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# 25 YEARS AFTER THE ICPD

Population and Development for Sustainable Future in Thailand



## **Population and Development for a Sustainable Future in Thailand: 25 Years after the ICPD (Advanced, unedited version)**

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| Advanced, unedited Version |

Population and Development  
for a Sustainable Future in **Thailand**

# 25 YEARS AFTER THE ICPD

By

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# THAILAND AND 25 YEARS AFTER THE ICPD



***“Amongst the many challenges that still remain, we will continue to improve. We will spare no effort to sustain what we have already achieved, and continue to do better for our people, in particular to ensure quality education and equitable access to affordable medicines and basic health services for all at all ages. We will also make every effort to make the best use of ICT and increase availability of other innovative modern technologies.”***

*Outcome Statement by Thailand given during the 52th session of the Commission on Population and Development by H.E. Mr. Vitavas Srivihok Ambassador and Permanent Representative of the Kingdom of Thailand, dated 2 April, 2019.*

Fulfilling the rights of women and girls is central to development. This is the core realization and promise of the Programme of Action agreed at the International Conference on Population and Development (ICPD) in Cairo in 1994. Thailand was among 179 governments endorsing a Programme of Action Plan that merged diverse views on human rights, population, sexual and reproductive health, gender equality and sustainable development into a remarkable global consensus.

Emphasizing the health, education and empowerment of women, the ICPD endorses an approach to reproductive health care that meets family planning needs as part of a broader health package encompassing prenatal and postnatal care, safe delivery, prevention and treatment of infertility, and sexually transmitted infections, including HIV/AIDS, and sexual health. These rights rest on the recognition of the basic rights of all couples and individuals to decide freely and responsibly the number, spacing and timing of

their children, to have the information, education and means to do so, and to attain the highest standard of sexual and reproductive health.

*The central premise of the ICPD is that population considerations need to be integral to national and international efforts to achieve sustained economic growth in the context of sustainable development.*

At the Sixth Asian and Pacific Population Conference in 2013, held on the eve of the 20-year review of the ICPD, countries from the Asia-Pacific region gathered to discuss achievements and identify ways forward. They adopted the Asian and Pacific Ministerial Declaration on Population and Development, which provides a comprehensive view of and response to population and development challenges and opportunities. In Thailand, a working group comprising representatives from ministries and non-governmental organizations conducted the *Global Survey of ICPD Beyond 2014 for Thailand*. The results constituted a major reference for the discussion and implementation of population and development policies and programmes.

This current report will highlight progress made and remaining challenges faced in Thailand after 25 years of the ICPD. Prepared in advance of the Nairobi Summit in November 2019, which will consider ways to sustain the ICPD agenda, the report offers reflections on the future of population and development as well as a number of recommendations.

### **Remarkable achievements and remaining challenges**

Over the past 25 years, Thailand's progress on ICPD commitments has been remarkable. The country has achieved its demographic dividend, with a large working-age population and relatively few dependents contributing to rapid economic growth. With good coverage of family planning services throughout the country for more than three decades, together with extensive rural development policies, and women's empowerment and increased access to education and employment, Thai families have become smaller with only one to two children. Young people have access to education and enjoy decent jobs, and many families have joined the middle class. Fewer people than ever before live in poverty.

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*25 years after ICPD, more Thai women enjoy their rights and choices in family planning at their own pace.*





## Key achievements<sup>1</sup>

- Significantly better health has resulted from a solid health-care system, built through extensive primary health-care coverage throughout the country in the 1970s, followed by the Universal Health Coverage Initiative introduced in 2002. Today, health-care coverage is 99.2 per cent. Rates of poverty and bankruptcy due to health-care costs have sharply declined.
- Extraordinary advances in safe motherhood have meant that 99.1 per cent of births are attended by skilled health personnel. About 98 per cent of pregnant women have prenatal care for at least one visit, while 71.3 per cent receive prenatal care in the first 12 weeks of pregnancy.
- Preventable maternal deaths have declined, with a maternal mortality rate of 21.8 per 100,000 live births today.
- Contraceptive prevalence continues to be high at over 70 per cent of married women aged 15-49 years since 1987, reaching 78.4 per cent in 2015.
- Given sustained political commitment and effective programme implementation, HIV reversed from a generalized to a concentrated epidemic between 1993 and 2006. People living with HIV receive free antiretroviral therapy with costs covered by the Universal Health Coverage Initiative.
- HIV prevalence in pregnant women declined from a peak of 2.3 per cent in 1995 to 0.5 per cent in 2012. By the end of 2015, new paediatric HIV infections had declined

and mother-to-child HIV transmission rate had fallen significantly from 10.3 per cent in 2000-2003 to 1.9 per cent in 2015.

- Among children under 5, 99 per cent, regardless of their nationality, are registered at birth with a civil authority.
- Primary and secondary school are accessible to most children, including those residing in remote areas, and the percentage of girls who progress to secondary education has greatly increased. The number of Thai workers with a bachelor's degree has doubled in each decade from 1.1 million persons during 1987-1996 to over 6 million in 2017. In the near future, the more educated female workforce will outnumber the male workforce, as currently there are 300,000 more women than men studying in high schools, vocational schools or university (TDRI, 2018).
- Poverty has fallen substantially, with the poverty head count ratio, using the national poverty line, declining from 21.9 per cent in 2006 to 8.6 per cent in 2016, as reported by the World Bank.



*High number of skilled health personnel for prenatal care and delivery leads to save motherhood in Thailand over the past decades.*

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<sup>1</sup> See data of key ICPD and SDGs from the National Statistics Office at <http://sdgs.nic.go.th>.

## Some challenges

- Thailand's population is ageing rapidly, yet many people are poorly prepared for old age. Among people over age 60, 34.3 per cent live below the poverty line. Only 15 million out of 40 million workers are in the formal sector with some insurance/pension benefits.
- A rising share of people live in urban areas, from 35 per cent of the total population in 1994 to an estimated 48 per cent in 2015. Various indicators of well-being reveal disparities between urban and rural areas.
- The declining number of low-skilled Thai workers has been offset for some decades by an influx of illegal migrant workers from neighbouring countries.
- A goal for all children to attain 12 years of education remains unmet due to school dropouts and out-of-school children. There is concern about the quality of education and gaps in life skills. Of youth aged 15 to 24, 13.7 per cent or about 700,000 are not in employment, education or training, despite the low overall unemployment rate of 1 to 2 per cent for some years.
- Increased adolescent sexual health risks include a high prevalence of HIV infection, especially among vulnerable young adolescents. Despite a low fertility rate among the general population, in which a typical woman has 1.6 children throughout her lifetime, the adolescent birth rate was 53 per 1,000 births in 2015, much higher than rates in other countries at the same level of development. Around 22 per cent of girls are in union or live with their partner before they reach age 18.
- Gender inequality persists, with one pernicious result being violence against women and children. Approximately 40 per cent of reproductive-age women report experiencing intimate partner violence in their lifetime.<sup>2</sup> Thai universities now routinely graduate more women than men, but men still dominate the economic and political landscape, and raising children is still considered a woman's "duty". But as more and more women enter the workforce at ever-higher levels, Thai society at large will be challenged to ensure women can balance career and other aspects of life in a way that maximizes their full potential. Men should be encouraged to participate much more in the care of their children and families in general.

Population trends in Thailand are evolving in ways that require new policy initiatives. With population growth slowing considerably, and predicted to decline further with rapid ageing, a changing population structure is emerging as a critical issue with long-term implications.

Thailand is developing a forward-looking 20-year National Population Development Plan in full alignment with the 20-Year National Strategy Framework to tackle emerging population concerns. Three pillars of the plan comprise enhancing the quality of giving birth and childhoods, enhancing a productive workforce and supporting active ageing. The policy adopts a rights-based approach to development throughout the life-cycle to ensure that individuals in all age groups are self-reliant within a secure environment and enjoy a high quality of life.

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<sup>2</sup> Thailand continues to lack reliable data on intimate partner violence. The given figure came from a population-based survey adopting the WHO Multi-country study on intimate partner violence conducted by Archavanitkul et al., in 2003.



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*Thailand is facing a changing population structure with a high number of older persons. They play a big role in taking care of the younger generation, physically and financially.*

To support the new National Population Development Policy, the Ministry of Public Health is developing the 2nd National Reproductive Health Policy focusing on two issues: first, to halve the teenage pregnancy rate by 2025, and second, to support more investment in quality childbirth for all. The Prevention and Solution of the Adolescent Pregnancy Problem Act was introduced in 2016 followed by a 10-year National Strategy on Adolescent Pregnancy aiming to reduce teen pregnancy by 2025.

Towards improving young people's use of sexual and reproductive health-care services, the Government supports ready access to services not yet included in Universal Health Coverage. The 1st National Condom Policy was introduced and the 2nd National

Condom Policy is being developed to normalize condom use for dual protection against unwanted pregnancies and HIV infection. Moreover, comprehensive sexuality education, including for out-of-school youth, is under review to reduce unintended pregnancies, violence against women and marriage before age 18.

As an integral part of addressing long-term population challenges from rapid ageing and workforce contraction, the Government is prioritizing investments in youth and adolescents to realize their full potential, particularly through education and skilled employment. It has taken many steps towards gender equality and women's empowerment, including through calling on men and boys, as well as families and communities, as agents of

change. Appropriate policies promote the responsibility of men and boys in ensuring all individuals realize their sexual and reproductive health and rights.

### **Development in Thailand since the ICPD**

Despite political uncertainty and changes since 1970, Thailand has made substantial progress in addressing social and economic issues. According to The World Bank, it became an upper-middle income economy in 2011 (World Bank, 2019). In 1997 and 1998, however, high economic growth rates of 8 per cent to 9 per cent per year during the late 1980s and early 1990s were interrupted by the “Asian Crisis”.

### ***A core principle: the Sufficiency Economy Philosophy and sustainable development***

Thailand attaches great importance to people-centred development. It has been guided by the Sufficiency Economy Philosophy or SEP, conceived by His Majesty the Late King Bhumibol Adulyadej, and adopted as the core principle of the National Economic and Social Development Plans since 2002. SEP supports balanced, sustainable, people-centred development based on knowledge and virtues such as moderation, reasonableness and self-immunity or resilience.

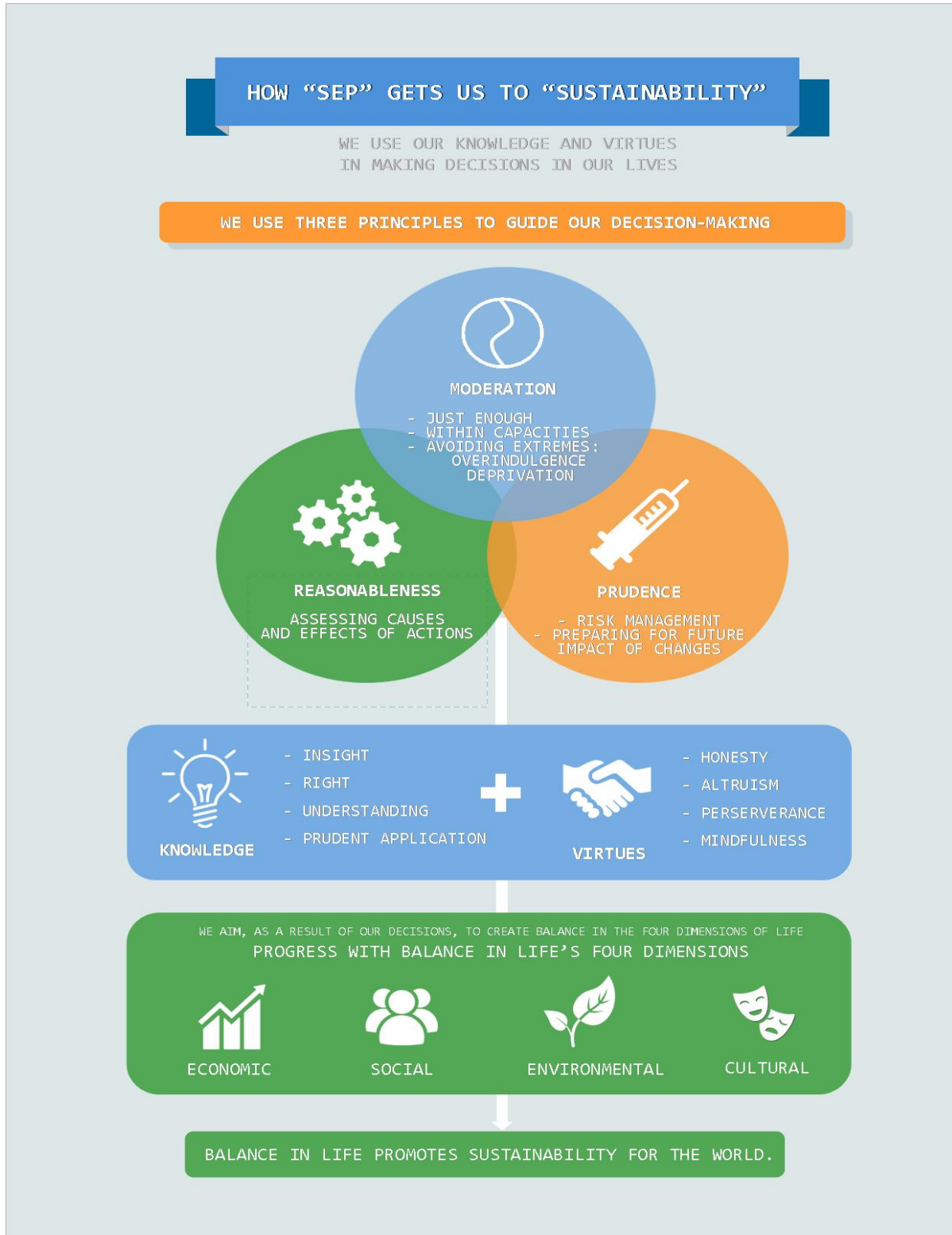
Since the adoption of the 2030 Agenda for Sustainable Development in 2015, both the SEP and the global Sustainable Development Goals (SDGs) have been integrated in the 12<sup>th</sup> National Economic and Social Development Plan (2017-2021) and the 20-Year National Strategy Framework (2018-2037). The 20-year strategy is a development framework with a vision of “Thailand as a developed country with security, prosperity and sustainability in accordance with the principle of Sufficiency Economy Philosophy”. The strategy covers six

areas: security, competitiveness enhancement, human capacity development, social equality, eco-friendly growth and improved public sector management. Plans and budgets of all government agencies align with the SEP and the SDGs.

High economic growth rates of 8 per cent to 9 per cent per year during the late 1980s and early 1990s were interrupted by the “Asian Crisis” in 1997 and 1998. Since then, growth has been moderate. A period of strong growth from 2002 to 2007, at around 5 per cent, was followed by the fall-out from the global financial crisis of 2008 to 2009, the impact of political tensions and uncertainty in 2010, and a major nationwide flood in 2011. In recent years, growth rates have lagged behind those of neighbouring low and middle-income countries. Thailand’s gross domestic product (GDP) grew by 2.8 per cent year-on-year in the first quarter of 2019, following a downwardly revised 3.6 per cent expansion in the previous period.

Since 2009, Thailand has developed several policies and plans to support economic and social development in line with ICPD commitments (see box) – and towards the realization of the 2030 Agenda and its 17 SDGs, which were unanimously adopted by UN Member States in 2017. Aimed at transforming the course of development over the next 15 years, the goals are ambitious and require enormous efforts across countries, continents, industries and disciplines. But they are achievable. Since the ICPD Programme of Action both informed and in many ways underpins the entire 2030 Agenda and the SDGs, implementing the former is largely about delivering on the latter. Without finishing the unfinished business of the ICPD, reaching the ambitious SDGs by 2030 will be difficult.

FIGURE 1.1 The Sufficiency Economy Philosophy and sustainability



Source: Ministry of Foreign Affairs of Thailand, 2017.

FIGURE 1.2 The SDGs and the 20-Year National Strategy



Source: Ministry of Foreign Affairs of Thailand, 2018.

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## KEY NATIONAL POLICIES AND STRATEGIES TO ADVANCE ICPD AND SDG COMMITMENTS

- The Universal Health Coverage Initiative launched in 2002
- The Social Pension Scheme for the Elderly (with monthly allowances starting from 600 baht (\$19) per month for people above 60 years)
- Social Assistance for Persons with Disabilities
- An allowance of 500 baht (\$16) per person per month for AIDS patients by Local Administrative Organizations in 2004 and earlier by the Department of Social Welfare in 2000
- The National Population Development Plan under the 11th National Economic and Social Development Plan (2012-2016)
- The 20-year National Strategy (2018-2037)
- The 12th National Economic and Social Development Plan (2017-2021)
- The 12th National Health Development Plan under the 12th National Economic and Social Development Plan (2017-2021)
- The 1st, 2nd, 3rd National Older Persons Plan (1982-2001, 2002-2021, 2022-2037)
- A minimum wage of 300 baht (\$10) per day that started in 2013
- The State Welfare Scheme for poor people that started in 2016
- The Act on Protection for Children Born Through Assisted Reproductive Technologies, 2015 which states that surrogacy is prohibited in some jurisdictions and allowed in others only for altruistic purposes
- Eliminated mother to child transmission of HIV and syphilis certified by WHO in 2016
- The Child Support Grant of 600 baht (\$16) per month for poor mothers until the child is three years old that started in 2016; in 2019, the age limited was expanded until the child is six
- The 1st and 2nd National Reproductive Health Development Policies and Strategies (2012-2016, 2017-2026)
- The 1st and 2nd National Condom Policies to promote dual protection against unwanted pregnancies and HIV infection (2015-2019, 2020-2024)
- The Prevention and Solution of the Adolescent Pregnancy Problem Act, 2016
- The Children and Youth Development Act, 2007 and the 2nd revision, 2017

## Priority Policies and Actions

Lessons learned from the experiences in Thailand may prove beneficial to other developing countries, especially members of the Association for Southeast Asian Nations (ASEAN). Thailand has almost two decades of operating its Universal Health Coverage Initiative, a courageous and ground-breaking commitment to equity even before it became an upper middle-income country in 2011. The programme's provision of sexual and reproductive health care has led directly to the continuous decrease in the number of maternal and child deaths. Women in Thailand today know that their pregnancy and delivery will be safe, no matter who they are. Moving forward, priorities include teaching children from an early age that men and boys should participate in care-giving. Education focused on gender equality is crucial. So is education that imparts crucial lessons about life, love and responsible choices.

Comprehensive sexuality education at a young age will be key to effectively addressing the crisis of teenage pregnancy, as recognized in the Prevention and Solution of Adolescent Pregnancy Problem Act, an encouraging step in the right direction.

Comprehensive sexuality education must also be matched with greater access to sexual and reproductive health services for young persons, to empower them with the ability to live responsibly and with the dignity they deserve. This, in turn, links to providing girls and young women with support to avoid marrying and bearing children too early. If girls do end up having children they need to be assisted to stay in school so they can claim a brighter future for themselves and their children.

The clear downward trend in fertility, resulting in fewer annual births, is due to a number of factors. Lower fertility is not necessarily something negative. With options and viable choices, individuals will be able to exercise their reproductive rights. As an emerging frontier of realizing these rights, infertility treatment could be made accessible and affordable to couples, with proper information and counselling.

Amid many changes, Thailand has the opportunity to invest in a new society, where all citizens at all ages benefit from social and economic progress. It can build stronger education systems for younger persons, develop better long-term care and sustainable pension schemes for older persons, and strengthen investments in sound reproductive health care as well as healthy ageing.

Like lower fertility, ageing is sometimes seen as a negative. Yet the elderly are often an asset, not a burden. Already, often under very difficult circumstances, older persons make a significant contribution to the care and nurturing of families, and particularly of those who need it the most – children separated from their parents. Recognizing and capitalizing on these contributions rests on providing older people with the resources they need to continue to be productive, both at home and in the workplace, while minimizing any hardship or stress.

Choices and investments made now and in the years ahead may make the difference between creating long-lasting prosperity and well-being in Thailand, or becoming stuck in a middle-income country trap with lingering socioeconomic disparity. The 2030 Agenda places a great priority on overcoming inequalities and exclusions, and building fairer, freer and more caring societies that include



everyone, regardless of differences. But this cannot depend on individuals and families alone. It demands the commitment of the State, backed by sufficient resources, to support all individuals in all their diversity, particularly the poorest and most vulnerable, so they enjoy well-being and a good quality of life, beginning at birth itself.

As Thailand undergoes its significant – even dramatic – demographic transitions, it will be challenged to fulfil the aspirations and expectations of its diverse population, from young to old. With fewer numbers of children being born – an already irrefutable fact – Thailand cannot afford to lose the potential of a single one, be they rich or poor, urban or rural. Each child, each young person must receive the best possible start to life to ensure that he or she becomes an adult who is healthy and educated, and can contribute the most to society. This will bring lasting prosperity for Thailand as its population ages. It will also foster political stability. As Thailand moves from being middle income to being more middle class – a distinction often overlooked – it can broaden the reach of economic gains and create purchasing power, but the challenge will be to slow the erosion of intergenerational solidarity that typically accompanies economic growth and smaller family size.

The next 20 years will be crucial in giving shape to the aspirations of all people in Thailand. Investments made in families are a

crucial component. If families have the means to do so, all children – including orphaned and abandoned children, those left in the care of relatives, and even children born to migrant parents – will have access to good nutrition, schooling, health, protection and a gender-neutral upbringing. If parents have the financial and logistical means to have careers and have children, and if women are guaranteed that childbearing and childrearing does not mean the end of a career, fertility rates may not decline further. If there are incentives for boys to stay in school, and if programmes exist to dissolve gender biases built into social norms and practices in raising boys and girls, which often fuel gender-based violence, marriage rates might go up and divorce rates might go down.

The success of Thailand's family planning campaigns 40 years ago was based on the idea that it was about planning your life, not just your family. Today, coming full circle, it is about planning your family, not just your life. In the end, individuals and their decisions about their productive and reproductive lives shape families – whether to get married, whether to stay married, whether to have children and how many. It is the responsibility of all of society – the Government, politicians, employers, the media, community leaders and the guardians of social norms – to empower individuals to make these decisions and fully exercise their human rights.



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*As Thailand undergoes its significant demographic transitions, it continues to be a challenge to fulfil the aspirations and expectations of its diverse population, from young to old.*

# A CLOSER LOOK AT THAILAND'S POPULATION – CHANGES AND FUTURE PROSPECTS

# 2

## Shifting demographics

Thailand's population has undergone dramatic change since 1970. Until then, Thailand had rapid population growth resulting from success in lowering mortality rates. But high levels of fertility were slow to adjust to the much better prospects of babies surviving infancy and early childhood. A lack of family planning services also hindered fertility decline. In 1972, for every 100 people of working age, 89 were looking after children under age 15 (NESDB, 1972). This affected both the quality of childcare and the overall productivity of the labour force. An increased population size started to be seen as a challenge on basic infrastructure for education, employment and health care.

Starting from the 3rd National Economic and Social Development Plan from 1972 to 1976, the Government placed great

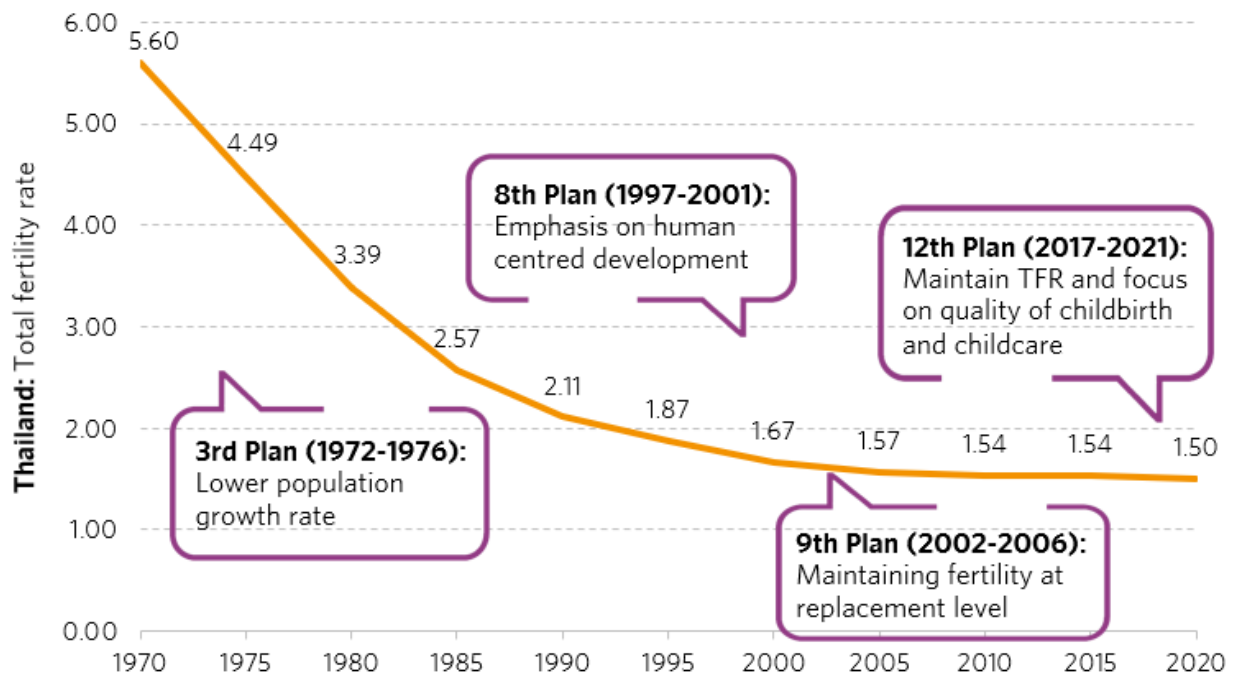
importance on reducing population growth by introducing family planning services throughout the country. The strategy paid off (Figure 2.1). Between 1970 and 1990, the total fertility rate (TFR) fell from about 5.5 to 1.99 children per woman, the fastest decline in South-east Asia (United Nations, 2019).

By the 8th National Economic and Social Development Plan, covering 1997 to 2001, a few years after the 1994 International Conference on Population and Development, TFR reached a population replacement level of 2.1 children per woman. The Government deemphasized slowing population growth, with no goal to achieve further reduction. By the 9th National Economic and Social Development Plan for 2002 to 2006, the goal had shifted to maintaining the fertility level, following some time in recognition of how low it had gone.

In the 12th National Economic and Social Development Plan for 2017 to 2021, the TFR for 2015 to 2020 is projected at 1.53 (ibid.). If there is no significant change, this downward trend has been forecasted to continue to a rate of 1.51 by 2050 (ibid., 2019). This has led the Government today to focus on maintaining the TFR at a level not lower than 1.6 by 2026 (Ministry of Public Health, 2017). It is also stressing the well-being of the child and mother at the time of birth.

Other key changes in population occurred between 1994 when the ICPD was introduced and the present time, as shown in Table 2.1. The period saw continued progress in bringing down the population growth rate, lengthening life expectancy at birth and lowering the infant mortality rate. Changes in the age structure, with a greater share of working-age people and fewer young dependents, resulted in Thailand benefiting from the demographic dividend.

FIGURE 2.1 Total fertility rate and milestones from 1970-2020



Source: United Nations, 2019 and the National Economic and Social Development Plans.

Noteworthy accomplishments also included rural development, universal health coverage, better quality of and access to education and improved gender equality. Women forged ahead in educational attainment: 54.7 per cent of women aged 25 to 29 years have at least an undergraduate degree, compared to only 35.7 per cent of men in this age group.<sup>1</sup> This has led to an increased number of women in the formal labour market. More women are taking important roles in society. Better education has also led to better knowledge about sexual and reproductive health, and the ability to demand appropriate contraception, as reflected in the contraceptive prevalence rate. It increased rapidly from 15 per cent in 1970 to higher than 70 per cent in 1987 (UNFPA, 2017). As a result, women have more freedom to make decisions regarding their own fertility.

All of these factors influenced the continuous decline in fertility, leading to a 31 per cent decrease in the number of births in the last 25 years, from slightly over 1 million to 700,000 per year. Figure 2.2 shows how Thailand's age structure has changed and will continue to change in the coming decades. A significant increase in the older population is evident due to the high fertility rate in the baby boomer era, coupled with longer life expectancy. At the same time, steadily declining fertility has resulted in shrinking proportions of young people aged 0 to 14 and of working-age people between 15 and 60. The United Nations' medium variant projection for people age 60 and over is 23.5 million by 2050, making up more than a third of the population. These changes are well under way and will continue to shift Thailand's demographic structure.

<sup>1</sup> Calculation based on the Ministry of Education, Education Statistics of Thailand, 2016-2017.



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*More women are taking important roles in society thanks to better education, better knowledge about sexual and reproductive health, and the ability to demand appropriate contraception. As a result, women have more freedom to make decisions regarding their own fertility.*

TABLE 2.1 A record of steady achievements since 1994

<b>DEMOGRAPHIC INDICATORS</b>		
	<b>1994</b>	<b>2019</b>
Population size ('000)	58,875	69,626
Annual number of births ('000)	1,028	707
Population growth rate	1.0%	0.25%
Total fertility rate (births per woman)	1.91	1.51
Life expectancy at birth (years)	70.2	77.2
Infant mortality rate (per 1,000 live births)	24.3	7.3
Total dependency ratio (people aged 0-14 and 65+ per people aged 15-64)	49.1	41.3
Old-age dependency ratio (people aged 65+ per people aged 15-64)	7.8	17.5
Percentage of population aged 60+	8.2	18.5
<b>Source:</b> United Nations, 2019.		
	<b>1990</b>	<b>2015</b>
Maternal mortality ratio (per 100,000 live births)	40	20
<b>Source:</b> WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division, 2015.		
<b>SOCIOECONOMIC INDICATORS</b>		
	<b>1980</b>	<b>2016</b>
Educational attainment, percentage of population 25+ years that at least completed primary school (cumulative)	12.2	65.7
<b>Source:</b> UNESCO, 2019.		
	<b>1994</b>	<b>2018</b>
GDP per capita (\$, purchasing power parity or PPP)	6,290	19,018
<b>Source:</b> World Bank, 2019c.		
	<b>2000</b>	<b>2016</b>
Out-of-pocket expenditure (percentage of current health expenditure)	34.2	12.1
<b>Source:</b> WHO, 2019.		
		<b>2015</b>
Universal health-care service coverage index (SDG 3.8.1) <sup>2</sup>		75
<b>Source:</b> WHO and World Bank, 2017.		
		<b>2010</b>
Population with large health expenditures as a share of expenditure or income (SDG 3.8.2)		
Proportion of population with household out-of-pocket health expenditures		3.4%
Proportion of population with household out-of-pocket health expenditures		0.7%
<b>Source:</b> WHO and World Bank, 2017.		
	<b>2000</b>	<b>2016</b>
Poverty headcount ratio at national poverty lines (percentage of population)	42.3	8.6
<b>Source:</b> World Bank, 2019d.		
	<b>1994</b>	<b>2017</b>
Poverty headcount ratio at \$1.90 a day (2011 PPP) (percentage of population)	3.2	0.0
Poverty headcount ratio at \$5.50 a day (2011 PPP) (percentage of population)	50.9	7.8
Inequality: Gini coefficient	43.5	36.5
<b>Source:</b> World Bank, 2019, 2019a, 2019b.		

<sup>2</sup> Universal health-care service coverage index defines as coverage of essential health services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population ([https://www.sdg.org/datasets/f6c3182a119748dcb8db841cfce94e95\\_0](https://www.sdg.org/datasets/f6c3182a119748dcb8db841cfce94e95_0))

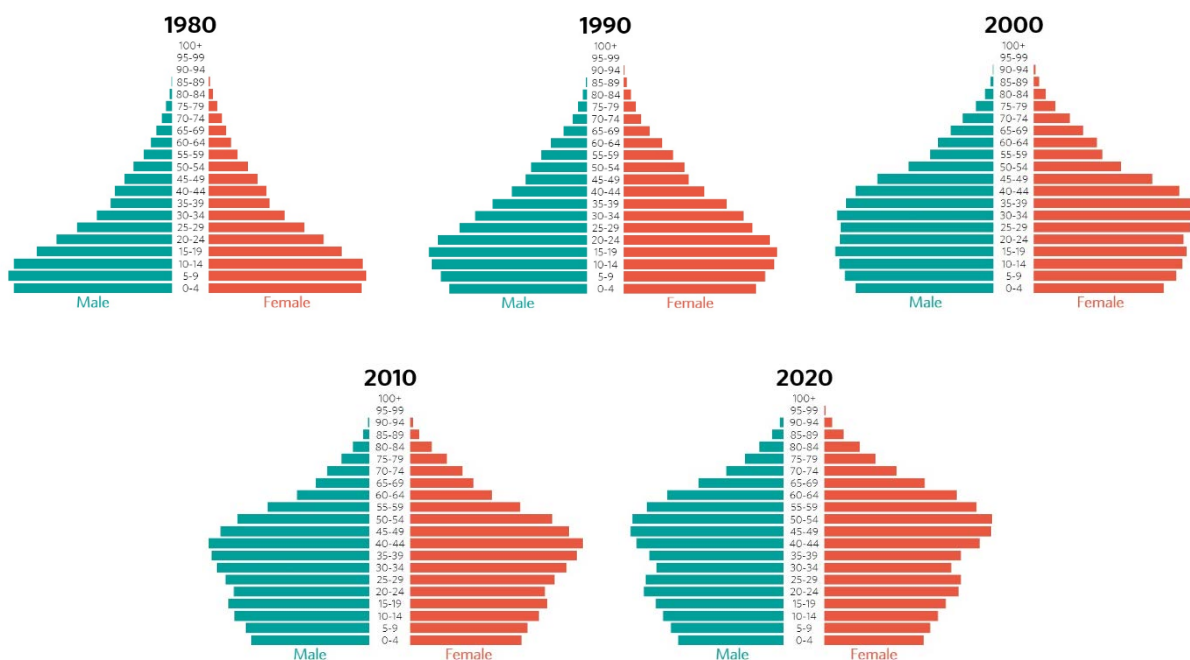
## A PAYOFF FROM A CHANGING POPULATION

Achieving sustainable development depends on assuring that all women and men, and girls and boys, enjoy dignity and realize their human rights, including to expand their capabilities, secure their reproductive health and find decent work. Developing policies and investments to secure that future requires knowing the size, sex, location and age structure of present and future populations.

