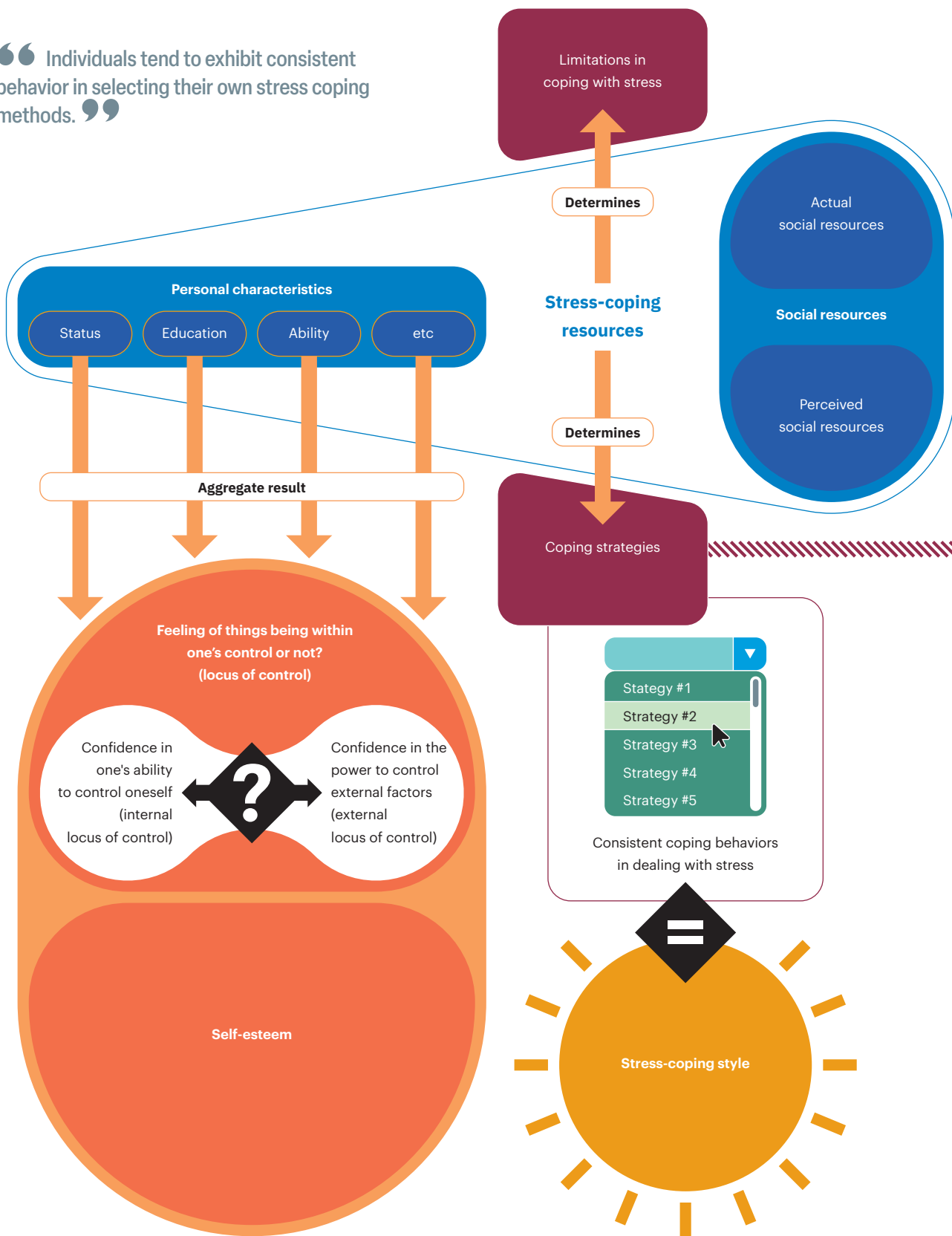
In addition to personal characteristics, which are internal resources influencing individuals' capacity to manage and cope with stress, there are external resources known as **“social resources”** within each person's environment. These encompass support from family

members, friends across various social networks (such as school-mates, colleagues, or community members), and other community-based resources. However, academic studies have not extensively explored the mechanisms and structures in society, including the roles of various public agencies and the welfare assistance system. Nevertheless, it is important to recognize that these societal structures and mechanisms play a significant role in aiding individuals in coping with stress.

