

The disappearing workforce?

Why countries in Southeast Asia need to think about fertility rates before it's too late

A report by The Economist Intelligence Unit



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WHY COUNTRIES IN SOUTHEAST ASIA NEED TO THINK ABOUT FERTILITY RATES BEFORE IT'S TOO LATE

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About this report

This report aims to understand the factors behind declining birth rates in Southeast Asia and examine what policymakers can do to address the issue. We focus mainly on three Southeast Asian countries: Thailand, Vietnam and Malaysia. For each country we investigate how they are managing their falling fertility levels and provide recommendations for how governments in the region might improve relevant policies: what can policymakers do to stop or maybe even reverse the current trend? We also review the global evidence-base on the effectiveness of family friendly policies and ART (assisted reproductive technologies), with a focus on evidence relevant to the region.

The Economist Intelligence Unit carried out a literature review on fertility rate interventions in Thailand, Vietnam and Malaysia and conducted interviews with local experts. We would like to thank the following individuals for sharing their insights and experience.

Thailand:

- Chanwit Wasanthanarat, Director, Thai Health Promotion Foundation
- Kamthorn Pruksananonda, Associate Professor, Director of Chula IVF, Department of OB/GYN, Chulalongkorn Hospital
- Rossarin Gray, Associate Professor, Director of Institute for Population and Social Research, Mahidol University
- Sorapop Kiatpongsan, Assistant to the President for Research and Innovation, Faculty of Medicine and Sasin School of Management, Chulalongkorn University
- Vipap Prachuabmoh, Associate Professor, Dean of College of Population Studies, Chulalongkorn University

Malaysia:

- Eeson Sinthamoney, President of Obstetrical and Gynaecological Society of Malaysia, Medical Director and Fertility specialist, Sunfert International Fertility Centre
- Tey Nai Peng, Dr., Faculty of Economics and Administration, University of Malaya
- Wong Pak Seng, Managing Director and Fertility specialist, Sunfert International Fertility Centre
- Zainul Rashid Mohd. Razi, Professor. Dato' Dr., Universiti Kebangsaan Malaysia Specialist Centre

Vietnam:

- Nguyen Viet Tien, Professor, Deputy Ministry of Health, President of Vietnam Gynaecology and Obstetrics Association. Director of National ART
- Nguyen Thi Ngoc Phuong, Professor, President of HOSREM
- Le Quang Thanh, Director of Tu Du Hospital
- Ho Manh Tuong, General Secretary of HOSREM, Head of My Duc IVF chain
- Le Hoang, Associate Professor, Head of Tam Anh IVF center

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Some key definitions:

Total fertility rate (TFR) represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with age-specific fertility rates.

Replacement rate is the TFR at which women give birth to enough babies to sustain the population levels.

Old-age support ratio is the ratio of the number of persons aged 15 to 64 years potentially economically supporting each person aged 65 years or over.

Ageing societies have a proportion of 7-14% older persons (persons aged 65 or older).

Aged societies have a proportion of 14-21% older persons.

Executive summary

From 5.5 to 2.4, and still falling

Socioeconomic development is often found to be associated with falling birth rates, and Southeast Asia is no exception. The region has achieved remarkable economic growth in recent decades, much of it driven by its flexible and skilled work force. However, the fertility rate of Southeast Asia has drifted from 5.5 in 1970 down to 2.4 in 2015 and continues to fall. This demographic shift leads to an ageing population, with greater old-age dependency, and puts at risk the very workforce that has driven the region's economic growth. The cost of policy inaction in the field of family planning will be seen in smaller than hoped GDP figures, and proportionally rising care costs. We ask what has caused these falls in fertility rates, and what countries can do to try and turn things around.

A brief history lesson shows us that an important factor in the decline of fertility rates in many Southeast Asia countries was the adoption of family planning programmes to curb the population explosions of the 1970s. The success of these policies still linger over countries now facing the opposite demographic problem. Other factors driving the fall in fertility levels include rapid urbanization and migration from the country to the city: these shifts contribute to the higher costs of raising children and the lack of affordable housing for family building. As with the rest of Asia, women are increasingly gaining access to higher education, and consequently are postponing marriage and childbirth to pursue economic opportunities. We also find that families are shifting their focus from 'quantity' to 'quality', where a greater emphasis is placed on raising children with a better quality of life rather than the number of children. Finally, alongside these social and economic factors, biological infertility persists as well: most people in the region have a poor understanding of age's impact on fertility, or of the impact of factors such as a poor diet or smoking. People tend to underestimate age's impact on fertility and overestimate the potential of assisted reproductive technology (ART) as a solution.

The diverse fertility landscape reflects the heterogeneity of the region

The fertility landscape in Southeast Asia is complex: not only is there the high cultural and ethnic heterogeneity of the region, but also high rates of economic inequality within and between countries. These differences are reflected in different fertility rates. For instance, ethnic Malay families in Malaysia are larger as their culture favours larger families and communities, compared to the ethnic Chinese whose concern is more on family lineage. This unequal development across countries in Southeast Asia makes the creation of policy challenging, as it needs to address the diversity of peoples and cultures in the region. As most countries in Southeast Asia are developing nations, funding is also a barrier, and infertility may not be perceived as a sufficiently urgent problem.

Pro-natalist policies have been sporadically implemented, but more needs to be done

A number of Southeast Asian countries have implemented some form of pro-natalist policy. These range from parental leave entitlements to subsidies for ART to financial incentives, such as tax and cash bonuses. However, with increasing urbanisation and female participation in the labour force, more

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efforts could be made to decrease the cost of child rearing without disincentivizing work for women. Family friendly policies are needed to give greater flexibility for parents to both work and raise a family. Such policies may include the extension of parental leave to men and the improvement of workplace regulations to balance work and family duties. The provision of workplace child care would help working mothers juggle their responsibilities, while breastfeeding rooms and supplies would support new mothers—particularly in factories, where women often make up most of the workforce.

On the financial side, tax reliefs, cash incentives and child care subsidies are undoubtedly welcome by parents. However, evidence is mixed on whether they help increase fertility rates. Similarly, making ART affordable by providing subsidies is often found to increase the number of ART births, but evidence of impact on national fertility rates is lacking. Nevertheless, there is also a moral argument here: that improving accessibility to ART is the right thing to do as it offers hope for couples who would otherwise remain childless. And this comes to the heart of the conclusions we put forward: that governments should not look simply to increase their total fertility rate, but rather prioritise how they can make the country as family friendly as possible. Parenthood should be supported and celebrated, and families need to know the government is on their side.

