SRH INVESTMENT FOR HUMAN CAPITAL IN MALAYSIA

An Abridged Report of Enhancing Human Capital through Sexual and Reproductive Health Investments and Family Support Policies in Malaysia
This booklet is an abridged version of the research report, “Enhancing Human Capital through Sexual and Reproductive Health Investments and Family Support Policies in Malaysia”, and was proudly re-written and produced by Malaysia-based Athena Communications & Research, commissioned by the United Nations Population Fund (UNFPA) Malaysia.

The original research report (left) was produced by Rashmi Dayalu, Maddalena Ferranna, Eda Algur, Lih Yoong Tan, Nur Fakhirna Ab Rashid, Rasha Bayoumi, and David E. Bloom, from the Harvard TH Chan School of Public Health, and was made possible through funding by the United Nations Population Fund (UNFPA) Malaysia.

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**Cover Art:** Odua Images  
**Writers:** Mohani Niza, Jamie Lim, Xavier Kong/Athena Communications & Research  
**Cover and Design:** Muhammad Isa Lim/Athena Communications & Research  
**Photos:** Annice Lyn / UNFPA
Malaysian women are not exempt. They still face issues such as maternal morbidity, poor-quality maternal care and high rates of cervical cancer. Furthermore, Malaysian families face huge economic burdens in bearing and rearing children and are not provided with adequate high-quality childcare, forcing women to stay at home to take care of their children and miss out on their career goals.

All of the examples outlined above pose significant drawbacks not only to girls, women and families alike, but to the national economy as well: in order for girls and women to contribute to the economy as well as national development, they must have optimal reproductive health to enable them to be productive.

Women’s greater economic productivity and increased labour participation as a whole will accelerate Malaysia’s progress towards achieving the Sustainable Development Goals (SDGs) – a set of 17 global goals that are essential towards the achievement of peace and prosperity for everyone on the planet – and the Twelfth Malaysia Plan (12MP), which is designed to propel Malaysia towards high-income status by the year 2025 as described in Section one of the report.

Therefore, in order to achieve these essential milestones, especially in light of the impact of the COVID-19 pandemic, Malaysia needs to invest in her women and girls now.

This booklet is an abridged form of the original report by the Harvard T.H. Chan School of Public Health, funded by the United Nations Population Fund (UNFPA) Malaysia. In the report, researchers propose that Malaysia enhance its human capital, especially within its female cohort, and increase the female labour participation rate as solutions.
Section two in this report outlines the current situation on sexual and reproductive health (SRH) and family support policies in Malaysia.

Section three recommends the conceptual framework of SRH/reproductive rights (RR) investments which can boost human capital through five ways: increased female labour force participation; increased female educational attainment; increased job experience and productivity; improvements in the health of women and their children and greater accumulation of savings.

Section four looks at the impacts of four specific SRH investments, while section five outlines their return of investment (ROI), which can be summed up briefly below.

<table>
<thead>
<tr>
<th>Policy</th>
<th>Key Benefits</th>
<th>ROI</th>
</tr>
</thead>
</table>
| Comprehensive reproductive health and social education: 5-year fully implemented PEERS CSE programme. | • Higher lifetime earnings due to lower school drop-out rate.  
• Less HIV infections among young people. | 1.13:1 |
| Human papillomavirus (HPV) screening. Elimination of cervical cancer by 2070. | • Reduced deaths from cervical cancer. | 9.6:1 |
| Family planning; satisfying all unmet needs for modern contraception within a year. | • Increased female labour force participation. | 2.2:1 |
| Integrated family planning and family support policies and satisfying all unmet needs for modern contraceptives. | • Increased female labour force participation. | 3.27:1 |

Lastly, section six of this report suggests six policy recommendations for the Malaysian government to implement by year 2025: high-quality maternal health services; family planning; comprehensive sexuality education (CSE); HPV vaccination and screening; and lastly family support policies.

The report concludes by saying that investing in SRH and family support policies will directly improve the female labour force participation (FLFP) rate and is therefore a cost-beneficial pathway to greater human capital, gender equity, and economic well-being in Malaysia.
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Malaysia has progressed, outpacing regional peers over the last five decades, indicated by positive economic, health, and educational markers.

However, Malaysia’s move to a high-income status is impeded by low labour force participation rates and persistent income inequality, despite remarkable talent potential.

For sustainable growth and post-pandemic recovery, the Malaysian Government finalised the Twelfth Malaysia Plan of 2021-2025 (12MP), which encapsulates the United Nations Sustainable Development Goals (SDG) through three dimensions.
The three dimensions in the 12MP require inclusive human capital investments for sustainable labour force participation and productivity to be prioritised, particularly for women, if economic growth is to be revitalised sustainably. Considering their higher educational attainment rates, the Malaysian female labour force participation rate (LFPR) is low when compared to other Organisation for Economic Co-operation and Development (OECD) countries.