Another interesting point regarding social resources that aid in coping with stress is the **“perception” or “awareness” of having these social resources** (perceived social resources), which is no less important than actually having them. Simply feeling that there are people around who understand, empathize, encourage, and provide assistance (whether they actually exist or not) can help alleviate stress. It is considered emotional support that has positive effects on mental health regardless of whether these resources actually exist.⁶⁰ Although it is not yet clear how receiving support from social resources without one's knowledge (receiving assistance but unaware of it or who provided it) affects stress, it can be concluded that **communicating to create awareness through any means has a significant positive effect on reducing stress**.

Resources for Coping with Stress (pages 116–117)

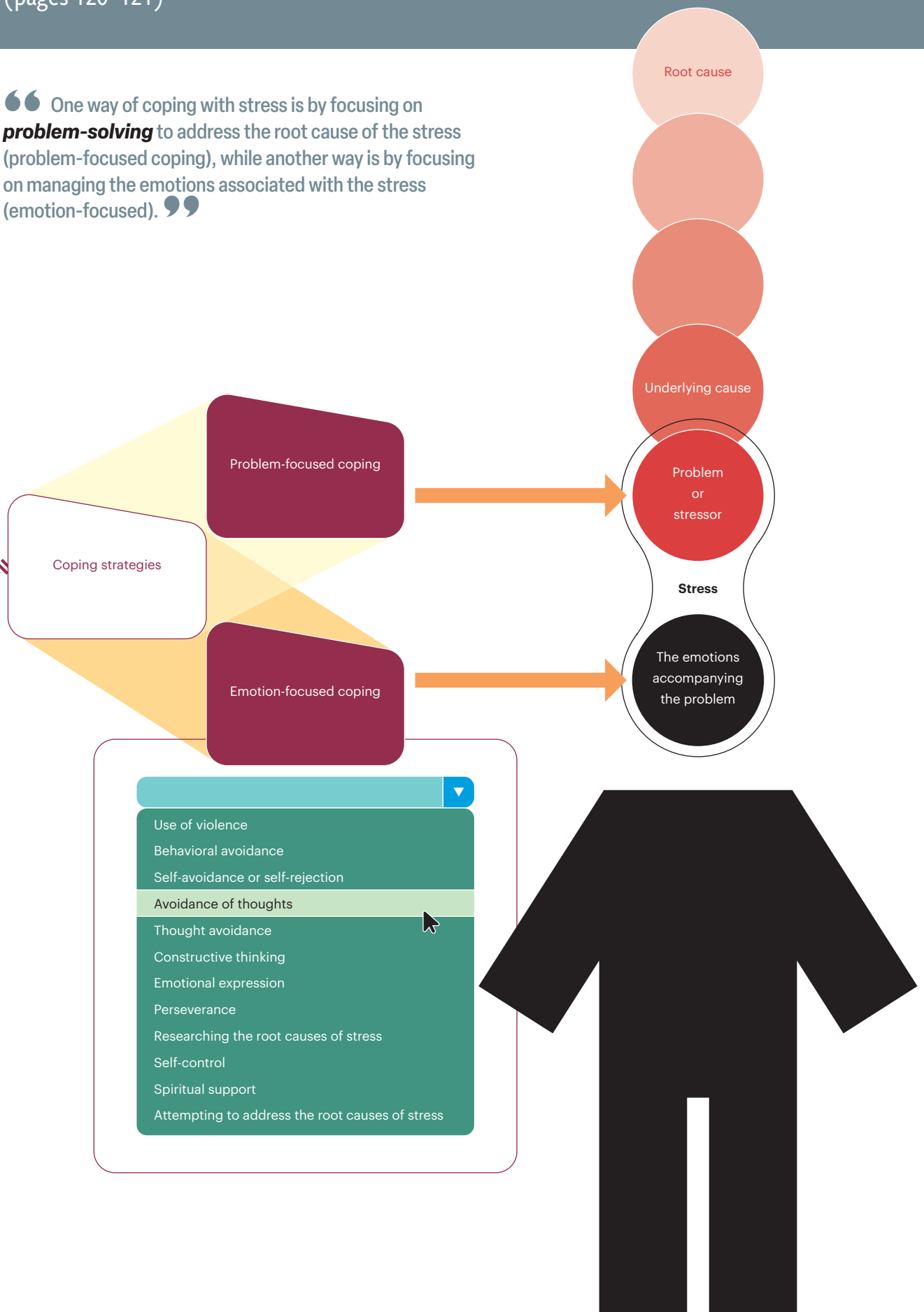
“ Individuals tend to exhibit consistent behavior in selecting their own stress coping methods. ”