Countries entering a period in which the working-age population has good health, quality education, decent employment and a lower proportion of young dependents stand to reap a demographic dividend from accelerated economic growth. Smaller numbers of children per household generally lead to larger investments per child, more freedom for women to enter the formal workforce and more household savings for old age, all adding up to a substantial national economic payoff.

Source: UNFPA, 2019.

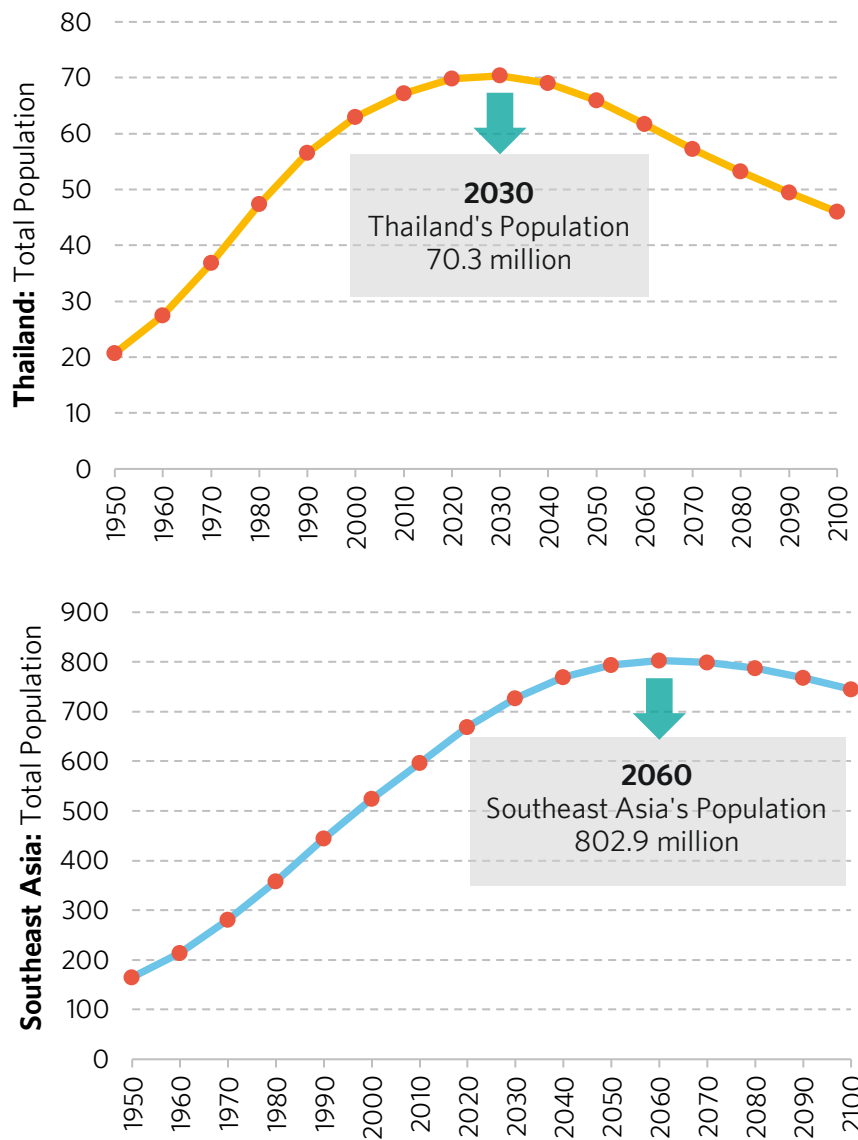
FIGURE 2.2 Younger to older: Thailand's changing population from 1980 to 2020



Source: United Nations, 2019.

FIGURE 2.3

Thailand's total population size will peak before that of South-east Asia



Source: United Nations, 2019.

According to 2019 UN projections comparing the population structures of 10 countries of the Association of Southeast Asian Nations (ASEAN), Thailand is ageing rapidly, with a population decline projected to begin after 2030. For ASEAN countries as a whole, the population will continue to grow until 2060,

as shown in Figure 2.3. A rapid age structure change indicates the need to maintain economic productivity and inclusive development, leaving no one behind. As the proportion of working-age people falls, policies for human capital development and migration will warrant careful consideration.



TABLE 2.2 Key population indicators for Thailand and South-east Asia

COUNTRY	TOTAL POPULATION (million)			TOTAL FERTILITY RATE (per woman)			LIFE EXPECTANCY AT BIRTH (years)			AVERAGE ANNUAL RATE OF POPULATION CHANGE (percentage)
	1960	1994	2019	1960	1994	2019	1960	1994	2019	2015-2020
Indonesia	87.8	193.9	270.6	5.7	2.8	2.3	47	64	72	1.1
Philippines	26.3	68.2	108.1	7.2	4.1	2.5	61	68	71	1.4
Viet Nam	32.7	73.7	96.5	6.4	2.9	2.1	59	72	75	1.0
Thailand	27.4	58.9	69.6	6.2	1.9	1.5	55	70	77	0.3
Myanmar	21.7	43.4	54.1	6.1	3.1	2.1	42	58	67	0.7
Malaysia	8.2	20.0	32.0	6.5	3.4	2.0	60	72	76	1.3
Cambodia	5.7	10.3	16.5	7.0	4.9	2.5	41	55	70	1.5
Lao People's Democratic Republic	2.1	4.7	7.2	6.0	5.6	2.6	43	55	68	1.5
Singapore	1.6	3.4	5.8	5.8	1.7	1.2	65	77	84	0.9
Timor-Leste	0.5	0.8	1.3	6.3	5.6	3.9	34	52	70	1.9
Brunei	0.1	0.3	0.4	6.8	2.9	1.8	55	71	76	1.1

Source: United Nations, 2019.

### A family planning success story

Rapid fertility decline in Thailand has been one of the world's great family planning success stories. For several decades, a very successful family planning programme spurred a rapid increase in contraceptive use and continuing high contraceptive prevalence rate (see Table 2.3).

The programme built on what was clearly a strong latent demand for family planning, but it benefited from a foundation in a sound public health programme and the willingness of the medical establishment to adopt innovative approaches. In contrast to family planning programmes in a number of other Asian countries at that time, there were no elements of coercion in Thailand's programme. Many Thai couples already wanted to limit their number of children, and provide them with the necessary resources to succeed in life but did not have good

knowledge about, or access to, effective methods of contraception at that time.

Thailand's family planning programme quickly expanded service points, used effective communication approaches and provided a range of contraceptive methods. It pioneered innovative approaches such as allowing auxiliary midwives to prescribe oral contraceptives and, later, to insert IUDs. This enabled the programme to grow rapidly despite limitations in the number of higher level health personnel. The work of the Government in providing family planning services was positively augmented by collaboration with community-based distribution programmes, led by the Population and Community Development Association (Rosenfield and Min, 2007).

*Thailand's family planning programme quickly expanded service points, used effective communication approaches and provided a range of contraceptive methods.*



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## SECRETARY-GENERAL WELCOMES 1997 LAUREATES AT UN POPULATION AWARD CEREMONY

Senator Mechai Viravaidya has had a distinguished record in promoting high-energy but also humane population policies in Thailand and throughout Asia. "Khun Mechai", as he is known in his country, is renowned for his effective, often creative promotion of information and services.

In 1974, Senator Mechai created a private association, the Population and Community Development Association. It pioneered activities such as village-based family planning programmes, at a time when such a strategy was still new and suspect. This has had a central role in bringing Thai fertility to below replacement level through thoroughly voluntary means.

Senator Mechai was among the first leaders to acknowledge Thailand's growing problem with HIV and AIDS, and worked to frame an effective national policy for prevention, again demonstrating enlightened leadership that received wide recognition.

**Source:** <https://www.un.org/press/en/1997/19970610.sgsm6253.html>.

TABLE 2.3 Contraceptive use grew rapidly from 1978 to 2015 in Thailand

	CPS1	CPS2	CPS3	CUPS	FHPE	CPS96	BOP	RHSE	RHS	MIC4		MIC5
	1978	1984	1984	1987	1995	1996	2000	2006	2009	2012		2015
										15-49	15-49	15-49
Pill	21.9	20.2	19.8	19.9	24.2	23.1	26.5	36.7	35.0	32.1	42.9	32.8
Injection	4.7	7.1	7.6	10.9	18.0	16.4	22.0	12.4	14.0	12.6	20.0	14.0
IUD	4.0	4.2	4.9	6.2	4.5	3.2	3.1	1.2	0.9	0.8	0.4	0.4
Tubal ligation	13.0	18.7	23.5	25.4	22.9	22.0	22.6	26.6	23.7	27.4	1.3	24.3
Vasectomy	3.5	4.2	4.4	3.8	1.7	2.0	1.2	0.9	0.9	0.5	0.0	0.4
Implant	na	na	na	0.2	1.4	1.3	1.5	0.8	0.4	0.7	0.3	1.1
Condom	2.2	1.9	1.8	1.9	1.8	1.8	1.7	1.2	2.3	2.6	3.4	2.5
Emergency pill	na	na	na	na	na	na	na	na	0.3	na	na	na
Others (including traditional methods)	4.1	2.7	2.6	2.3	0.6	0.6	0.3	0.4	2.2	2.5	5.0	2.9
<b>Total</b>	<b>53.4</b>	<b>59.0</b>	<b>64.6</b>	<b>70.5</b>	<b>75.0</b>	<b>72.2</b>	<b>79.2</b>	<b>81.1</b>	<b>79.6</b>	<b>79.3</b>	<b>73.2</b>	<b>78.4</b>

Source: Bureau of Reproductive Health (2010), Situation of Family Planning Programme in Thailand, Department of Health, MOPH; MICS 2012 Table RH4, MICS 2015 Table RH3

Table 2.3 gives percentage of ever married women aged 15-44 years (15-49 for 2006, 2009, 2012, 2015 and 15-19 for 2012) who are using (or whose partner is using) a contraceptive method.

### Steady declines in births, but problematic timing

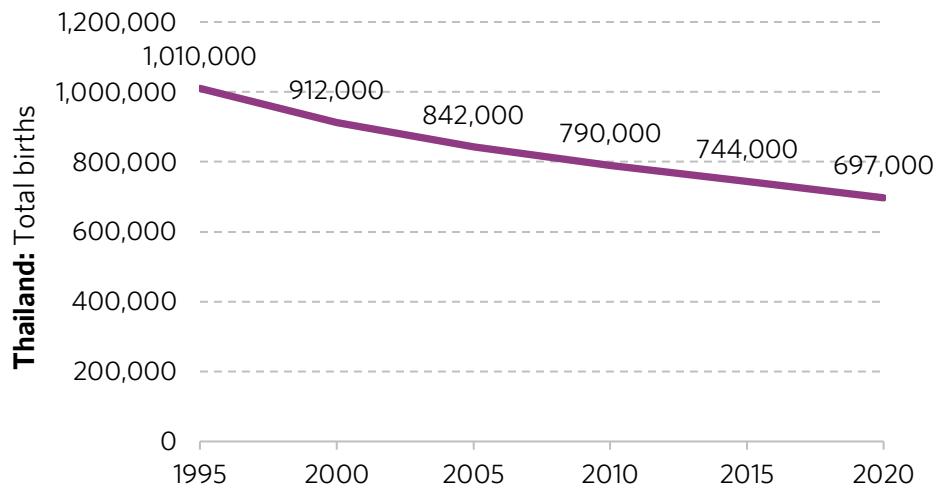
Despite a steady decline in the annual number of total births from 1995 to 2020 (Figure 2.4), the timing of many births is a concern. Sixteen per cent of the first births in 2017 occurred among young mothers aged 10 to 19, and 13.4 per cent were among women 35 and above, a rather late age for starting a family. Women aged 20 to 34, the ideal age range for childbearing, experienced the highest decline in fertility.

### High adolescent pregnancy

Despite declines in the overall fertility rate, when it comes to adolescent pregnancy, there has been a notable increase. In 2018, an average of 198 women under age 20 give birth every day, 6 of whom are less than 15 years old. In reality, the number of pregnant adolescents is likely larger, but there are no figures on how many of these pregnancies end in abortion. The increase in adolescent motherhood has occurred even though Thailand's economy has grown rapidly in the last decade, and women have gained more educational and vocational opportunities.

Adolescent pregnancies declined between 1990 and 2000, partly due to rural economic development and better female education. Yet the number edged up again after that point, as shown by a 73 per cent increase in births per 1,000 adolescents aged 15 to 19 between 2000

FIGURE 2.4 The number of births has steadily fallen from 1995 to 2020



Source: United Nations, 2019.

and 2012, which eventually declined to 35 births per 1,000 adolescents in this age group in 2018 (Government of Thailand, 2018). About 1.6 million babies have been born to teenage mothers since 2000. Such births currently account for 16 per cent of the annual total in Thailand (World Bank, 2019e). Such a high figure is partly due to a substantial 21.3 per cent of women aged 20 to 24 being married or in a union before the age of 18. Some of these unions result from pregnancy (NSO, 2016).

Getting pregnant at a time when they should be in school can undercut young women's chances in life. Findings point to social determinants of adolescent pregnancy that include poverty, place of residence and education, with those in poorer and rural areas with less education more likely to live in a union or be married before the age of 18.

Approximately 22 per cent of women currently aged 20 to 24 married before age 18. The shares are only 19 per cent among women age 25-29

and 17 per cent among those aged 30-34 (NSO, 2016).

The reality is that 58.7 per cent of teenage mothers aged 15 to 19 who had a baby in the last two years stated that they did not desire the pregnancy (NSO, 2016). Unintended pregnancy and birth have negative impacts on the mother, child and the broader society. They can deprive the mother of opportunities for education and work, and burden the state in terms of child support. Furthermore, studies have shown that children from unintended pregnancies tend to have worse physical and mental health compared to children from intended pregnancies. They are also more prone to illegal and violent behaviour once they are teenagers (Logan et al., 2007).

A partial explanation for high levels of adolescent pregnancy is the unmet need for family planning. While 93 per cent of women aged 15 to 49 years have their need satisfied, and unmet need was reported at only 6 per cent in 2019, unmet need is higher at 12 per cent among teenagers aged 15 to 19 years.

In response to concerns about adolescent pregnancy, the Government of Thailand, supported by UNFPA, enacted the Act for Prevention and Solution of the Adolescent Pregnancy Problem in 2016. The law supports the rights of all adolescents below age 20 to make their own decisions, receive information and sexual and reproductive health services without discrimination, and enjoy confidentiality and privacy. Pregnant adolescents can access care and social support, and are allowed to stay in school, including vocational training. The strategy mobilizes many people to get involved in tackling the issue, from authorities across five implementing ministries, to policymakers, the private sector, parents and young people themselves (UNFPA, 2016).

To address low uptake of long-lasting contraceptives in particular, in 2014, the Ministry of Public Health, together with the National Health Security Office, launched a programme to provide free implants and IUD to adolescents aged under 20. This programme is covered under the UHC Scheme and social security services, and is free for adolescents through public and private hospitals.

Laws, policies and plans can only be successful if societal values recognize the changes among younger generations. Shifts in mindsets are required to engage fully with adolescents and youth, including through the already well-established Youth Councils

*The Thai government enacted the Act for Prevention and Solution of the Adolescent Pregnancy Problem in 2016.*

throughout the country, as well as with families and community discourse and debate. Yet it continues to be a challenge for Thailand to properly empower and equip adolescents and youth with adequate knowledge and skills to realize their sexual and reproductive rights.

Specific measures to further reduce adolescent pregnancies include reaching girls aged 10 to 14, and providing them with proper protection and counselling, and taking measures to reduce repeated pregnancy and childbirth in women under the age of 20. It is important to invest in the education of all children, expand access to comprehensive sexuality education for adolescents, and support communication between parents and adolescents. Strict law enforcement can help reduce marriages under age 18. Overall, young people must have opportunities to become a part of the solution. Boosting awareness among men and boys can enlist them in playing a greater part (UNFPA and NESDB, 2013).

### **A universal commitment to health care**

For Thailand, ensuring healthy lives and promoting well-being for all is fundamental to national development. Access to basic, affordable and quality health-care services lifts people from poverty and enhances equity. Accordingly, Thailand enacted several reforms to ensure universal access. These evolved from a social welfare scheme for the poor in 1970 to formal sector employees in 1990. The 2001 reform of the health security system led to the Universal Health Coverage (UHC) Initiative in 2002, with the National Health Security Act as its legal basis.

## **COMPREHENSIVE SEXUALITY EDUCATION IS A STEP IN THE RIGHT DIRECTION**

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*“Comprehensive sexuality education at a young age could help Thailand effectively address the crisis of teenage pregnancy. The 2016 act aimed at tackling teenage pregnancy recognizes the need for this, an encouraging step in the right direction.”*

*Comprehensive sexuality education must also be matched with greater access to sexual and reproductive health services for young persons, to empower them with the ability to live not only with responsibility but also with the dignity they deserve.*

*This, in turn, links to providing girls and young women with the support they need to avoid marrying and bearing children too early. If girls do end up having children, they need to be supported to stay in school, to ensure a brighter future for themselves and their children.”*

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*Marcela Suazo,  
Country Director of UNFPA  
Thailand, 2019.*

# AT THE FOREFRONT OF HEALTH CARE FOR ALL

*In Thailand even with a GNI per capita of US \$1,900 in 2002, the entire population was fully covered by publicly-financed health insurance schemes. Three dimensions of UHC have been achieved: coverage for 99.9% of the population, comprehensive coverage represented by a health package which includes curative services, health promotion, disease prevention and rehabilitation, and full protection of households from financial health risk. Moreover, empirical evidence has demonstrated that the outcomes are particularly favourable in terms of improved utilization of health services and substantive benefits in favour of poor and rural populations. An analysis of benefit incidence was conducted, to measure whether the poor or the rich benefit from public subsidies, which revealed the UHC was decidedly pro-poor.*

*Two important factors contributed to the success of the UHC. The first factor was the extensive geographical coverage of a functioning primary health care system which was the result of three decades-long investment by successive governments in infrastructure and the health workforce. This has continued to facilitate equitable access to health services. The second factor was the design of schemes to ensure a comprehensive benefits package and literally no co-payment which resulted in reduced household spending on health, minimizing the prevalence of 'catastrophic' or ruinous health expenditure and protecting non-poor households from impoverishment.*

*Piyasakol Sakolsatayadorn, former Minister of Public Health, Royal Thai Government, describes Thailand's achievements in providing universal health coverage.*

**Source:** Published in UHC Coalition,  
<https://medium.com/health-for-all/thailand-at-the-forefront-of-universal-health-coverage-d1bb9c0c3e79>

Despite Thailand's low gross national income per capita, general taxation has been used to finance the UHC scheme. Empirical evidence shows substantial reductions in levels of out-of-pocket payments and catastrophic health spending. The scheme has also greatly reduced provincial gaps in child mortality, while interventions such as antiretroviral therapy and renal replacement therapy have saved adult lives. The UHC covers almost all relevant sexual and reproductive health services envisioned in the ICPD Programme of Action. Well-designed strategic purchasing of medicines and equipment has contributed to efficiency, cost containment and equity (Tangcharoenstien et al., 2018).

The UHC has protected households from impoverishment related to health-care costs, with the percentage going bankrupt from health-care expenditure significantly declining from 5.7 per cent in 2000 to 2.3 per cent in 2013. The proportion of households that fall into poverty from health-care expenditure fell from 2.9 per cent to 0.5 per cent during the same period (Thai Health Project, 2017).

With a Government commitment to improving the quality of health-care for all in a non-discriminatory manner, Thailand has also provided health insurance for migrant workers and their dependents. The Ministry of Public Health introduced voluntary migrant health insurance in 2001 and extended migrant-friendly health services using migrant health volunteers. One challenge to universal care has been the steady accrual of cost. This can be seen as positive in that people have improved access to services. It may also stem partly from the increasing incidence of non-communicable diseases. Other challenges include preparing for an ageing society, primary prevention of non-communicable diseases, law enforcement to

prevent road traffic mortality, and effective coverage of diabetes and tuberculosis (Tangcharoensathien et al., 2018). The sustainability of the UHC system through sufficient health financing must be monitored closely. A priority is harmonizing the UHC with the social security scheme and the civil servant medical benefit scheme in terms of co-payments and benefit coverage.

Other concerns under the UHC include the declining trend in the use of long-acting contraceptives such as implants or intrauterine devices due to the decentralization of the family planning programme (Tangcharoensathien, Chaturachida and Im-em, 2015). The percentage of ever-married women between the ages of 15 and 44 who used IUDs dropped from 6.2 per cent in 1987 to 0.9 per cent in 2009 (MOPH; MICs, 2012). Two national surveys on contraceptive provision were conducted (in 2010 and 2015) by the Bureau of Reproductive Health, supported by UNFPA, to track availability of long-acting contraceptive (LAC) service under UHC. Data were obtained from over 500 hospitals around the country; it was found that only about 40 per cent of hospitals had LAC services available. The result led to a policy by the National Health Security Office (which manages the UHC) to introduce free LAC services to prevent subsequent pregnancies among women younger than 20 years old; this service commenced in 2014. From 1 October 2018, LAC service is free for those over 20 years old as part of post-abortion care (Bureau of Reproductive Health and UNFPA, 2010, 2015)



# HER ROYAL HIGHNESS PRINCESS SOAMSAWALI'S

## Unwavering Commitment to the HIV Response

*Her Royal Highness Princess Soamsawali Krom Muen Suddhanarinatha of Thailand has been at the forefront of Thailand's response to HIV for almost 30 years.*

*She has been actively involved in efforts to promote the availability of antiretroviral medicines to prevent mother-to-child transmission of HIV, to encourage new HIV testing methods and innovative approaches, and to support the introduction of pre-exposure prophylaxis (PrEP) in Thailand.*

*Since 2016, Princess Soamsawali has supported the Princess PrEP Programme—the first community-based PrEP distribution project in Thailand—which has been used as a model to scale up PrEP services within the national health-care system.*

*Princess Soamsawali has also supported a range of other projects to bolster Thailand's HIV response, including the establishment of a public fund to provide formula milk for newborns and to expand access to treatment to prevent mother-to-child transmission of HIV and for people from marginalized communities, including undocumented migrants.*

*At numerous high-level events, Princess Soamsawali has spoken out against discrimination to ensure that all people can live with dignity and have access to health services to end the AIDS epidemic.*

*In June 2019, in recognition of Princess Soamsawali's leadership in transforming the AIDS response in Thailand, UNAIDS appointed her as the UNAIDS Goodwill Ambassador for HIV Prevention for Asia and the Pacific. As part of this role, Princess Soamsawali is advancing leadership on HIV prevention, including PrEP implementation, in order to fast-track the HIV response in Thailand and the entire region.*

*Princess Soamsawali is also amplifying the leadership role played by Thailand towards ending AIDS within the Sustainable Development Agenda, by showcasing and promoting Thailand's achievements and encouraging other countries in the region to follow its example.*

## **Maternal and women's health**

Thailand had made significant progress on sexual and reproductive health even before the ICPD and the introduction of universal care. By 1987, 80 per cent of pregnant women used prenatal care, rising to 92 per cent in 2000, and boosted to 100 per cent by 2012 under the UHC scheme. Use of skilled birth attendants was 90.8 per cent in 1990 and 99.1 per cent in 2015.

The maternal mortality ratio has been well below the international SDG target of 70 deaths per 100,000 live births for some time. Yet Thailand still aims to further improve the health of mothers and children (Tangcharoensathien, Chaturachida and Im-em, 2015). In 2016, under the Strategy of Health Development for specific age groups, the Ministry of Public Health set a national maternal mortality goal of not more than 15 deaths per 100,000 live births, equal to levels in developed countries. By 2017, the ratio had already declined to 21.8 (Thailand Reproductive Health Database)<sup>5</sup> although Thailand still faces concerns such as maternal deaths due to preventable complications such as excessive bleeding.

Some level of maternal health inequality persists across regions of the country. Bangkok has the lowest maternal mortality ratio at 12.1 persons per 100,000 live births, while the southern region has the highest ratio at 34.4 persons per 100,000 live births. More than half the causes of death are preventable, especially excessive bleeding, high blood pressure, amniotic fluid embolism, sepsis and abortion, factors most likely related to the increasing frequency of Thai women marrying and having children at later ages.

Presently, almost all births in Thailand involve skilled health personnel, which prevents complications. But only 57.1 per cent of mothers received prenatal service before 12 weeks of pregnancy (Government of Thailand, 2018). Other issues arise from maternal health care being considered a cross-cutting issue under the supervision of several agencies, which may result in a lack of clarity in service provision.

The 12th National Economic and Social Development Plan (2017-2021) as well as the 2nd National Reproductive Health Development Policy and Strategy (2017-2026) call for an intensified focus on the quality of childbirth and care. The latter envisions every birth being planned and parents being well-prepared through readiness before pregnancy, safe delivery, quality post-delivery care and childcare. It aims to improve the prevention of maternal mortality and provide prenatal care up to WHO standards.

As part of pregnancy readiness, policies aimed at further enhancing women's health have been considered. Programmes to improve the nutrition of prospective mothers include those providing iodine, iron and folic acid supplements throughout pregnancy and for six months after childbirth (MOPH, 2017). Post-delivery care programmes encompass assessing the mother's stress levels and encouraging breastfeeding (MOPH, 2017).

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<sup>5</sup> Accessed from <http://rhdata.anamai.moph.go.th/index.php/maternal/maternal12> dated 24 July, 2019.

## **SOUTH-SOUTH AND TRIANGULAR COOPERATION TO MAKE MATERNITY SAFER**

While Thailand still faces its own social and development challenges, it is able to support its neighbours to strive for what it has already achieved. Having become a technical resource hub for knowledge and good practices, the country has invested in trilateral regional initiatives together with UNFPA, such as with Bhutan and Lao People's Democratic Republic on safe motherhood.

Through this approach, health managers and workers from Bhutan were able to consult with Thai counterparts in developing capacities to respond to obstetric emergencies, and improve referral, prenatal and postnatal services. A similar partnership with Lao People's Democratic Republic helped it in adopting the International Confederation of Midwifery standards, recognized by the WHO as global standards for midwifery best practice.

In the coming years, UNFPA plans to continue working with the Thai Government in sharing experiences and good practices, and engaging in South-South and triangular cooperation in key areas such as maternal health, the elimination of mother-to-child transmission of HIV, the demographic dividend and policy responses, and UHC, particularly as it relates to reproductive and maternal health and family planning.

In other areas of women's health, for many years, Thailand had a high incidence of cervical cancer. It saw little success from the pap smear-based screening approach. In 2000, in collaboration with the Government and the Provincial Health Office of Roi Et, the Royal Thai College of Obstetricians and Gynecologists implemented a pilot study using a screen-and-treat approach. This method allows women to visit a health-care provider once, with services provided by a nurse, allowing for a better sharing of tasks within the health system. Based on results from this study, the World Health Organization (WHO)

adopted the screen-and-treat strategy as part of its comprehensive cervical cancer guidelines. In 2018, the Provincial Health Office of Roi Et received the United Nations Public Service Award for its integrated approach to comprehensive cervical cancer control and promotion of gender-responsive public services to achieve the SDGs.



© UNFPA/Kullwadee Sumalnop

*Thailand shares its expertise in safe motherhood with Lao People's Democratic Republic through South-South and Triangular Cooperation.*

### Having children later in life: infertility and risks of late pregnancy

Paradoxically, despite the increase in adolescent pregnancies and births in Thailand, there is also a clear trend towards postponing marriage and childbearing. Up to 1970, more than 60 per cent of Thai women were already married by the age of 25. By 2000, only around 44 per cent were married by that age (UNFPA and NESDB, 2011). This downward trend is projected to continue, with increasing shares of women marrying later or staying single.

While they signify significant advances in gender equality, the facts that more women are educated and in the workforce may pose some challenges for family formation. Figure 2.5 shows a tremendous increase in the level of women's education since 1980, especially since 2000.

Remarkably, by 2010, more than half of women aged 25 to 29 had an undergraduate degree. Sixty per cent of women over age 15 are in the workforce (UNFPA and NESDB, 2015), with a high proportion acting as heads of households in nuclear families.

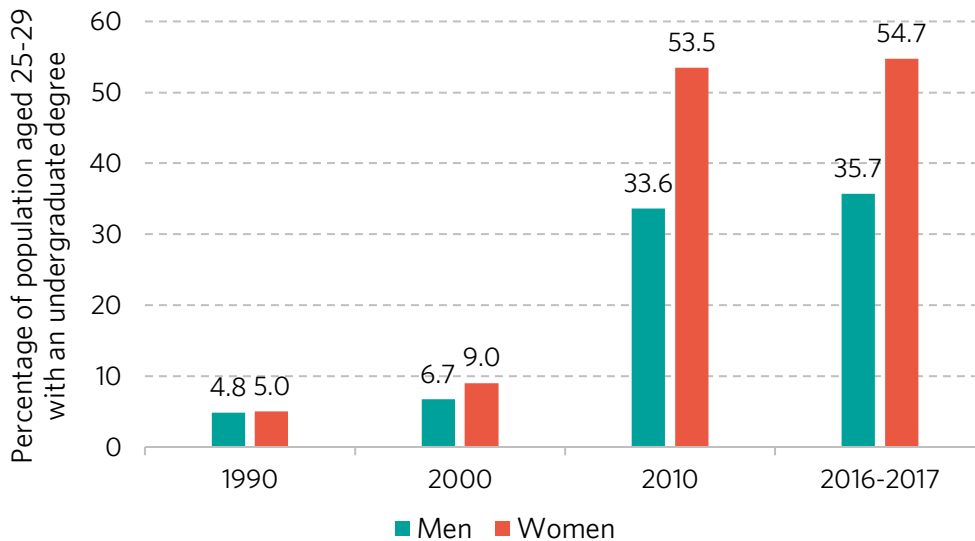
Greater education helps explain why the number of women working in the service sector has surpassed those in the agriculture sector (ILO, 2013) as well as the increasing proportion of women holding higher positions in public sector work. From 2005 to 2019, the proportion of women in higher positions in Parliament rose from 10.6 per cent (NSO and OWFA, 2008) to 15.8 per cent (Matichon, 2019).

*Thailand shares its expertise in safe motherhood with Bhutan Democratic Republic through South-South and Triangular Cooperation.*

© UNFPA



FIGURE 2.5 A rising share of women aged 25-29 have an undergraduate degree



Source: NSO Census 1990, 2000, 2010.

Author's calculation based on the Education Statistics of Thailand, 2016-2017 by Ministry of Education.

Postponing family formation raises issues around risks from pregnancies at older ages. Although women's reproductive period ends around age 50, being pregnant after 35 comes with increased risks of miscarriage, abnormalities and health complications. The maternal mortality rate due to complications such as excessive bleeding and non-communicable diseases such as high blood pressure or diabetes is higher in older women.

Another major concern is infertility, which occurs when a woman fails to achieve clinical pregnancy after 12 months or more of unprotected sexual intercourse. Although technological advancement in addressing infertility has progressed, assisted reproductive technology is still very costly. It can range between 6,000 baht to 400,000 baht (\$194-12,903) (Siangdung and Soonthornthada, 2008), which is often

unaffordable and does not guarantee success. Since Thailand does not recognize infertility as an illness, treatment is not covered under the public health scheme (UNFPA and NESDB, 2015).

The 2006 Reproductive Health Survey showed that only 29.1 per cent of women of reproductive age who are infertile sought treatment. On balance, Thailand continues to lack data about infertility prevalence, however. Under the 2nd National Reproductive Health Development Policy and Strategy (2017-2026), the Ministry of Public Health has taken some initiatives such as sponsoring infertility treatment education for doctors or setting up infertility clinics.

## A LAW BANS COMMERCIAL SURROGACY

Thailand has been one of the first countries in ASEAN to pass a law to protect children born with the aid of fertility treatment. In 2015, Thailand passed a law making all commercial surrogacy illegal. As of now, the only people who can complete surrogacy are heterosexual, married Thai couples, or at least one must be Thai and legally registered as married for at least three years. The couple must submit multiple documents, along with a medical certificate from a gynaecologist confirming the couple's infertility.

**Source:** The Nation, 2018, February 4.

Another option for infertile couples is surrogacy, which can be used when a woman is unable to carry a pregnancy to term. This comes with many restrictions and challenges, however. Adoption is another possibility, although it can require a long and complex approval process. Many children in Thai orphanages still have living parents who might not be able to care for them due to poverty or teenage pregnancy, yet have never signed required relinquishment forms (UNFPA and NESDB, 2015).

### Changing family structure

The composition of Thai families has been changing through low birth rates, urban migration, shifting lifestyles and economic factors. Based on national labour force surveys, there has been a significant increase in nuclear families without children (Figure 2.6), while the share of nuclear families with children, once the dominant family type, has

declined by almost half since 1987. The number of one-person households has doubled in the past three decades. A similar trend can be observed with skipped-generation families.