Conclusion and recommendations

We recommend that there are four principles around which governments can build effective policy. The first is to extend family friendly policies as described above. The second it to invest in raising population awareness of fertility matters, to ensure that people are knowledgeable about family planning and fertility preservation. The third is to improve access to infertility treatment, such as ART. Fourth and finally, is the need to ensure affordable housing, in order to encourage family building. Governments need to act now.

Introduction

Fertility rates in Southeast Asia have been falling over the past 50 years. Some countries have seen a gradual decline, while in others rates have tumbled precipitously. In the 1970s, women in Southeast Asia were marrying young and bore an average of five children. Today, however, women are marrying significantly later in life and bear an average of two children.¹ While many Southeast Asian countries see their birth rates fluctuating around the replacement level of 2.1 children, it is expected that in most cases the birth rate will not remain at that level, but rather continue to decline.

Variations in fertility rate is sometimes simply due to countries being at different stages of socio-economic development. But there are other drivers. For example, to curb the population explosions of the seventies, most countries adopted family planning programmes, some more stringent than others. Alongside these policies, increased female education and labour force participation has often contributed to a delay in marriage and childbirth, leading to a reduced birth rate.

Southeast Asia has achieved remarkable recent economic growth: it is presently the sixth-largest economy worldwide, with a GDP of about 3.3% of the global total.^{2,3} By 2030, ASEAN (The Association of Southeast Asian Nations, an intergovernmental organization comprising ten countries in Southeast Asia) aspires to triple their per capita GDP, up from a current figure of \$3,000 to more than \$9,000.³ This tigerish economic growth has been driven in large part by the labour force,² and so the demographic changes associated with falling fertility levels will put ASEAN's economic and financial aspirations at risk.³

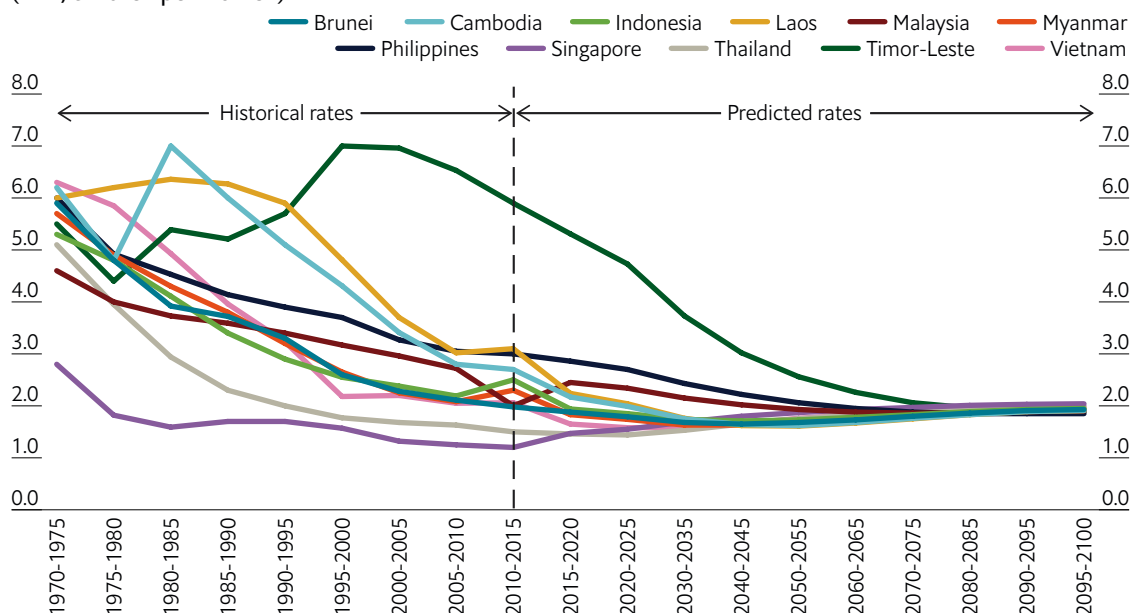
By 2050, it is estimated that 21.1% of the population in Southeast Asia will be 60 years or above; the old age support ratio will be 4.2.⁴ This means that one older person is supported by just over four people of working age—a situation that can be challenging in the absence of strong pensions or social security systems. The transition from an ageing to an aged society (i.e. from a society in which 7-14% of persons are aged 65 or older, to one where 14-21% of persons are) for countries in the region will be rapid: 22 years in Thailand and 19 years in Vietnam. Thailand will become an aged society in 2024 and Vietnam in 2039. Compare this to Sweden and France, where it took 85 years and 115 years, respectively.⁴ With limited time and resource, it will be difficult for Southeast Asian countries to adjust to the needs of an aged population. A large portion of the country's expenses will go to healthcare and infrastructure costs for the elderly, just at the time when the working-age population—needed to drive economic growth and pay their taxes—is in decline.

When it comes to policy responses to this dawning reality, the countries of Southeast Asia are starting from very different levels. Some are still officially pursuing population control measures, while others have instituted pro-natalist policies. Policies extend from basic maternity leave to incentivising schemes such as tax and cash benefits, or subsidies for child-related costs. An emerging area for policy intervention is ART (assisted reproductive technologies), which includes technologies such as hormonal medication, in-vitro fertilization and intrauterine insemination. This report examines the main drivers for falling birth rates in Southeast Asia and the current policy responses. Through a review of the evidence and interviews with local experts, we offer some thoughts and recommendations on how countries in the region may be able to curb falling fertility rates.

A history of the fall: declining fertility in Southeast Asia

The fertility rate of Southeast Asia was 2.4 in 2015, falling from 5.5 in 1970.⁵ Although the region's current fertility rate is slightly above the replacement rate of 2.1, it is projected to fall to the replacement rate by 2030.⁵ However, history shows that countries do not settle at 2.1, but rather that fertility levels continue to decline. Out of the ten ASEAN countries, the fertility rate of six countries has already fallen to below replacement level. The remaining four—Cambodia, Indonesia, the Philippines and Laos—remain above 2.1.⁶ Of our three case study countries, the fertility rates of Malaysia, Vietnam and Thailand in 2017 were 1.90, 2.04 and 1.58, respectively.^{7,8,9}

Figure 1. Total fertility rate of Southeast Asia countries from 1970 to 2100
(TFR; children per women)



Source: United Nations Population Division, 2010.¹⁰

The rate of fertility decline is not constant across countries, due to them being at different stages of demographic transition, although the trend is clear (**Figure 1**). There are a number of reasons why rates are falling.