Managing Stress

(pages 120–121)

“ One way of coping with stress is by focusing on **problem-solving** to address the root cause of the stress (problem-focused coping), while another way is by focusing on managing the emotions associated with the stress (emotion-focused). ”



Managing Stress

Stress is something that is triggered by certain causes or problems (stressors). When these problems occur and it is assessed that solving them may exceed one's available resources, stress occurs. Therefore, stress consists of both the problem or stressor and the emotions that come with the problem. One way of coping with stress is by **focusing on problem-solving** to address the root cause of the stress (problem-focused coping), while another way is by **focusing on managing the emotions** associated with the stress (emotion-focused).⁶¹

Coping with stress by focusing on problem-solving to address the root cause of stress is a general problem-solving approach that begins with defining the problem, identifying what the root cause of the problem is, generating alternative solutions, weighing the pros and cons of these solutions thoroughly, and then taking action based on the chosen path.

Managing stress **follows the same principle as the Buddhism's Four Noble Truths**, consisting of Dukkha (suffering, which refers to enduring difficulties), Samudaya (the causes of suffering), Nirodha (the cessation of suffering), and Magga (the path to the cessation of suffering).

The path to the cessation of suffering involves managing various aspects, whether internal (e.g., attitude, changing one's perspective on the situation), or one's perception of their ability to cope with the situation, to lead to problem-solving to eliminate the root cause of stress. Additionally, the approach involves managing the external environment, such as dealing with other people and things, to eliminate problems and stress.

However, **managing stress by focusing on managing one's emotions or feelings does not directly necessarily address the root cause of stress**. In that case, the problem remains unchanged. This may be because it is beyond one's ability to address or may be a choice not to address it. Therefore, managing one's emotions to prevent stress may be preferred over addressing the root cause of stress.

The Handbook of stress, coping, and health: Implications for nursing research, theory, and practice⁶² has compiled methods for managing stress aimed at managing emotions, and categorized them into various categories, including **aggressive activities**, whether verbal, vocal, or physical aggression towards various things to relieve stress. **Behavioral avoidance** involves separating oneself from family, society, or the same environment, as well as changing the subject, changing the topic, or even remaining still and inactive. **Behavioral distraction** involves