### Nuclear families

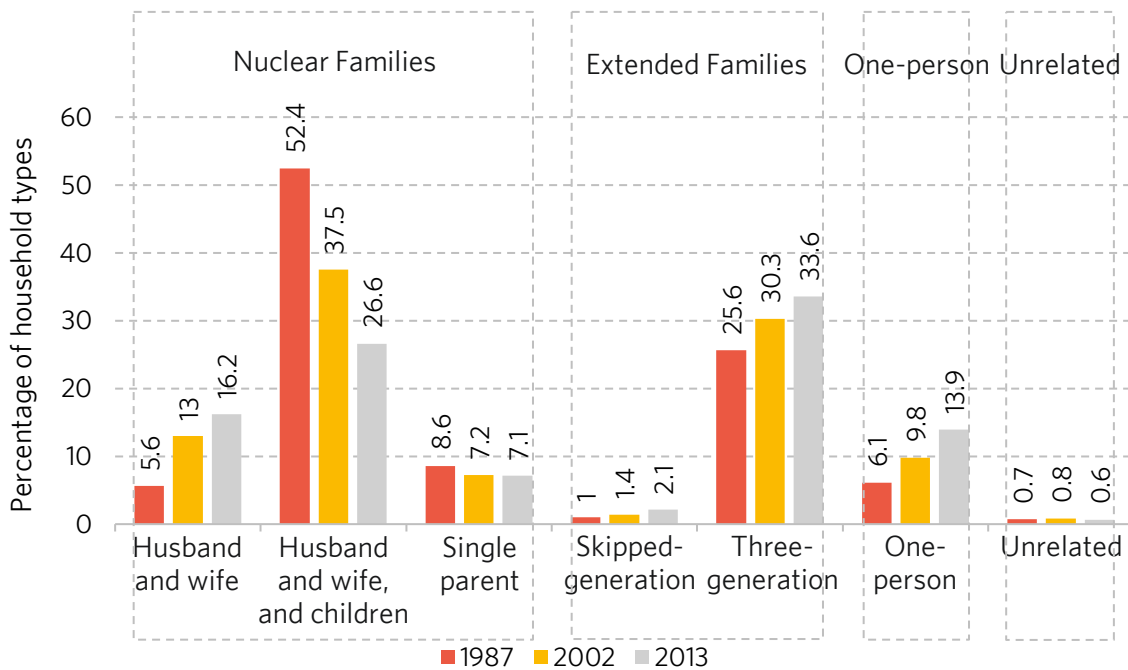
Nuclear families comprises spouses who may or may not be married, including same-sex couples, and with or without children (UNFPA and NESDB, 2015). In 2016, 17.5 per cent of all households in Thailand were nuclear families without children, a 1.3 per cent increase from 2013 (NSO, 2017). The share of nuclear families with children fell from 26.6 per cent in 2013 to 22.7 per cent in 2016 (ibid.). Beyond the cases of couples who are involuntarily childless due to infertility, several factors influence the choice of couples to not have children.

Rising number of young couples without children and one-person households due to shifting lifestyles and economic factors.



© UNFPA/Chalit Saphaphak

FIGURE 2.6 The SDGs and the 20-Year National Strategy



Source: UNFPA and NESDB, 2015. (NSO, Labour Force Survey 1987, 2002, 2013, Quarter 3)



## Economic factors

Raising a child is a major financial commitment, calling for careful consideration, including against a backdrop of increasing household debt as a percentage of GDP. More than half of household debt in 2018 was due to the purchase of permanent assets such as real estate or automobiles (NESDB, 2018).

In 2011, based on the National Transfer Account, the average cost of raising a child from birth to 20 years of age was 1 million baht (\$32,258). This figure, which does not include government-subsidized functions such as health care or education, works out to be 4,000 baht (\$129) per month on average, more than 15 per cent of the average Thai household income of 25,194 baht (\$813) (MOPH, 2017). This figure may well be higher for families seeking private education or extracurricular activities for their child. Such a substantial financial investment may deter some couples from having a child.

## Lifestyle factors

A newer generation seems to have different preferences. A study in 2014 conducted among students aged 17 to 22 reported that more than 80 per cent of the respondents wished to have children (Samutachak and Darawuttimaprakorn, 2014). When asked to rank their priorities, however, most respondents ranked higher education, work, and buying a house and car at the top of the list. Higher priorities such as building a career may take time and thus shorten a woman's reproductive period. Another study by Isarabhakdi in 2014 found that 14 per cent of 15 to 24 year olds do not want children, fearing that children might interfere with their parents' freedom, that they may not be able to raise the child well, or that they will have to work harder to provide for the needs of children (UNFPA and NESDB, 2015).

## Career factors

Today the norm is for both men and women to go out to work, yet women are still expected to complete housework and take care of family members. This results in them spending much more time on unpaid care work (Witworapong and Wattanapongwanich, 2018). Further, while Article 43 of Thailand's Labour Protection Act (1998) states that employers may not terminate a female employee because of her pregnancy, some women still end up losing their jobs (UNFPA and NESDB, 2015). Those who re-enter the workforce after having left it to take care of their children tend to end up in less desirable positions (Westley, Choe and Retherford, 2010). With men's role in the household remaining essentially the same, the decision to have a child may entail the woman sacrificing her chances for career advancement (Basten and Verropoulou, 2015).

## One-person households

Increasingly, people in Thailand live alone. The share of one-person households increased from 13.9 per cent of all households in 2013 to 17.6 per cent in 2016 (NSO, 2017). This type of household is expected to increase to 20 per cent in 2035 (UNFPA and NESDB, 2015). The majority of people living alone are of working age, with the proportion being slightly more for men than women. Women living alone tend to be more highly educated than men who do so (ibid.).

Many factors lead to people living alone, including being divorced, widowed or childless. The number of divorce registrations rose from 107,031 in 2013 to 127,265 in 2018 (NSO, 2019). Work-related migration or a deliberate choice to remain single can be other reasons. A study by Jones in 2018 argued that more women are remaining single due to higher education and the imbalance in the marriage market. Women with higher education who are unable to find a match of an equal profile may choose to remain single (Prachuabmoh, 2018).

## Skipped-generation households

Skipped-generation households refers to grandparents living with grandchildren, without the parents. The number of such households doubled between 1987 and 2013, with 76 per cent of them in rural areas (UNFPA and NESDB, 2015). In the north-east region, one-third of children aged 0 to 17 are not living with their biological parents; the northern region follows closely at 25.8 per cent (NSO, 2016).

More than 80 per cent of the heads of these households are over 60, and most are women (UNFPA and NESDB, 2015). This could be due to rural-to-urban migration, coupled with higher living costs in urban areas that encourage parents to leave their children behind. While this arrangement might be a solution for parents seeking work in the city, it may pose some problems for the child. Studies have shown that children taken care of by their grandparents have lower academic results than those who live with their parents (NESDB, 2017).

## International migration

As Thailand ages, the need for migrant workers is likely to increase. According to UN Thematic Working Group on Migration in Thailand, there were 3.89 million low skilled workers from Cambodia, Lao PDR, Myanmar and Viet Nam in 2018 (Harkins, 2019). It is estimated that there will be approximately 6.13 million by 2029 (Potipiti, 2010).

Thailand stresses the protection of migrant workers. Through expanded legal employment channels, migrant workers avoid various forms of exploitation such as forced labour, debt bondage and the worst forms of child labour. Thailand has also promoted ethical recruitment and good labour practices

among Thai businesses, especially small and medium enterprises. In the past few years, new initiatives supporting the safety of migrant workers have included a hotline in three different languages for migrants seeking assistance (Ministry of Labour, 2017). Post-arrival and reintegration centres for migrant workers have been established in four major border provinces to provide information and advice to workers.

### GOOD PRACTICE: FAMILY FRIENDLY POLICIES – TACKLING GENDER INEQUALITY

Thailand is making efforts to include fathers in parenting work, including by extending paternity leave. Currently, fathers employed by the Government are allowed 15 days of paid paternity leave. Most fathers employed elsewhere, however, still don't enjoy such an option.

There are also efforts to extend maternity leave to six months from the current 90 days to support breastfeeding by mothers.

Day-care centres can also ease the burden of working parents. The Office of the Education Council has developed strategies to ensure that all state child development centres operate under the same standards. As of 2015, there were 21,758 child development centres in Thailand.

**Source:** UNFPA and NESDB, 2015; Department of Local Administration, 2016; MOPH, 2017.

Labour migration to Thailand is continuously increasing, rising from 3.7 million in 2014 to 4.9 million in 2018; 80 per cent of labour migrants were from Cambodia, Lao People's Democratic Republic, Myanmar or Viet Nam (ibid). Based on Thailand's demographic profile, the labour market will likely sustain a continuing demand for migrant workers, who currently make up 10 per cent of Thailand's labour market (ibid.). The lengthy and complex process of legalizing migrants, however, still leads some to resort to irregular channels. Efforts have been made to revise the Royal Ordinance on the Management of Foreign Workers Employment to aid the labour flow. These include eliminating worker-borne recruitment fees and creating a fund to assist migrant workers. Funds have been allocated to set up Migrant Worker Assistance Centres in 10 provinces to enhance access to public services (ibid.).

Many female migrants have children. A study conducted in Ranong, where there is a high concentration of migrants from Myanmar, estimated that the number of children ever born to female migrants was 2.6 on average (Isarabhakdi and Chongthawonsatid, 2004). Based on data from the Ministry of Interior, however, the vast majority of children born in Thailand in the past 20 years have been to Thai citizens.

### **Regularization scheme**

Over the past few years, Thailand has regularized over 2 million undocumented migrant workers. Nationwide migrant worker registration involved multiple agencies and strategies such as one-stop service centres to register migrant workers with the Ministry of Labour. Registration provides migrant workers and their dependents

with necessary legal protection and access to basic social services, such as health care and education.

Such inclusion improves Thailand's national health security and the quality of its workforce. The International Organization for Migration (IOM) has cited Thailand as a true champion in migrant access to health care.

The 2017 Royal Ordinance on the Management of Foreign Workers Employment B.E. 2560 sets out guidelines for the systematic management of migrant workers, reflecting the Thai Government's determination to ensure that the rights of all workers, including migrant workers, are protected and that Thai labour standards are in line with international norms.

### **Labour memorandums of understanding**

Currently, Thailand has labour memorandums of understanding with several countries, including Cambodia (December 2015), Myanmar (June 2016) and Lao People's Democratic Republic (July 2016). This supports legal employment processes in accord with the rules and regulations of both countries, and reduces risks of exploitation and trafficking. As of November 2018, approximately 850,302 labourers have been recruited through agreements between Thailand and its neighbours (Harkins, 2019).

Despite the Government's efforts, however, legal pathways for labour migration are still complicated and costly. This puts migrants at risk of being exploited or trafficked. Keeping migration safe and in line with migrants' rights requires more coordination and collaboration between countries of origin, transit and destination. Partnership with businesses and civil society should also be strengthened.

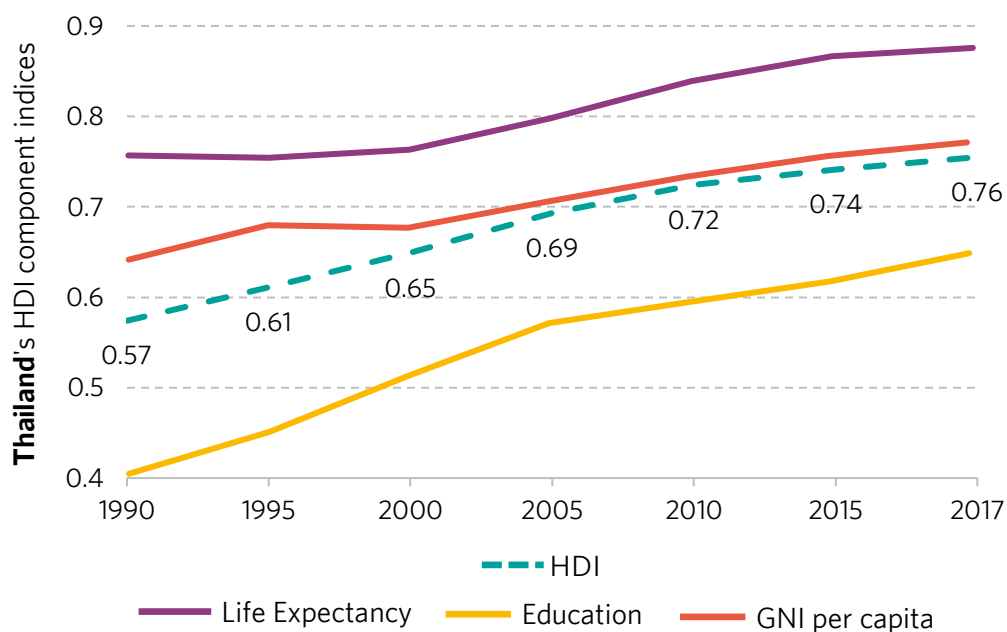
## GOOD PRACTICE: HEALTHCARE FOR MIGRANTS

Based on the UHC scheme and the “Healthy Migrants in Healthy Communities” policy, Thailand provides health insurance for migrant workers and their dependents. The Ministry of Public Health introduced the insurance in 2001.

It can be purchased for a yearly premium of 2,200 baht or \$71 for an adult migrant, and 365 baht or \$12 for dependents and children under age 7. The benefits include maternal and child health services, a wide range of health promotion activities and vaccination for preventable diseases, similar to the public health insurance benefit package for Thai nationals.

Source: Government of Thailand, 2018.

FIGURE 2.7 A consistent upward trend in human development



Source: UNDP, 2018.

## Human development and inclusion

People in Thailand have seen a continuous increase in the quality of life, as reflected in rising scores on the Human Development Index, a combined measure of income, health and education. Education has been the biggest driver of progress, as shown in Figure 2.7.

Even though Thailand has successfully tackled poverty in many respects, income inequality is still an ongoing issue. The Gini coefficient, which measures income inequality, shows considerable improvement, though it is still quite high compared to neighbouring countries (NESDB, 2018). In 2017, the lowest earning 40 per cent of the population took home only 12 per cent of total income (ibid.). Drivers of such inequalities include a tax structure that has not been designed to promote better income distribution, and unequal access to quality health care and education.

Policies to reduce inequalities include increasing the minimum wage, introducing an inheritance tax and regulating the informal debt system (ibid.). The National Economic and Social Development Council and the National Electronics and Computer Technology Centre have developed an information management system, “Thai People Map and Analytic Platform”. It collects data from relevant departments to shape a holistic view of poverty in Thailand and pinpoint the most pressing areas of concern.

## Persons with disabilities and vulnerable persons

Several policies and budget allocations support people with disabilities. In 2017, there were 1.49 million disabled persons who received subsidies from the Government. This number is expected to increase as the elderly population grows. Currently, on average, the government spends 9,509 baht (\$307) per disabled person per year (NSO, 2017). Given limited resources, care will likely be focused on groups who need it most, such as the oldest people or the disabled elderly (UNFPA and NESDB, 2011).

## An increasing focus on people-centred development

Thailand has accomplished a great deal through rising levels of education, much lower neonatal and postnatal mortality, better health for mothers and greater gender equality. All of these accomplishments resonate with the goals of the ICPD.

Moving forward, an increasing focus on people-centred development will stress the quality of childbirth and childcare, and women’s right to plan their own family. A changing population and family structure must be factored into policies well-suited to the future, including to accommodate a shrinking working-age population and an ageing society. Labour productivity will become increasingly important, as will harnessing the potential of older people to continue contributing to national development. If such policies are effectively carried through, Thailand will be in a good place to achieve sustainable social and economic development.

## WELFARE SCHEMES TO REDUCE POVERTY

### **The State Welfare Registration for People with Low Income:**

The Ministry of Finance called for state welfare registration in 2017 for people with low income. Eligible criteria include being a Thai national over age 18 who is unemployed or has an annual income of not more than 100,000 baht (\$3,226), and has no assets. Those who qualify receive between cash and subsidies to cover household expenditures and travel costs. From 14.2 million persons registered, 11.6 million persons received benefits. Starting in 2018, the Government provides occupational training to every registered person. Those who refuse the training do not continue receiving a payment.

### **The Old Age Allowance:**

The Government initially introduced a policy to provide a monthly allowance to the elderly in 1993, but only underprivileged persons were eligible. In 2009, the policy was adjusted to cover all persons over 60. Those between 60 and 69 receive a monthly allowance of 600 baht (\$19). Those 70 to 79 receive 700 baht (\$23), and between 80 and 89, 800 baht (\$26). At 90 and above, people receive 1,000 baht (\$32). Although the allowance is not high, it is a social protection mechanism and a dependable source of income regardless of economic condition. In 2010, 5.65 million elderly people or 67.2 per cent of the total elderly population were covered by a total yearly budget of 32.7 million baht (\$1 million). In 2018, 8.3 million people or 71.7 per cent of the total elderly population received the allowance based on a total budget of 66,359 million baht (\$2.1 billion).

### **Child Support Grant:**

The Government introduced grants for children from poor families in 2015, starting with a monthly 400-baht subsidy (\$13). In 2016, this increased to 600 baht (\$19) until a child is 3 years old. It was recently expanded until the age of 6. More than half a million children up to the age of three from poor and near poor families are benefitting from the grant, which helps ensure a better start in life for the youngest generation.

# SHAPING A SUSTAINABLE FUTURE BY INVESTING IN HUMAN CAPITAL DEVELOPMENT

# 3

*"The assumption that economic growth would lead to the development of other social dimensions has not been as expected. There is a need for development that balances the economy, society, the environment and human capital... That requires the viewpoint that people are not a factor of production, but crucial capital for progress... Research in Thailand should support these four dimensions: increased competitiveness for national economic wealth; development of the grass roots and local economy for social well-being; a focus on environmental wellness; and, last but not least, research to enhance human capital development."*

*Dr. Suvit Maesincee, Minister of Higher Education, Science, Research and Innovation, in opening remarks for the seminar 'Wisdom Movement: Drive Thai Communities with Local Research', organized by the Thailand Science Research Innovation on 14 August 2019.*



### Making the most of human capital

In the 25 years since the ICPD, Thailand has achieved remarkable progress in educational enrolment and reproductive health. More young people are better prepared for life after school and the world of work. The gross enrolment ratio in secondary education increased from 38 per cent in 1993 to 119 per cent in 2016,<sup>1</sup> while the gross enrolment ratio in tertiary education rose from 19 per cent to 49 per cent over the same time period (World Bank, 2019a).

Population ageing and slow population growth provide an opportunity for Thailand to reform and generate revenue through innovation and technology. As the nation faces the challenges of dealing with its ongoing demographic transition, it cannot afford to rest on its past achievements. It needs to focus on maximizing human capital development. Only a healthy and well-educated population will be able to realize its productive potential and help Thailand avoid negative economic consequences from fertility decline and population ageing, and fulfil its

ambitious vision to become a high-income economy. The country is well positioned to successfully reform, but needs to understand how it can further improve its human capital.

### Demand for skilled workers

Thailand needs an adequate workforce equipped with the skills to transform its economy. For the successful realization of “Thailand 4.0”, human capital development is among the top challenges. The development of future industries that are innovative enough to add value and keep up with global competition requires personnel with a range of core and job-specific skills. Thailand currently lags behind other countries in this regard, however.

In the World Economic Forum’s Global Competitiveness Report 2018, business executives expressed their perception of Thailand’s competitiveness as being only moderate relative to other countries (Table 3.1). In terms of the perceived ease of finding skilled employees, Thailand ranked only 88th among 140 nations; in the quality of vocational training, it ranked 75th. Digital skills and the skillset of secondary school and university graduates both ranked 61st. These results are in line with the low share of adults with advanced education in Thailand, which was only 15.9 per cent in 2016 (ILOSTAT). Furthermore, in the Global Competitiveness Report 2018, Thailand ranked 48th on the extent of companies’ investment in training and employee development. To close current gaps in skills, the country will need to gear up efforts to reskill its workforce (World Economic Forum, 2018).

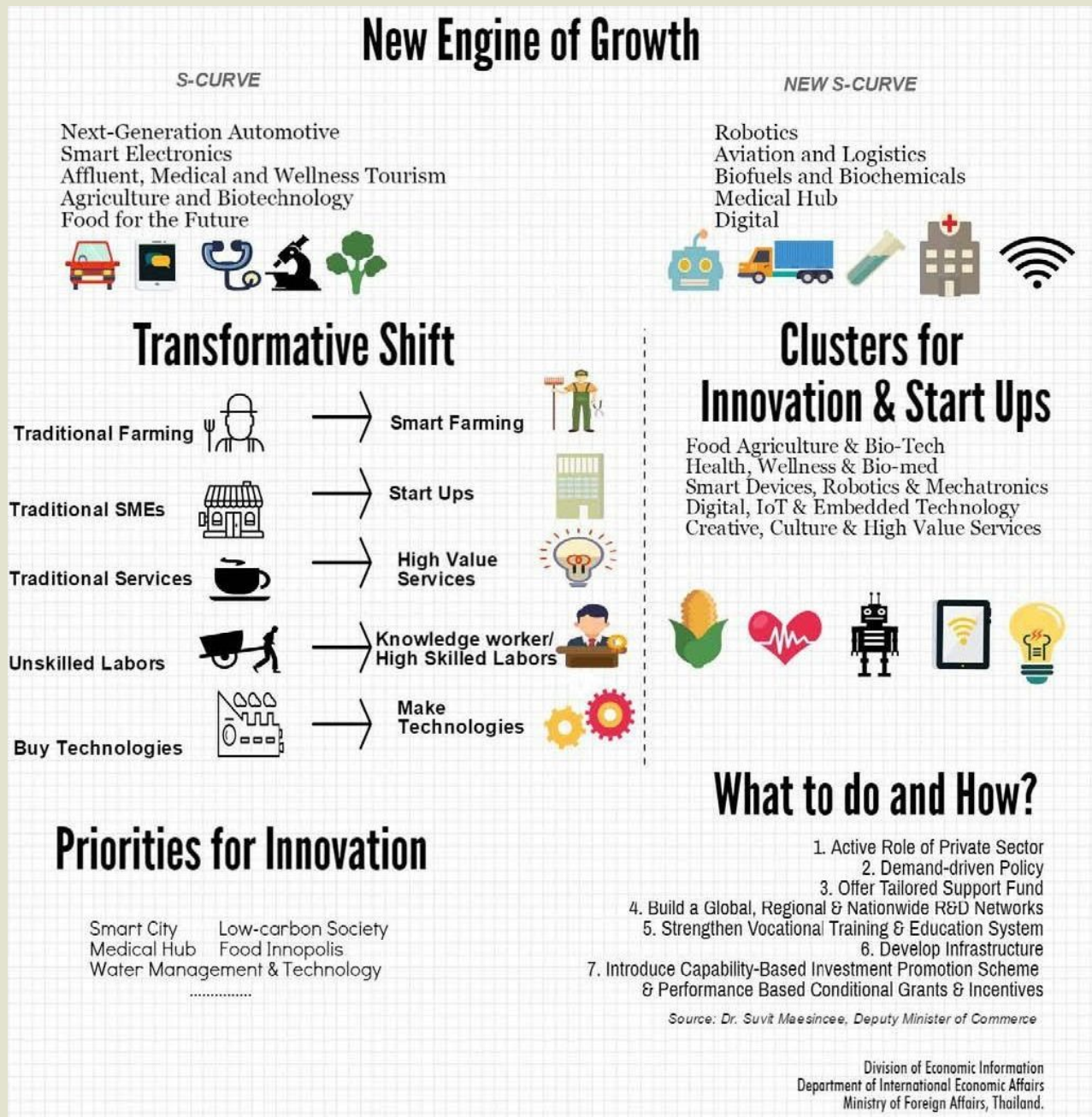
<sup>1</sup> It is possible for a gross enrolment ratio to exceed 100, because this ratio relates actual enrolments to the numbers in the official age range for the level of education.

A ratio exceeding 100 can result, for example, if there are more enrollees younger than the official entry age and/or older than the official graduation age.



## WHAT IS THAILAND 4.0?

Thailand 4.0 is an economic model that aims to move the country beyond a past emphasis on agriculture (Thailand 1.0), light industry (Thailand 2.0) and advanced industry (Thailand 3.0). The goal is to unlock the current “middle-income trap”, where once rapid progress has stalled, as well as “an inequality trap” and “an imbalanced economy trap”. Thailand 4.0 promotes innovation and high value chain industries, towards Thailand becoming a high-income country by 2037 characterized by “prosperity, security, and sustainability”, as illustrated below.



Source: <https://thaiembdc.org/thailand-4-0-2/>.

TABLE 3.1 Thailand's competitiveness compared to other countries, as perceived by business executives

	VALUES	RANK
Companies' investment in training and employee development	4.3	48
Skillset of graduates needed by businesses	4.1	61
Digital skills among population	4.4	61
Quality of vocational training	4.0	75
Ease of finding skilled employees	3.9	88

*On a scale of 1 (among the worst) to 7 (among the best)*

Source: World Economic Forum, 2018.

### A smaller generation

Thailand's children will be the nation's next generation of workers, but their number is declining. Given the limited skillset of Thailand's current working-age population, it is important to invest in the education and health of Thai children, adolescents and young adults in order to enhance human capital. The size of the school-age population is expected to decrease

substantially in the next 20 years, however, due to demographic transition (Table 3.2). This underscores the paramount importance of ensuring that the young generation fully realizes its potential. To sustain development momentum, there will be much less margin for error in cultivating the skills of the next generation of workers.

TABLE 3.2 Projection of school-age population in Thailand, 2019-2040

	POPULATION SIZE ('000)				PROPORTION OF THE TOTAL POPULATION			
	0-4	5-9	10-14	15-19	0-4	5-9	10-14	15-19
2019	3,584	3,711	3,919	4,280	5.4	5.6	6.0	6.5
2020	3,539	3,704	3,839	4,207	5.4	5.6	5.8	6.4
2030	3,013	3,273	3,515	3,687	4.6	4.9	5.3	5.6
2040	2,455	2,718	2,996	3,261	3.8	4.3	4.7	5.1

Source: Office of the National Economic and Social Development Board.  
[http://social.nesdb.go.th/SocialStat/StatSearch\\_Final.aspx](http://social.nesdb.go.th/SocialStat/StatSearch_Final.aspx)

## Human capital development: issues and challenges

Thailand performs well on the World Bank's Human Capital Index, but needs to further catch-up with top-performing nations. The Human Capital Index, released for the first time in 2018, measures the expected productivity that a child born today will have in adulthood, compared to a child with complete education and full health (World Bank, 2019a). Thailand currently ranks 65<sup>th</sup> among 157 nations, which is a respectable position for an upper middle-income country. This is mainly due to its strong performance on health indicators. To further improve its standing and catch up with high-income countries, Thailand will need to address weaknesses in its education system to boost performance, while at the same time addressing any remaining challenges in its health system.

The Government demonstrates a strong commitment to education, with expenditures on education being comparatively high, accounting for 19.1 per cent of total government expenditure in 2013, which was among the highest in the world. Education investments reached 4.1 per cent of GDP, comparable to shares in other upper middle-income countries, but lower than in Malaysia, Viet Nam, and most high-income countries (Table 3.3). In view of Thailand 4.0, STEM (science, technology, engineering and mathematics) knowledge and skills are considered critical to the successful transformation of the economy.

Recognizing this, the Government provides formal STEM education in schools, colleges and universities, as well as non-formal and informal STEM education (Kenan Institute Asia, 2019).

TABLE 3.3 Government expenditure on education and R&D – Thailand compared to selected countries and country groups

	EDUCATION EXPENDITURE		R&D EXPENDITURE	GDP/CAPITA
	Percentage of government expenditure	Percentage of GDP	Percentage of GDP	(PPP\$)
Australia	14.1	5.3	1.9	49,378
Cambodia	8.8	1.9	0.1	4,018
Canada	12.2	5.3	1.5	46,510
China, Hong Kong Special Administrative Region (SAR)	17.8	3.3	0.8	61,671
Malaysia	21.1	4.7	1.3	29,511
<b>Thailand</b>	<b>19.1</b>	<b>4.1</b>	<b>0.8</b>	<b>17,910</b>
United Kingdom	13.9	5.5	1.7	44,921
Viet Nam	18.5	5.7	0.4	6,790
High-income	12.7	5.3	2.5	47,893
Upper middle-income	13.9	4.3	1.7	17,871

Source: World Bank, 2019.

Note: Education data for China, Hong Kong SAR and Malaysia as of 2017; for United Kingdom as of 2016; for Australia, high-income countries and middle-income countries as of 2015; for Cambodia as of 2014; for Thailand and Viet Nam as of 2013; and for Canada as of 2011. R&D data for Canada and China, Hong Kong SAR as of 2017; for Thailand, the United Kingdom, high-income countries and middle-income countries as of 2016; and for Australia, Cambodia, Malaysia and Viet Nam as of 2015. GDP per capita data for all countries as of 2017.

Expenditure on research and development (R&D), however, lags behind that of other countries, including Malaysia and most high-income countries. Investment in R&D needs to parallel investment in human capital to enable Thailand to move to a high-income status.

TABLE 3.4 A significant share of young children show delayed development

	PERCENTAGE
Small muscles and cognitive	52.4
Language comprehension	47.5
Use of language	43.2
Self-reliance	33.4
Movement (large muscles)	32.6

**Source:** 2017 Annual Report: National Child Development Institute, Department of Health, as cited in Thai Health Project, 2018.

TABLE 3.5 Most children are in pre-school, except at the youngest age

	2012	2013	2014	2015	2016
Students in grade 1 (age 3 years) (per cent)	32.4	32.9	27.8	32.5	34.8
Students in grade 2 (age 4 years) (per cent)	101.0	95.5	96.2	92.5	94.6
Students in grade 3 (age 5 years) (per cent)	97.2	98.1	95.6	98.0	92.5

**Source:** Office of the Education Council, 2017.

### *The challenge of pre-school child development*

Nearly one in four young Thai children show some degree of delayed development (Table 3.4), underscoring the urgency of boosting enrolment in pre-school education.

Investment in education and health must start in early childhood as a critical period for a child's development. While some young

children experience a stimulating learning environment in their families, others would benefit from early childhood education in learning centres, nurseries and pre-schools (Thai Health Project, 2018). Most children aged 4 and 5 are in pre-school, yet the number of children in the first grade of pre-school grade at age 3 has remained low (Table 3.5).

### *Need for improved educational performance*

Thai secondary school students, in particular male students, could improve educational performance. The most recent results of the Programme for International Student Assessment (PISA) help to assess the effectiveness of Thailand's schools. Despite the Government's commitment to educational excellence, Thailand continues to

lag behind top-performing countries in all three key subjects covered by the 2015 PISA study (Table 3.6). The mean science score in 2015 was 421, well below the average for countries in the Organisation for Economic Co-operation and Development (OECD), and much lower than in high-performing economies, though it is not far below neighbouring Malaysia and is above Indonesia.

Mean reading and mathematics scores among Thai students were comparatively low. Male students consistently performed worse than their female peers, even in science and mathematics, two subjects where male students show stronger performance in most countries (though not in neighbouring Indonesia and Malaysia).

subjects. Not surprisingly, given the modest performance of Thai students in science, the share of students with science-related career expectations was only 19.7 per cent, which is below the OECD average. Overall, the modest performance of Thai students compared to students in other countries indicates the challenges that lie ahead in improving the educational system.

TABLE 3.6 PISA 2015 scores: how Thailand compares to high-performing and neighbouring countries

	MEAN SCORE								
	SCIENCE			READING			MATHEMATICS		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
OECD average	493	495	491	493	479	506	490	494	486
Australia	510	511	509	503	487	519	494	497	491
Canada	528	528	527	527	514	540	516	520	511
United Kingdom	509	510	509	498	487	509	492	498	487
China, Hong Kong SAR	523	523	524	527	513	541	548	549	547
Singapore	556	559	552	535	525	546	564	564	564
<b>Thailand</b>	<b>421</b>	<b>416</b>	<b>425</b>	<b>409</b>	<b>392</b>	<b>423</b>	<b>415</b>	<b>414</b>	<b>417</b>
Viet Nam	525	523	526	487	474	499	495	493	496
Malaysia	443	441	445	431	414	445	446	443	449
Indonesia	403	401	405	397	386	409	386	385	387

Source: OECD, 2016.

While mean scores can be deceptive in the sense that parts of the student population might perform well despite an overall low mean score, results further show that this is hardly the case in Thailand. Only 1.7 per cent of Thai students were top performers in at least one subject, which is a low value compared to the overall OECD average and more so in relation to high-performing countries (Table 3.7). On the other hand, 35.8 per cent of students in the Thai PISA study were classified as low performers in all

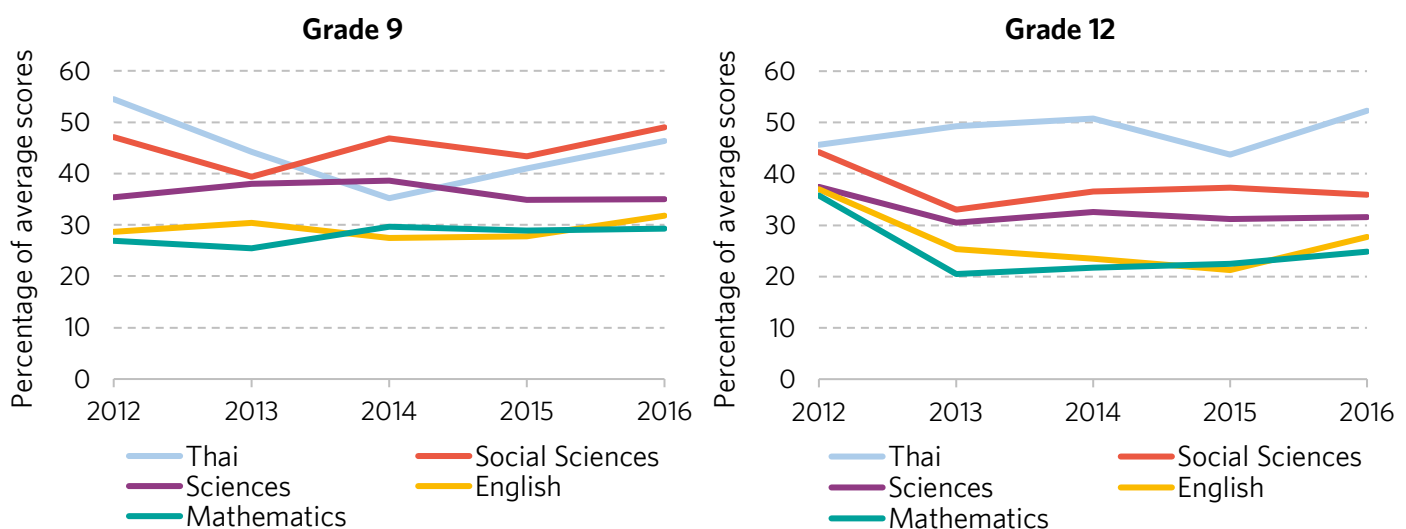
Over time, the learning achievements of secondary students in Thailand have not improved. Given modest performance compared to other countries, improvements are urgently needed. From 2012 to 2016, lower-secondary students did not notably improve their average scores in any of the five subjects (Figure 3.1). Likewise, upper-secondary students' performance mostly stagnated or deteriorated.