Family planning programmes

National governments have had varying perceptions of fertility issues; these perceptions have shaped policies (**Table 1**). For example, in the 1970s and 1980s fertility reduction was an important aim for Thailand, Vietnam, Indonesia and Singapore: in these countries, family planning programmes advocated strongly for a small family size.¹ Governments in the Philippines saw things differently, resulting in weak family planning efforts.^{11,12} Anti-natalist policies were delayed in Cambodia, where the family planning program was only introduced in 1995 due to many years of unrest during the Khmer

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Rouge period.¹⁶ In contrast, Malaysia took a pro-natalist stance in 1982 and never had a policy to limit family size.¹

Table 1. Brief history of family planning programmes and policies for selected Southeast Asian countries

Country	Year Family Planning Program started	Policy	Period of significant policies	Objectives and action taken
Thailand	1970	National Family Planning Program	1970 – 1996	Population growth rate reduction. Promotion of contraceptives and small family size
			1997 – 2011	Maintaining fertility rates at replacement levels
			2011 – present	Prevent falling fertility rate by introducing pro-natalist policies
Vietnam	1975	Population Policy	1975 – 1983	Promotion of two-to-three child policy
			1993 – 2000	Adoption of National Family Planning Policy that include one-to-two child policy to reduce fertility rate to 2.9 by 2000
			2001 - present	Decreasing fertility to replacement level
Indonesia	1967	Family Planning Programme	1967 – present	Establishment of the National Family Planning Institute to promote fertility welfare
Singapore	1966	Old Population Policy	1972 - 1984	'Stop at Two' policy - Anti-natalist measures such as incentives for small families and disincentives for large families
		New Population Policy	1987 - 2000	'Have three or more if you can afford it' policy - Pro-natalist policies to promote more births
		New Initiatives	2001 - present	Implementation of Marriage and Parenthood package focusing on promoting work-life harmony and family-friendly work practices, with financial incentives such as the Baby Bonus Scheme and tax rebates
Cambodia	1995	Birth Spacing Policy	1995 – present	To reduce undesired pregnancies and maternal and new-born mortality by promoting maternal and child health through greater birth intervals

Rapid urbanization and migration

Southeast Asia has seen rapid urbanisation and development. Migration into cities is often attractive to people in pursuit of economic opportunities; earning a higher salary and achieving—the theory goes—a better standard of living. However, city life comes with a high cost of living, and raising a child in the city is more expensive than in rural areas. Therefore, you need a yet higher salary. This increased outlay has invariably necessitated a dual-income family unit, in order for its members to maintain an acceptable standard of living. Because many women find themselves working outside the home to earn a paid wage, they face conflicting roles between work and family.

Besides within-country migration, there is increasing migration by women from rural areas to other countries, especially for low skilled jobs such as domestic work.¹³ These migrants are hired on a work permit, and are less eligible for social protection coverage and face more vulnerability in their employment.¹⁴ Pregnancy for these migrant female employees would result in job loss and they would likely be forced to return to their home countries.¹³

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Urbanisation is also closely intertwined with modernisation. This has brought about the availability of contraceptives, which has played a big role in declining fertility.⁶ To curb the earlier population explosion, family planning programmes in the 1970s encouraged the use of contraceptives.¹ Contraception provided a solution for couples to have their desired number of children, giving them more control of the family size that they wanted.

A lack of affordable housing

Another inevitable consequence of rapid urbanisation is the resulting squeeze on housing stock. In Thailand for example, rural migrants find their new living places smaller, while their daily cost of living rises; this combination means that many migrants are unable to bring their children with them to the city.¹⁵ As a consequence of this, the United Nations reports that the number of skipped generation households—where grandparents find themselves raising grandchildren with little or no input from the parents—has doubled in the past 25 years, mostly in the rural parts of Thailand.¹⁶

In Hong Kong, research has suggested that there is a negative correlation between housing prices and fertility: this may help to explain the region's 65% decrease in fertility rates over the past four decades.¹⁷ House prices throughout Southeast Asia continue to rise; indeed, Dr Kiatpongsan from Thailand highlighted that “the high cost of housing is a financial difficulty for couples trying to manage their work and build a family. Most couples would want to be financially ready before they think about having children.” This isn't only an issue in Southeast Asia. Haghdoust and colleagues found that policy makers in Iran perceived high housing prices as an obstacle to marriage¹⁸, while a global review of high-income countries found that increasing affordable housing was a way to address declining birth rates.¹⁹

Increasing education of women

Improvements in women's education has increased female participation in the workforce, meaning that many women postpone marriage and childbirth in order to pursue economic opportunities. Professor Prachuabmoh observed that “women are delaying marriage and studying longer.” With more education, more women work, but professional and maternal roles are sometimes proving incompatible.⁶ Women engaged in formal, particularly graduate-level professions tend to delay marriage and childbirth more than women working in the informal sector.²⁰

The impact of women's education on fertility has been widely studied in Malaysia since 2002. Using national data from 1980 to 2012, it was calculated that for each 10% increase in female participation in the workforce, fertility rates decreased by between 3.3 to 7.3%, while for each 10% increase in female education, fertility rates fell by between 0.4 to 2.1%.²¹ Educated women also tend to desire a smaller family size. According to Dr Tey, the degree of education of wives “showed the sharpest differentials in family size distribution”. A study from 2002 showed that more than 50% of women without schooling or only primary education have five or more children, while this is the case for just 18.4% of women with tertiary education.²² While Malaysia's total fertility rate has declined since then, the proportional differences between more and less educated women have likely remained similar.

From quantity to quality

A chief reason for the desire for a smaller family size is the shift from ‘quantity’ to ‘quality’. The ‘quality-quantity trade off’²³ describes how some couples are concentrating their finances to ensure their children want for nothing; placing more importance on producing children with a better quality of

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life rather than the number of children.⁶ The higher cost of education, and the high opportunity cost of women's time due to greater employment opportunities and increased cost of living, means that more couples are thinking quality over quantity.²¹ Dr Hoang from Vietnam pointed out that "raising children with a good quality of life has become a challenge for parents; far from the usual concerns about providing basic needs and resources for their children." This observation was also mentioned by Professor Zainul from Malaysia: "most people emphasize on quality and not quantity to ensure that their child grows up in a stable environment with good education. To do that, proper contraception becomes part of their lives. More time can be devoted to the first child before the next one."