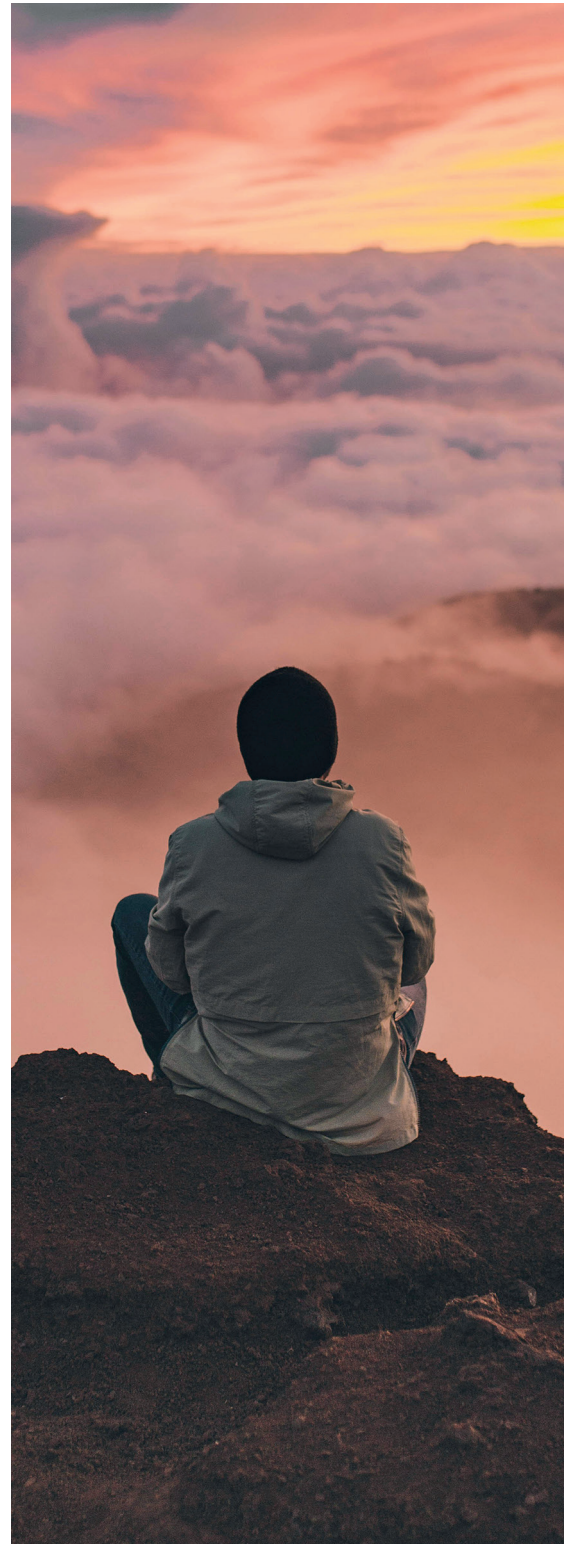


Source: unsplash.com/photos/black-statue-of-a-man-LJhXYHxPfEY

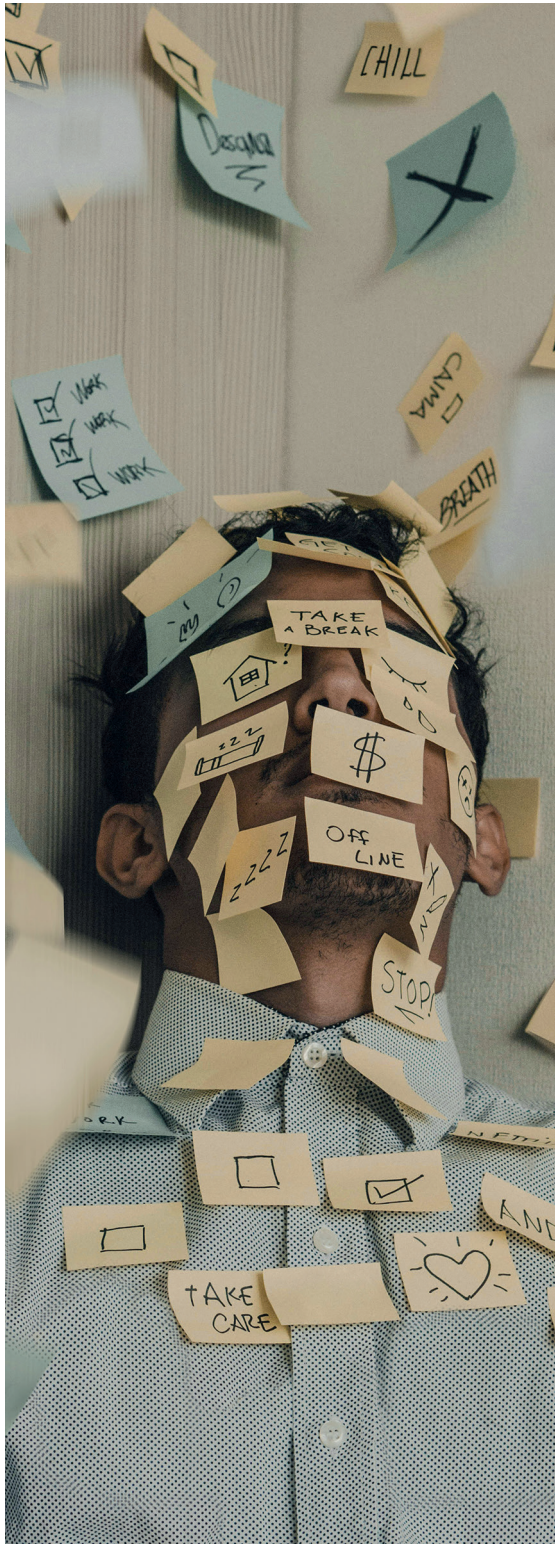
diverting one's own attention, such as seeking various entertainment, engaging in activities one enjoys, whether recreational activities or even exercising. Some activities may have negative health effects, such as drinking alcohol, smoking, substance abuse, or overeating. Additionally, one can divert their attention and spend more time with people one feels comfortable with, and engage in activities with the peer group, as well as spending time with pets. **Cognitive avoidance** involves trying to convince oneself that the situation did not happen, trying not to think about it, trying to forget, and/or pretending not to notice. **Cognitive distraction** involves trying to think about something else, thinking about other things. **Cognitive restructuring** involves trying to look at the positive side, developing mental virtues, or trying to tell oneself that it is not all bad, or that it is insignificant. This approach also involves creating hope that good things will happen, which aligns with **positive psychology**. **Emotional expression** involves expressing feelings in various ways, such as crying, speaking to oneself or others to release feelings, and writing descriptions of feelings. **Endurance** involves accepting and tolerating stress. **Seeking information means one tries to find** the causes of stress from various media sources, personal information sources, etc. **Isolating activities** include being alone, taking breaks. **Self-controlling activities** include telling oneself to be calm, reducing tension, comforting oneself, finding ways to relax and meditating. **Spiritual support** includes praying, making merit, seeking solace, and/or relying on sacred things. Another approach is **stressor modification**, which involves negotiating, accommodating, and mitigating the causes of stress to make them lighter.