TABLE 3.7 Thailand: Percentage of top and low performers, and career expectations, PISA 2015

	PERCENTAGE OF TOP PERFORMERS IN AT LEAST ONE SUBJECT	PERCENTAGE OF LOW PERFORMERS IN ALL THREE SUBJECTS	PERCENTAGE OF STUDENTS WITH SCIENCE-RELATED CAREER EXPECTATIONS
OECD average	15.3	13.0	24.2
Australia	18.4	11.1	29.2
Canada	22.7	5.9	33.9
United Kingdom	16.9	10.1	29.1
China, Hong Kong	29.3	4.5	23.6
Singapore	39.1	4.8	28.0
<b>Thailand</b>	<b>1.7</b>	<b>35.8</b>	<b>19.7</b>
Viet Nam	12.0	4.5	19.6
Malaysia	2.3	24.9	29.1
Indonesia	0.8	42.3	15.3

Source: OECD, 2016.

FIGURE 3.1 Learning achievements have languished



Source: Office of the Education Council, 2017.

Schools need better resources to provide high-quality education. Focusing on science, the latest PISA assessment in 2015 offers insights into the use of educational resources in a discipline crucial for human capital development. Students' success in science depends on how much the Government and schools invest in the amount and quality of teaching and learning materials and teachers, and the time students devote to their studies. Ultimately, this will also determine how motivated young people may be in pursuing a science-related career after their graduation (OECD, 2016).

Results of the 2015 PISA assessment show that Thailand is behind other countries in terms of the availability of science-related resources and teaching practices (Table 3.8). About 64 per cent of school principals assessed their school's science department as well equipped compared to other departments; 61 per cent rated their school's science teachers as among their best-educated staff members. Shares in both cases are below the OECD average.

Of particular concern is the equipment of schools with laboratory material. Only 45 per cent of school principals reported that their school has enough laboratory material for all courses to regularly use, which is clearly below the OECD average of 66 per cent. The percentage of students required to attend at least one science course per week is slightly below the OECD average, while extracurricular activities are mostly on par with or even better than in high-performing countries.

Instructional practices need to be better adapted to students' needs. In addition to sufficient and high-quality educational

materials and well-educated teachers, the way science is taught plays a major role in determining student performance (OECD, 2016). Thailand ranks relatively high in terms of teacher-directed instruction and perceived feedback. In particular, teachers frequently explain and demonstrate scientific ideas and provide feedback to students regarding their performance. A comparatively high share of students are required to argue about scientific questions at least in some lessons, although this may not reflect the actual extent and quality of discussions, which have been reported as insufficient in other studies (e.g., Thomas, 2010).

The 2015 PISA assessment results reveal two challenges in terms of teaching practices, however. The percentage of students who reported that they are grouped by ability in different science classes was 76 per cent, which is above the OECD average, but far below high-performing countries. Furthermore, a relatively low share of students stated that teachers adapt science lessons to their class' needs.

TABLE 3.8 Thailand is behind on quality indicators of science teaching

	OECD average	Australia	Canada	China, Hong Kong SAR	Singapore	Thailand	United Kingdom	Viet Nam
<p>Above the OECD average </p> <p>Below the OECD average </p>								
<b>THE SCIENCE DEPARTMENT AND LEARNING TIME</b>								
PERCENTAGE OF STUDENTS IN SCHOOLS WHOSE PRINCIPAL REPORTED THAT THE FOLLOWING STATEMENTS ARE TRUE FOR THE SCHOOL'S SCIENCE DEPARTMENT:								
The school science department is well equipped compared to other departments	74	94	88	91	95	64	78	56
Science teachers are among our best-educated staff members	65	69	73	74	75	61	69	72
We have enough laboratory material for all courses to regularly use	66	92	90	98	100	45	91	44
PERCENTAGE OF STUDENTS REQUIRED TO ATTEND AT LEAST ONE SCIENCE COURSE PER WEEK	94	90	86	76	99	93	98	100
<b>TEACHING STAFF</b>								
PERCENTAGE OF SCIENCE TEACHERS WITH A UNIVERSITY DEGREE AND A MAJOR IN SCIENCE	74	94	81	91	89	87	93	92
<b>APPROACH TO TEACHING SCIENCE</b>								
PERCENTAGE OF STUDENTS WHO REPORTED THAT THE FOLLOWING THINGS HAPPEN IN THEIR SCIENCE LESSONS:								
Teacher explains scientific ideas (every or almost every lesson)	24	33	39	27	31	36	32	16
Teacher tells me how I am performing in this course (at least in some lessons)	73	77	85	83	86	85	86	88
Teacher adapts lessons to class's needs and knowledge (every or almost every lesson)	16	17	18	10	20	15	16	N/A
Students are required to argue about science questions (at least in some lessons)	70	67	70	70	65	75	55	94
Students are grouped by ability into different classes (at least for some subjects)	47	88	87	91	94	76	100	83
<b>EXTRACURRICULAR ACTIVITIES</b>								
PERCENTAGE OF STUDENTS IN SCHOOLS OFFERING THE FOLLOWING SCIENCE-RELATED ACTIVITIES:								
Science club	39	38	57	95	42	90	79	44
Science competitions	67	92	76	88	89	72	72	47

Source: OECD, 2016.



## ***Inequality in accessing quality education***

Poorer people, especially those living in rural areas, confront barriers in accessing public service such as quality education and public health care service. Inequality in access to quality education translates into poverty being passed on from generations to generations. In 2017, about 7.8 per cent of the population lived below the national poverty line (NESDB, 2017).

A large number of small schools operate in rural areas to provide education to rural and often poor students. The number of schools with less than 120 students increased significantly from 10,899 in 2003 to 14,669 in 2011 as a result of falling birth rates. While the average per student subsidy in small schools is considerably higher compared to larger schools, small schools lag behind in student performance. Various interventions have been suggested to address this issue. These include the consolidation of small schools into fewer but larger and better-equipped schools; increased financial and human resources, with a focus on well-qualified teachers in particular; and training for teachers on multigrade teaching to enable the consolidation of classrooms in small schools with a severe lack of teachers (World Bank, 2015). Concrete action has yet to be taken, however.

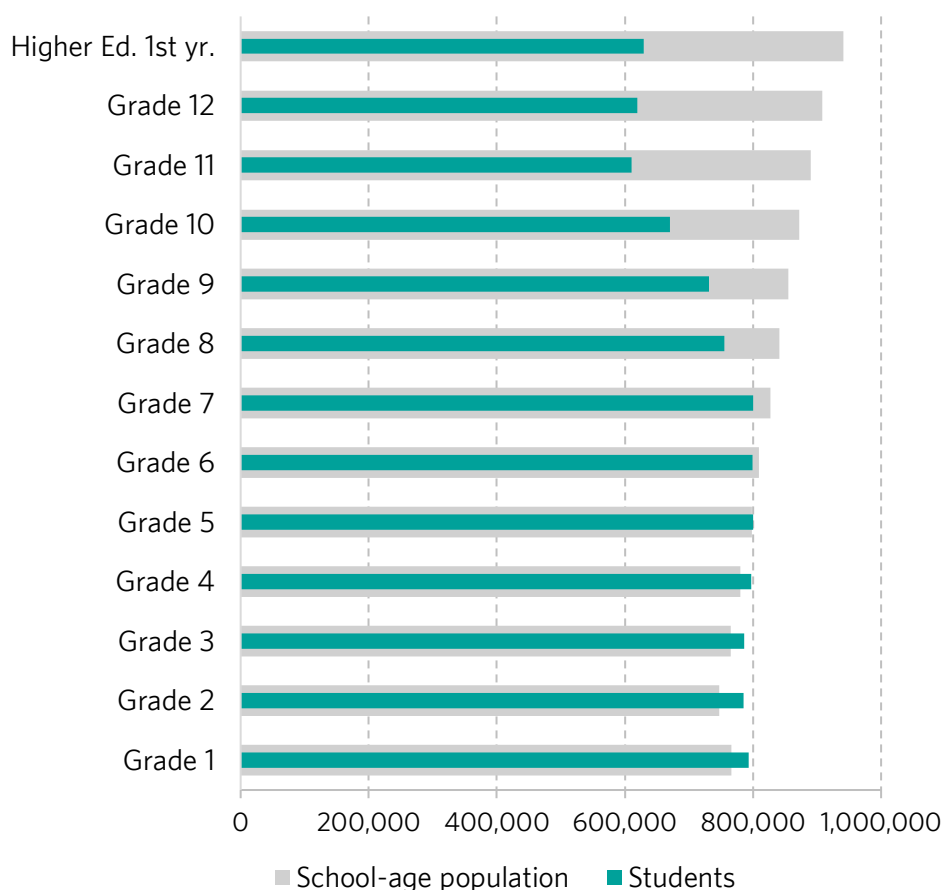
Results of the 2015 PISA assessment show that in Thailand, the principals of disadvantaged and rural schools more frequently reported both a general shortage of educational material and a lack of science-specific resources compared to schools in urban and socioeconomically advantaged areas. The percentage of students required to attend at least one science course per week

is significantly higher in schools located in areas with residents in the top socioeconomic quartile, and the share of students in schools that group students by ability into different classes was considerably higher in urban schools. Average school size was considerably larger in urban and socioeconomically advantaged areas, while the student-teacher ratio was higher in urban schools. No significant difference between urban and rural schools, as well as between schools in areas where people are in the top and bottom socioeconomic quartiles, could be identified in terms of an overall shortage of education staff and the share of teachers with a university degree and a major in science.

## ***Student dropouts and inactive youth***

Another challenge involves students who drop out of school at an early stage. According to the National Statistical Office of Thailand, 13.7 per cent of youth (15 to 24 years) in Thailand were not in employment, education or training in 2017, a value higher than in developed Asian countries such as China, Hong Kong SAR; Japan and Singapore, where this share tends to be close to or below 5 per cent. Students in Thailand start to drop out of school in considerable numbers in lower secondary school despite this level being part of compulsory education (Figure 3.2). The attrition continues in upper secondary school, which is non-compulsory, and results in a substantial share of young people not obtaining an upper secondary degree or entering higher education.

FIGURE 3.2 Students in relation to the school-age population in 2017



Source: Office of the Education Council, 2017.

TABLE 3.9 Comparing the net enrolment ratio in secondary education across countries

	PERCENTAGE
Australia	92.7
Canada	99.7
United Kingdom	97.8
China, Hong Kong SAR	92.9
Lao People's Democratic Republic	60.4
Indonesia	76.8
Malaysia	75.0
<b>Thailand</b>	<b>77.3</b>

Source: UNESCO, 2019.

Note: Data for Australia; China, Hong Kong SAR; Laos and Malaysia as of 2017, for Canada and United Kingdom as of 2016, and for Thailand and Indonesia as of 2015.

Compared to high-income countries, Thailand's overall net enrolment ratio in secondary education is low, although comparable to other upper middle-income countries, such as Malaysia. It is considerably higher than in less developed countries, such as Lao People's Democratic Republic (Table 3.9).



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*A number of teen mothers in Thailand cannot go back to education because they need to find income to take care of their baby. Often time, their family is already struggling financially.*

### **Adolescent pregnancy and student dropouts**

Unplanned teenage pregnancy and abandoned children are concerns related to students dropping out of secondary school. The adolescent birth rate increased by 73 per cent between 2000 and 2012 (Department of Health, 2018, as cited in Government of Thailand, 2018). One of several adverse effects is that each year, between 150 and 200 infants are abandoned in Thailand (Thai Health Project, 2018). Keeping teenagers in school, where they can receive proper sexual and reproductive health education (Kanchanachitra and Chamchan, in press),

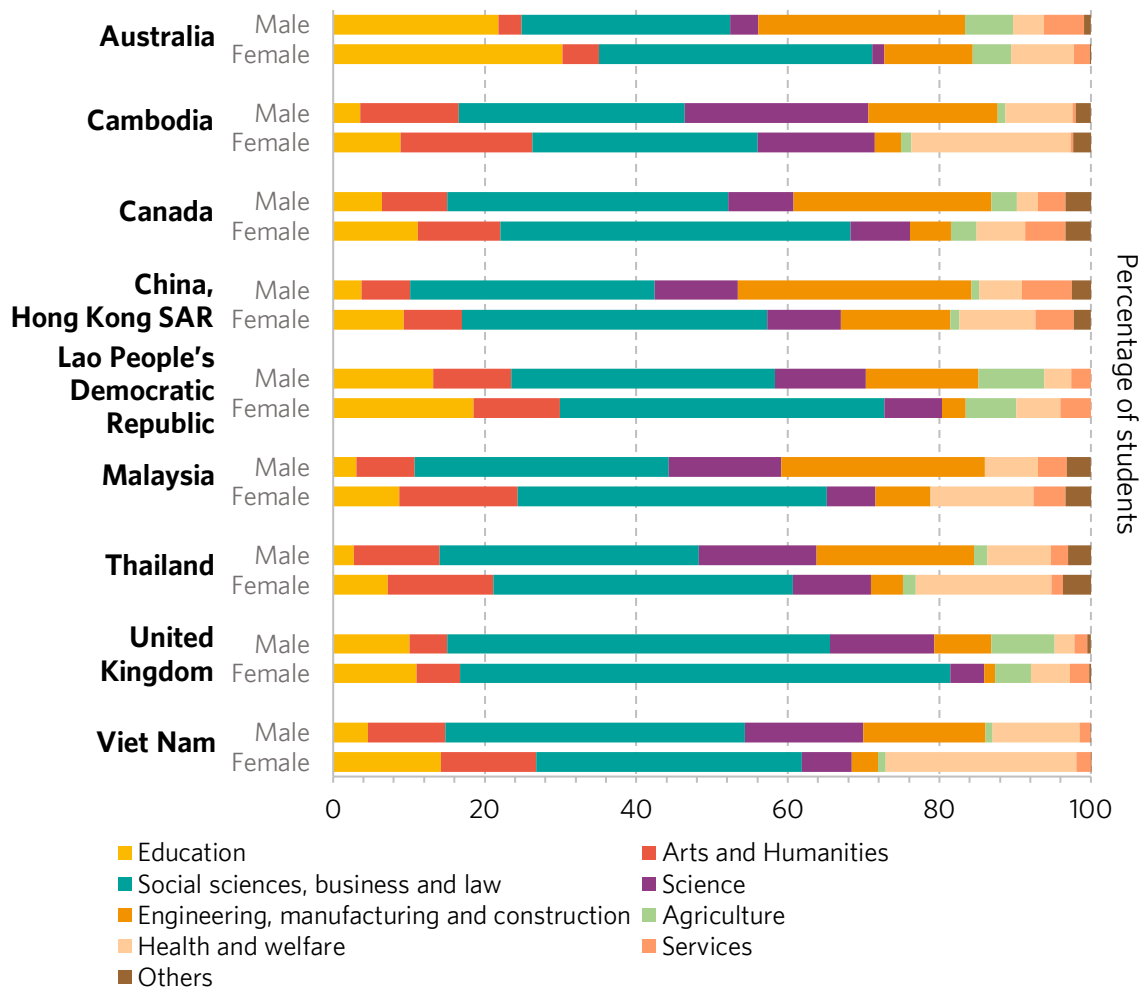
helps reduce the prevalence of adolescent pregnancy. Adolescent pregnancy may also contribute to student dropouts. According to calculations by UNICEF Thailand based on data from the 2015-2016 Multiple Indicator Cluster Survey, among girls who drop out after the third year of secondary school, over two-thirds are pregnant or with children.

### Need for more female tertiary students in science and engineering programmes

The share of Thai tertiary students enrolled in disciplines crucial for innovation and greater productivity needs to increase. Students who enrol in universities predominantly favour social sciences, business

and law programmes (Figure 3.3), resulting in a deficit of science and engineering graduates needed by the modern industrial sector. As in many other countries, science and engineering programmes are particularly unpopular among female students.

FIGURE 3.3 Students in tertiary education by type of programme, country and gender



Source: UNESCO, 2019.

Note: Data for Australia; China, Hong Kong SAR, Lao People's Democratic Republic, Malaysia and Myanmar as of 2017, for Canada, Thailand, United Kingdom and Viet Nam as of 2016, and for Cambodia as of 2015.



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Since May 2014, the National Health Security Office in cooperation with Department of Health provides adolescent girls under age 20 with wider free options in contraception from condoms and contraceptive pills to long acting contraception (LAC) and intrauterine device (IUD). They can access the services at both public hospitals and private hospitals participating in the UHC scheme.

### Health and human capital development

Health is a key component of human capital, providing the basis for strong learning achievement and high labour productivity. While education improves intellectual capacity, health care nourishes physical and mental development. In the past decade in Thailand, health care has been a priority in government policies to improve the quality of life for all. The Universal Health Coverage (UHC) Initiative has been internationally recognized as one of the boldest and most

ambitious health-care reforms ever undertaken in a developing country.

Public health policy has addressed some of the country's most pressing health issues. Over the past three decades, for example, the share of children under 5 with a low height-to-age ratio (stunting) has fallen sharply from 24.6 per cent to 10.5 per cent. The percentage of children under 5 with a low weight-to-height ratio (wasting) has declined from 7.3 per cent in 1993 to 5.4 per cent in 2016 (World Bank, 2019b). Nonetheless, new

health challenges are emerging. In 2017, the top three causes of death and disability were stroke, road injuries and ischemic heart disease. The top three threats to health were dietary risks, tobacco use and high body-mass index. Improving dietary habits, strengthening physical activity as well as implementing comprehensive tobacco control strategies are key health priorities.

By 2018, UHC reached 99.9 per cent of the population, from 73.6 per cent in 2002, the first year of the programme. Among 12,151 health-care units, 11,587 were primary care facilities, 1,331 main facilities and 1,355 referral hospitals. Out of 1,064 hospitals, 847 were accredited. A 2018 client survey by the National Health Security Office, which oversees UHC, found that 93.9 per cent of respondents said they were “very to most satisfied” with services. Although rising costs remain a significant challenge, UHC has proven to be one of the most popular policies and an important mechanism to reduce inequality.

Health coverage for children is particularly important for the country’s future. Mother and child health has been one of the top priorities of the UHC, which provides continuous care from the point of conception. The “Miracle of the First 1,000 Days of Life” campaign reflects the determination of health authorities to provide the best start to life. It covers health and nutrition for pregnant women (270 days), children who are 0 to 6 months old (180 days) and children from 6 months to 2 years (550 days). This includes free access to vaccinations for children and care at all stages of pregnancy. Well Child Clinics offer regular check-ups at 9, 18, 30, and 42 months of age. A variety of other programmes help prevent mother-to-child

transmission of HIV, reduce iodine deficiency, register birth defects and monitor hypothyroidism, among other issues.

### **Reforms geared towards accelerating human capital development**

Human capital development has been the central instrument at every breakthrough point in Thailand’s history. It is the major source of sustainable growth and competitiveness. The role of education has always been emphasized, including through four major education reforms.

## **FOUR REFORMS HAVE GIVEN IMPETUS TO THE CENTRAL ROLE OF EDUCATION**

### **The 1st Reform:**

This reform was instrumental to the modernization of the country at the turn of the 18th century. The system and structure were established with much influence from western models and some from Japan.

### **The 2nd Reform:**

This was part of the mandates from the 1932 political revolution. Education served as the strategy to promote democracy and equality.

### **The 3rd Reform:**

This came with the 1973 student political movement to modernize the educational system for national development. The reform proposed “Education for Life and Society” along with 10 issues to pave the way for Thailand’s education: (1) changing the schooling structure to six years of primary, three of lower secondary and three of upper secondary, (2) consolidation of all education levels under the Ministry of Education, (3) decentralization of the administrative structure, (4) promotion of private education, (5) educational law amendment, (6) improvement of the teacher training system, (7) reformation of the curriculum, (8) expansion of investment in education, (9) expansion of educational opportunity and (10) improvement of related systems.

### **The 4th Reform:**

This is the current reform mandated by the 1999 National Education Act and 2002 and 2010 amendments. Based on the 1997 Constitution, this reform is a response to the 1997 economic crisis and the challenge of globalization. It aims to solve the problem of low enrolment especially at the upper secondary level of education, which is critical to attaining higher enrolment in advanced education and raising the productivity of the country. It also addresses the problem of low scores in science and mathematics, which affect prospects for innovation in science and technology. Educational mismatches and the need for relevant education, evidenced by simultaneous unemployment and workforce scarcity, are also highlighted (Pholphirul, 2017). A “learning society”, “lifelong education”, and “education equality” have become familiar priorities among educators and policymakers.

The latest of these reforms has experienced a bumpy passage that has prolonged its realization. Decentralization, one of its pivotal points, was complicated by administrative restructuring and delayed by political changes. On 24 October 1999, the Cabinet approved the National Education Act 1999 comprising 104 articles covering five reform dimensions: (1) the educational system to accommodate diversity from pre-school to life-sustaining education, (2) improvement of education quality through the quality of teachers and administrators, (3) school autonomy, (4) education management that emphasizes quality improvement instead of inspection, and (5) a national education plan.<sup>2</sup>

Although the act was approved, a number of key details remain to guarantee that its spirit stays intact. Nonetheless, Thailand managed to inaugurate the new Ministry of Higher Education, Science, Research and Innovation in May 2019. Under its mega-structure of around 150,000 staff, incorporating the former Ministry of Science and Technology, the Office of the Higher Education Commission, the National Research Council of Thailand, and the Thailand Research Fund, it is intended to propel the engine of science and technology. A remaining challenge involves greater Government investment in R&D, as this lags behind high-income countries.

The 2017 Constitution specifies a number of new mandates linked to education and human capital, stipulating that the Thai people have a duty to “enrol in compulsory education”. It strongly emphasizes investment in pre-school education to prepare young

children in terms of their physical and mental resources, discipline, emotional and social development, and stresses the role of lifelong learning in sustaining the efficiency of human resources in an ageing society. To address inequality, the Constitution provides for a fund to assist people who need financial support for education expenses. The fund draws on government allocations and tax reduction measures.<sup>3</sup>

One of the motives for the 1999 education reform was to ensure that the supply of educational opportunities met demand. There has been remarkable success in increasing access to education, with the net enrolment rate for primary school rising to 90.1 per cent in 2009 from 81.4 per cent in 2000 (UNICEF, 2017). For secondary school, it expanded to 72.2 per cent in 2009 from only 55.4 per cent in 2000. From 2011 to 2015, there was steady enrolment of 2.3 million to 2.4 million students at the tertiary level (Office of the Education Council, 2017). But despite the expected great increase in human skills, a gap persists between labour demand and supply.

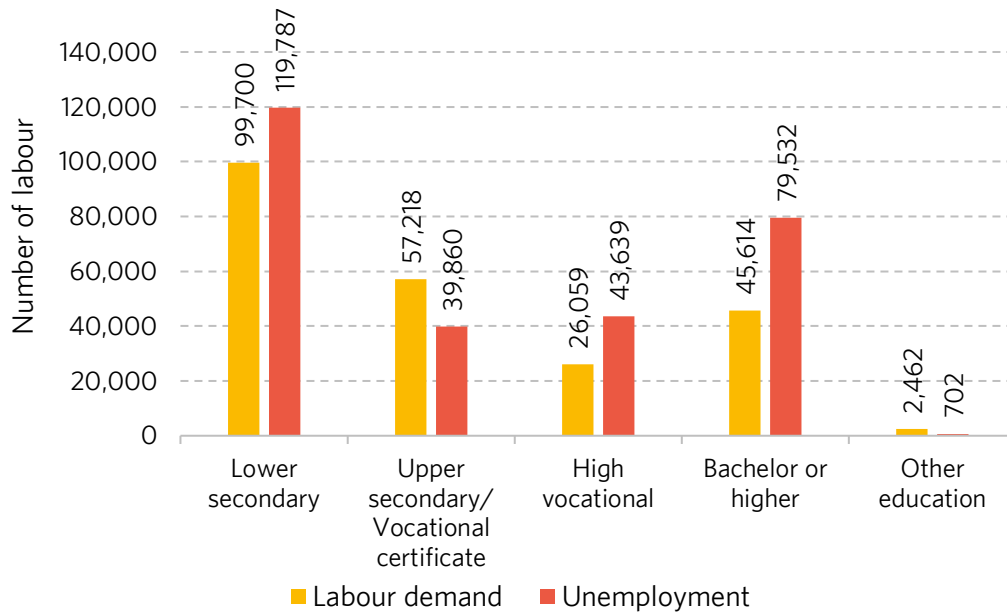
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<sup>2</sup> <https://www.thairath.co.th/news/society/1331870>.

<sup>3</sup> [https://library2.parliament.go.th/ejournal/content\\_af/2561/mar2561-3.pdf](https://library2.parliament.go.th/ejournal/content_af/2561/mar2561-3.pdf)

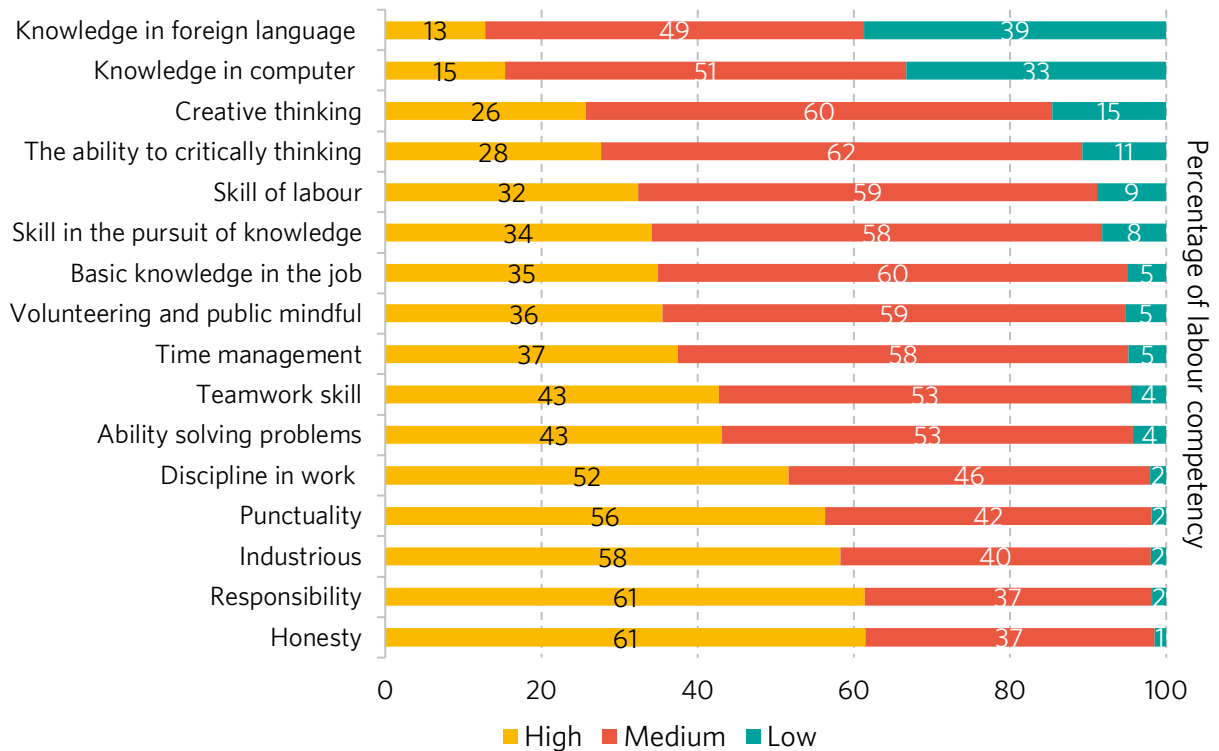


FIGURE 3.4 Students in tertiary education by type of programme, country and gender



Source: NSO, 2014.

FIGURE 3.5 Employers give low marks to a number of competencies among Thai employees



Source: NSO, 2014.

Figure 3.4 shows such a gap especially at the high vocational level and bachelor's degree or higher levels. This mismatch includes both a vertical mismatch (qualification or degree) as well as horizontal mismatch (field of study). Only 16 per cent of the workforce has a match between their degrees and the degrees required by their job (Chantapong and Lertpiantham, 2018). In addition, enrolment in vocational and higher education is heavily weighted towards the social sciences, at more than 80 per cent, rather than science and technology (Pholphirul, 2017), which adds to the mismatch. Other competencies and skills that private employers perceive as insufficient in their employees include basic knowledge for the job, pursuit of knowledge, labour skills, critical thinking, creative thinking, computer skills and foreign language skills (Figure 3.5).

### ***Making education relevant and raising labour productivity***

Thai labour productivity is comparable to that of the ASEAN-5 countries, but only half the level in Malaysia and Turkey (World Bank, 2016). Creating many low-skilled jobs is no longer an option. Instead, Thailand needs to upgrade its industries and services sector to create high value-added jobs that require more skills. This largely depends on the success of the education system in turning out graduates with needed skills. The current shortage of labour in industries such as energy, automotive, hospital and health services, and electrical and electronic parts (Amornvuthivorn, 2016) poses a great challenge to aspirations for Thailand 4.0.

Incorporating employers, especially the fast-changing private sector, into the educational system has become a solution for

educational mismatch, including through public-private partnerships to link employers and educational institutes in producing graduates with relevant skills. The World Bank and Thailand Development Research Institute have both encouraged such a move (Brix, 2012).

Public-private collaboration is not new to Thailand, and the 1992 Private Participation in State Undertakings Act and the 2013 Private Investments in State Undertakings serve as mechanisms to promote private participation in State activities. Such partnerships are still not common in education, however, although cooperative education at the Kamnoetvidya Science Academy and Chevron Enjoy Science serve as good examples.

Cooperative education was first introduced at Suranaree University of Technology in 1993 to create collaborations between employers and the university to provide work-based learning, project-based assignments and classroom-workplace integration for students (Reinhard and Pogrzeba, 2016). The approach aims to reduce gaps in skills required by employers. Success at Suranaree University led to the founding of the Thai Association for Cooperative Education in 2001 and the Cooperative Education Networks in 2005 to promote the idea among private firms and higher educational institutes.

Cooperative education has become increasingly popular among higher education institutes, with an increasing number of participating institutes, students and private firms. From 2008 to 2011, the number of educational institutions involved in cooperative education increased from 56 to 106, the number of students rose from 11,226

to 27,060 and the number of firms climbed from 6,019 to 13,127 (Office of the Higher Education Commission, 2011). The challenge confronting cooperative programmes remains the extent to which they can cover around 500,000 higher education graduates each year. Although greatly benefiting the participating firms, cooperative programmes require their close engagement. Many firms face time constraints, however. Educational institutes must also have enough supervisors to frequently visit and follow up with student participants at the firms.



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*Professional skills in using computer and graphic designs are often imparted to young people with disability so they could depend on themselves in making a living in a sustainable way.*

## SOME FORWARD-LOOKING EXAMPLES OF COOPERATIVE EDUCATION

Kamoetvidya Science Academy is a social project on education founded by the PTT Public Company Limited Group, a Thai state-owned oil and gas company. It operates under the Power of Learning Foundation, and heavily invests in qualified instructors and educational resources such as a scanning electron microscope, 3D printers, lathe machines, a microcontroller laboratory, etc. The school produced its first graduate in 2018, and showed considerable success in terms of medalists in the International Science Olympiads, international scholarship recipients, Royal Government scholarship recipients, international conference participations and admission to top universities in Thailand (Siam Edunews, 2018; Thairath, 2018).

At the vocational level, Chevron, the top natural gas and crude oil producer in Thailand, has offered its expertise and \$30 million to create the Chevron Enjoy Science project. Under the concept of “move the plant to school”, the project aims to provide a curriculum and training in STEM education and 21st century workforce skills for vocational students. In 2018, it worked with 27 technical schools on robotics and automation curriculum. The project is intended to cover more than 600 technical schools, and build capacity for 10,000 teachers and over 500,000 students. (Chevron Enjoy Science, 2019; Komchadluek, 2018).

# THAILAND: AN AGEING SOCIETY WITH A LOW BIRTH RATE

Back in 1964, a Thai woman had 6 children on average. At present, she has only 1.6, a fertility rate below the level that would normally sustain the size of the population. Several measures to persuade young couples to have more children have not increased the number of births. Two young people share some of their perspectives on the issues they face.

**Supitcha Chaidit**, 23 years old, a senior student and the first female President of the Child and Youth Council of Thailand, says: *"To me, family planning never comes to my mind yet. I still enjoy travelling and spending time with friends."*

***I still cannot picture myself setting up a family. I think that I would do it only if I have enough money, only if I feel super ready.***

*Nowadays, medical technology is very advanced to the point that we could be pregnant at a later age. I am thinking of egg freezing so I can decide when to have a child. However, if passing age 40, I would probably decide not to have one at all."*

## RIGHTS AND CHOICES FOR ADOLESCENTS

*"As a young person and a member of the Youth Council, I am lucky to be familiar with the issue of sexual and reproductive health and rights for adolescents," Supitcha shares.*

***"So many female friends have to take emergency pills very often because their boyfriends ask them to. Yet they have no idea of the negative effect on their health."***



**Yotin Tongpawa**, 22, is a member of the Child and Youth Council of Thailand and one of the two youth representative in the national committee under the Act on the Prevention and Solution of Adolescent Pregnancy. He shares his thoughts about access to and the accuracy of information on sexual and reproductive health for young people.