Poor understanding of how fertility declines with age

Awareness of how fertility declines with age is poor in Southeast Asia. Most of our commentators observed that the majority of the region's population underestimate age's impact on fertility and overestimate ART as a solution for their infertility issues. It was argued that people needed to have a better understanding of the disadvantages of both 'too early' childbearing and 'too late' family building.²⁴ Dr Phuong highlighted that the key to preventing infertility is to educate young couples in Vietnam about how fertility declines with age, and encourage them to seek professional help after a year of marriage if they are unsuccessful in getting pregnant. Dr Pruksananonda, from Thailand, informed us that "working women are delaying marriage and childbirth because they do not recognise the higher risk of chromosomal abnormalities and the reduced chances of pregnancy as they age". Similarly, Dr Thanh, from Vietnam, commented that "people are not very aware about reproductive issues, infertility and the reasons for infertility. More education is needed on this to help families improve their family planning."

Rising infertility

Partly because of this poor awareness, rates of infertility are on the rise for both males and females. Infertility is partly driven by lifestyle and environmental factors, such as a poor diet and smoking, but also of course, age.²⁵ For females in particular, an important predictor of subfertility is age when embarking on a first pregnancy.²⁵ The likelihood of infertility increases gradually with age, but then starts to significantly rise at around the age of 32 (**Figure 2**).²⁶ At 37 years of age, the rate of increase accelerates further, accompanied with poor oocyte quality.²⁶ Dr Sinthamoney from Malaysia remarked that "infertility rates are on the rise for the simple reason that women are delaying childbirth, especially in the educated urban population".

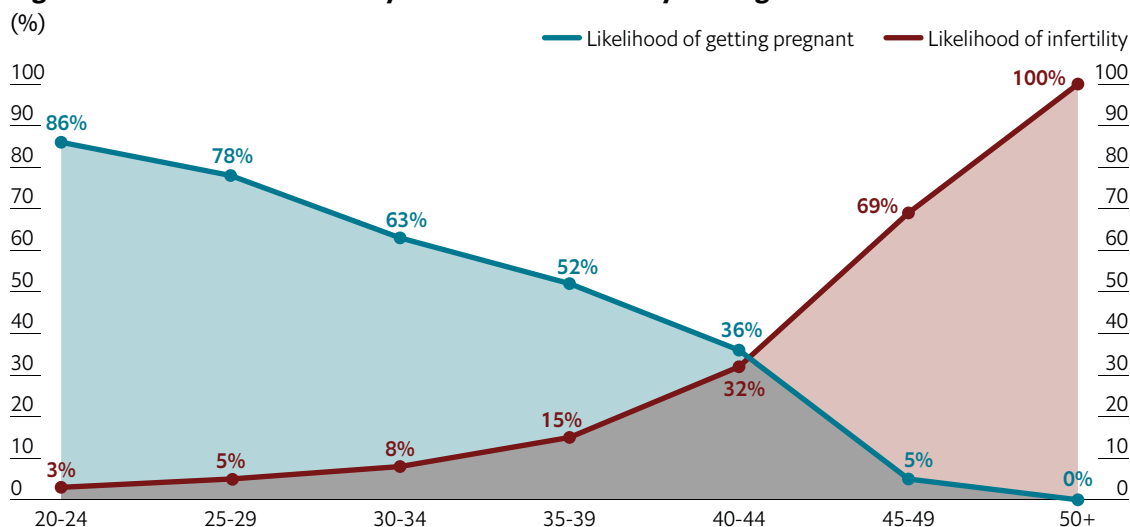
Infertility is an issue for men too. Subfertility due to the number, motility and abnormality of sperm are being increasingly observed by Professor Zainul in his fertility clinic in Malaysia. He also notes that "the WHO has decreased the standards of sperm count over the years to accommodate for male subfertility".

Infertility is often not recognised as a medical illness and hence tends not to be reimbursed or covered under health insurance. Payment for infertility treatment is therefore largely out of pocket, and its high cost can be a barrier to access. Dr Pruksananonda from Thailand notes that patients who seek treatment for gynaecological diseases do not mention their concerns about infertility to physicians because "any mention of infertility in their medical history will be used to reject reimbursement by insurance companies as it is not considered as a disease."

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Figure 2. Likelihood of infertility increases dramatically with age



Source: Khatamee & Rosenthal, 2002.

Gynaecological diseases such as polycystic ovary syndrome, endometriosis and presence of fibroids are commonly found in women with fertility problems; their treatment can increase the chance of pregnancy.²⁵ However, Dr Pruksananonda pointed out that treatment varies depending on whether the patient intends to try for a child. "Some physicians would use conventional, conservative methods for treatment—that do not aid pregnancy—if the woman does not mention her intent of getting pregnant." But mentioning an intention to get pregnant may put in jeopardy reimbursement claims. It's a vicious cycle.

Cultural and economic diversity across the region

Policies to halt or reverse declining fertility rates will vary different across the region. After all, Southeast Asia is a complex region and no one approach is likely to fit all countries. While falling fertility rates can be attributed to factors within countries, there are also regional drivers. We describe here some key commonalities, and differences, across the region, and how they affect fertility rates.

Cultural differences between countries

Southeast Asia is a region of high cultural and ethnic heterogeneity, where multiple cultural and religious factors influence family structure and family planning policies. Dr Sinthamoney commented that “family size has both a cultural and educational component”. For instance family lineage is important for the ethnic Chinese in Malaysia, and so more families are predominately concerned about the gender of their children (the United Nations reports that China has the highest sex ratio of 116 boys per 100 girls from 2010 to 2015, well above the average ratio of 104 boys per 100 girls).⁵ On the other hand, ethnic Malay families are relatively large because their culture favours larger families and communities. Cultural factors however are being weakened by educational gains: Dr Sinthamoney added that “when people become more educated, they realised that it is difficult to manage a large family and they prefer to control their family size”.

Religious diversity also plays a role. The contraceptive prevalence rate in the Philippines increased at a much slower pace over the decades, with low family planning efforts due to strong opposition from the Catholic churches.⁶ Malaysia on the other hand took a pro-natalist stance, and fertility rates are highest in states that are governed by Islamic parties with the most pro-natalist teachings.²² Indeed, uptake of contraception has varied among Southeast Asia countries, with some countries achieving high contraceptive uptake—and therefore lower fertility rates—faster than others.