In principle, dealing with stress by targeting the problem-solving aspect, which addresses the root causes of stress, seems to be a beneficial and effective approach. However, in practice, some individuals may choose to use emotion-focused coping strategies without addressing the underlying issues or stressors directly. Even though this may be beneficial in the short-term, most people may end up using both problem-focused and emotion-focused coping strategies simultaneously.

Furthermore, some studies have found that individuals who have high confidence in their internal control and self-esteem tend to prefer coping with stress by problem-solving. Conversely, those who believe that things are beyond their control and have low self-esteem may choose emotion-focused coping strategies to manage stress.⁶³



Source: unsplash.com/photos/man-sitting-on-cliff-uftqFbfWGFY



Source: unsplash.com/photos/people-sitting-on-chair-with-brown-wooden-table-m1VbMbxFWI4

Summary and Recommendations

No one wants to suffer from stress...but, then again, no one can completely avoid it.

Statistics and news reports from various sources all point to the same conclusion: “People are becoming more stressed!” Each age group has different stressors that vary according to the developmental stages of life. These developmental stages may not differ significantly from the past in general terms, such as youth (focusing on education, relationships with parents, peer friendships), adulthood (focusing on establishing economic status, building a family, and taking care of family members), and the senior citizens (focusing on health, finances, and loneliness).