***“Young people obviously get information on the Internet and from a variety of media. However, the details out there are not yet verified. There should be a government office that helps verify the information and a working body that helps simplify the facts so that young people can understand and use them in their real life,”*** he says.



© UNFPA/Biyoke Madavisid

## **INEQUALITY IN EDUCATION AND THE OPPORTUNITY TO BECOME A SKILLED WORKER**

Both Supitcha and Yotin suggests that the education system in Thailand should prepare students in high schools with the right knowledge and skills to realize their potential. They both emphasize developing income opportunities in local areas and the diversity of available professions.

*“Some schools out of Bangkok provide wider learning opportunities for students in both high schools and vocational schools. For example, in Si Saket province, there are vocational courses open to high school students and high school courses for vocational students on weekends. Even if the students have to spend more time studying, they are happy because they are learning what they are interested in,”* Supitcha notes, adding that she wishes schools where she lives in Ranong province provided a similar opportunity.

*“I am one of many people who do not believe in the quality of schools in the non-municipal areas,”* Yotin says. *“That’s why I moved to study in the main district of Nakhon Sri Thammarat province. But I now realize that it would be very powerful if society could work together to empower local people to generate income from their hometown. There is no need for everyone to be an employee or a governmental officer so as to earn income. There are so many professions out there, and society should empower and support young people to appreciate local professions.”*

## SUSTAINABLE PATH TO AGEING

*"As Thailand is now an aged society, I see the unmet need for family planning among two groups," Yotin comments.*

*"Adolescents who are not ready to set up a family often become teen parents unintentionally, while working-aged women who feel ready to have a child cannot get pregnant because they do not have sufficient information to prepare for their preferred time of pregnancy. The readiness to become a parent surely affects the opportunities of the next generation. Children of teen parents might face unequal opportunities in areas like education, health and sexual and reproductive health. That, in turn, has a negative impact in our ageing society because the workforce cannot develop even as the population group that depends on it is increasing."*

*Supitcha sees the issue of an ageing society as directly relevant to young people. She says, "Young people will definitely become old one day. We have to plan for it. I learned an interesting model in New Zealand in which young people can volunteer to care of elders. That service is a credit for them to have an equivalent service when they get older. The Child and Youth Council of Thailand has an equivalent project called 'Buddy of a Different Age'. Young people in communities will buddy with elders and make a regular time to take care of them, like helping them reach the community medical centre or reminding them to take*

*medicines. This project happens because a big number of young people live in rural areas with their grandparents. Their working-age parents have to work in Bangkok or urban areas. So we turn the problem into an opportunity for intergenerational living."*

*"Even if I come from an average family with no economic difficulty, I am now planning to age with quality. I plan to invest in assets that increase in value over time like a house and not to buy anything that would devalue like cars," says Yotin. "I also plan to increase my income by making cookies using a local ingredient, sago, and creating my own brand while also being a teacher."*

*He adds, "We have to plan for ageing. That way, we do not have to rely on the younger generation or to demand that society take care of us. We have to plan and prepare now to age sustainably."*

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**by Kullwadee Sumalnop**

## **Eastern Economic Corridor and demand for human resources**

The Eastern Economic Corridor (EEC) and Thailand 4.0 have become buzz words of the Government in promising to move the country out of the “middle-income trap” and into a high-income status. The essence of Thailand 4.0 is to escalate the productivity of the labour force, especially in the face of an ageing society, via science and technology innovation, creativity, knowledge-based and value-based products, and the new S-curve.<sup>4</sup> The EEC therefore represents an important economic gateway for Thailand 4.0. At its initial stage, the corridor will focus on three eastern provinces: Chachoengsao, Chonburi and Rayong.

The future expansion of public-private projects especially in science education, could significantly contribute to the realization of the EEC. It focuses on 10 strategic industries; 5 first S-curves and 5 new S-curves. The first 5 S-curve industries include next-generation automotive, intelligent electronics, advanced agriculture and biotechnology, food processing and tourism. The 5 new S-curve industries are digital, robotics and automation, aviation and logistics, biofuels and biochemical, and medical hubs. During 2018, the EEC Office of Thailand approved 1,227 projects worth 625,080 million baht (\$20,164 million). It is estimated that the EEC will generate at least 100,000 positions per year<sup>5</sup>, at least 30,000 of them for skilled workers. Projected labour demand is shown in Table 3.10.

In 2018, Chonburi already reported 15,000 skilled workers, Rayong 10,000 and Chachoengsao 5,000. The government approved 861 million baht (\$28 million) to develop sufficient human resources for the EEC. This intervention aims to supply around 40,000 vocational graduates within five years for the targeted industries (The Bangkok Post, 2018), which still falls far behind real demand. In addition, existing skilled labour might need to be reskilled as the new S-curve industries depart much further from the present stage of technology, especially concerning digital transformation and automation (Limviphuwat, 2018).

There has been much discussion about attracting foreign talent to jump start the growth engine. The government has moved forward to initiate such instruments as the Smart Visa. One study, however, suggested a more flexible process and a strategic talent centre to make Thailand more attractive to foreign talent and make the Smart Visa really work (Institute for Population and Social Research, 2018).

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<sup>4</sup> The Innovation S-Curve or the technology life cycle can be distinguished among 4 different stages: Ferment, Take-off, Maturity, and Discontinuity. Positioning a new industry/product assists professional to determine what is the potential of it and also decide on a certain innovation strategy that will fit best for it. Thailand has defined 10 targeted S-Curve industries to boost the country economy.

See [http://www.oie.go.th/sites/default/files/attachments/industry\\_plan/thailandindustrialdevelopmentstrategy4.0.pdf](http://www.oie.go.th/sites/default/files/attachments/industry_plan/thailandindustrialdevelopmentstrategy4.0.pdf)

<sup>5</sup> [https://www.scbeic.com/en/detail/file/product/4457/eyozayose8/Insight\\_EEC\\_20180215\\_V2.pdf](https://www.scbeic.com/en/detail/file/product/4457/eyozayose8/Insight_EEC_20180215_V2.pdf)

TABLE 3.10 Labour demand in the EEC, 2017-2027

EEC TARGET INDUSTRIES	2017	2022	2027	AREA OF EMPLOYMENT
<i>First S-curve</i>				
Next-generation automotive	10,036	21,897	50,119	Automotive researchers, computer numerical control, robotic scientist, metallurgical engineer, industrial engineer, material scientist
Smart electronics	4,494	5,227	7,397	Telecommunication engineer, electronic engineer, electric engineer, artificial intelligence, software engineer, machine control automation
Affluent, medical, and wellness tourism	9,682	24,593	59,476	Medical doctor, nurse, nursing assistant, interpreter
Agriculture and biotechnology	11,154	21,897	47,732	Biologist, microbiologist, environmental analyst, environmental engineer, researcher
Food for the future	4,388	9,428	21,404	Food scientist, nutritionist, engineer, product designer, food production expert
<i>Second S-curve</i>				
Robotics	15	N/A	N/A	
Aviation and logistics	7,121	13,309	28,308	Pilot, aeronautical engineering, mechanical engineer, transport engineer, design engineer, structural engineer
Biofuels and biochemicals	1,074	2,461	5,735	Petrochemical researcher, analytical chemist on renewable energy, researcher
Digital	2,485	4,104	8,291	Programmer, researcher, cyber security specialist
Medical hub	9,449	12,525	20,977	Medical doctor, nurse, nursing assistant, pharmacist, medical technologist, physical therapist
<b>Total</b>	<b>59,898</b>	<b>115,444</b>	<b>249,608</b>	

Source: Ministry of Labour, 2018.

### **Pursuing innovation to reduce exclusion**

While mainstream education reaches most students and has resulted in impressive progress in school enrolment, groups of disadvantaged children remain in need of special attention. Provision of education for these groups is particularly important as it largely determines their chances of being resourceful and independent. The Ministry of Education

recognizes 10 groups of disadvantaged students: children forced to enter the labour market, children who are sex workers, deserted children/orphans, children in observation and protection centres, street children, children affected by HIV/AIDS, children of minorities, physically abused children, impoverished children, and children affected by narcotics drugs and others (Office of the Education Council, 2017).



Inclusive Schools (or Integration Schools) and Welfare Schools, both under the supervision of the Basic Education Commission, are designed to assist these groups of children. The Inclusive Schools are services provided by regular schools to accommodate disadvantaged students and students with disabilities. The Welfare Schools provide services to those who are socially and culturally disadvantaged and deprived of educational opportunities within the mainstream educational system. These schools provide free education, food, clothing, textbooks and study materials.

The education of migrant children has recently become an important issue. At the moment, Thailand accommodates around 3 million to 4 million migrant labourers. Their children will soon be part of Thai society one way or another. These children are provided with special IDs to enrol in Thai public schools and receive equal support as Thai students. NGOs also assist this group of children, as well as some business firms that hire a large number of migrant workers (Institute for Population and Social Research, 2014).

In 1996, the Thai government launched the Student Loan Scheme under the supervision of the Student Loan Fund to improve access to education. At first, the loan was provided only at the higher education level, but was later extended to the high school level. Fully supported by the government budget, the loan was designed to be a revolving fund, but repayment was never sufficient for self-financing. From 1996 to 2015, the Fund granted almost 5 million students a total of about 500,000 million baht

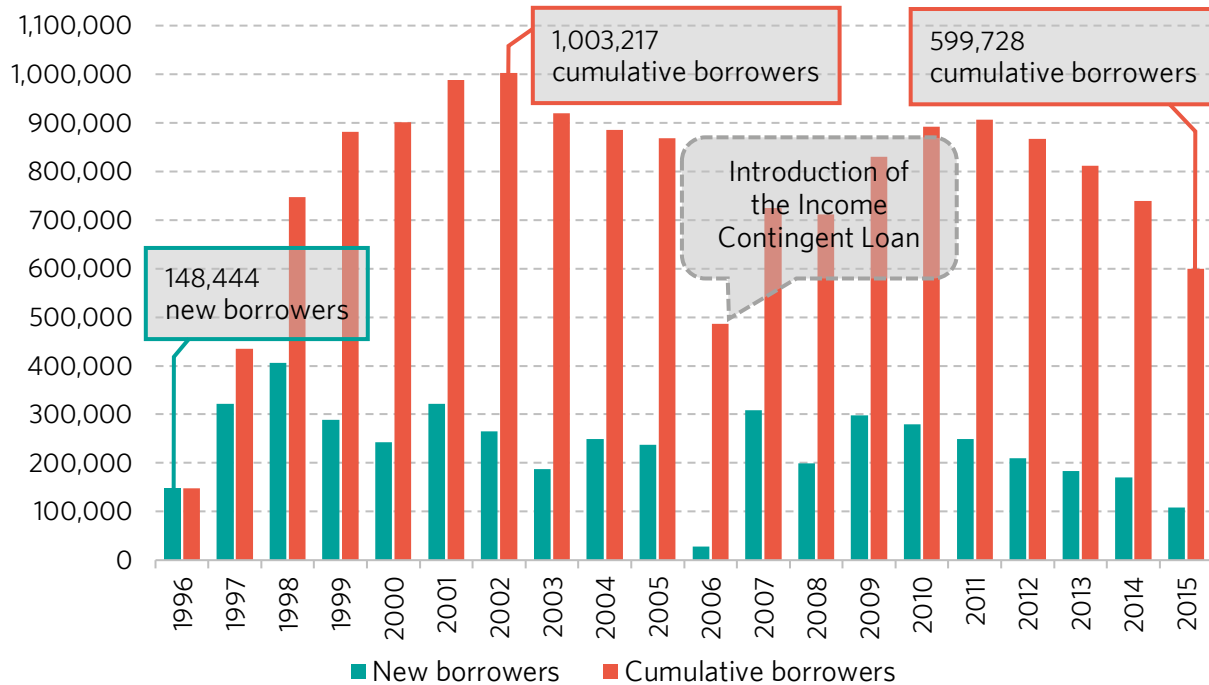
(\$16,129 million). The scale of the programme has expanded beyond what was initially planned, which undoubtedly reflects its popularity.

Nevertheless, many aspects of the loan are criticized. The mechanism for approval is school/university-based, which has been viewed as a subsidy to these institutions. Some schools and universities inappropriately take advantage of the loan. Further, the management cost for a large number of small individual loans has exceeded the capacity of the Student Loan Fund. Loan approval conditions cannot guarantee the quality and relevance of the graduates, and generous repayment conditions make its revolving mechanism less effective.

In 2006, the Income Contingent Loan was introduced to solve the problems of the Student Loan Scheme, under the Student Loan Fund. The new loan is available to anyone, not just poor students, who wants to enrol in higher education. It covers only tuition fees prescribed by the Office of Higher Education Commission, and not living allowances. The loan specifies target fields of study aligning with employment needs, shifting from social objectives to the objective of improving national competitiveness. Repayment is due once the borrower finishes the degree and earns at least 16,000 baht (\$516) per month within 15 years. Although the Income Contingent Loan has been subjected to many policy and implementation adjustments, it has granted almost 500,000 borrowers around 26,000 million baht (\$839 million) since 2006 (Figure 3.6).

FIGURE 3.6

Number of new and cumulative borrowers of the Student Loan Fund



Source: Student Loan Fund of Thailand, 2004, 2006, 2007, 2009-2015.

### Rethinking approaches to education

Thailand continues to push forward through educational reforms and new models of schooling to meet changing needs. The recent approval of the 2019 Innovative Education Area Bill, proposed by the Independent Committee for Education Reform, represents another reform milestone by giving schools autonomy to develop their curriculum, innovative pedagogy and administration. Eight provinces will pioneer the concept: Chiang Mai, Sri Sakate, Kanchanaburi, Rayong, Satool, Pattani, Yala and Narathiwat. Provincial governors will chair steering committees to support participating schools.

To ensure that the skills of vocational graduates meet the demands of the industrial sector, the Dual Education System allows vocational institutes to collaborate with the private sector in developing curricula and training programme. Initiated in 2013,

the system was much influenced by the German vocational education system, which entails an apprenticeship in a company and part-time education in a vocational institute (Bruton, 2016; Mongkhonvanit, 2017).

Distance education and e-learning are not new in Thailand, but a concerted effort to create a network of freely available online courses began only in 2005, under the Thailand Cyber University project. Under the supervision of the Office of Higher Education Commission in collaboration with more than 30 universities and knowledge-generating organizations, the project creates a pool of educational resources on a digital platform and supports equality in learning, non-formal education and lifelong learning. Thai MOOC (massive open online course) promotes the sharing of online courses domestically and internationally.

## EXAMPLES OF EXPERIMENTAL SCHOOLING

### **The School Quality Improvement Programme**

This aims to establish the spirit of enjoyment in both learners and teachers. The programme uses a whole-school approach involving school management, teachers, communities and a network of experts to improve the student behavioural, emotional and cognitive engagement.

Launched in 2017 with 202 schools in 14 provinces, the programme focuses on medium-sized (200 to 500 students) schools. Activities primarily involve the exchange of good practices on student motivation and engagement among teachers, on the premise that motivated teacher will motivate and engage students to learn (Tangkapipop, 2017).

### **The Seeding of Wisdom Project, Pohpanpunya**

This is an endeavour to break away from the traditional rote learning that results in the lack of analytical skills among Thai students. The project commenced in 2012 to experiment with research-based learning in 80 schools in 18 provinces. Instead of learning through conventional curricula and programming the content into students, teachers encourage students to pose questions and use research to find solutions. As the credo of the project states, "teaching through questioning, reflection is learning, and writing is conceiving". The Seeding of Wisdom process applies the Growth Mindset and Transformative Learning. It encourages each classroom to initiate around 10 projects under the same theme with three subgroups: science-mathematics, social-economics and humanity-history. Learning sessions last two to three hours to provide sufficient time for sharing across the subgroups (Prasertsan, 2019).

### **Active School**

In 2015, the Ministry of Education launched a policy emphasizing less classroom time and more active learning through extracurricular activities. The Active School programme was initiated (Institute for Population and Social Research, 2019) to address the sedentary lives of many Thai students mostly as the result of social media overuse. The programme has worked with 17 schools to promote physical activities for students (Aubert et al., 2018; González et al., 2018; Saonuam et al., 2018).

### **Alternative Schools**

In recent decades, a small group of schools have proposed breaking away from conventional schooling. Although they keep the curriculum frame of the Ministry of Education, they adjust their educational activities according to their philosophies. Students are given more time for learning outdoors, team-based projects and hands-on experiences to complement classroom lectures (Tunmuntong, 2012).

## **A strong commitment to continue progress**

Thailand has shown a strong commitment to all levels of educational reform as integral to further developing human capital, realizing Thailand 4.0 and moving from an upper middle-income country to a high-income country. It must continue to pursue education reforms that deliver quality education for the poor and those living in rural areas; reduce school dropouts; boost employment among youth; and upskill and reskill the workforce in science and technology, particularly for the EEC.

According to the World Bank's Human Capital Index 2018, Thailand holds a respectable ranking for an upper middle-income country, mainly due to its strong performance on health indicators. Based on international and national reports, however, it needs a workforce better equipped with the skills to transform its economy. Graduates in social sciences are predominant, yet those in science and technology who also have soft skills are greatly needed.

The expected continuing contraction in the size of Thailand's school-age population over the next 20 years provides both a challenge and an opportunity. Ensuring that the young generation fully realizes its productive potential will be of paramount importance for Thailand's future development.

# AN AGEING THAILAND - CHALLENGES AND OPPORTUNITIES

# 4

*" Increasing longevity is one of humanity's greatest achievements. People now have the chance to contribute to their societies for much longer than ever before. The question is...What investments are needed to help countries reap a longevity dividend? ...Ageing is a process, not a state. That's why investments throughout the life course are so important. When young people can stay healthy and stay in school, develop the skills needed to participate in the labour market, find decent work, marry and have children when and with whom they choose, this creates a ripple effect that extends well into old age and benefits future generations. Rather than thinking of spending on education, health care and social protection as costs, let's think of them as investments in human capital and a better future."*

*Dr. Natalia Kanem, United Nations Under-Secretary-General and Executive Director of UNFPA.  
A closing remark for UNFPA and HelpAge Asia-Pacific Regional Conference in Tehran, Iran,  
Dated 24 October 2018*

## Population ageing at an unprecedented pace

According to the United Nations, Thailand is one of the world's most rapidly ageing countries. The percentage of Thai citizens aged 60 years and over has doubled over the last two decades. In 1950, with 5 per cent of its population aged 60 years and over, Thailand ranked as the seventh most aged country among the 11 countries in South-East Asia. It has now moved up to the second most aged country in the region after Singapore (United Nations, 2017).

The rising share of citizens aged 60 and over is expected to continue in future decades. In 2017, 16.9 per cent of people were aged 60 and above, numbering 11.7 million out of a total population of 65.9 million. This contrasts with 5 per cent or 1 million in 1950 (Teerawichitchainan et al., 2019). Moreover, based on the 2019 United Nations population projections (medium variant) as shown in Table 1, the number of citizens aged 60 and

above will increase to 23.5 million or to more than a third of the total population by 2050.

According to conventional definitions, Thailand has become an “aged society” with more than 10 per cent of people aged 60 and above since 2015. It is predicted to be a “completed-aged society” in 2021 and a “super-aged society” in 2031, when 20 per cent and 28 per cent of the population, respectively, will be elderly. This population transformation will take less than 30 years (Foundation of Thai Gerontology Research and Development Institute, 2016). The speed of demographic transition in Thailand stands in contrast to developments in most advanced ageing countries. It implies that the country will face emergent issues in social security, health-care costs and intergenerational equity in a far shorter time than was the case in developed nations. The rapid speed of ageing requires appropriate policies and programmes to respond to it.

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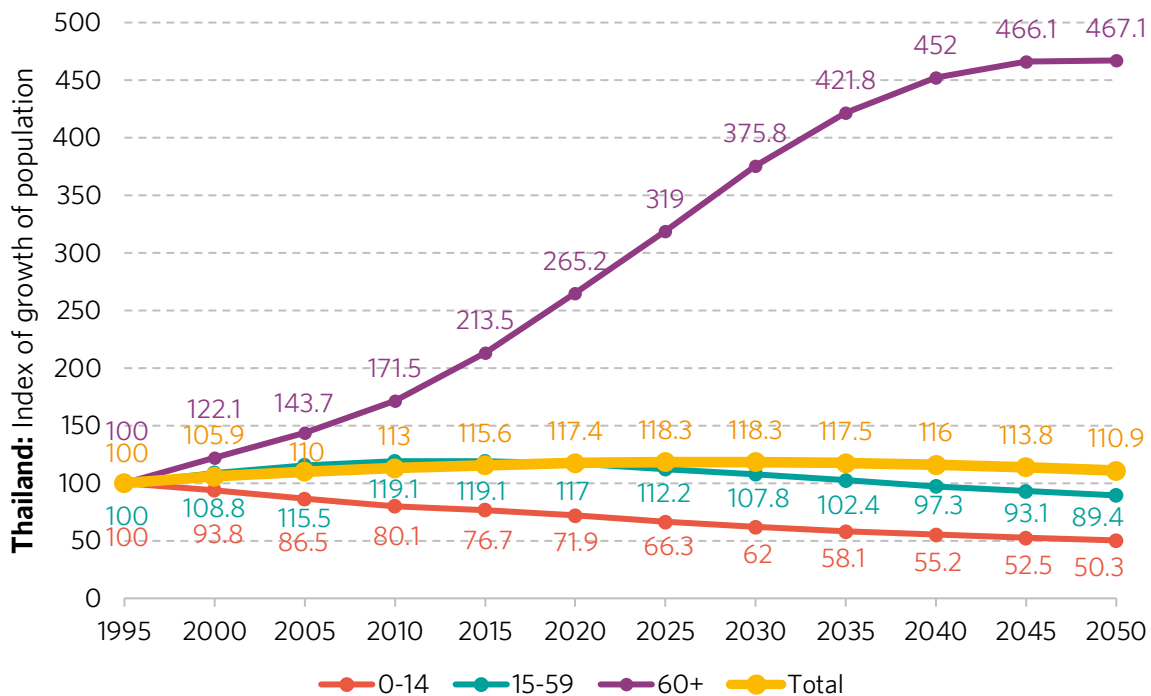
## The demography of ageing: the rise in the number and share of older persons

The unprecedented pace of population ageing in Thailand results primarily from the sharp decline in birth rates and substantially improved survival rates and lifespans. The total fertility rate declined from 6.2 births per woman in the early 1960s to 1.5 in the 2010s. During the same period, life expectancy at birth increased from 53.7 years to 71.6 years for men and 58.5 years to 78.9 years for women. The older population continues to grow at a faster rate than that of the total population.

Figure 4.1 shows the index of growth of different age groups since 1995, just after the ICPD. Figure 4.2 presents how the

proportions of age groups in the total population have changed as a result. The older population has been growing faster than the rest of the population since 1995, and will continue to do so. As a result, the proportion of the older population increased from 8.5 per cent in 1995 to 15.7 per cent in 2015, and is projected to increase to 27 per cent in 2030 and 35.8 per cent in 2050. The number of older persons will continue to rise from approximately 1.4 million in 1995 to 10.7 million in 2015, 18.7 million in 2030 and about 23 million by 2050. The rapidity of population ageing will owe much to the movement of the “million-birth cohort”, born between 1963 and 1983, into older ages within the next few decades.

FIGURE 4.1 The growth of Thailand's population by age group, 1995-2050

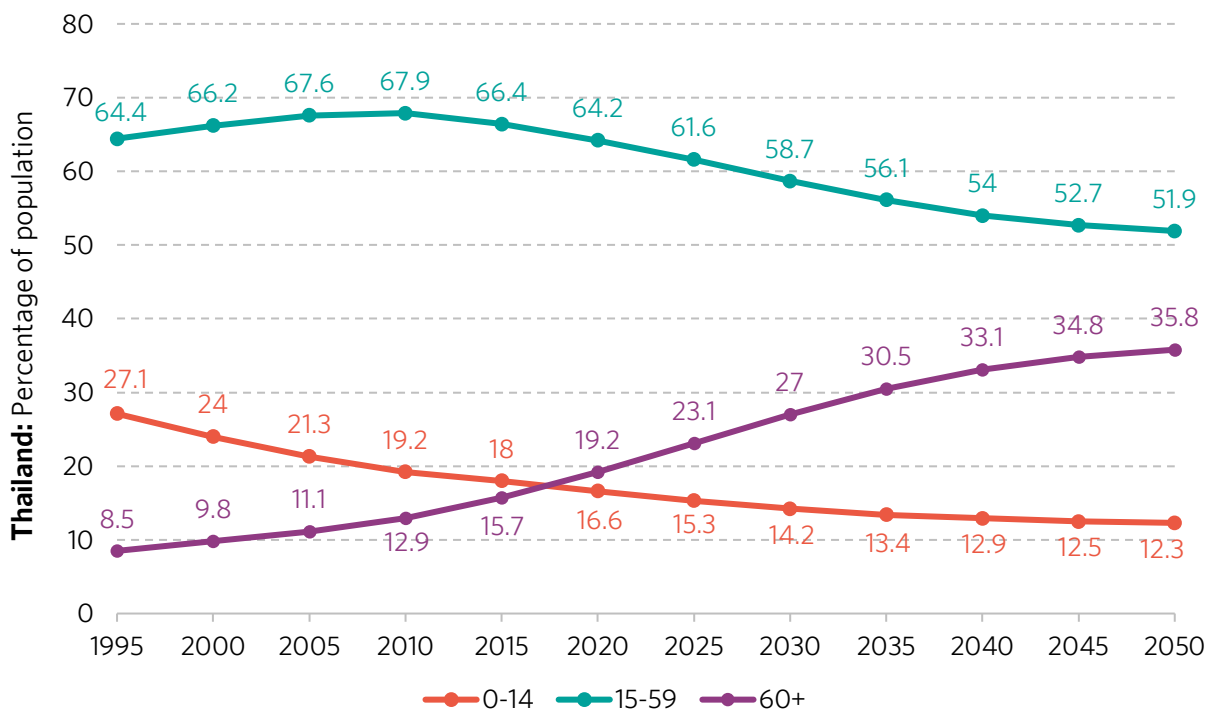


Source: Calculated from United Nations, 2019.

For the first time in Thailand's history, the number of older persons exceeded the number of children under age 15 in 2018 (see Figure 4.2). Remarkably, by 2035, the share of older persons will be more than double the share of children. The ageing index shows the number of older people per 100 people who are younger than 15 years. It will rise to 190 by 2030 and to 256 by 2040. Another indicator, the potential support ratio, shows the number of working-age adults potentially available to contribute to the support of the population aged 60 years or over. This is currently estimated at about 3.6 and is projected to decline to 2.2 by 2030 and to 1.6 by 2040, a reduction of more than half its current value.

This will pose a challenge to successfully reducing poverty as per the first SDG, which aims at halving poverty levels. The country will face increasing public expenditures on social security, health care and the welfare of older persons with a relatively smaller working population to contribute to funding these expenditures. At the social level, changing family structures will imply a parallel decline in family support to the elderly. Poverty among older persons stood at a high of 34.3 per cent in 2014 (Foundation of Thai Gerontology Research and Development Institute, 2014), compared to the national average of 10.5 per cent (NESDB, 2017).

FIGURE 4.2 Trends in population shares by age group, 1995-2050



Source: United Nations, 2019.



## Ageing in the older population

An important aspect of the rapid growth of the older population is ageing within the group, partly through increasing survival rates up to and beyond age 80. The oldest age groups increasingly constitute a greater share of the older population.

Table 4.1 shows the age distribution of the older population as estimated by the United Nations for 2000 and as projected for 2025 and 2050. During the first quarter of the 21st century, the ageing of the older population is anticipated to be relatively modest. In the second quarter, very substantial ageing will occur. The share of the “oldest old”, those 80 and above, is expected to increase from 10 per cent to 14 per cent of

the older population between 2000 and 2025, but then to more than double to 30 per cent by 2050.

In absolute numbers, the size of the population aged 80 and over is predicted to more than triple from just over 600,000 to over 1.8 million between 2000 and 2025. It will increase again by more than two and a half times to 4.7 million by 2050. This would of course be a significant development with important implications for the extended duration of social security and welfare payments, and increasing need for care of old-age morbidity and disability, given the substantially higher rates of chronic illness and disability among the oldest old.

TABLE 4.1 People aged 60 and older, 1950-2050

	1950	1995	2015	2020	2025	2030	2035	2040	2045	2050
Number in 1,000s (medium fertility variant projection)	1,046	5,031	10,770	13,413	16,223	19,008	21,307	22,866	23,522	23,583
Percentage of total population (medium fertility variant)	5.0	8.5	15.7	19.2	23.1	27.0	30.5	33.1	34.8	35.8
<b>TOTAL POPULATION AGED 60+ BY BROAD AGE GROUP (percentage)</b>										
60-69	64.1	62.4	55.8	56.9	55.3	51.5	47.2	42.3	37.8	34.6
70-79	27.8	27.8	30.4	28.8	30.3	33.2	35.2	36.3	36.6	35.5
80+	8.1	9.8	13.8	14.3	14.4	15.2	17.6	21.4	25.6	30.0
<b>TOTAL POPULATION AGED 60+ BY GENDER (percentage)</b>										
Male	44.4	46.1	44.8	44.6	44.5	44.3	44.0	43.9	43.9	44.1
Female	55.6	53.9	55.2	55.4	55.5	55.7	56.0	56.1	56.1	55.9

Source: United Nations, 2019.

## Women outnumber men

Among the old, women outnumber men. At birth there is an approximate balance in the sex ratio with 105 males to 100 females. Due to higher female life expectancy, the ratio of males to females declines with age. In 2000, women constituted 55 per cent of the total Thai population aged 60 and over. This proportion remains much the same today, and will remain much the same up to 2050. Women are an even higher proportion of the population aged 80 and over, slightly over 60 per cent (United Nations, 2019).

A much higher proportion of older women than older men live without a spouse. The 2017 national Survey of the Older Persons in Thailand (NSO, 2018) reported that 51.9 per cent of older women, as against 18.7 per cent of older men, did not have a spouse. Older Thai women face several disadvantages relative to men, including a lower level of literacy, longer periods of widowhood, living alone with significantly

lower household income, higher levels of morbidity and disability, and a lower likelihood of receiving formal retirement benefits or social security support. As such, older women more than older men are exposed to poverty, neglect and abuse (ibid.). Attention therefore needs to be given to the special needs of older women, while recognizing that there are many common vulnerabilities of both men and women, and that there will be large increases in the number of both older women and older men.

## Some regions are older than others

Population ageing has neither proceeded nor is projected to proceed at a uniform rate throughout the country. The population in some regions is more “aged” than in others. It is important to take note of these variations when formulating policies and allocating resources for addressing ageing. The higher incidence of ageing in rural areas is largely due to the outmigration of younger adults seeking

better opportunities for employment or education. Nevertheless, whereas in 1994 only 19 per cent of the elderly were living in urban areas, the share increased to 41.2 per cent in 2017 or more than 4 million elderly Thai people. By 2040, it is expected that 11.6 million (59.8 per cent) out of the 20.5 million Thai elderly will live in urban areas (NESDB, 2013).



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## Demographic and social well-being

As Table 4.2 shows, over 60 per cent of older people remain married and reside with their spouse, while almost a third are widowed. Only a small share (2 per cent) of the married live separately from their spouse, and few are divorced. At the same time, pronounced age and gender differences in marital status are apparent. The share currently married declines sharply with age, while the share widowed increases commensurately, reflecting the impact of mortality in dissolving marriages and a likely decline in chances of remarriage with advancing age.

The marital status of older persons has important implications for many aspects of their well-being. Spouses can be primary sources of material, social and emotional

support, and provide personal care during times of illness or frailty. Thus living with a spouse typically has advantages for older persons.

Recent decades have seen a trend towards higher proportions of adults remaining unmarried during their lifetime (Teerawichitchainan et al., 2019). Although less than 5 per cent of Thai elderly were never married in 2017, this proportion had more than doubled since 1994.

During the last two decades, gender differences in the proportion of singles are also evident, even among the younger elderly in their early sixties. In this age group, 90 per cent of men are currently married compared to just over 60 per cent of women. For every age group, the proportion of single women is higher than of single men.



TABLE 4.2 Marital status among persons 60 and older

MARITAL STATUS (percentage)	1994	2007	2014	2017
Single	2.2	2.7	3.9	4.8
Married	62.2	62.5	63.5	63.0
Widowed	31.9	32.4	30.2	29.3
Divorced/separated	3.7	2.4	2.4	3.0
Single men (percentage)	0.7	1.5	2.0	2.5
Single women (percentage)	3.5	3.8	5.4	6.6
Single urban (percentage)	3.5	4.2	5.8	6.9
Single rural (percentage)	1.9	2.2	2.5	3.2

Source: NSO, 1995, 2008, 2015 and 2018.

TABLE 4.3 The mean number of living children and the distribution of living arrangements among persons 60 and older

MEAN NUMBER OF LIVING CHILDREN (percentage)	1994	2007	2014	2017
60-64	5.0	3.4	2.5	2.3
65-69	5.2	3.9	2.9	2.5
70-74	5.1	4.6	3.5	3.1
75-79	4.9	4.8	3.9	3.5
80+	4.9	4.8	4.4	4.2
<b>AREA OF RESIDENCE (percentage)</b>				
Urban	4.8	3.5	2.9	2.5
Rural	5.5	4.3	3.5	3.1
<b>LIVING ARRANGEMENT (percentage)</b>				
Live alone	3.6	7.6	8.8	10.7
Co-resident with a child	72.8	59.4	54.7	51.5

Source: NSO, 1995, 2008, 2015 and 2018.