Southeast Asia is still perceived to be a male dominated society. There remains a lack of male participation in most households, despite the improved socioeconomic status of females across the region. Dr Tey highlighted that Malaysia has a “low female participation in the workforce” of 54.8%,²⁸ the lowest in Southeast Asia (Cambodia has the highest, at nearly 80%).²⁹ In addition, Professor Prachuabmoh from Thailand commented that “women are in the sandwiched generation, who have to take care of their children and older parents” making it difficult for women to juggle both their jobs and the domestic chores. Dr Phuong also highlighted that “many women in Vietnam do not expect the men to share all the domestic chores and are contented if they are willing to help”. Professor Prachuabmoh is concerned that the unequal division of labour in the household will be a “conflicting issue with the expectations of women who have a higher education”; she had conducted a study on gender roles in Thai families and noted that “women expect that the household chores should be shared with their husbands”. Many commentators agree that the ongoing lack of recognition in Southeast Asia of gender inequality in the household and workplace would exacerbate fertility decline.

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High inequality within and across countries

Economic inequality is common within and across the countries of Southeast Asia, and often correlates with rural and urban areas, and sometimes cultural and ethnicity differences. This pattern of highly unequal development across a country makes it challenging for policy making to address the needs of the various groups in the population. Professor Tien from Vietnam points out that “population policies can be difficult to design because if too many resources are diverted to support one group of people, other parts of the population may feel neglected.” As most Southeast Asia countries are developing nations, funding is a barrier to implementing multiple policies at the same time. Professor Prachuabmoh highlights that “the demographic transition of Thailand is like that of developed countries. Thailand has a low fertility rate and is moving towards an ageing society, but it is still a developing country.” She further adds that, “unlike other wealthier countries that are able to provide welfare for their people, resources are limited in Thailand. We do not have sufficient welfare funding to support everybody on every issue.” Dr Thanh from Vietnam expressed a similar view when explaining the delay of implementing pro-natalist policies: “infertility is not a critical problem to solve immediately because most developing countries are busy dealing with urgent healthcare problems such as infectious diseases or primary healthcare access.”

Unequal development within a country also reveals the limitation of total fertility rate as a national level measure of fertility. As highlighted by Dr Kiatpongsan from Thailand, “total fertility rate as one number cannot capture the fertility landscape across the country.” Decisions about family planning differ between the rural and urban areas, driven by unequal economic and social development. Rural areas tend to have higher birth rates and fewer infertility issues compared to urban areas.

The policy response

Many policies have been tried, and sometimes abandoned or even reversed, in countries across Southeast Asia. We describe an overview of initiatives across the region.

Parental leave

Maternity protection and parental leave entitlements ensure basic rights to maternity leave and access to medical care, as well as protection against discrimination, dismissals and loss of income during maternity leave.¹³ Maternity protection is legislated in the labour and employment acts in all countries, although the duration of maternity leave varies. The minimum legislated duration of maternity leave for Malaysia, Thailand and Vietnam is 60 days, 90 days and 6 months, respectively.¹³ Maternity leave entitlement also varies with the number of previous births the woman has had: leave is applicable for up to five births in Malaysia or two births in Thailand; there is no limit in Vietnam.¹³ However, employers may choose to grant extra maternity leave if they wish to do so.

The extension of leave to fathers signifies that men should be involved in child rearing.^{1,30} However, paternity leave is limited in many countries. And when available, length of leave, and whether it is paid or unpaid, varies. Myanmar and Singapore offer the longest paid paternity leave of two weeks in the region,³¹ while in Cambodia, there are no specific paternity leave entitlements in the labour law.³² Paternity leave in Malaysia and Thailand is only available to civil servants, with 7 days of paid and 15 days of unpaid leave respectively,^{16,33} although some private organisations offer paid paternity leaves at their own discretion. Vietnam has a more generous paid paternity leave: all Vietnamese employees are entitled to at least 5 days, and up to 14 days of paid paternity leave.³⁵ However, the uptake of parental leave by men is low, especially when the leave is unpaid.³⁰

Tax incentives

Tax incentives are offered by higher middle-income countries such as Thailand, Malaysia and Singapore. They are designed to encourage couples to give birth, by financially aiding couples in supporting their dependent children. Some tax incentives are delivered as part of pro-natalist policies to encourage couples to have more than one child; for instance, by having higher tax concessions for subsequent children. Since 2016, a tax relief of RM2,000 per child is given to parents in Malaysia,³⁴ while parents in Singapore can claim the Parenthood Tax Rebate of S\$5,000 for their 1st child, S\$10,000 for their 2nd child, and S\$20,000 for each subsequent child.³⁶ This Parenthood Tax Rebate is part of the Marriage and Parenthood package, consisting of pro-family incentives and benefits, implemented since 2001 to support couples in building families.³⁶ In Thailand, the Ministry of Finance has recently increased the tax deduction allowance. Previously, a tax deduction allowance of 30,000 baht was granted for up to three children only. However, to encourage more births, 60,000 baht of tax deduction allowance is now granted per child.³⁷

Tax benefits can additionally be extended by organisations to create family friendly practices at the workplace. As part of their Family Friendly Policies, the Ministry of Women, Family and Community Development in Malaysia offers a 10% tax reduction per annum for up to 10 years to private sector

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employers who set up child care centres at the workplace.³³ However, tax incentives have their limitations: they are not able to incentivise non-tax payers in the informal sector and are more likely to benefit already relatively prosperous families.³⁸

Cash incentives

Cash incentives are another route for governments to provide financial support for parents—often delivered as child support grants to lower income families under a social security act. In Thailand, females insured under the act are given 13,000 baht for each delivery. Also, a monthly cash allowance of 600 baht is given per child until three years of age for families with a monthly household income lower than 3000 baht per person.¹⁶ In Vietnam, mothers receive two thirds of their income before delivery as part of the maternity benefits that is paid by the social insurance fund.¹³

Cash incentives may also be given within a pro-natalist agenda to encourage couples to have children regardless of household income. For instance, the Baby Bonus Scheme in Singapore gives out cash gifts to new parents. To encourage more births, couples receive a higher cash amount for the third and subsequent children.³⁹ Over the years, the Scheme has been enhanced with increasingly higher cash amounts. In Malaysia, cash incentives are also given to couples for babies born in certain states. Such incentives include Tabung Warisan Anak Selangor in the state of Selangor and the Anak Emas program in the state of Penang.^{40, 41} However, cash incentives are not effective for higher income families: Dr Pruksananonda commented that “providing monetary incentives will not encourage the desired group of educated working women to give birth”.