However, the current economic and social changes and pressures have made people in society more distressed, competitive, confrontational, envious, and vindictive. External factors constantly raise the temperature of internal stress, gradually accumulating until stress has become a chronic condition in the 21st century society.

It is strange that the world is flourishing economically and technologically, making everything more convenient, yet people around the world are becoming more stressed.

This featured article has given a brief overview of definitions and mechanisms of stress, both from a physiological and psychological perspective. In terms of physiology, this section elucidated the mechanisms within the body primarily operated by the endocrine glands, aiding in various adjustments when the body encounters stressors, including illnesses that may occur if the body’s internal mechanisms cannot restore balance.

Meanwhile, from a psychological standpoint, this discussion not only highlighted significant conditions that differentiate stress from other negative emotions, but also emphasized conditions regarding one’s perception of control over the impacting factors. Additionally, it explained methods of restoring balance to reduce or eliminate stress through behavior or cognitive strategies.

What stressed individuals often forget or overlook is that **stress comprises only two fundamental elements: stressors and the emotions associated with stress.**

Reactions typically aim at suppressing these stress-related emotions using various methods without addressing the underlying stressors or seeking rational solutions to mitigate or resolve them. That approach is akin to taking painkillers without knowing the root cause of the pain or how to address it effectively.

This section also summarized various methods that people often use to manage or cope with stress, which encompass many approaches, **but primarily focused on managing emotions** rather than addressing the root causes. These methods include using aggression, self-distraction, self-regulation, and psychological support. Some of these methods may have detrimental effects on both one's own well-being and those around them, such as self-distraction through substance abuse, alcohol consumption, binge eating disorder, and venting stress through aggressive responses, leading to harm to the body, life, and property.

Moreover, resilience, the ability to recover, particularly in the mental aspect, is a crucial skill that everyone should be trained in.

Parents, teachers, mental health organizations, as well as relevant agencies and organizations, should aim to promote and cultivate resilience skills among individuals under their care. This includes developing positive psychology to foster confidence in addressing and managing various situations that arise, adopting a creative perspective on things rather than viewing them as problems or obstacles, and highlighting the positive aspects of stress at an appropriate level that encourage problem-solving, leading to development and paths to prosperity. This includes instilling a growth mindset to effectively deal with stress in its various forms and levels while acknowledging that stress is often unavoidable.

Finally, **it is important to acknowledge disparities in the capacity to cope with stress and recover.** This part is essential, as these capacities depend on resources for stress management, whether personal characteristics or social resources. This approach recognizes that certain groups being more vulnerable to stress than others, necessitating societal systems for monitoring, regulating, aiding, treating, and rehabilitating these vulnerable groups regarding stress management and enhancing mental health resilience within society.



Source: unsplash.com/photos/silhouette-of-person-balancing-using-1-foot-iX7WedkjpUY

Criteria for the 2024 Thai Health Report

PART 1: HEALTH INDICATORS

PROCESS OF CONSIDERATION

- 1 Selection of key demographic indicators was conducted by the Steering Committee in consultation with the Project Team.
- 2 Contacting experts for the various indicators which have credible sources of data which are tabulated on an annual basis, in order to reflect the latest situation.
- 3 Specify the time frame for writing the report: The Working Group for each of the main indicator sections are informed of the guidelines for content, the objectives of each indicator section, and preliminary deadline for assembling the relevant content.
- 4 Drafting the presentation of the data for the health indicator.
- 5 Convene a brainstorming session to review the draft indicator sections for appropriateness, completeness of content, and lack of redundancy with other sections. The review is then submitted for consideration to the Thai Health Report Team and the Steering Committee.
- 6 Experts and resource persons read all the Thai health indicator sections, and provide recommendations for improvement.