Adult children remain important providers of material support as well as other forms of assistance to their older parents. Very substantial declines in the average number of living children have already taken place among people aged 60 and over during the past 25 years, as documented in the national Surveys of Older Persons from 1994 to 2017 (NSO, 1995, 2008, 2015 and 2018). The mean number of living children increases with age, and is lower in urban than in rural areas. The average number of children of people aged 60 to 64 is only slightly over half

that of those 80 years and over. This pattern reflects the long history of fertility decline in Thailand since the 1960s, which began somewhat earlier in urban than in rural areas. The share of childless people in urban areas is twice that in rural areas, with 17 per cent of urban older persons being childless compared to 8 per cent of rural older adults. Fertility decline is also reflected in the smaller number of children and higher proportion of childlessness in younger age groups who will enter the elderly population in due course.

TABLE 4.4 The distribution of educational attainment among persons 60 and older

<b>EDUCATIONAL ATTAINMENT (percentage)</b>	<b>1994</b>	<b>2007</b>	<b>2014</b>	<b>2017</b>
None	31.0	16.5	11.0	9.7
Less than grade 4	15.9	6.8	8.4	4.3
Basic primary	46.7	68.3	67.3	71.8
Lower secondary	2.5	3.2	3.7	3.3
Secondary and upper	3.9	5.2	9.6	10.8
<b>SECONDARY AND UPPER BY GENDER (percentage)</b>				
Male	6.5	7.1	12.7	14.1
Female	3.6	3.6	7.0	8.1
<b>SECONDARY AND UPPER BY AREA OF RESIDENCE (percentage)</b>				
Urban	12.7	14.1	18.0	19.4
Rural	1.9	1.6	3.8	4.8

Source: NSO, 1995, 2008, 2015 and 2018.

Education closely correlates with income and employment. According to the Surveys of Older Persons, in the future, older people will be increasingly better educated. Overall, about 10 per cent of older Thais have no formal education, while over 70 per cent have completed at least the basic compulsory level that prevailed at the time they were of primary school age. Table 4.4 shows that those with lower secondary, secondary and upper education levels constitute a smaller proportion of the older population, about 14 per cent in 2017, although up from 6 percent in 1994.

Gender differences in education among older people are pronounced. Overall, men have received more formal education than women, as indicated by the far lower proportion of men with no schooling and the higher proportion who progressed beyond the primary level. Considerable differences in educational attainment at older ages are also

evident by area of residence. Table 4.4 shows that during the last two decades, rural residents were more likely to lack formal education. It suggests that inequalities in education between the urban and rural elderly will persist for some time.

## Economic well-being

Table 4.5 compares the percentages of older people who worked in the previous year based on the Surveys of Older Persons. No consistent trend is evident; there is little difference from 1994 to 2017. The percentage is higher for 2014 and then falls modestly by 2017. According to the 2017 survey, 37.6 per cent of persons aged 60 and over reported that they worked during the past 12 months, with the percentage of men (48.8 per cent) almost twice the percentage of women (28.5 per cent).

The percentage decreased steadily with age for both men and women, but gender differences within each age group are pronounced. The difference is greater among those aged 60 to 64 with slightly over two-thirds of men still working but less than half of women still working. The official retirement age in Thailand is 60 for Government employees and workers in state enterprises. Employees of some private sector firms are also subjected to a compulsory retirement age.

TABLE 4.5 Work in the past 12 months among people 60 and older

<b>WORKED IN PAST 12 MONTHS (percentage)</b>	<b>1994</b>	<b>2007</b>	<b>2014</b>	<b>2017</b>
60+	38.5	37.3	40.5	37.6
<b>GENDER (percentage)</b>				
Male	50.2	50.4	51.1	48.8
Female	29.0	26.7	31.7	28.5
<b>AREA OF RESIDENCE (percentage)</b>				
Urban	27.3	28.5	34.0	32.0
Rural	43.3	40.8	44.9	41.6

Source: NSO, 1995, 2008, 2015 and 2018.

Table 4.6 indicates the percentage of older persons by their main source of income between 1994 and 2017. Among all persons aged 60 and above, by far the most common source of income is their children, but the percentage of the elderly reporting children as a main source of income fell from 54 per cent in 1994 to 35 per cent in 2017. Overall, women were more likely to report receiving income from their children and substantially more likely to report children as their main source of income.

The proportion of older persons who report work as a main source of income has continually increased. Reflecting the expansion of the Old Age Allowance programme, by 2017, nearly 20 per cent were reporting this as a main source of income, up from just under 3 per cent in 2007.

One of the critical issues in population ageing is poverty in old age. Statistics on poverty obtained from the Bureau of Social and Quality of Life Database System and the National Economic and Social Development Board show that one-third of the elderly had an income below the poverty level. The proportion decreased from 46.5 per cent in 2002 to 34.3 per cent in 2015 (Foundation of Thai Gerontology Research and Development Institute, 2017).

TABLE 4.6 Main source of income among people 60 and older

MAIN SOURCE OF INCOME (percentage)	1994	2007	2014	2017
Work	31.5	28.9	33.8	30.9
Pension	4.0	4.4	4.8	5.9
Elderly allowance	0.0	2.8	14.9	19.9
Interest/saving/rent	1.7	2.9	3.8	2.3
Spouse	4.6	6.1	4.3	4.5
Children	54.1	52.3	36.8	34.9
Relatives	2.4	2.3	1.4	1.3
Other	1.7	0.5	0.2	0.2

Source: NSO, 1995, 2008, 2015 and 2018.

# INTO AGEING: DIFFERENTLY

## A DREAM FOR MOST THAI ELDERS

***“Getting older is not really that difficult for me,”***

Yong Yongrasameewong, 61, says with a big smile.

*“I normally don’t eat that much, and rarely get any aches and sickness. My daughter provides a monthly income and that’s enough. Whenever I do not feel well, I go to a private hospital as my daughter provides me with a health insurance policy that also includes both out-patient and in-patient treatments. There is nothing at all for me to worry about now. I enjoy taking care of my cute 1-year-old grandson.”*

*Yong Yongrasameewong, aged 61, spends her days without major worries. Her main focus is on taking care of her first grandson. Her daughter provides a monthly income and health insurance, supporting her economic and physical well-being.*

As a child, Mrs. Yong outdid her siblings in her studies, but as a girl could not further her education beyond fourth grade. *“Chinese families (like mine) have the value that women must stay home to do house chores and men should study as they are the breadwinner and dignity for the family,”* she says. Luckily, she and her husband supported the study of their daughter, Rasamee. Now they are reaping the return.

Compared with other women her age, Yong seems to have minimal worry in her life. Her daughter is a university graduate and working in a good position in a reputable telecom company. Since she helps in taking care of her first grandson, Yong is now living with her daughter and son-in-law, who own a nice home in a suburban area of Bangkok.

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## STRUGGLING TOGETHER

Aunt Maew, 62, is a mother of five children living in a slum in Bangkok. She spends her day taking care of her four grandchildren, three nieces and one nephew, aged 2 to 10 years old. One of the nieces is autistic.



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*“My daughter, in her 30s, has to work as a housemaid so she can’t look after her four children. It is good that we have a toddler centre in our community,” she comments. “Two of my nieces, including the autistic one, attend regularly. This alleviates my stress. Yet I rarely can afford the food expense for my grandchildren. I only get 500 baht (\$16) or 1,000 baht (\$32) from my daughter each month when she gets her pay.”*

**by Kullwadee Sumalnop**

Being an older person, Maew receives some welfare grants from the Government – the monthly 500 baht (\$16) grant for elders, a monthly cash card of 300 baht (\$10) to buy subsistence products, a public transport card of 500 baht (\$16) that cannot be withdrawn as cash, and a monthly 800 baht (\$26) grant for a child with a disability. Cash is still scarce for her as she only has a regular income of 1,300 baht (\$42) for six people in her household – four grandchildren, her husband and herself.

*“If possible, I would like to have more money to buy good food for my grandchildren and to give them food when going to school,” she wishes.*

Yupa, aged 66, faces several difficulties in her later days. She takes care of her husband, who has had a disability for 16 years, and her two teen nephews, aged 10 and 12.

*“I receive 600 baht (\$19) each month under the state grant for elders and the 800 baht (\$26) grant for my husband given his disability. For our family, this amount is not enough. I wish we could have more cash to give to our nephews when they go to school,” she says.*

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## ASSISTANCE PROVIDED TO VULNERABLE OLDER PERSONS

The Department of Older Persons, under the Ministry of Social Development and Human Security, provides emergency financial, counselling and shelter assistance to elderly people who face physical harm, or are neglected or exploited. Training and education are offered through a development network for older persons in collaboration with local administrations nationwide. Care given through community volunteers includes home visits and assistance for those living alone to access basic government services and realize a higher quality of life. Programmes include:

- The Social Welfare Development Centre Center for Older Persons provides short- and long-term shelter without charge; currently, there are 25 centres.
- Financial payments to older persons in difficult circumstances are provided under ministerial notifications regarding “Stipulations of Guidelines, Methodologies and Conditions of Aid, Facilitation and Provision of Housing, Food and Clothing for All Elderly Persons in Need” and “Stipulation of Guidelines, Methodologies and Condition of Aid, Facilitation and Provision of Support for Elderly Persons Who Are Illegally Abused or Exploited or Abandoned as well as Counseling Service B.E.2548 (2005)”. These two notifications provide individual financial support totalling totalling 2,500 baht (\$81) not more than three times a year. The programme had an annual budget in 2017 of 37.5 million baht (\$1.2 million) for 14,800 persons.
- The programme of support for funeral arrangements according to tradition received an annual budget in 2017 of 25.3 million baht (\$0.82 million) to assist the families of 9,700 people.

### Health and well-being

Both mortality and the likelihood of experiencing functional limitations and chronic illnesses increase with age, with implications for both physical and psychological well-being. Beyond the impact on individual older persons, age-related health problems translate at the societal level into demand for medical services from the formal health-care system. In addition, they create the need for personal caregiving in the family and

community. At the same time, advancing medical technologies and changing environments in which people live their lives are constantly altering the impact that increasing frailty and other physical health problems associated with age have on individuals and societies over time and across settings.

The key health indicators for old age are self-assessed health, functional limitations, difficulty with self-care and other activities of

daily living, psychological health and the prevalence of selected health problems. Although self-assessments are subjective, they relate well to other more objective measures and mortality predictors (Bopp et al. 2012). Table 7 indicates how people 60 and older rated their general health between 1994 and 2017. The proportion saying that their health is poor or very poor decreased during the past two decades, while the proportion reporting fair health increased. There is no consistent increase in the combined percentages of those reporting their health as good or very good, however.

Older persons age 80 and over are more likely to assess their health as poor or very poor compared to those in younger age groups. Before that age, the percentage who report their health as good or very good exceeds the percentage indicating their health is poor or very poor. Women are more likely to rate their health as poor or very poor. Older persons in rural areas are more likely than those in urban areas to indicate that they are in poor or very poor health (Teerawichitchainan et al., 2019).

TABLE 4.7 Self-assessed health in the past week among persons 60 and older

<b>SELF-ASSESSED HEALTH IN THE PAST WEEK (percentage)</b>	<b>1994</b>	<b>2007</b>	<b>2014</b>	<b>2017</b>
Very good	6.9	4.0	3.0	2.0
Good	31.4	43.0	42.0	39.0
Fair	35.8	29.0	39.0	43.0
Poor	23.0	21.0	14.0	14.0
Very poor	2.9	3.0	2.0	2.0
<b>POOR OR VERY POOR BY GENDER (percentage)</b>				
Male	22.4	20.1	14.2	13.3
Female	28.7	27.5	17.7	16.6
<b>POOR OR VERY POOR BY AREA OF RESIDENCE (percentage)</b>				
Urban	25.2	21.4	14.9	14.2
Rural	26.0	25.4	16.9	15.8

Source: NSO, 1995, 2008, 2015 and 2018.

TABLE 4.8 Shares of people 60 and over facing problems carrying out activities of daily living

AGE (percentage)	EATING		DRESSING		TAKING A BATH/TOILET	
	1994	2017	1994	2017	1994	2017
60+	3.7	2.8	3.2	3.4	3.2	3.8
70+	6.8	6.4	6.2	10.3	6.2	9.2
<b>GENDER (percentage)</b>						
Male	3.4	2.3	3.2	2.8	3.2	3.1
Female	4.0	3.2	3.2	3.8	3.2	4.4
<b>AREA OF RESIDENCE (percentage)</b>						
Urban	4.2	2.9	5.4	3.7	5.4	4.2
Rural	3.6	2.8	2.7	3.1	2.7	3.6

Source: NSO, 1995 and 2018.

TABLE 4.9 Share of functional limitations and activities of daily living by age, gender and area of residence among persons 60 and older, 2017

	FUNCTIONAL LIMITATION	ACTIVITIES OF DAILY LIVING	INSTRUMENTAL ACTIVITIES OF DAILY LIVING	ANY DIFFICULTIES
<b>AGE (percentage)</b>				
Total	33.4	7.6	24.6	36.8
60-69	19.8	3.4	10.9	22.4
70-79	45.5	7.9	35	51.4
80+	73.9	24.5	69.3	79.8
<b>GENDER (percentage)</b>				
Men	24.4	6.3	17.8	27.6
Women	41.3	8.6	30.4	45.0
<b>AREA OF RESIDENCE (percentage)</b>				
Urban	34.1	7.8	22.4	36.0
Rural	33.0	7.4	26.2	37.4

Source: NSO, 2018.

Table 4.8 examines functional limitations associated with difficulty in physical movement and independently being able to carry out basic activities of daily living. It considers three basic functional activities: eating, dressing and taking a bath/using the toilet. Only relatively small percentages of persons aged 60 and over are unable to do these three activities by themselves.

Functional limitations and difficulties with self-care and other activities of daily living increase sharply with age; overall, 37 per cent of people over 60 experience at least one such difficulty as shown in Table 4.9. A third reported having at least one of four functional limitation. Eight per cent reported having at least one difficulty with activities of daily living; 25 per cent reported at least one difficulty with instrumental activities of daily living.<sup>1</sup> Age and gender are associated with functional limitations as well as difficulties with daily activities. People over age 70 are far more likely to have difficulties than persons in their 60s. Women are more likely to experience difficulties than men with every task. There are no clear differences between rural and urban older people.

A series of specific questions concerning psychological well-being were omitted in the 2014 and 2017 Surveys of Older Persons. The 2011 survey asked these questions and requested respondents to rate themselves using a happiness score. The score also featured in the 2017 survey. To measure psychological health, respondents rated their level of happiness during the past three months on a scale from 0 to 10, with higher numbers signifying greater happiness. From

the 2017 survey, the happiness score declines with age, is lower for women than for men, and is lower for rural than urban older persons. Comparison of the mean happiness scores with the specific items in the 2011 survey showed reasonable correspondence, adding credence to the results.

### **Environmental well-being**

Most elderly people in Thailand live at home, so the household environment is a basic factor influencing their health and active living. Based on the 2017 Survey of Older Persons, more than 70 per cent had a bedroom located on the first floor, and 59 per cent slept on a bed. Moreover, 51 per cent live in a dwelling unit with access to a sit toilet; most toilets are located inside (NSO, 2018).

In the future, older Thais will probably need more help with daily tasks, particularly those with enduring chronic illnesses such as Alzheimer's, heart disease and osteoporosis. Health systems designed only to offer hospital care for acute cases will struggle to provide such support due to limited resources. To maintain the well-being of older populations, hospital stays can be replaced by residency in purpose-built facilities at less cost. The demand for technology that would allow the elderly to stay in their homes will increase.

### **Preparing for sustainable ageing**

For decades the Thai Government's response to population ageing has been active and progressive. Legal and policy frameworks supporting older people include the 2017 Constitution, the 2003 Older Persons Act, the 20-year National Strategy 2018-2037, and the

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<sup>1</sup> Activities of daily living refer to people's daily self-care activities such as feeding oneself, bathing, dressing and toileting. Instrumental activities of daily living are not necessary for fundamental functioning, but they let an

individual live independently in a community: for example, cleaning and maintaining the house, managing money, preparing meals, shopping for necessities.

2nd National Plan for Older Persons 2002-2021. Given concern about the consequences of population ageing, action plans to improve the quality of life among older people have been proceeding for some time.

### ***The 2018-2037 National Strategy***

The 2018-2037 National Strategy is a master plan to guide government policy actions, including the continuity of ageing policy. Strategy goals include to ensure people's welfare; empower people as competent and moral citizens at each and every stage of life; and broaden opportunities to improve social equality, under an overarching guideline to promote human development at all stages of life. Key strategies that concern older persons and population ageing are the Strategy for Human Capital Development and Strengthening, and the Strategy for Social Cohesion and a Just Society. They call for encouraging elderly people to become part of driving national growth, promoting social empowerment and preparing the foundations for an ageing society that upholds quality of life. Several master plans have been formulated to improve quality of life and support the elderly to play their part in society.

The 12th National Economic and Social Development Plan (2017-2021) has strategies that provide a framework for an ageing society. They include developing skills and knowledge in each stage of life, improving the management of education quality to create an environment for lifelong learning, and creating a just society and reducing inequality.

### ***National Long-term Plan on the Elderly***

The Government has been focusing on ageing for more than 30 years, starting with the 1st National Plan on the Elderly (1982-2001), a long-term, 20-year plan. Strategies, policies and government departments were designated to prevent and solve adverse effects from population ageing and improve quality of life among the elderly.

In 2002, the 2nd National Plan on the Elderly (2002-2021) was formulated as the key national long-term strategic plan for the elderly. It provides strategies, measures, focal points, indices and targets of action to enable older persons to lead a valuable life with dignity, and sustain their health and living standards as long as possible. The plan offers guidance for all focal points in government sectors and related organizations to cooperate on elderly issues.

For every five years of the plan, monitoring and evaluation assess successes and limitations. The latest round was the third evaluation, covering 2012 to 2017. It showed that Thailand has accomplished 48.2 percent of all measures outlined in the first revision of the plan in 2009. The plan's first strategy on preparing people for quality ageing showed the most limited progress, while the most significant advances took place under the fifth strategy on processing, upgrading and disseminating knowledge on the elderly, and on national monitoring of plan implementation. Based on the key findings and recommendations from the monitoring process, and in view of changed social situations, a second revision of the plan was adopted in 2018.

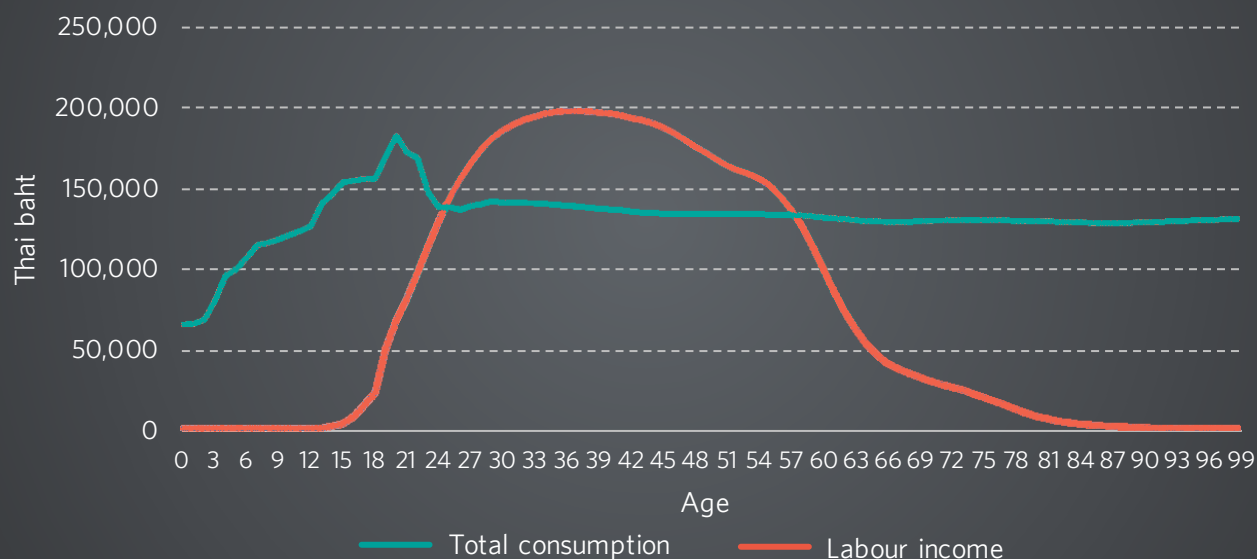
# NATIONAL TRANSFER ACCOUNT

It has been noted that “ageing is a process, not a state, and it is not only about older persons but about all of us”.

In facing the challenges of population ageing, a useful perspective is provided by the National Transfer Accounts (NTA). These provide a coherent accounting framework of economic flows from one age group or generation to another, typically in a given calendar year. National Transfer Accounts are consistent with the System of National Accounts (SNA), and provide measures by single years of age of the sources of income (labour, assets, receipt of public and private transfers), and the uses of income (final private and public consumption, transfer payments of individuals to their families and government, and saving).

Applying the NTA approach to Thailand, it is found that the Thai population has an income surplus during the ages of 25-59. The other age groups - 0-24 and 60+, on the other hand, had consumption expenditure higher than their labour income and incurred a deficit. Children’s consumption is financed entirely by transfers, particularly private transfers. Income sources used to finance young adults’ consumption (age 15-24) are mixed, but private transfer remains a dominant income source. The consumption of working age people (25-59) is mainly financed by labour income. The surplus is reallocated to the other age groups. For the elderly group, 50 per cent of consumption expense is mainly financed by asset based reallocation, and around 30 per cent by labour income.

FIGURE 4.3 Per capita: consumption and labour income, 2017



Source: Chamchan C., Jaratsit S. and Loyfah N., in press

The NTA analysis is useful for policy advocacy. How can Thailand prepare for the process of rapid ageing? Three key objectives can be stressed. First, increase the surplus produced by the working age group to support the higher deficit from an increasing number of dependent elderly. This surplus can be increased by increasing labour productivity, increasing labour force participation by encouraging the elderly to work longer and promoting youth employment. Second, promote healthy behaviours to hold down health care costs especially from the dependent elderly. Third, ensure income security after retirement.

The life cycle approach also directs our attention to what is often referred to as the Second Demographic Dividend. This refers to the process of capital deepening - a higher level of capital per unit of labour, allowing individual consumption to rise. There are two ways in which the demographic transition affects the demand for lifecycle wealth. First, there is a compositional effect, caused by an increase in the share of individuals who have nearly or fully completed their productive years. Many of these individuals will have accumulated wealth in order to finance consumption in excess of labour income for many of their remaining years. Second, there is a behavioural effect, caused by an increase in life expectancy and the accompanying increase in the length of retirement, leading to an increase in the demand for wealth. To the extent that individuals accumulate capital during their working years in order to support consumption during the retirement period, this capital accumulation can be used as an engine of growth.

## **Upcoming 3<sup>rd</sup> National Plan on the Elderly**

According to the 2018-2037 National Strategy, the Thai government needs to continue actively facilitating the implementation of the national long-term plan for the elderly, and securing commitments from all participating sectors to achieve good quality of life among the elderly. As the 2<sup>nd</sup> National Plan will end in the next two years, a follow-up plan is now being formulated.

## **Other key policy and programme responses**

In 1997 the Government Pension Fund was established to replace the prior system for public servants. It is a defined contribution system. A national social security system was launched in 1991 to cover the private sector. The Old Age Pension Fund within the system was not set up until 1999, however. The fund mandates contributions by employees, employers and the State for all workers in private sector enterprises. Besides personal savings, other types of old age insurance for the private sector include the Private Sector Provident Fund and Retirement Mutual Funds. In 2015, the National Savings Fund began promoting saving and economic security in old age among informal workers.

In 1993 the Government introduced the old age allowance for persons aged 60 and over. In 2009, the scheme changed from a means-tested to a universal system. In 1992, a free medical care program began covering all elderly people. The Government continues prioritizing and increasing resources for caring for older people, including through a budget for the National Health Security Office to implement long-term care.

## **National policies and plans on older persons**

- Constitution of the Kingdom of Thailand (2017), Section 48
- 1st National Plan for Older Persons (1982-2001)
- 2nd National Plan for Older Persons (2002-2021), revised in 2009

## **Measures to promote well-being among the elderly**

- Declaration on Thailand's Older Persons (1999)
- National Commission on the Elderly (2003) chaired by the Prime Minister
- Act on the Elderly (2003)
- National Pension Act of 2015
- The 10th National Economic and Social Development Plan (2007-2011), the 11th National Economic and Social Development Plan (2012-2016), and the 12th National Economic and Social Development Plan (2017-2021)
- The 20- year National Strategy (2018-2037)
- 2nd Meeting of Thai National Health Assembly 2009: Development of Long-Term Care for Dependent Elderly
- 2015: Policy on long-term care introduced



## Challenges

Several issues contribute to uncertainty in assessing the challenges of population ageing, including constant changes in the economic, social, health and health-care environment and technology. Broadly defined, some key challenges include:

- **Preparing younger cohorts for their old age.** Beginning healthy lifestyles at younger ages will help these cohorts remain healthy in their older years. Financial preparation should also begin early.
- **Care support for older people:** Generally, as older people get older, particularly when they reach 75 and beyond, many require some care and support. Traditionally in Thailand this was done at home. With low fertility and an increase in the migration of adult children to find employment, there will not always be adult children available to meet the care and support needs of older people.
- **Older people and poverty:** Older people face a higher-than-average risk of poverty because incomes were lower when they were working, and social security was not available. With Thailand one of the first societies to “grow old before it grows rich”, a sizeable proportion of older Thais will need to continue to work into old age. They are increasingly likely to rely on themselves financially and less likely to rely on their adult children as the main source of income. While many capable seniors would like to prolong their careers, they face obstacles including health-care costs,

labour laws, pension regulations and corporate attitudes toward older workers. Today's older generation is much healthier than their counterparts just a decade ago, but the official retirement age has not risen in response. The option of delayed retirement would benefit not only older people, but also the organizations and businesses they work for, and potentially the economy at large.

- **Economic security:** The Old Age Allowance has become a more important source of income for a growing number of older persons, helping to reduce poverty and income inequality. The challenge is how to increase and standardize the benefit level based on the nationally defined poverty line, and regularly adjust it to reflect the cost of living and inflation. Savings for old age should be promoted, particularly for informal workers.

## Opportunities

An ageing society is not so much a trend to fear, but one to embrace. Business opportunities abound, so long as entrepreneurs and business leaders can strategically adapt their products and services to match the demands of seniors. Seniors and pre-seniors, after all, are by no means a niche market. Population ageing will drive innovation, business development and employment growth. Major opportunities related to ageing include:

- **A boom in preparation for old age:** Since both formal and informal systems of support for the elderly have limitations, self-responsibility to prepare for quality

ageing is essential. The preparation includes finance, living arrangements, physical and mental health, caregiver arrangements and religious practices. Preparation for old age among future cohorts of older persons of both sexes in Thailand appears to be expanding and starting earlier.

- **Innovation in products and services for old age:** These include health and health-care innovation, social innovation and economic innovation to promote autonomy and well-being.
- **The silver economy:** Older adults have purchasing power and make up a growing market. Companies can design products and services to develop meaningful and respectful relations with older adult customers. Older staff in marketing teams will be key to success in connecting with a substantial customer market.
- ● **Increasing job opportunities:** Demand for caregivers will increase due to the growing ageing population. This could open good and meaningful employment opportunities for a significant number of workers with limited education and skills.
- **A boom in age-friendly design:** Demand for all types of infrastructure (residential, commercial and public spaces) rises in an ageing society, as facilities need to accommodate the needs of the elderly as well as younger age groups. Investment in age-friendly design to create a safe and supportive environment will reduce health

- expenditures, the cost of hospitalization and rehabilitation services, and long-term services and support. It will likely lead to more job opportunities, and opportunities for businesses.”
- **Opening up another window of demographic opportunity (often referred to as the second demographic dividend):** Lower fertility and increasing life expectancy in an ageing society stimulate the accumulation of assets in all age groups to prepare for a longer retirement period. With higher income per capita gained from the first demographic dividend, and reduced child dependency as a result of fewer children, individuals are more able to prepare for old age through savings and investment. If they can start accumulating assets earlier on, they can achieve more financial independence during retirement and depend less on the Government and their families. Policies and financial mechanisms relating to property, contributory pensions and personal savings must be put in place at the onset of population ageing to help workers accumulate assets. An aspect of equal importance is financial literacy so the elderly know how to save money and utilize accumulated wealth effectively.

## RECOMMENDATIONS

1. Cooperation is needed between the elderly, families, communities, society, and the public and private sectors to manage population ageing. The private sector needs to do more to achieve better results in employment for elderly as well as in developing technology and innovation.
2. Prepare all citizens over the life course for old age, so the elderly in the future will be active, enjoy higher levels of well-being, play a part in developing the country, and are perceived as a benefit rather than a burden.
3. Find ways to empower the elderly to be part of national development and to solve the challenge of an ageing population and a declining labour force.
4. Organize health-care services to meet older people's needs and enable easy access. The Government should put prevention at the heart of the nation's health-care services and also provide continuing long-term care. Empowering the elderly, families and communities with the knowledge and skills to take charge of and manage their own health well is another key to success.
5. Promote financial stability by empowering older people to have a positive attitude towards working. This plan requires new laws and a process overturning stereotypes around ageing. Promoting a savings plan for the elderly is also important. People should start saving early for retirement. An effective savings plan for the future requires cooperation from citizens, the elderly themselves and the Government in helping elderly people who are poor and disadvantaged. This plan will help to reduce the financial burden on the nation.
6. Promote age-friendly cities by creating an inclusive and accessible environment to benefit people of all ages, especially older people, who will be able to live with their own families in safe communities. This accords with the concept of ageing in place, which focuses on housing and its surroundings, transportation, technology and innovation. The elderly will be able to enhance their well-being through active ageing.

These recommendations will help Thailand better manage its ageing population, in line with ICPD and sustainable development commitments to leave no one behind.



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# THE POLICY IMPLICATIONS OF POPULATION AND DEVELOPMENT TRENDS IN THAILAND

# 5

*" Human capital' is very crucial in moving the development of the country. For the past four years, the Government has been implementing many public policies and measures aimed at human capital development in every dimension throughout the life course. One example of this approach is public health care... Thailand has been seen as the prototype and knowledge resource on Universal Health Coverage. The model in Thailand is seen as a sustainable and participatory system. Up to 74 per cent of the population is entitled to rights under Universal Health Coverage - therapeutic treatments, illness prevention, health promotion and health rehabilitation - without a huge cost for treatment."*

*General Prayuth Chan-ocha, his speech on the King's philosophy for sustainable development, dated on 28 September 2018*

## Striving for sustainable development

Thailand's approach to its population is firmly anchored in its development framework. As Chapter 1 explains, the framework consists of the 12th National Economic and Social Development Plan (2017-2021) and the 20-Year National Strategy Framework (2018-2037). Both policies are grounded in the Sufficiency Economy Philosophy, a Thai development approach conceived by His Majesty the Late King Bhumibol Adulyadej. It stresses the middle path as an overriding principle in pursuing economic growth and consumption in order to achieve sustainability and protect the environment (Ministry of Foreign Affairs, 2017). The policies also align to the global SDGs, applying lessons learned in achieving most of the Millennium Development Goals – an expertise Thailand has shared directly with its neighbours, and through global and regional forums such as ASEAN.

In accordance with these principles and know-how, the Government aims to realize a vision of Thailand as a developed country built on a foundation of stability, prosperity and sustainability by 2037. The 20-Year National Strategy Framework covers six strategic areas for planning and budgeting: national security, national competitiveness enhancement, human capacity development and strengthening, social cohesion and just society, eco-friendly development and growth and improved public sector rebalancing and development. As discussed in the previous chapters, Thailand attaches great importance in the plan to people's well-being and quality of life throughout the life cycle, as specifically articulated in the description of two of the strategic areas.

First, the “Human Capacity Development and Strengthening” strategy proposes a two-pronged approach to enhance individual potential while fostering a conducive environment for human development. Besides an emphasis on ethical values, great attention is devoted to education and lifelong learning to boost the competency of workers and the contribution of elderly citizens to society, as detailed in Chapters 3 and 4. Another priority is nurturing human resources from early pregnancy and childhood through the promotion of maternal and child health as well as breastfeeding, and supporting the mental, physical and social formation of teenagers. Public health is a prominent concern, calling for creating the right mix of prevention, promotion, treatment and care in the provision of health education and services. Systems to support individual development start from the family and the local community, and involve both the public and private sectors.

Second, the “Creating Social Cohesion and Just Society” strategy recognizes the challenge of growing inequality in the country and the persistent problem of poverty for part of the population. The focus is on measures to close socioeconomic gaps, such as through tax and land reforms, while increasing access to education, health care and social services for disadvantaged groups, including the disabled and the elderly. Improvement of the welfare system through provision of a comprehensive social security scheme for the entire population and direct social investments for low-income groups is being planned, as is better geographical distribution of economic and technological opportunities across provinces. Social empowerment plays a key role in fostering social cohesion and

preparing for a high-quality ageing society where different generations and groups have specific contributions to make. Promotion of gender equality is considered essential for the country's development, with the intention that men and women will play a balanced role at home and in society.