Government support for ART

Two of the three countries that are the focus of this report provide government support for ART in public hospitals: Vietnam and Malaysia. However, funding is allocated to the facilities—not to patients. This means that while government may support the construction and setting up of new facilities, there is generally no funding for people wishing to undergo ART procedures, and so patients have to pay out of pocket. Social health insurance in Vietnam does not cover infertility treatment,⁴² while in Malaysia there are just five government-funded fertility centres⁴³ and subsidies are only given for hormonal injections and drugs to stimulate the production of sperms and eggs. Government provided fertility treatment in Malaysia, when available, largely depends on availability of funds, and as pointed out by Dr Wong, “these funds are often insufficient, hence the number of IVF cycles performed in Malaysia is much less compared to other countries with a similar population size”. In Professor Zainul’s experience, “payments of ART procedures are fully out of pocket and cannot be claimed from the government”.

One of the reasons why funding for treatment tends not to be widely available in the region is that infertility is not recognised as a medical condition. Dr Pruksananonda notes that “the number of fertility clinics in public hospitals is limited due to the lack of budget as infertility is not categorised as a medical illness.” Without this funding, patients are unable to seek treatment in public hospitals and have to go to private clinics. These clinics are not only more expensive but may also have long waiting lists.

ART facilities in Thailand and Malaysia are dominated by the private sector, serving a significant number of international patients; along with Singapore, they are popular medical tourism destinations.⁴⁴ In recent years, the Malaysian government has increasingly recognised the potential of fertility treatment for the development of their medical tourism sector.⁴⁵ ART procedures in Vietnam

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are mostly limited to the public sector. This is largely due to the restriction of privatization of the medical services industry.⁴⁶ Dr Tuong highlighted that “Vietnam has around 30 IVF centres, and the IVF programmes are centred around providing affordable services for the local population, as most IVF cycles are performed in public hospitals.” IVF programmes started in 1997 in Vietnam, and “brought happiness to many struggling couples by enabling them to conceive children” as commented by Dr Phuong.

Looking ahead, Dr Sinthamoney commented that public funding of infertility treatments would prompt the opening of more fertility clinics in Malaysia. These in turn would help improve access for people living in suburban or rural areas: “when it is funded, you will see more equitable provision of healthcare”. Additionally, Dr Wong is confident that “there will definitely be an increase in fertility treatment with ART in Malaysia even if the subsidies are not full, and may be only used for a few cycles, or if patients are allowed to use their provident funds.” At the moment, the Employees Provident Fund (a compulsory savings plan for private sector workers in Malaysia) cannot be withdrawn to offset the cost of ART services, with most people currently paying out of pocket for ART. While commentators agreed that funding is important, it needs to be considered within the wider package of healthcare services. For example, while Dr Kiatpongsan in Thailand said that “people should be given the right to build a family, and the government should support those with biological difficulties in getting pregnant”, he also stressed that “unlimited access to ART should be not given to everyone”.

A role for the private sector?

Responsibility for creating a family friendly environment does not rest solely on the state, and companies should be encouraged to support their workforce. An example of what can be done can be found in Thailand, where a computer hardware manufacturer has a workforce of about 90% women. The company has supportive maternity benefits and policies, in addition to those laid out in the labour law. For instance, workers can take

an additional 60 days paid advanced leave, on top of the 90 days maternity leave. In addition, the company has a policy for pregnant workers to only work during office hours from 7.30am to 5pm, Monday to Friday. The manufacturer also portrays itself as a model company with breastfeeding friendly policies. Besides provision of breastfeeding rooms, breastfeeding supplies and allowing breaks for breast milk expressing, a pre-delivery training program on breastfeeding is held in the factories for expectant mothers.

Opportunities for improvement: what does the evidence say?

Southeast Asia is becoming ever-more urbanised, with increased female participation in the labour force. Support for women is therefore needed as they juggle the responsibilities of both work and home. With export-oriented growth driving economic development, the Asian Development Bank reports that the expansion of low-skill manufacturing jobs will bring about yet higher female labour force participation in developing countries.²⁹ It's been suggested that closing the gender gap between male and female labour force participation will generate a 30% increase in per capita income in a single generation.²⁹ Therefore policies are necessary to decrease both the actual- and opportunity-cost of childbirth and child rearing, without disincentivizing work for women; to allow countries to enjoy both high female labour force participation and sustainable fertility rates.²⁹

However, assessing the effectiveness of policies to increase fertility rate is challenging. Policies need to be in place for a long time before they have an impact, and any impact is likely to vary depending on ethnicity, local culture or socioeconomic status; families may respond differently to the same pro-natalist policy. While traditional policies of parental leave are still a necessity, it is likely that a combination of well-rounded policies that address the specific needs of Southeast Asia will be needed to raise fertility rates. This section aims to identify some areas of focus that need to be addressed to support this demographic and societal shift.

Parental leave for both husbands and wives to encourage equal division of work in the family

A study by Haghdoust and colleagues on policy-makers' perceptions of how to increase fertility rates in Iran emphasized the need to formulate policies around working women: policies should decrease women's workload, while ensuring maternity leave and job security.¹⁸ In Singapore, the Institute of Policy Studies reported that 94.5% of surveyed women are aware of the maternity leave benefits in the Marriage and Parenthood Package, and that these benefits have the greatest influence over women across all ages when thinking about having a child.⁴⁷ The duration of maternity leave is important for mothers; sufficient time is required for recovery and to provide care to their children.³⁰ But evidence suggests that while maternity leave cannot be too short, it should also not be too long.³⁰ Prolonging maternity leave may be unpopular among employers and jeopardize women's job security as employers may be less likely to hire married women.¹⁸ In Russia, for example, fewer mothers of children below three years of age are employed than in the past.⁴⁸ Hence, Elizarov and Levin recommend optimising the length of maternity leave to ensure job security.⁴⁸

While the length of paid maternity leave has been extended over the years, providing paid paternity leave would further encourage and underline the husbands' role in the household. Except for Singapore and Myanmar, most Southeast Asian countries do not provide paid paternity leave; or rather, the length of entitled paid paternity leave is insufficient. For men in Singapore considering becoming a father, the Institute of Policy Studies reports that the option of shared parental leave and paternity leave has the highest influence on their decision making,⁴⁷ a view echoed by Haghdoust and colleagues in Iran.¹⁸ Indeed, shared parental leave—whereby working fathers are allowed to take a portion of their wives'

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maternity leave—in addition to paternity leave, would provide couples with flexibility and encourage parental responsibility from both partners.⁴⁹ Granting infant and child care leave would also allow both parents to care and spend quality time with their children in their first few years.