CRITERIA FOR ASSEMBLING CONTENT ON THE INDICATORS

- 1 Research to find key messages on the section which are to be included, so that the information is assembled in an orderly and logical format.
- 2 Locate the relevant statistics for the indicator, with an emphasis on annual data to show trends over time, including the most recent data to reflect the current situation.
- 3 Emphasize data that can be easily viewed and interpreted by readers of all ages and backgrounds.

PART 2: 10 HEALTH MILESTONES IN THE YEAR AND 4 SPECIAL ACHIEVEMENTS TO SUPPORT THAI HEALTH

The situation in the Report year comprises a description of the situation for the 10 indicators and the 4 “good practices.” The combined situation sections are referred to in brief as “Key Situation 10 + 4”. The criteria for selecting the key situations and achievements are as follows:

CRITERIA FOR SELECTING THE 10 SITUATIONS TO HIGHLIGHT

- 1 It is an event or situation which is prominent in the Report year or an update of a previous situation, or is a lesson learned for Thai society.
- 2 It is a phenomenon which is having a big and broad impact on Thai health, including issues of security and safety.
- 3 It is a policy with direct health impacts that are clearly visible in the Report year.
- 4 It is a new situation which has not occurred before.
- 5 It is a phenomenon which occurred repeatedly during the Report year.

CRITERIA FOR PRIORITIZING ACHIEVEMENTS

- 1 The Project Report Team taps the opinions from the Steering Committee using a survey form. The survey respondents are asked to score candidates on a 5-point Likert rating scale from 5 (highest) to 1 (lowest).
- 2 The Team then analyzes the ratings to prioritize candidates for good practice achievements.

GOOD PRACTICES AND ACHIEVEMENTS TO PROMOTE THAI HEALTH

This section highlights successes during the Report year which include inventions, advances in health, and discoveries of benefit to Thai society and individuals generally.

Steering Committee: Thai Health Report 2024			Experts 2024
Vichai Chokevivat, MD	Institute for the Development of Human Resource Protections	Consultant	Reviewers Vichai Chokevivat, MD Amphon Jindawatthana, MD Prof. Emer. Churnrurtai Kanchanachitra, PhD Nuttapun Supaka, PhD
Siriwat Tiptaradol, MD	Advisor to Ministry of Public Health	Chairman	Writing Team: First Draft of “10 Outstanding Health Situations” Mr. Cholanat Kuptawat Asst. Prof. Dr. Nuttakorn Vititanon Mr. Nathaphop Sungkate Mr. Dhiravath Sauntan Ms. Piyamot Suachang Mr. Pisit Sri-akkaphokin Mr. Sukonwit Nipanon Mr. Atirut Duereh Ms. Orawan Sukkho
Supakit Sirilak, MD	Inspector General for Ministry of Public Health	Committee	
Assoc. Prof. Soranit Siltharm, MD	Member of the ThaiHealth Board of Governance (expertise on health promotion)	Committee	
Wirun Limsawart, MD, PhD	Society and Health Institute, Ministry of Public Health	Committee	
Suriyon Thankitchanukit	Office of the National Economic and Social Development Board	Committee	
Hataichanok Chinauparwat	Director of Statistical Forecasting Division, National Statistical Office	Committee	
Tipicha Posayanonda	Director of Department of Knowledge and Innovation Management, National Health Commission Office	Committee	
Benjamaporn Limpisathian	Senior Director, Director of Health Learning Center, Thai Health Promotion Foundation	Committee	
Nuttapun Supaka, PhD	Director of Partnership and International Relations Section, Thai Health Promotion Foundation	Committee	
Assoc. Prof. Wanna Sriviriyapap, PhD	Faculty of Pharmaceutical Sciences, Chulalongkorn University	Committee	
Wichet Pichairat	Expert Committee on Mass Media, Thai Health Promotion Foundation	Committee	Thai Health Report Working Group Institute for Population and Social Research, Mahidol University Senior Advisors Prof. Emer. Churnrurtai Kanchanachitra, PhD Assoc. Prof. Chai Podhisita, PhD Main Editor Assoc. Prof. Chalermopol Chamchan, PhD 11 Indicators of Health Assoc. Prof. Chalermopol Chamchan, PhD Assoc. Prof. Manasigan Kanchanachitra, PhD Kanya Apipornchaisakul 10 Outstanding Health Situations & 4 Outstanding Accomplishments for Health Asst. Prof. Sakkarin Niyomsilpa, PhD Kanchana Thianlai Feature Article Assoc. Prof. Chai Podhisita, PhD Assoc. Prof. Bhubate Samutachak, PhD Kanyapat Suttikasem
Surin Kitchanit	Klong Kanom Chin Community, Sena District, Ayutthaya Province	Committee	
Somporn Pengkam	Independent Academic	Committee	
Orapan Srisookwatana	Independent Academic	Committee	
Yuwadee Kardkarnklai	Future Urban Development, College of Government	Committee	
Prof. Emer. Churnrurtai Kanchanachitra, PhD	Institute for Population and Social Research Mahidol University	Committee	
Assoc. Prof. Chai Podhisita, PhD	Institute for Population and Social Research Mahidol University	Committee	
Assoc. Prof. Chalermopol Chamchan, PhD	Institute for Population and Social Research Mahidol University	Committee & Secretary	
Assoc. Prof. Bhubate Samutachak, PhD	Institute for Population and Social Research Mahidol University	Committee & Assistant Secretary	
Assoc. Prof. Manasigan Kanchanachitra, PhD	Institute for Population and Social Research Mahidol University	Committee & Assistant Secretary	
Asst. Prof. Sakkarin Niyomsilpa, PhD	Institute for Population and Social Research Mahidol University	Committee & Assistant Secretary	