Starting from this framework and taking into account Thailand's demographic transition towards an ageing society, the next sections discuss some of the implications for policy and programme interventions. Elaborating on the information presented in this report, priority areas will be identified for further discussion among policymakers and the public in order to find innovative solutions to sustain progress on population and development issues, in line with the 20-Year National Strategy Framework and commitments to the SDGs and the ICPD Programme of Action. Priority areas include enabling fertility choices in an ageing society; preventing early unions and pregnancies; realizing comprehensive sexual and reproductive health education and services under the UHC scheme; closing the divides in sexual and reproductive health; fostering women's empowerment and gender equality; responding to changing marriage and family trends; enhancing migration management; and preparing for sustainable ageing through active involvement, lifelong learning and health promotion.

### **Enabling fertility choices in an ageing society**

Thailand has positively responded to the ICPD vision of a comprehensive, integrated approach to population and development, which is suitable to rapidly changing national and global environments. Progress has been

made in enabling people to make informed choices about their sexual and reproductive health as a matter of fundamental human rights. The 2nd National Reproductive Health Development Policy and Strategy (2017-2026) clearly states that every pregnancy ought to be planned and intended, with parents well prepared in all aspects so as to facilitate safe delivery, healthy newborns and quality upbringing.

The great variation in fertility outcomes discussed in Chapter 2, however, with late family formation among younger generations but also early pregnancies and early unions among some adolescents, indicates that more can be done to ensure the full realization of people's choices in line with sustainable development. There is a need to rethink the public concept of "family planning" as equivalent to only contraception, and broaden it to encompass planning across the reproductive life cycle based on individual's and couples' choices and specific fertility goals.

In Thailand, as in other countries in East Asia, delayed marriage has played an important role in fertility decline. So has the high level of women's participation in the workforce, and changing values associated with singlehood and gender diversity. Among older spouses who have postponed childbearing for their first or additional child, there is often a desire to have children, but they experience difficulties in realizing this. At the policy level, the Ministry of Public Health and the 2nd National Reproductive Health Development Policy and Strategy recognize that infertility treatment is important to meet the needs of women wishing to have children later in life. Thailand is among the first ASEAN countries to legislate protection of

children's and women's rights in relation to assisted fertility through the Protection of a Child Born by Medically Assisted Reproductive Technology Act 2015. This is also a priority for the ASEAN Commission on the Promotion and Protection of the Rights of Women and Children. Some technological solutions, such as the wider and more affordable provision of in vitro fertilization and other ethically and medically sound fertility treatments, have been discussed earlier. It is also crucial to ensure that late pregnancies and deliveries are safe for mothers and babies as there are higher health risks with age, and prospective mothers may worry about them (UNFPA, 2016).

A particular need identified in Chapter 2 is to provide greater social support to women and couples struggling to combine work and family responsibilities. The NESDB and UNFPA (2011) proposed a set of policies inspired by experiences in other low-fertility countries to remove obstacles to having children, but these recommendations have yet to be fully realized. They included the following:

- Extension and increase of paid maternity leave beyond 90 days at 50 per cent of previous earnings, from funds contributed by the Government, the employer and the employee.
- Introduction of paternity leave for fathers around the time of the birth of his child beyond public employment and for more than 15 days as is currently the case.
- Introduction of flexible working hours to assist parents to spend more time at home.

- Introduction of eldercare subsidies to alleviate the care burden of women.
- Improvement of subsidized childcare to allow women to continue working while raising children.
- Introduction of incentives such as tax deductions and subsidies for child-raising or preschool and early childhood education.

To these possible measures, it would be important to add an overarching strategy to “normalize” men's domestic engagement, and achieve a more balanced gender relationship in the household. Both parents taking responsibility for child-raising and other domestic chores, including care of the elderly, would decrease the burden on the woman as the main caretaker for her partner, offspring and parents. At the same time, for the growing number of healthy elder relatives (both men and women), schemes could be devised to encourage an active role in raising children. This would also alleviate the burden on the mother while engaging older people socially.

Evidence from other countries shows that a lower level of gender equality in family life has led to low fertility, while higher levels of gender equality produced higher fertility (ibid.). Measures affecting the choices individuals and couples make will likely help in maintaining fertility at least at the current level, and perhaps at a somewhat higher level so that it would not sink to the very low rates in some Asian countries, including the Republic of Korea, Singapore and Taiwan Province of China. Governments there are struggling to find a more balanced population structure (Jones, 2019).



Customized measures also have to be found for women (and men) working in the informal sector as they comprise more than half of the total working population, but would be precluded from formal welfare and paid parental benefits even if available. At the moment, Thailand is promoting voluntary insurance for social security payments for informal workers aged between 15 and 60 years under Article 40 of the Social Security Office Act (The Nation, 2018). Partly subsidized by the Government, the package currently covers sickness, disability, death and an optional old-age benefit in the form of a lump sum, but other benefits to support women's choices to have more children could eventually be added.

## Preventing early unions and pregnancies

While encouraging and supporting women who wish to become mothers, Thailand's population policy also needs to help prevent unwanted pregnancies. Culturally appropriate education material and services could be developed to address the higher unmet need for contraception among the Malay Muslim population in southern Thailand, ethnic minority groups in northern Thailand, and cross-border migrants from neighbouring Cambodia, Lao People's Democratic Republic and Myanmar (UNFPA and NESDB, 2011). Interventions in planning pregnancy and appropriate spacing of childbirth are essential for the health and well-being of women in these more disadvantaged communities.



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*Sanit, in her 40s, is like an increasing number of women in Thailand who pursued jobs at the expense of marriages and having children.*

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Moreover, there is an urgent need to expand access to youth-friendly health services, and to intensify prevention of early marriages, unions and pregnancies. As discussed in previous chapters, Thailand has a worryingly high number of births from adolescent mothers. Most of these pregnancies are unintended if not unwanted, and have serious consequences because of the greater risks to the health of children and young mothers, and the lower quality of childrearing in the case of unwanted babies. Unintended pregnancies may lead to unsafe abortion and are also a sign of unprotected sex, which exposes girls to the additional risk of HIV and other sexually transmitted infections (STIs). Epidemiological data show that HIV and STIs are on the rise among youth (School of Global Studies, Thammasat University, 2014). Typically, girls also experience negative social and economic effects of pregnancy, becoming exposed to stigma, rejection and even violence, as well as exclusion from school, which implies missing education and job opportunities.

A decisive factor in improving this situation will be the effective implementation of the 2017 Act for the Prevention and Solution of the Adolescent Pregnancy Problem and the National Strategy on Prevention and Solution of the Adolescent Pregnancy Problem 2017-2026. The strategy aims to bring down early pregnancies in a 10-year period and establish support for teenage mothers. As described in Chapter 2, these ground-breaking legislative initiatives stress the right of adolescents to make their own decisions, and access sexual and reproductive health education and services without stigma and discrimination.

To enforce such a fundamental right, all cultural, social and financial barriers ought to be identified and overcome, with early efforts having already been made that can serve as a

base for future policies and interventions. Foremost among these, the Ministry of Education, with the support of the Ministry of Public Health and the Ministry of Social Development and Human Security, has issued policies mandating the provision of comprehensive sexuality education (CSE) in primary and secondary schools. Schools need greater support and financial resources to build the capacity of teachers and develop more interactive training programmes and materials that display an empowering rather than a biological approach to sexuality and reproduction, including through discussion of gender equality, the meaning of consent and the prevention of violence against women (UNICEF and the Ministry of Education, 2016). Continuous monitoring and evaluation mechanisms are also needed to improve the scope and quality of education. CSE for out-of-school programmes ought to be strengthened to ensure they reach targeted vulnerable groups according to their gender, age and socioeconomic needs.

Strict enforcement of the Thai marriage law, which restricts marriage under the age of 17, is also recommended, and so is monitoring of the recently introduced regulation of the country's Islamic council to uphold the age limit among Muslim populations, especially in the southern provinces (Straits Times, 2018). Loopholes and reasons for exceptions need to be reviewed. Parents of those marrying young should be engaged in dialogue about child marriage and their reasons for condoning if not encouraging it.

Provision of adolescent sexual and reproductive health services requires greater attention. The preference of young Thais for seeking help in pharmacies and drug stores above public health facilities (Tangmunkongvorakul et al., 2012) needs to be better understood and addressed by providing safe places where they can receive



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comprehensive care. The 2017 Act provides adolescents with free counselling and access to all available contraceptive methods, including long-term ones. Accordingly, current youth programmes need to be expanded beyond education and counselling to include medical care, thus requiring better liaison between these programmes and the health care sector. It is also critical to train health-care providers to ensure confidentiality and avoid judgmental attitudes, especially towards girls.

Given the sexual and reproductive needs of adolescents, a sustainable approach would integrate the prevention of unintended

pregnancies and HIV and STIs, and ensure promotion of condom use. The 100 Percent Condom Use Programme for HIV prevention could better stress its dual function to cover HIV and STIs and unwanted pregnancies, and be expanded nationally with the engagement of civil society groups (UNFPA, 2016). More discussion is also needed on the provision of emergency contraception for those who do not want to take the chance of becoming pregnant, and safe abortion for those in no position to continue an unplanned pregnancy.

## Realizing comprehensive sexual and reproductive health services in the UHC scheme

Strengthening youth services goes hand in hand with efforts to provide more comprehensive sexual and reproductive health services. Thailand is recognized globally for the quality and reach of its health system, and its attention to both preventive and curative services. In particular, as mentioned in Chapter 2, the UHC scheme, launched in 2002 under the National Health Security Act, has received wide acclaim for overall improvements in health and reduction of health expenditure, even with complaints about the increased workload for providers and the burden of financial management for hospitals (Thaiprayoon and Wibulpolprasert, 2017). As of today, almost the entire population is covered with a comprehensive benefit package of essential health-care services. Sexual and reproductive health care already constitutes a significant component of the package, including the control of communicable and non-communicable diseases, the promotion and maintenance of reproductive health, and early detection and management of reproductive health problems. The sexual and reproductive health preventive package comprises personal and family clinical preventive services, such as immunization, annual physical check-ups, premarital counselling, voluntary HIV testing, antenatal care and family planning services. The curative package covers ambulatory and hospitalization services with the exclusion of certain high-cost interventions, and private rooms and board.

These benefits, however, while well advanced compared to other countries in South-east Asia, do not ensure provision of comprehensive sexual and reproductive health services as envisioned in the ICPD Programme of Action and the subsequent global agreement at the 1995 Fourth World Conference on Women. Infertility treatment is still not covered, in spite of policy recognition of its significance. Contraceptive services do not yet include emergency contraception, and more quality information should be provided to reduce the high rate of pill failure.

More generally, improvements are needed to address possible distortions in contraceptive use leading to a reduction of longer-acting contraceptives, such as injectables, IUDs and implants, due to health system management decentralization to the district level (Saejeng et al., 2011). Safe abortion services for unplanned pregnancies are, in accordance with the law, only covered if the result of rape or posing a medical risk to the mother, yet the official figure of 30,000 abortions (induced, therapeutic and spontaneous) per year is only a small portion of the estimated 300,000 to 400,000 legal and illegal that take place (Tangcharoensathien, Chaturachinda and Im-em, 2015). Partially missing components of comprehensive care are youth-friendly services, and services to prevent and deal with the physical and mental impacts of wide-spread violence against children and women.

Even when services to improve population health are available and funded by the UHC scheme, coverage is not guaranteed. Efforts are needed to increase demand and use, including for services cover such as voluntary HIV testing, and screening for cervical and breast cancer. These are cost-effective interventions with positive benefits for society, but they tend to be underused (ibid.). Cancer is the leading cause of death in Thailand, and breast and cervical cancers are among the five most common cancer types. In 2012, together with colorectal, liver and lung cancers, they accounted for more than half of cancer incidence, prevalence and mortality.

While cervical cancer is starting to decline, breast cancer is increasing (Virani et al., 2017). A possible factor in the decline of cervical cancer is the introduction of a screen-and-treat strategy as part of comprehensive cervical cancer guidelines. The approach was first devised in 2000 by the Royal Thai College of Obstetricians and Gynecologists, in collaboration with the Government and the Provincial Health Office of Roi Et. Such gender-responsive innovations ought to be designed for other underutilized services as they meet women's needs for more comprehensive services. Education campaigns are essential as are programmes to incentivize providers to encourage women to check their health in a regular, timely fashion (Tangcharoensathien, Chaturachinda and Im-em, 2015).

### **Closing the divides in sexual and reproductive health**

Thailand has extended health-care personnel and facilities nationally over the last three decades to enhance care accessibility and

affordability for all. The policy transition from piecemeal targeting to a universal approach (Tangcharoensathien et al., 2009) has been lauded by the global public health community and made the Thai health system the most equitable in the region. Yet there are still some gaps across groups and locations in terms of outcomes and services. For instance, poor households have a higher prevalence of teenage pregnancy, low birth weight, child malnourishment and child illness than richer households (Limwattananon, 2010).



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The urban-rural divide is also prominent, with urban areas absorbing more public health resources than rural areas, despite having fewer users. Geographically, the capital city of Bangkok captures most resources, in part due to its tertiary facilities acting as referral points for complex cases from all over the country, while the north-east as the poorest region uses the fewest resources, followed by the southern provinces. In general, urban areas offer better services and produce better health outcomes, including in maternal and child health. Urban women are more likely than rural women to receive prenatal and delivery care from a skilled health worker, and deliver in a health facility (*ibid.*). The maternal mortality rate is highest in the south while Bangkok has the lowest rate (32.3 women and 18.9 women per 100,000 live births, respectively) (*ibid.*). Coverage of modern contraceptive methods is lower in the southern region than the national average due to a mix of socioeconomic and cultural factors.

Bridging spatial and socioeconomic gaps requires additional efforts to further expand facilities and personnel as well as improvements in health-care technology and expertise in the provinces (Chandoevit and Phatchana, 2019). A serious concern is the skewed distribution of doctors with Bangkok in 2007 having a doctor density 10 times higher than that in the most rural areas of the country; almost a quarter of doctors were employed in the private sector (Suphanchaimat et al., 2013). With the expansion of private health care and medical tourism in Thailand, these trends may intensify, requiring programmes to optimize the health workforce and reallocate tasks if needed. In the last decade, incentives

introduced to encourage physicians to work in rural hospitals have included a government financial scheme that supplements income with a monthly allowance and additional salary and benefits. These need to be evaluated and strengthened.

Besides geography, age is another factor affecting health outcomes and access to health services. As discussed in Chapter 4, the most vulnerable age group in Thailand is people over 60, especially those with a lower socioeconomic status and above 80 years of age who are living in rural areas. Even if not always recognized, health-care needs for the elderly population include sexual and reproductive health services, since they are increasingly exposed to reproductive health cancers. They may still experience STIs, yet hesitate to get help due to stigma (IMAP, 2018). The health-care system also has a strong gender bias, with men using more public resources than women, even if women have a greater burden of disease. This reflects entrenched gender roles and associated constructions of femininity and masculinity, with men's treatment being mostly for injuries and traffic accidents, and public health expenses for women being mostly for pregnancies and childbirth. Between 2007 and 2015, male in-patients stayed in hospitals a day longer than female in-patients, on average. Interestingly, the number of women seeking medical assistance is higher than men in all age groups across regions (Chandoevit and Phatchana, 2019).

# DIVERSE LEARNING OPPORTUNITIES FOR ADOLESCENTS

*“There is a need for stronger efforts to ensure that young people have knowledge and skills in contraception. I have seen more news each day about unintentional pregnancies, teen mothers and more young people with sexually transmitted diseases.”*

*“Being a university student, I dream of being a web or game developer in the future. Yet I realize that I cannot learn everything within the four-year study at the university.*



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*Learning is never ending. Studying in the university motivates us to research more and to be a lifelong learner. The Government should also realize this and support*

*Nut Pinyo, 18, is a freshman at Chulalongkorn University, Faculty of Engineering, Computer Engineering.*

*young people to learn not only in the classroom but also anywhere. Young people should be empowered with diverse skills including non-academic subjects like cooking or photography. The education system should do more to empower young people both with formal and informal learning.”*

## ENABLING A FAMILY WHILE PREPARING FOR AGEING

*“Family planning is very useful to plan the spending of the family. It is also very useful for society because if we have more people, society needs to have planning in the short and long run to look after its members.”*



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*Sukhet, 34, from Nakhon Ratchasima is an employee and a father of two daughters.*

*"I always respect my wife and listen to her. We always make decisions together because we are a family. We divide our roles. I am the main breadwinner but I entrust the expense management to her. We share the responsibilities in the house. I send and pick up kids from school. She takes care of house chores but if there are too many things, I also give a helping hand. There is no strict division of responsibilities. We help each other as a family."*

*"I also prepare for ageing. The most pressing thing for me to do now is saving money. I do any ethical work that can generate income now to save money as much as we can."*

*"What I want to ask from the Government is to create co-funding schemes or programmes that cover diverse dimensions in our life including health and a retirement fund. The 30-baht (\$1) scheme (Universal Health Coverage) is good but cannot cover every illness. Most people realize that health insurance is good but with a monthly income under 30,000 baht (\$968), they cannot afford it."*

*"It is good that the country has so many good policies and welfare programmes for us, for example, the elderly grant or the grant for people under the poverty line. However, a lot of people and elders in rural areas still do not know where to access the grants. Even if the policy is good, it becomes useless when each population group does not know how to or cannot access it."*



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*Biyoke, 33, a first-honours graduate from Chulalongkorn University and now a young entrepreneur and graphic designer.*

*"To me, family planning is about contraception. I and my boyfriend plan to get married by the end of this year. We definitely agree that we won't have any child. We plan to do business together and live together like this until we get older. We will use any contraceptive methods that work, probably both contraceptive pills and condoms."*

*"Because we plan not to have kids, we will focus a lot on working so we can earn enough income to spend when we get older. I do plan for my life now and during my ageing. I give big importance to regular exercise so as to ensure that I am healthy. I try not to buy any luxurious items or assets that devalue. Rather, I spend money on investing in tools for my work because that could bring me a good return. I also buy additional health insurance on top of the social welfare provided by the Government. There is more health coverage, including serious illness, from the insurance, which I think is worth the money."*



*"Nowadays, I see more Thai women sit at the top position in many organizations. I expect that the trend will increase in the future. This should be good for our society."*

*"One thing that I need the Government to provide is more access to an investment fund. I am not an employee but a small entrepreneur. That makes it very difficult for me to get loans to invest and expand my business. In this age, the young generation tends to work more in the informal sector or to become an entrepreneur. The Government should prepare for the change and have suitable measures to support this economic trend."*

## **AGED BUT NOT READY**

*"As a street vendor, my income is not stable, approximately 10,000 baht (\$323) each month. I save half and spend half. I think I can only work in Bangkok for the next three years, and I plan to do farming back in my hometown. I feel that I cannot physically work here."*

*"I don't find the 30-baht (\$1) scheme (Universal Health Coverage) useful enough. It does not cover diseases faced by old people like joint aches and pain. I spend some of my income for health insurance covering some of the serious illnesses. I foresee that I cannot depend on my son as now he is having a child. I also have to pay for the baby's formula as my son is only 18 years old and only graduated from secondary school. He is now working at a car care service getting a daily wage of 300 baht (\$9)."*

*"I don't know if I will have a public space for my vendor stall in the near future. I am very worried about that."*

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*Tanapond, 51, is a street vendor in the heart of Bangkok. She comes from Roi Ed, a north-eastern province. With a new-born grandchild from her 18-year old son, she finds it very difficult to make ends meet each day.*

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**by Kullwadee Sumalnop**



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### **Fostering gender equality and women's empowerment**

As a signatory of the Convention against the Elimination of All Forms of Discrimination against Women (CEDAW), Thailand is obligated to develop policies and interventions to achieve gender equality and women's empowerment. Women constitute slightly more than half of the country's population, estimated at over **66** million by mid-2019 (Institute for Population and Social Research, 2019). The government focal point on gender issues is the Office of Women's Affairs and Family Development under the Ministry of Social Development and Human Security.

National guidelines for action are provided by long- and short-term (five-year) women's development plans. The 12<sup>th</sup> National Economic and Social Development Plan (2017-2021) aligns with SDG 5, "Achieve gender equality and empower all women and girls", and aims to "create social equality without discrimination, for women to have good quality of life, be safe and secure". The focus is on the local level, to empower, increase the participation and improve the livelihoods of all Thai women, particularly those from vulnerable groups (Ministry of Foreign Affairs, 2018). An emphasis on enhancing women's economic participation and empowerment centres on creating

conditions conducive to female entrepreneurship.

In 2015, the Gender Equality Act was passed. It outlines the different functions and responsibilities of the Committee on the Promotion of Gender Equality and the Committee on the Investigation of Practices Related to Gender Inequality. The first committee is responsible for formulating policies, procedures and programmes of action for the Government and NGOs at central and local levels. The Act also specifies compensation measures for victims of gender-based discrimination, and the establishment and management of the Gender Equality Promotion Fund (Government of Thailand, 2018). Within this policy framework, interventions to promote gender equality and women's empowerment include pursuing legal reform from a gender perspective, applying gender budgeting, and testing gender-sensitive interventions and services for potential national scale-up (Government of Thailand, 2014).

Over the years, significant progress has been made. Women have more autonomy; exercise greater economic, social and political decision-making; and have more equal opportunities with men in selected domains compared to the past. As discussed in Chapter 3, girls enjoy equal access to quality education, and even do better in higher education. Workforce participation is also significant with more female (56 per cent) than male professional and technical workers. A growing number of women are in top management positions and own companies (Alcocer, 2017).

Women still face many challenges, however. Gender biases in access to health persist. Traditional attitudes and norms saddle women with an unfair burden of unpaid domestic care work, and perpetuate child marriages. The same norms result in women's still low participation in politics and decision-

making positions, and constrain them to lower earnings and lower paying, more uncertain and vulnerable jobs in export-oriented manufacturing and services. The feminization of poverty remains a challenge due to women's limitations in accessing resources and services, including related to credit, land, assets, education and training, information, welfare, as well as the pay gap (Government of Thailand, 2014). Women and girls also continue to be exposed to sexual exploitation, trafficking and violence.

To shift biased gender norms and end discriminatory practices, besides enforcing existing policies, the Government, in collaboration with civil society groups, could intensify efforts to raise awareness and disseminate information on women's rights and gender equality through advocacy, public communication, evidence-based studies, smart social marketing and media strategies. More sex-disaggregated data are warranted to better understand the gender dimensions of programmes and services, and to evaluate their impacts. It is crucial to set a timeline to finally integrate comprehensive sex-disaggregated data into planning. A new discourse on gender roles and values ought to be developed to normalize the sharing of household tasks between men and women.

The pervasiveness of gender-based violence, particularly domestic and sexual violence, (Chuemchit et al., 2018), needs to be urgently and comprehensively addressed. Progress can build on the important reforms already implemented by the Thai Government, which include the revision of the definition of rape in Section 276 of the Criminal Code to cover marital rape, and the promulgation of the Protection of Domestic Violence Victim Act in 2007. A national population-wide approach to violence prevention should be coupled with efforts to expand and improve existing services.

The One-Stop Crisis Centres of the Ministry of Public Health have operated in district hospitals and, since 2013, in community health centres. These should be included in all facilities across the country as they play a key role in responding to violence. The Government also needs to ensure sufficient funding and personnel to support integrated response and rehabilitation services for children and women, as well as coordination among ministries and agencies. Other needed changes are a greater reliance on protection orders and legal remedies instead of reconciliation and mediation, as recommended by past CEDAW reviews.

New insights into all of these issues may stem from a national survey planned by the Department of Women's Affairs and Family Development in collaboration with the National Statistics Office, UN Women and UNFPA. The survey will cover various dimensions of gender-based violence against women and children, allowing for more detailed national knowledge and evidence-based policies.

### **Responding to changing marriage and family trends**

Thailand's demographic and social changes are affecting the willingness to marry and establish a family as well as the composition of families. Chapter 2 discussed how Thailand is transitioning from large, extended families to smaller families with different nuclear and subnuclear structures. The most common configuration remains the nuclear family with one or at most two children, but the numbers of single parents, childless couples and individuals living alone are growing, as are same-sex couples and skipped-generation families with one or two grandparents and grandchildren. Patterns vary according to location, ethnicity,

socioeconomic status and gender (UNFPA, 2015).

Understanding these new trends to devise policies that meet the specific needs of diverse families requires more and better evidence and research. Inconsistencies in current family data systems and segmentation in data sources should be resolved, and new qualitative and quantitative measurement devised to track family changes over time. Previous population reports have noted that existing tools to measure levels of family happiness and well-being should be linked to socioeconomic and financial indicators to define improvements (*ibid.*).

The 12th National Economic and Social Development Plan recognizes the changes and growing diversity in family formation. It stresses the importance of support for vulnerable families, in particular for single-parent households, with the vast majority led by single mothers, and skipped-generation households, 90 per cent of which are headed by elderly grandmothers. Both household types are in general in an underprivileged socioeconomic position. Besides poverty, single-parent households experience problems with housing and stigmatization. In skipped-generation households there are also worrisome development and educational impacts on children (NESDB, 2017).

To address some of these issues, the 12th National Economic and Social Development Plan includes a special section on the "Family Well-being Enhancement and Family Strengthening Program" to be carried out across administrative levels by the provincial social development and human security offices, local administrative offices, educational institutions and local health-care service providers. Interventions are grouped

into knowledge-building on family composition, the organization of social activities and the enhanced participation of families in educational processes. It is expected that the next National Strategic Plan for Family Promotion and Development, still in draft form, will provide more details on strengthening approaches for reaching diverse families (ibid.).

From past studies and experiences in other countries, possible interventions for single-parent families include financial support for childcare and education, beyond the current policy providing 600 baht (\$19) per month per child to those living below the poverty line. For single mothers, especially those who are young, educational and occupational schemes could be developed to ensure they can enter or return to the labour market. Policies for spousal support or alimony need to be strengthened, and requirements applied to parents who are not registered as married. Legal advice for child custody cases is needed, as existing services by welfare units and NGOs are not sufficient. To ensure suitable and affordable housing, interventions may include the introduction of mortgage/loan guarantees for those of modest means through community-based living facilities. Psychosocial support is crucial as many single mothers experience stress and depression (UNFPA, 2014).

For skipped-generation families, social protection measures should be directed at both the elderly and the children in the household. Adequate psychosocial and financial systems and efforts engaging neighbours, local authorities and local support groups need to be developed to ensure the welfare of these disadvantaged families. Contextual approaches are recommended that

take into account the fact that the majority of these households are located in the northeast of Thailand, as well as the absence of parents related to internal and international migration.

Besides having its own well-established internal and outbound migration flows, Thailand is a country of transit and destination for international migrants from neighbouring countries. As discussed in Chapter 2, Thailand hosts approximately 4.9 million non-Thai residents, a substantial increase from 3.7 million in 2014. Their number is expected to increase to approximately 6.13 million by 2029 (Harkins, 2019). Of the migrants currently in the country, 3.9 million are documented and undocumented migrant workers from neighbouring Cambodia, Lao People's Democratic Republic, Myanmar and Viet Nam; 110,000 are skilled professionals from a variety of countries (Harkins, 2019). The rest are stateless persons and people seeking asylum and international protection.

As fertility declines and gaps emerge in a shrinking workforce, international migrants are increasingly looked upon as necessary to fill labour shortages. According to the latest Thailand Migration Report produced by the UN Thailand Working Group on Migration, which is chaired by the International Organization for Migration and brings together 16 UN entities, Thailand has built its migration management capacity and is well positioned to maximize the benefits of migration. Migrant labour already constitutes over 10 per cent of the total labour force and is thought to contribute between 4.3 per cent and 6.6 percent of GDP (Harkins, 2019). To enhance the positive contribution of migration, more could be done to ensure migrant welfare and protection.

The Government has made important efforts to regularize migration, and has introduced legal and administrative reforms to combat human trafficking and exploitative working conditions. These include amendment of the Royal Ordinance on the Management of Foreign Workers Employment, the establishment of Migrant Worker Assistance Centres, and the ratification of the 2014 Protocol to the Forced Labour Convention, 1930 (No. 29). Recently, the Government endorsed the 2018 Global Compact on Migration, committing to intensify efforts to ensure that migration is well managed, safe, orderly and regular.

These steps offer strong potential in addressing the hardships that many migrants still experience. Access to education and health care, guaranteed to migrants regardless of their legal status due to progressive policies enacted in the last decade, is still hampered by financial and social constraints. Progress in endorsing labour protections in the fishing sector has been notable, but persistent labour abuses against migrant workers remain. Many do not receive their entitlements in terms of a minimum wage, overtime, rest time, annual and sick leave, and social security.

Strengthening protection mechanisms and their enforcement could be coupled with positive plans to manage migrant labour that simplify the current recruitment system. It may also be time to consider options for longer stays, allowing more than a total of four years of employment, and providing care and support to families of migrants. Most migrants stay for long periods, eventually in an undocumented status. More coordination and collaboration between countries of origin, transit and destination is needed. New

regional schemes for freer mobility within ASEAN might be considered.

### Preparing for sustainable ageing

Labour needs may also prompt reforms to encourage older people in the labour market. Many older persons have capacity and an interest in continuing to work beyond the retirement age, usually set at 60 years. The Department of Older Persons was established in 2015 to focus on the employment of people above the retirement age and related concerns (Fernquest, 2016). There are also proposals to extend the retirement age for selected occupations to reduce the financial burden of paying out pensions, but they are still at an initial stage.

Studies show that the introduction of labour legislation and tax incentives to create more flexible employment structures offering alternatives for elderly workers would be significant in improving quality of life, offering additional income while also contributing to good physical and mental well-being. At the same time, these measures would be fiscally sustainable through more tax revenue (Phijaisanit, 2016). The private sector should be actively involved in adjusting hiring and benefit policies to include older workers, and providing training opportunities for them to learn to use new technologies and innovations. Most importantly, efforts need to be made to overturn stereotypes that discourage older people's participation in society.

Towards financial security for older people, especially those without children or other relatives to support them, it is important to encourage saving from an early age. Sources of income from salaries and children are decreasing. While income from the old-

age allowance is significantly increasing, it is too low to guarantee quality living, as it is only a basic standard income that cannot guarantee financial security. The Government has aimed to instill a saving culture through the National Saving Fund Act 2011 and the introduction of the National Savings Fund in 2015. The fund is meant to provide social insurance for self-employed people and people in the informal sector, since they are not covered by the Pension Fund and the Social Security Fund for government officials, state enterprise employees, and salaried employees in private companies and workplaces (National Public Relations Department, 2015).

Particular attention needs to be given to learning and health throughout the lifecycle. Government attention to realizing lifelong quality education under the Second Decade of Educational Reforms 2009-2018 (OEC, 2009), aimed at overcoming the educational challenges described in detail in Chapter 3, is critical to increase the potential of people from early childhood through adulthood and ageing. In the context of continuing education, government entities are to provide learning through formal, non-formal and informal education, and broaden the purpose of learning to improve quality of life (Yamnoon, n.d.). In the years to come, greater investments in technology and innovation are expected to enhance the quality of teaching and study at all educational levels, and support lifelong learning.

Efforts to promote health should also be sustained throughout the life cycle, since benefits will accrue in old age and enable active ageing. Activities to foster a healthy lifestyle should emphasize a healthy diet, healthy physical activity level, avoidance of

smoking and moderate alcohol intake. These need to be undertaken more intensively and for all age groups and segments of society. Although the number of elderly people who experience health problems is decreasing, they still require better short- and long-term care. Health services need to be reorganized to meet older people's needs and enable easy access. Moreover, programmes should empower the elderly to take charge of their health and enlist the support of their family and communities according to their terms.

The social and physical environment require interventions to become age-friendly. Thailand is planning for the long term through its National Plan for Older Persons and the National Economic and Social Development Plan, and is testing different solutions for an ageing society. The new National Plan for the Elderly to be promulgated in the near future will continue to develop social and technological innovations to support a good quality of life for older people. An important element will be the promotion of age-friendly cities with inclusive and accessible environments that benefit people of all ages by paying attention to housing as well as its surroundings, transportation, technology and innovation.

These and the other recommendations made throughout this report will help Thailand to realize a more inclusive and sustainable future for its population, according to the scope of its national plans and the vision of the ICPD Programme of Action as well as the SDGs.



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# Bibliography

## CHAPTER 1

Archavanitkul, K., Kanchanachitra, C., Im-em, W. and Lertsrisantad, U. (2003). *Intimate Partner Violence and Women's Health in Thailand* (in Thai). Nakhon Pathom: Institute for Population and Social Research (IPSR), Mahidol University, Thailand.

Ministry of Foreign Affairs of Thailand. (2017). *Sufficiency Economy Philosophy: Thailand's Path towards Sustainable Development Goals*, 2nd Edition, pp.29. Retrieved from <http://www.mfa.go.th/dvifa/contents/files/articles-20170626-142701-203959.pdf>

\_\_\_\_\_. (2018). *Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development*, June 2018. Retrieved from <http://www.mfa.go.th/sep4sdgs/contents/filemanager/images/sep/VNR%202018%20English%2010.07.18.pdf>

TDRI (Thailand Development Research Institute). (2018). *Three Decades of Changes in the Thai Labour Market* (in Thai). Retrieved from <https://www.bangkokbiznews.com/blog/detail/644092>

World Bank. (2019). *The World Bank in Thailand: Thailand Context*. Retrieved from <http://www.worldbank.org/en/country/thailand/overview>

## CHAPTER 2

Basten, S. and Verropoulou, G. (2015). A Re-Interpretation of the 'Two-child Norm' in Post-Transitional Demographic Systems: Fertility Intentions in Taiwan. *PLoS ONE*, 10(8): e0135105, <https://doi.org/10.1371/journal.pone.0135105>

Bureau of Reproductive Health and UNFPA (United Nations Population Fund). (2010). *The 1st National Survey on Contraceptive Provision*. Bangkok: Bureau of Reproductive Health.

\_\_\_\_\_. (2015). *The 2nd National Survey on Contraceptive Provision*. Bangkok: Bureau of Reproductive Health.