Workplace regulations to help balance work and family duties

Another policy area that is worth developing further is family friendly practices in the workplace. Employment policies, such as flexibility in work hours to foster better work-life balance, would encourage mothers to stay at work.^{50,51} The fact that female employees are more interested in flexible work than their male counterparts serves to highlight the gendered division of the workforce in South East Asia, where it is the women's responsibility to sacrifice her career and take care of the home.⁵¹

Professor Gray from Thailand recommends that work-life balance could encourage more births because “when working mothers give birth, they need the flexibility to work and take care of their children”. In addition, Dr Tey from Malaysia emphasized the “need to cater to women's needs in the workforce, because either they quit their jobs for childbearing, or they quit childbearing”. Women working in stressful environments for longer hours have fewer children than average.²⁰

But offering flexibility is not just about looking after the home. Flexible leave was the highest ranked family friendly policy among Malaysians working in the central business region in Kuala Lumpur: respondents said it would allow more time for them to socialise and improve their social networks. Generally, flexible work arrangements improve both quality of life and contentment at a workplace, for both men and women.⁵²

However, family friendly employment policies are dependent on a supportive organisational culture.⁵⁰ Information on allowances and policies have to be made known to employees, and employers need to be supported.⁵⁰ Policies should therefore be legislated into employment law to ensure they are practised consistently across both public and private sectors. This is not presently the case: a common remark made by most respondents is that civil servants receive better welfare in central government sectors (compared to private sector employees or non-central government civil servants). Professor Prachuabmoh from Thailand commented that ‘the government must be able to incentivise employers in the private sector to give more leave for women at work’, to ensure that employees in the private sector receive the same benefits as those working for the government.

Breastfeeding support policies and child care centres at the workplace

Breastfeeding policies at the workplace provide a supportive work environment for new mothers. Breastfeeding is beneficial for the health of both mother and child, and the WHO recommends exclusive breastfeeding for six months after birth.⁵³ However, most working women discontinue breastfeeding when they return to the workforce. Provision of breastfeeding rooms, breastfeeding supplies and allowing break time for breast milk pumping are some initiatives to support new mothers and promote breastfeeding.⁵¹ Dr Wasanthanarat from Thailand believes that such initiatives are particularly important for women working in factories, compared to those holding office jobs. According to ASEAN, a large proportion of women work in the production sector, engaging in labour intensive production;¹³ in Thailand, 48% of employed women work in factories.⁵⁴

Provision of workplace child care centres would also help working mothers juggle their responsibilities. Dr Tey observed that it is a challenge for working mothers to find caregivers, while

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sending their children to child care centres may be prohibitively expensive. With more women migrating from rural to suburban and urban areas for work, Professor Gray recommends “employers to build child care centres at their workplaces, especially in the private sector; [for which] the government must provide [financial] support”. This is starting to happen, at least in the government sector: in Malaysia, a grant of RM200,000 is given to support government agencies in renovation and furnishing child care centres at their facilities.⁵³ Such centres would not only foster maternal and child bonding, but boost breastfeeding rates as well.⁵³ Indeed, a recent study in Malaysia showed that child care centre services at the workplace increased employees’ morale, improved productivity and reduced absenteeism.⁵⁰

Tax relief, cash incentives and child care subsidies

While parents, no doubt, welcome financial support through tax relief and cash incentives for childbirth, the evidence is unclear on whether they encourage individuals to have larger family sizes.⁵⁵ Gauthier and colleagues reviewed the evidence on child allowances and found that while they have an effect on the timing of births—encouraging earlier rather than later births—they did not influence the number of children.⁵⁶ Conversely, cash benefits were associated with increased fertility in Quebec, Canada, when a cash allowance of \$8,000 was initiated. An increase in fertility rate was observed with the introduction of the scheme in 1988, and a decreased with its cancellation in 1997.⁵⁷ Others have highlighted that temporary financial incentive policies are unlikely to offset the impacts of broader social and economic changes on fertility decisions.⁵⁸

Another way government can try to support families is the provision of subsidised child care. Hann and Wrohlich suggest that working mothers benefit from the provision of subsidised care as it helps them to balance their work and family responsibilities.⁵⁹ It was also found that subsidised child care helps to increase employment and working hours, particularly in the case of highly educated women.⁵⁹ Another review concluded that the provision of affordable child care reduced the longer-term financial burden on childbearing, and was therefore likely to increase fertility more than providing child subsidies.⁶⁰

While the provision of affordable child care can help parents combine work and family responsibilities, low uptake can limit its effectiveness. For example, Gauthier and colleagues observed low enrolment of young children in child care in Eastern Europe, and associated it with the need to take prolonged parental leave, which in turn reduced the demand for childcare.⁵⁵ Closer to home, while the Malaysian government enthusiastically encouraged the establishment of child care centres at the workplace for civil servants, there is a lack of child care support in the private sector.⁵⁰

Improving access to and affordability of ART

Increases in ART births tend to be associated with the introduction of subsidised ART. For example, when the Singaporean government provided subsidies for ART in 2008 as part of the Marriage and Parenthood package, ART births increased from 1.3% of the total number of births in 2006 to 3% in 2009.⁶¹ The provision of subsidized ART is particularly impactful for women in their thirties rather than twenties, as reported by the Institute of Policy Studies.⁶¹ Inhorn described how Egypt provides state subsidies and accessibility to ART, despite being a low-income country with a large population, and commended the government for its political will and pronatalist stance that helped ensure

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reproductive rights for otherwise infertile citizens.⁶² However, subsidising ART may lead to some women being caught in a 'perseverance trap', which in turn could lead to psychological and physical stress such as suffering side-effects from hormonal injections, finding their career interrupted or experiencing relationship breakdowns.⁵⁶

In Southeast Asia, the effect of ART to raise fertility is limited by geographical and economic factors. While the number of ART facilities has increased in Vietnam to meet rising demand, ART services remain unavailable in rural areas. Consequently, additional costs such as travel, accommodation and the lengthy stay for treatment limits accessibility for the majority of Vietnamese people who live in rural areas.⁴⁶ Similarly, Purvis highlighted that infertility treatment is limited to metropolitan areas in Indonesia, with specialists more likely to work in urban areas because of the opportunity for financial gains in the private sector.⁶³