PART 3: SPECIAL TOPIC

The special topic has two features: The topic is target-group oriented and the topic is issue-oriented. Issues and target populations may alternate from year to year. This issue could relate to one of the health milestones of the Report year or one of the health indicators.

CRITERIA FOR SELECTING THE SPECIAL TOPIC

- It has policy implications.
- It is of interest/benefit to the population.
- It is an issue with multiple points of view.

PROCESS OF CONSIDERATION

- The Steering Committee meets to consider candidate topics.
- The Report Team specifies the framework of the section.
- The Team contacts experts to compile data and information on the special topic.
- The Report Team organizes the relevant information and re-formats it so that it is suitable for public dissemination. This includes verifying the accuracy of the content by expert advisors and resource persons.
- Qualified persons review the draft section and provide recommendations for improvement.

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10 Outstanding Health Situations

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Online Gambling: A Trap for Youth and Adolescents

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International Mafia and Addressing the Problem of Cross-Border Crime

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Accidents Keep Happening!

Accidents from Large Construction Projects

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Thailand's 3rd Health Constitution: Towards an Equitable Health System

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 - 6 Article 25(1) National Health Act, 2007
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 - 8 Article 46 para 1 and para 3: National Health Act, 2007
 - 9 Article 5 National Health Act, 2007 stipulates the following:
 - Individuals have the right to live in an environment and conditions conducive to health. It is the responsibility of individuals to collaborate with state agencies in creating environments and conditions conducive to health, as stipulated in Para 1.
- Article 6 National Health Act, 2007 stipulates the following:
- Women's health, particularly in terms of sexual and reproductive health, which is specific, complex, and influential on women's health throughout their lives, must be promoted and protected in a manner that is consistent and appropriate.
 - The health of children, persons with disabilities, the elderly, socially-disadvantaged individuals, and various other groups with specific health needs must also be promoted and protected in a manner that is consistent and appropriate.

4 Outstanding Accomplishments for Health

Dr. Suwit Wibulpolprasert: Global Public Health Hero

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The World Health Organization Honors Professor Dr. Vichai Tienthavorn

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The Department of Health Collaborates with Online Merchants to Deliver Healthy Menus, Reducing Sugar, Fat, and Salt

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Thai Health Report Team



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