Department of Local Administration. (2016). *Standards of Operation of the Child Development Centre of the Department of Local Administration, Budget year 2559 B.E* (in Thai). Bangkok: Department of Local Administration, Ministry of Interior.

Government of Thailand. (2018). Thailand National Report Mid-Term Review of the Sixth Asian and Pacific Population Conference organized by UNFPA, UNESCAP, APPC. Unpublished.

Harkins, B. (Ed.). (2019). *Thailand Migration Report 2019*. Bangkok: UN Thematic Working Group on Migration in Thailand.

- ILO (International Labour Organisation). (2013). *Thailand: A Labour Market Profile 2013*. Thailand: ILO. Retrieved from [https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms\\_205099.pdf](https://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_205099.pdf)
- Isarabhakdi, P. (2014). "Attitudes of young people about getting married and having children", in Yupin Vorasiriamon et al. (Eds.), *Population and Society 2014: Birth and Security in Population and Society*. Nakhon Pathom: Institute for Population and Social Research (IPSR), Mahidol University, Thailand.
- Isarabhakdi, P. and Chongthawonsatid, S. (2004). "Fertility of Migrants from Myanmar in Ranong Province" (in Thai), in *the 2004 Thai National Symposium on Population Studies*. Bangkok: Thai Population Association.
- Jones, G. (2018). What Is Driving Marriage and Cohabitation in Low Fertility Countries? in Poston, Jr. D. (Ed.) *Low Fertility Regimes and Demographic and Societal Change*. Springer, Cham, [http://dx.doi.org/10.1007/978-3-319-64061-7\\_9](http://dx.doi.org/10.1007/978-3-319-64061-7_9)
- Matichon. (2019, May 21). Good signal: Proportion of women members of the House of Representatives and Senators in 2019 had risen (in Thai). *Matichon Online*. Retrieved from [https://www.matichon.co.th/lifestyle/social-women/news\\_1503544](https://www.matichon.co.th/lifestyle/social-women/news_1503544)
- Ministry of Labour. (2017, July 27). *1694 Hotline Launched to Service Migrant Workers*. Online Article. Spokesperson and Publication Sub-Division, Bureau of Public Relations. Retrieved from <http://www.mol.go.th/en/content/61762/1501344184>
- Ministry of Public Health (MOPH). (2017). *The 2<sup>nd</sup> National Reproductive Health Development Policy and Strategy (2017-2026): Promotion of Healthy Birth and Child Development*. Executive Summary, Policy and Strategy, Ministry of Public Health.
- NESDB (National Economic and Social Development Board). (1972). *3<sup>d</sup> National Economic and Social Development Plan*. Retrieved from [https://www.nesdb.go.th/nesdb\\_en/ewt\\_w3c/ewt\\_dl\\_link.php?filename=develop\\_issue&nid=3778](https://www.nesdb.go.th/nesdb_en/ewt_w3c/ewt_dl_link.php?filename=develop_issue&nid=3778)
- \_\_\_\_\_. (2017). *12<sup>th</sup> National Economic and Social Development Plan*. Retrieved from [https://www.nesdb.go.th/nesdb\\_en/ewt\\_w3c/ewt\\_dl\\_link.php?filename=develop\\_issue&nid=4345](https://www.nesdb.go.th/nesdb_en/ewt_w3c/ewt_dl_link.php?filename=develop_issue&nid=4345)
- \_\_\_\_\_. (2018). *Thailand's Social Situation and Outlook - Quarter 3, 2018*. Retrieved from [https://www.nesdb.go.th/nesdb\\_en/download/PressSocial3-2561.pdf](https://www.nesdb.go.th/nesdb_en/download/PressSocial3-2561.pdf)
- NSO (National Statistical Office). (2016). *Thailand Multiple Indicator Cluster Survey 2015-2016, Final Report*. Bangkok: NSO.
- \_\_\_\_\_. (2017). *Social Indicators 2017*. Retrieved from [http://service.nso.go.th/nso/nsopublish/pubs/e-book/Indicators\\_Social\\_2560/files/assets/common/downloads/publication.pdf](http://service.nso.go.th/nso/nsopublish/pubs/e-book/Indicators_Social_2560/files/assets/common/downloads/publication.pdf)
- \_\_\_\_\_. (2019). *The 2019 Core Thailand Indicators*. Retrieved from <http://service.nso.go.th/nso/nsopublish/pubs/e-book/Thailandindicator-2562/files/assets/common/downloads/publication.pdf>

- NSO (National Statistical Office) and OWAFD (Office of Women's Affairs and Family Development). (2008). *Gender Development: Similarities and Differences*. Bangkok: Thammasat Press. Retrieved from [https://www.th.unpd.org/content/dam/thailand/docs/Thailand%20Gender%20Statistic%20Report%202008\\_Eng.pdf](https://www.th.unpd.org/content/dam/thailand/docs/Thailand%20Gender%20Statistic%20Report%202008_Eng.pdf)
- Potipiti, T. (2010). *The Number of Unskilled Foreign Workers from Myanmar, Laos and Cambodia in the Future and The Demand for Unskilled Foreign Workers for The Ageing Society* (in Thai). Bangkok: Thailand Research Fund.
- Prachuabmoh, V. (1<sup>st</sup> Ed.). (2018). *Concepts and Theories Related to Fertility and Low Fertility* (in Thai). Unpublished.
- Rosenfield, A. G. and Min, C. J. (2007). "The emergence of Thailand's family planning program", in Warren C. Robinson and John A. Ross (Eds.), *The Global Family Planning Revolution: Three Decades of Population Policies and Programs*. Washington, D.C.: The World Bank.
- Siangdung, P. and Soonthornthada, A. (2008). "Infertility: social issue beyond sexuality", in Archavanitkul, K. and Tangcholapit, K. (Eds.), *Population and Society 2008: High-lighting Sex/Sexuality in Population and Social Studies*. Nakhon Pathom: Institute for Population and Social Research (IPSR), Mahidol University, Thailand.
- Tangcharoensathien, V., Chaturachida, K. and Im-em, W. (2015). Commentary: Thailand: Sexual and Reproductive Health Before and After Universal Health Coverage in 2002. *Global Public Health*, 10(2): 246-248, <http://dx.doi.org/10.1080/17441692.2014.986166>
- Tangcharoensathien, V., Witthayapipopsakul, W., Panichkriangkrai, W., Patcharanarumol, W. and Mills, A. (2018). Health Systems Development in Thailand: A Solid Platform for Successful Implementation of Universal Health Coverage. *The Lancet*, 391(10126): 1205-1223, [http://dx.doi.org/10.1016/S0140-6736\(18\)30198-3](http://dx.doi.org/10.1016/S0140-6736(18)30198-3)
- Thai Health Project. (2017). *Thai Health 2017: Empowering Vulnerable Populations Creating an Inclusive Society*, Kanchanachitra, C. (1<sup>st</sup> Ed.). Nakhon Pathom: Institute for Population and Social Research (IPSR), Mahidol University, Thailand.
- The Nation. (2018, February 4). Strict Surrogacy Law Bans Financial Gain. *The Nation Thailand*. Retrieved from <https://www.nationthailand.com/national/30337939>
- UNESCO (United Nations Educational, Scientific and Cultural Organization). (2019). *Institute for Statistics*. [online] Retrieved from <http://data.uis.unesco.org>
- United Nations. (2019). *World Population Prospects: The 2019 Revision*.
- UNDP (United Nations Development Programme). (2018). *Human Development Indices and Indicators: 2018 Statistical Update*. New York: UNDP.
- UNFPA (United Nations Population Fund). (2016). Addressing Teenage Pregnancy in Thailand with a Landmark Law – and Greater Understanding. *UNFPA Online Article*, July 2016. Retrieved from <https://thailand.unfpa.org/en/news/addressing-teenage-pregnancy-thailand-landmark-law-and-greater-understanding>

- \_\_\_\_\_. (2017). SDGs Success Stories in Thailand - Prevention and Solution of the Adolescent Pregnancy Problem Act A.D. 2016. UN Thailand Policy Brief, August 2017. Retrieved from [https://thailand.unfpa.org/sites/default/files/pub-pdf/Thailand\\_Law.pdf](https://thailand.unfpa.org/sites/default/files/pub-pdf/Thailand_Law.pdf)
- \_\_\_\_\_. (2019). Demographic dividend. [Online] Retrieved from <https://www.unfpa.org/demographic-dividend>
- UNFPA (United Nations Population Fund) and NESDB (National Economic and Social Development Board). (2011). *Impact of Demographic Change in Thailand*. Bangkok: UNFPA.
- \_\_\_\_\_. (2013). *The State of Thailand's Population 2013: Motherhood in Childhood: Facing the Challenge of Adolescent Pregnancy*. Bangkok: UNFPA.
- \_\_\_\_\_. (2015). *The State of Thailand's Population 2015: Features of Thai Families in the Era of Low Fertility and Longevity*. Bangkok: UNFPA.
- Westley, S. B., Choe, M. K. and Retherford, R. D. (2010). Very Low Fertility in Asia: Is There a Problem? Can It Be Solved? *AsiaPacific Issues, No. 94*. Honolulu: East-West Centre.
- Witworapong, N. and Wattanapongwanich, S. (2018). *Population Policies: A Review of Theories and Empirical Studies* (in Thai). Unpublished.
- WHO (World Health Organization). (2019). *Global Health Expenditure database*. [online] Retrieved from <https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?locations=TH>
- WHO (World Health Organization), UNICEF (United Nations Children's Fund), UNFPA (United Nations Population Fund), World Bank Group and the United Nations Population Division. (2015). *Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division*. Geneva: WHO. Retrieved from [https://www.unfpa.org/sites/default/files/pub-pdf/9789241565141\\_eng.pdf](https://www.unfpa.org/sites/default/files/pub-pdf/9789241565141_eng.pdf)
- WHO (World Health Organization) and World Bank. (2017). *Tracking universal health coverage: 2017 global monitoring report*, Annex 1, pp. 54. Switzerland: World Bank. Retrieved from <http://pubdocs.worldbank.org/en/193371513169798347/2017-global-monitoring-report.pdf>
- World Bank. (2019). *Development Research Group*. [online] Retrieved from <https://data.worldbank.org/indicator/SI.POV.DDAY?locations=TH>
- \_\_\_\_\_. (2019a). *Development Research Group*. [online] Retrieved from <https://data.worldbank.org/indicator/SI.POV.UMIC?locations=TH>
- \_\_\_\_\_. (2019b). *Development Research Group*. [online] Retrieved from <https://data.worldbank.org/indicator/SI.POV.GINI?locations=TH>
- \_\_\_\_\_. (2019c). *International Comparison Program database*. [online] Retrieved from <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=TH>
- \_\_\_\_\_. (2019d). *Global Poverty Working Group*. [online] Retrieved from <https://data.worldbank.org/indicator/SI.POV.NAHC?locations=TH>

---

\_\_\_\_\_. (2019e). *Thailand Economic Monitor: Inequality, Opportunity and Human Capital (Vol. 2)*. Washington, D.C.: World Bank Group. Retrieved from <http://documents.worldbank.org/curated/en/154541547736805518/pdf/Thailand-Economic-Monitor-Inequality-Opportunity-and-Human-Capital.pdf>

## CHAPTER 3

Amornvuthivorn, K. (2016). Public-Private Partnership (PPPs) in Technical Vocational Education and Training (TVET): Lessons Learned from Singapore and U.S.A. and Implications for Public Management in Thailand. *Journal of Public and Private Management*, 23(1): 26.

Aubert, S., Barnes, J. D., Abdeta, C., Abi Nader, P., Adeniyi, A. F., Aguilar-Farias, N., . . . Cardon, G. (2018). Global Matrix 3.0 Physical Activity Report Card Grades for Children and Youth: Results and Analysis from 49 Countries. *Journal of Physical Activity Health*, 15(2): 251-273.

Brixi, H. (2012). *Leading with Ideas: Skills for Growth and Equity in Thailand*. Washington, D.C.: World Bank. Retrieved from <http://documents.worldbank.org/curated/en/873221468118462666/Leading-with-ideas-skills-for-growth-and-equity-in-Thailand>

Bruton, C. (2016, September 19). Vocational Education: A German Approach. *Bangkok Post*. Retrieved from <https://www.bangkokpost.com/business/1089812/vocational-education-a-german-approach>

Chaiyaporn, C. (2011). *Thoughts on Education of the King Rama 1-9 (Naew Prarajchadamri Daan Kan Suksa Kao Rajchakal)* (in Thai). Bangkok: S.P. Print and Pack.

Chantapong, S. and Lertpiantham, K. (2018). Skill Mismatch Trap and the Challenge of Thailand 4.0. *MPG Economic Review*: 1-5.

Chevron Enjoy Science. (2019). Chevron Enjoy Science. Retrieved from <https://www.enjoy-science.org>

Fry, G. W. and Sangnapaboworn, W. (2018). The Evolution of Education Policy and Planning in Thailand: From NEC to ONEC and OEC, in G. W. Fry (Ed.), *Education in Thailand: An Old Elephant in Search of a New Mahout*, pp. 503-516. Singapore: Springer.

González, S. A., Barnes, J. D., Abi Nader, P., Susana Andrade Tenesaca, D., Brazo-Sayavera, J., Galaviz, K. I., . . . Liu, Y. (2018). Report Card Grades on the Physical Activity of Children and Youth From 10 Countries with High Human Development Index: Global Matrix 3.0. *Journal of Physical Activity Health*, 15(2): 284-297.

Institute for Population and Social Research. (2014). *Migrant Children's Education in Thailand: Policy Brief*. Research project. Institute for Population and Social Research (IPSR), Mahidol University, Asian Institute of Technology (AIT), and Toyota Foundation, Thailand.

\_\_\_\_\_. (2016). *Connecting the Mekhong Through Education and Training (COMET)*. Research project. Institute for Population and Social Research (IPSR), Mahidol University, Thailand.

- \_\_\_\_\_. (2018). *Foreign Talent Policy in Support of Thailand 4.0 Strategy*. Bangkok: Institute for Population and Social Research (IPSR), Mahidol University, Thailand.
- \_\_\_\_\_. (2019). *Active school*. Research project. Institute for Population and Social Research (IPSR), Mahidol University, Thailand.
- Kanchanachitra, M. and Chamchan, C. (in press). *Adolescent Mothers in Thailand: An Integrated Approach to Data Analyses to Inform Policy Development and Targeted Intervention at National and Sub-National Levels*. Bangkok: UNFPA.
- Kenan Institute Asia. (2019). *Informal STEM Education Policy*. Bangkok: Kenan Institute Asia.
- Komchadluek. (2018, October 18). Office of the Vocational Education Commission teams up with Chevron, "Move the Plant to School". *Komchadluek*. Retrieved from <http://www.komchadluek.net/news/pr/348535>
- KVIS: Kamnoetvidya Science Academy. (2019). *Vision & Mission*. Retrieved from [https://www.kvis.ac.th/Vision\\_Mission\\_EN.aspx](https://www.kvis.ac.th/Vision_Mission_EN.aspx)
- Limviphuwat, P. (2018, December 2). Thai Workforce 'Needs to be Reskilled'. *The Nation*. Retrieved from <https://www.nationmultimedia.com/detail/Economy/30359700>
- Ministry of Labour. (2018). *Analytical Report of Labour Database and Labour Demand Estimation for Target Industries in the Eastern Economic Corridor (EEC)* (in Thai). Bangkok: Text & Journal Publication. Office of the Permanent Secretary. Retrieved from <http://nlic.mol.go.th/sites/default/files/Documents/EEC.pdf>
- Mongkhonvanit, J. (2017). Thailand's Dual Education System: A Way Forward. Higher Education, Skills. *Work-Based Learning*, 7(2): 155-167.
- NESDB (National Economic and Social Development Board). (2017). *Thailand SDG Indicators* (in Thai). [online] Retrieved from [http://sdgs.nic.go.th/SDG1\\_2\\_1.html](http://sdgs.nic.go.th/SDG1_2_1.html)
- NSO (National Statistical Office). (2014). *The 2013 Labour demand of establishment survey* (in Thai). Bangkok: NSO. Retrieved from <https://bit.ly/2IEPi6M>
- OECD (Organisation for Economic Co-operation and Development). (2016). *PISA 2015 Results (Volume I): Excellence and Equity in Education*. Paris: OECD Publishing. <https://doi.org/10.1787/9789264266490-en>.
- Office of the Education Council (OEC). (2003). *Government Policies on Education During 1932-1992* (in Thai). Office of the Education Council, Ministry of Education.
- \_\_\_\_\_. (2017). *Education in Thailand* (in Thai). Office of the Education Council, Ministry of Education.
- Office of the Higher Education Commission (OHEC). (2011). *Plan to Promote the Cooperative Education in Higher Education Institute 2013-2015* (in Thai). Retrieved from [www.mua.go.th/users/bphe/cooperative/data/panning56.doc](http://www.mua.go.th/users/bphe/cooperative/data/panning56.doc)

- Patrinós, H. A., Barrera-Osorio, F. and Guáqueta, J. (2009). *The Role and Impact of Public-Private Partnerships in Education*. Washington, D.C.: The World Bank.
- Pholphirul, P. J. E. T. (2017). Educational Mismatches and Labour Market Outcomes: Evidence from both Vertical and Horizontal Mismatches in Thailand. *Education and Training*, 59(5): 534-546.
- Prasertsan, S. (2019). *SEEM: The Integration of STEM and Sufficiency Economy in Education* (in Thai). Bangkok: Thailand Research Fund.
- Reinhard, K. and Pogrzeba, A. (2016). Comparative Cooperative Education: Evaluating Thai Models on Work-integrated Learning, Using the German Duale Hochschule Baden-Wuerttemberg Model as a Benchmark. *Asia-Pacific Journal of Cooperative Education*, 17(3): 227-247.
- Sangnapaboworn, W. (2018). The Evolution of Education Reform in Thailand, in G. W. Fry (Ed.), *Education in Thailand: An Old Elephant in Search of a New Mahout*, pp.517-554. Singapore: Springer.
- Saonuan, P., Rasri, N., Pongpradit, K., Widyastari, D. A. and Katewongsa, P. (2018). Results from Thailand's 2018 Report Card on Physical Activity for Children and Youth. *Journal of Physical Activity Health*, 15(2): 417-418.
- Siam Edunews. (2018). First Graduate of the Kamnoetvidya Entered Top Schools in Thailand and Abroad (in Thai). *Siam Edunews*. Retrieved from <https://bit.ly/2IWUN0t>
- Sirindhorn, H. R. H. P. M. C. (2018). History and Development of Thai Education, in G. W. Fry (Ed.), *Education in Thailand: An Old Elephant in Search of a New Mahout*, pp. 3-32. Singapore: Springer.
- Student Loan Fund of Thailand. (2004). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1541411379>
- \_\_\_\_\_. (2006). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1541411546>
- \_\_\_\_\_. (2007). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1541411616>
- \_\_\_\_\_. (2009). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1541411702>
- \_\_\_\_\_. (2010). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1541411735>
- \_\_\_\_\_. (2011). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1541411843>
- \_\_\_\_\_. (2012). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1541411888>
- \_\_\_\_\_. (2013). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1541411951>
- \_\_\_\_\_. (2014). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1541411994>
- \_\_\_\_\_. (2015). *Annual Report* (in Thai). Retrieved from <https://www.studentloan.or.th/th/knowledge/wledge/1554288167>

- Tangkapipop, N. (2017). *The Formation of School Quality Improvement Program (sQip)*. [Press release].
- Thai Health Project. (2018). Ten Indicators on Early Childhood Health, in *Thai Health 2018*, pp. 26-27. Nakhon Pathom: Institute for Population and Social Research (IPSR), Mahidol University, Thailand.
- Thairath. (2018, April 20). Passage to Thailand 4.0, from Mahidol to Kamnoetvidya (in Thai). *Thairath online*. Retrieved from <https://www.thairath.co.th/newspaper/columns/1259327>
- The Bangkok Post. (2018, May 29). EEC Needs 30,000 Workers. *The Bangkok Post*. Retrieved from <https://www.bangkokpost.com/news/general/1474617/eec-needs-30-000-workers>
- Thomas, D. (2010). Classroom Discussion in Southeast Asia: Concerns in Thai Classrooms. *International Forum*, 13(2): 21-30.
- Tunmuntong, S. (2012). *Alternative Schools and Innovative Learning in Thailand*. Bangkok: Thailand Development Research Institute. Retrieved from <https://tdri.or.th/en/2012/10/alternative-schools-and-innovative-learning-in-thailand>
- UNESCO (United Nations Educational, Scientific and Cultural Organization). (2019). *Institute for Statistics*. [online] Retrieved from <http://data.uis.unesco.org>
- UNICEF (United Nations Children's Fund). (2017). *Overview: Thailand's Education*. Retrieved from [https://web.archive.org/web/20171114075040/https://www.unicef.org/thailand/education\\_303.html](https://web.archive.org/web/20171114075040/https://www.unicef.org/thailand/education_303.html)
- World Bank. (2015). *Wanted: A Quality Education for All*. Bangkok: World Bank.
- \_\_\_\_\_. (2016). *Thailand Economic Monitor: Service as a New Driver of Growth*. Washington, D.C.: World Bank Group. Retrieved from <http://pubdocs.worldbank.org/en/660991482204992792/TEM2016-Services-as-a-New-Driver-of-Growth.pdf>
- \_\_\_\_\_. (2019). *Data Bank: World Development Indicators*. [online] Retrieved from <https://databank.worldbank.org/source/world-development-indicators>
- \_\_\_\_\_. (2019a). *Human Capital*. Retrieved from <http://www.worldbank.org/en/publication/human-capital>
- \_\_\_\_\_. (2019b). *Thailand Economic Monitor: Inequality, Opportunity and Human Capital (Vol. 2)*. Washington, D.C.: World Bank Group. Retrieved from <http://documents.worldbank.org/curated/en/154541547736805518/pdf/Thailand-Economic-Monitor-Inequality-Opportunity-and-Human-Capital.pdf>
- World Economic Forum. (2018). *The Future of Jobs Report 2018*. Geneva: World Economic Forum.

## CHAPTER 4

- Bopp, M., Braun, J., Gutzwiller, F. and Faeh, D. (2012). Health Risk or Resource? Gradual and Independent Association Between Self-Rated Health and Mortality Persists Over 30 Years. *PLoS One*, 7(2): e30795, <http://dx.doi.org/10.1371/journal.pone.0030795>



- Chamchan C., Jaratsit S. and Loyfah N. (in press). Study of Intergenerational Transfer Account in Context of Population Ageing in Thailand (in Thai). Research Report. Institute for Population and Social Research (IPSR), Mahidol University, Thailand.
- Foundation of Thai Gerontology Research and Development Institute. (2014). Situation of the Thai Elderly Report 2014. Bangkok: Amarin Printing & Publishing Public Co. Ltd.
- \_\_\_\_\_. (2016). Situation of the Thai Elderly Report 2016. Bangkok: Printery Co. Ltd.
- \_\_\_\_\_. (2017). Situation of the Thai Elderly Report 2017. Bangkok: Deuan Tula Printing House.
- Government of Thailand. (2018). Thailand National Report Mid-Term Review of the Sixth Asian and Pacific Population Conference organized by UNFPA, UNESCAP, APPC. Unpublished.
- Knodel, J., Teerawichitchainan, B., Prachuabmoh, V. and Pothisiri, V. (2015). The Situation of Thailand's Older Population: An Update based on the 2014 Survey of Older Persons in Thailand. Chiangmai: HelpAge International.
- Teerawichitchainan, B., Pothisiri, V., Knodel, J. and Prachuabmoh, V. (2019). Thailand's Older Persons and Their Wellbeing: An Update based on the 2017 Survey of Older Persons in Thailand. Chiangmai: HelpAge International.
- National Commission on the Elderly, Ministry of Social Development and Human Security. (2014). The Second National Plan for Older Persons (2002-2021), 1st Revision 2009.
- \_\_\_\_\_. (2018). The Second National Plan for Older Persons (2002-2021), 2nd Revision 2018.
- National Strategy Secretariat Office. (2018). National Strategy (2018-2037). Bangkok: National Economic and Social Development Board (NESDB).
- NESDB (National Economic and Social Development Board). (2013). Population Projections for Thailand 2010-2040. Bangkok: NESDB.
- \_\_\_\_\_. (2017). The 12th National Economic and Social Development Plan (2017-2020). Bangkok: NESDB and Prime Minister Office.
- NSO (National Statistical Office). (1995). Report on the 1994 Survey of Older Persons in Thailand. Bangkok: NSO.
- \_\_\_\_\_. (2008). Report on the 2007 Survey of Older Persons in Thailand. Bangkok: NSO.
- \_\_\_\_\_. (2015). Report on the 2014 Survey of Older Persons in Thailand. Bangkok: NSO.
- \_\_\_\_\_. (2018). Report on the 2017 Survey of Older Persons in Thailand. Bangkok: NSO.
- United Nations. (2002). Report of the Second World Assembly on Ageing. Retrieved from <http://www.un.org/swaa2002/documents.htm>
- \_\_\_\_\_. (2019). World Population Prospects: The 2019 Revision.
- \_\_\_\_\_. (2017). Addressing the Challenges of Population Ageing in Asia and The Pacific: Implementation of the Madrid International Plan of Ageing.

UNFPA (United Nations Population Fund). (2006). Population Ageing in Thailand: Prognosis and Policy Response. Bangkok: UNFPA.

## CHAPTER 5

Alcocer, J. (2017, September 18). Issue of Gender in Workplace Hotting Up. The Bangkok Post. Retrieved from <https://www.bangkokpost.com/business/1326399/issue-of-gender-in-workplace-hotting-up>

Chandoevrit, W. and Phatchana, P. (2019, March 27). Addressing the Male-Biased Gender Health Gap. The Bangkok Post. Retrieved from <https://www.bangkokpost.com/opinion/opinion/1651764/addressing-the-male-biased-gender-health-gap>

Chuemchit, M., Chernkwamma, S., Somronthong, R. and Spitzer, D. L. (2018). Thai Women's Experiences of and Responses to Domestic Violence. *Int J Womens Health*, 10: 557-565, <https://dx.doi.org/10.2147%2FIJWH.S172870>

Fernquest, J. (2016, February 12). Older people work longer in rapidly ageing Thailand. The Bangkok Post. Retrieved from <https://www.bangkokpost.com/learning/learning-news/862416/older-people-work-longer-in-rapidly-ageing-thailand>

Government of Thailand. (2014). Government of Thailand's National Review Implementation of the Beijing Declaration and Platform for Action (1995) and the Outcomes of the Twenty-Third Special Session of the General Assembly (2000) in the context of the twentieth anniversary of the Fourth World Conference on Women and the adoption of the Beijing Declaration and Platform for Action 2015.

\_\_\_\_\_. (2018). Thailand National Report Mid-Term Review of the Sixth Asian and Pacific Population Conference organized by UNFPA, UNESCAP, APCC. Unpublished.

Harkins, B. (Ed.). (2019). Thailand Migration Report 2019. Bangkok: UN Thematic Working Group on Migration in Thailand.

International Medical Advisory Panel (IMAP). (2018). Statement on Sexual and Reproductive Health and Rights of a Fin. Retrieved from <https://www.ippf.org/sites/default/files/2018-03/IMAP%20Statement%20-%20SRHR%20of%20the%20ageing%20population.pdf>

Institute for Population and Social Research (IPSR). (2019). Mahidol Population Gazette. Population of Thailand, 2019 (Vol.28: January 2019). Retrieved from <http://www.ipsr.mahidol.ac.th/ipsrbeta/en/Gazette.aspx>

Jones, G. (2019). Ultra-Low Fertility in East Asian Countries: Policy Responses and Challenges. *Asian Population Studies*, 15(2): 131-149.

Limwattananon, S., Tangcharoensathien, V. and Prakongsai, P. (2010). Equity in Maternal and Child Health in Thailand. *Bulletin of the World Health Organization* 2010, 88: 420-427.

- Ministry of Foreign Affairs of Thailand. (2017). Sufficiency Economy Philosophy: Thailand's Path towards Sustainable Development Goals. Unpublished. Retrieved from [https://data.opendevelopmentmekong.net/dataset/ae9eb825-d327-4953-ab65-10060cd96ffc/resource/adacab88-fcf3-4cf0-8751-7363ba26afee/download/sep\\_thailand\\_path\\_towards\\_sdgs\\_2.pdf](https://data.opendevelopmentmekong.net/dataset/ae9eb825-d327-4953-ab65-10060cd96ffc/resource/adacab88-fcf3-4cf0-8751-7363ba26afee/download/sep_thailand_path_towards_sdgs_2.pdf)
- \_\_\_\_\_. (2018). Thailand's Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development, June 2018. Unpublished.
- National Public Relations Department. (2015). National Savings Fund to Provide Social Insurance for Self-Employed People. Retrieved from [https://thailand.prd.go.th/ewt\\_news.php?nid=2076&filename=index](https://thailand.prd.go.th/ewt_news.php?nid=2076&filename=index)
- NESDB (National Economic and Social Development Board). (2017). 12th National Economic and Social Development Plan.
- Office of the Education Council (OEC). (2009). Proposals for the Second Decade of Education Reform (2009-2018). Bangkok: OEC, Ministry of Education.
- Phijaisanit, E. (2016). Early Retirement Decisions and Social Security Pension Fund in Thailand: A Monte Carlo Approach to Fiscal Implications. *Institutions and Economies* (formerly known as *International Journal of Institutions and Economies*), Faculty of Economics and Administration, University of Malaya, 8(1): 62-83.
- Saejeng, J., Siraprapasiri, T., Chunin, R. and Thongtumrong, S. (2011). A Research Project on Management of the National Family Planning for Thailand. Nonthaburi: Bureau of Reproductive Health, Department of Health, Ministry of Public Health.
- School of Global Studies, Thammasat University. (2015). Situational Analysis of Young People at High Risk of HIV Exposure in Thailand: Synthesis Report. Retrieved from [https://www.unicef.org/infobycountry/files/UNICEF\\_study\\_on\\_HIV\\_infection\\_among\\_young\\_people\\_FINAL\\_ENGLISH.pdf](https://www.unicef.org/infobycountry/files/UNICEF_study_on_HIV_infection_among_young_people_FINAL_ENGLISH.pdf)
- Suphanchaimat R, Wisaijohn T, Thammathacharee N, Tangcharoensathien V. (2013). Projecting Thailand Physician Supplies Between 2012 and 2030: Application of Cohort Approaches. *Hum Resour Health*, 2013(11): 3. Retrieved from <https://improvingphc.org/promising-practices/thailand>
- Straits Times. (2018, December 14). Thailand's Islamic Council Bans Marriage of Children Under 17. *The Straits Times*. Retrieved from <https://www.straitstimes.com/asia/se-asia/thailands-islamic-council-bans-marriage-of-children-under-17>
- Tangmunkongvorakul, A., Banwell, C., Carmichael, G., Utomo, I. D., Seubsman, S., Kelly, M. and Sleigh, A. (2012). Use and Perceptions of Sexual and Reproductive Health Services among Young Northern Thai People. *Southeast Asian J Trop Med Public Health*, 43(2): 479-500. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3732782>

- Tangcharoensathien, V., Chaturachida, K. and Im-em, W. (2015). Commentary: Thailand: Sexual and Reproductive Health Before and After Universal Health Coverage in 2002. *Global Public Health*, 10(2): 246-248. <http://dx.doi.org/10.1080/17441692.2014.986166>
- Tangcharoensathien, V., Prakongsai, P., Limwattananon, S., Patcharanarumol, W. and Jongudomsuk, P. (2009). From Targeting to Universality: Lessons from the Health System in Thailand, in Townsend P. (Ed.), *Building Decent Societies: Rethinking the Role of Social Security in Development*.
- Thaiprayoon, S. and Wibulpolprasert, S. (2017). Political and Policy Lessons from Thailand's UHC Experience. Retrieved from <https://www.orfonline.org/research/political-policy-lessons-thailand-uhc-experience>
- UNICEF (United Nations Children's Fund) and Ministry of Education. (2016). Review of Comprehensive Sexuality Education in Thailand. Retrieved from [https://www.unicef.org/thailand/sites/unicef.org.thailand/files/2018-08/comprehensive\\_sexuality\\_education%20EN.pdf](https://www.unicef.org/thailand/sites/unicef.org.thailand/files/2018-08/comprehensive_sexuality_education%20EN.pdf)
- UNFPA (United Nations Population Fund). (2015). *The State of Thailand's Population 2015: Features of Thai Families in the Era of Low Fertility and Longevity*. Bangkok: UNFPA.
- \_\_\_\_\_. (2016). *Sustaining Progress on Population and Development. 20 Years after Cairo*. [Draft].
- UNFPA (United Nations Population Fund) and NESDB (National Economic and Social Development Board). (2011). *Impact of Demographic Change in Thailand*. Bangkok: UNFPA.
- Virani, S., Bilheem, S., Chansaard, W., Chitapanarux, I., Daoprasert, K., Khuanchana, S., Leklob, A., Pongnikorn, D., Rozek, L.S., Siritarechakul, S., Suwanrungruang, K., Tassanasunthornwong, S., Vatanasapt, P. and Sriplung, H. (2017). National and Subnational Population-Based Incidence of Cancer in Thailand: Assessing Cancers with the Highest Burdens. *Cancers (Basel)*, 9(8): 108, <https://dx.doi.org/10.3390/cancers9080108>
- World Bank. (2016). *Closing the Health Gap for the Elderly: Promoting Health Equity and Social Inclusion in Thailand*. Bangkok: World Bank Group.
- Yamnoon, S. (n.d). Thailand's Perspective on Lifelong Learning. PowerPoint Presentation. Retrieved from [http://www.mua.go.th/prweb/pr\\_web/data\\_pr/data\\_sumate\\_52/Lifelong%20Learning.pdf](http://www.mua.go.th/prweb/pr_web/data_pr/data_sumate_52/Lifelong%20Learning.pdf)