Combined policies

The Institute of Policy Studies reports that maternity leave, parenthood tax and extended childcare leave are the top three most influential measures in the Marriage and Parenthood Package for both genders in Singapore.⁴⁷ However, it is noteworthy that the considerations of child bearing is different for men and women. Men tend to be more concerned about financial and work-lifestyle issues, while women are concerned about career interruption.⁴⁷

Consequently, there is arguably a need for combined policies to help address the concerns of both genders: it takes two to have a baby. While the decision to start a family inevitably lies with individual couples, packages of policies can encourage those who are hesitating to take the plunge by fostering a supportive environment for childbirth and child raising.⁵⁵

Discussion and recommendations

Many Southeast Asia countries do not yet perceive falling fertility rates as a problem. Public funds are understandably allocated to address more pressing issues: the elimination of poverty, improving population health, and providing an educated population in order to drive economic development. Hence national efforts to increase fertility rates (or prevent further decline) are the exception rather than the norm in most countries. Singapore is the notable exception here, which fell to an ultra-low fertility rate of below 1.3 in 2003.⁶⁴

The impact of falling fertility rates can clearly be seen through data from the UN Population Division. For example, in 2015, the median age of populations in Southeast Asia was 28.5; in 2100, it is predicted to be 44.5. Southeast Asia is in the process of becoming an ageing society. While countries in the region have competing priorities, the fertility status of a nation should not be neglected; only becoming a priority when fertility rates bottom out to ultra-low levels. It is important to encourage births before the workforce ages, by which time economic growth will be harder to achieve. Early intervention to encourage and support couples in childbearing will allow more time for countries in the region to achieve their development goals.

Local and global evidence suggests that a combination of cost efficient and long-term minded policies can offer the best opportunity for countries to influence their fertility rate. In the case of Southeast Asian countries, we suggest policies can be built around the following principles.

1. Extending family friendly policies

We have outlined areas that national policies in the region often lack, or only implement in a weak or partial fashion. These include matters such as parental leave for both husbands and wives; workplace regulations to help balance work and family duties; breast-feeding support policies, and child care centres at the workplace. With women taking on an increasing role in the workforce, it is important that they and their partners are supported if they aspire to be parents: they must feel not only that the state is on their side, but that it is a reliable partner. Packages of long-term initiatives should not focus on increasing the fertility rate as such—instead they should have as their goal the creation of a society in which parenthood is lauded, supported and encouraged (or where, at the very least, major hurdles for parents are lowered). Policies also need cross-party support where possible, as parents necessarily have to think long term when making the decision to have a child.

2. Raising awareness about fertility matters

An important step to curb infertility rates is to raise awareness and educate the population about fertility preservation, family planning, and the environmental and lifestyle factors which pose risks to infertility. Effort has to be made to ensure that the population are knowledgeable and able to make well-informed fertility decisions. Some examples of actions countries have taken to raise fertility awareness include:

- In Japan, the government has funded educational TV programmes and high school health textbooks since 2012 and 2015, respectively. In addition, in 2016, the local governments of Okayama and Oita

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prefectures engaged healthcare professionals to educate students in junior high, high schools and universities about fertility facts, encouraging students to think about their life plans at an earlier age. Comic strips were used to aid communication with students.⁶⁵

- In 2011, the Australian government initiated a health promotion programme, “Your Fertility” that aimed to improve awareness of factors that affects fertility, targeted at the general population as well as healthcare professionals and educators. Alongside a website and educational opportunities, the programme supports collaborations with other health-promotion organisations and universities, in order to ensure that fertility knowledge is disseminated through multiple channels. A research component to the programme helps guide its dissemination approach.⁶⁶

3. Improving access to infertility treatment

Alongside family friendly policies, countries should consider extending their funding of ART. While many countries already support the setting up of infrastructure through the funding of clinics, it's important to subsidise procedures too. Couples may have sufficient funds to pay for one cycle of ART treatment, but many successful pregnancies require two or more cycles.⁶² Our interviewees suggested that subsidies for ART should be means-tested, to prioritize need; eligibility criteria could include the age and primary or secondary infertility status of the couple. Singapore is an example of a means-tested system:

- Singapore funds both ART facilities at public hospitals and ART treatments for couples who have difficulty conceiving. For Singaporean couples, 75% of the cost of ART (up to \$7,700) is subsidized by the government.⁶⁷ Subsidies are available for a maximum of three fresh and three frozen ART cycles. Eligibility criteria include that at least one spouse must be a Singaporean citizen, below 40 years old at the start of the ART cycle, and have met the clinical requirements for ART by a fertility doctor.⁶⁷ Couples are allowed to use their employees' savings in their Central Provident Fund to pay for the remaining cost of ART cycles, or for ART treatment at private hospitals.⁶⁸

4. Housing subsidies to encourage family building

Decent housing plays a vital role in encouraging family life. Countries should consider distributing housing grants or subsidies to young couples that meet certain eligibility criteria: based on income, time since marriage and whether they're expecting a child. Another way governments can help keep housing affordable is to ensure that its citizens allocate funds to pay for their houses. The Housing Provident Fund system in China is one example of such a scheme, where funds are amassed through joint savings from both employee and employer.⁶⁹ Joint housing saving schemes would help couples shift funds from paying off their house and into child raising activities.

Turning around fertility rates in Southeast Asia will not be easy. However, it is crucial for national governments to recognise that fertility rates are falling and that this will have economic and social consequences. Birth rates are affected by multiple factors; economic, political and social, and by looking to address a wide range of issues through a combination of interventions—based around the priorities outlined above—governments and civil society can start to make countries more family friendly. Dr Kiatpongsan sums up the importance of taking action, “total fertility rate is not the end goal but part of the process, in building a better society where people are able to live happily with good well-being”.

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LONDON
20 Cabot Square
London
E14 4QW
United Kingdom
Tel: +44 (0) 20 7576 8181
Email: london@eiu.com

NEW YORK
750 Third Avenue
5th Floor
New York, NY 10017
United States
Tel: + 1 212 698 9717
Email: americas@eiu.com

HONG KONG
1301 Cityplaza Four
12 Taikoo Wan Road
Taikoo Shing
Hong Kong
Tel: + 852 2802 7288
Email: asia@eiu.com