Evidence shows the lower female LFPR contributes directly to Malaysia’s labour productivity gap, measured by the difference in GDP per person employed compared between countries. This labour productivity gap between Malaysia and other high-income countries highlights the importance of investing in and mobilising female human capital for economic growth. Coined as the “middle-income trap”, significant gaps impede the transition of upper-middle-income countries to high-income status.

Leveraging the underutilised potential of the female labour force is one of the strategic measures necessary to enhance human capital and sustain inclusive economic growth.

Malaysia’s relative income distribution is still comparable to low-middle-income countries in the region, with inequality in household income following ethnic lines and geographic variation, even after the Malaysian Government raised its poverty line income level in recognition of the higher minimally acceptable standards of living in Malaysia.

Mortality and morbidity indicators correspond with income status, leaving those in lower socioeconomic levels at a higher risk during health crises such as COVID-19, due to the added factors of physical environment and overcrowding leading to a higher rate of chronic diseases.

These social inequalities highlight the need to lighten the cost-of-living pressures for these vulnerable populations in Malaysia.
Vulnerable Populations in Malaysia

The Bottom 40 (B40)

While poverty rates tend to be higher in rural areas, rapid urbanisation needs to also invest in both the rural and urban poor.

Note: B40 is an income classification group for the bottom 40% of the population. The middle class is termed M40 (Middle 40) and the top are T20 (Top 20)

The Informal Sector

Comprised almost entirely of those with less than tertiary education. Women made up 43.7% of this sector in 2019, leaving them vulnerable to income instability and the lack of health and social benefits, especially during crises such as the pandemic.

Low-Paid and Low-to-Semi-Skilled Foreign Workers

Includes both documented and undocumented workers. They make up 15% of the Malaysian employed workforce, and have limited health, financial, and legal protections.

This report notes the benefits of inclusive investments in sexual and reproductive health (SRH) and family support policies for increasing socioeconomic well-being, which would sustainably accelerate Malaysia’s transition to high-income status.
Due to increased life expectancy and reduced fertility rates, Malaysia is expected to reach “aged country” status in the next decade when 15 per cent of the population is aged 60+.

Malaysia’s total fertility rate (TFR) has decreased across all age groups, with the largest drop among young women, aged between 20 to 24, suggesting a cultural shift with women staying longer in school and delaying marriage and childbirth.

Notable is that the Malay fertility rate is double that of either Chinese or Indians, with this gap persisting for more than a decade. This gap is linked to differences in contraceptive use and propensity to marriage among ethnic groups. With relatively higher Malay fertility rates expected in future, the Bumiputera population will age more slowly than Chinese and Indian ethnic groups.

Other demographic factors include the migration of lower-skilled foreign workers and rapid urbanisation. Malaysia’s reliance on low-paid, lower-skilled foreign workers leads to job displacement and wage suppression among the B40, and interventions are needed to help the country’s population afford the rising costs of living due to rapid urbanisation.

As such, Malaysia needs strategic sexual and reproductive (SRH) investments to properly leverage the female labour force as a sustainable driver of inclusive socioeconomic well-being.
Here we look into the current situation on policies and programmes on maternal health; family planning; HPV vaccination and screening for prevention of cervical cancer; adolescent SRH; gender-based violence (GBV) and family support investments in Malaysia.

2.1 Maternal Health

Malaysia has made significant progress in maternal health. In the past 50 years, the maternal mortality ratio (MMR) has decreased from 162 to 24 maternal deaths per 100,000 live births.

Meanwhile, 97.4% of mothers receive at least four care visits before their children’s birth, and 99% of births are attended by a skilled birth assistant.

Still, there is room for progress. The MMR and the newborn mortality rates have stagnated and even slightly increased over the past few decades. Moreover, many new mothers report health problems, such as anaemia, obesity, gestational diabetes, postnatal depression and hypertensive disease.

That said, it is not really insufficient access that prevents greater maternal health in Malaysia but poor-quality care. For example, ‘maternal near-miss’ – i.e. when a woman nearly dies but survives a complication during pregnancy, childbirth or within 42 days of termination of a pregnancy – is higher in Malaysia compared to higher-income countries, and this is due to poor-quality care.

Poor-quality care includes misdiagnosis, long waiting time, inefficient care during pregnancy check-ups, disrespectful care and lack of clear communication from healthcare providers during delivery.
Family planning - i.e. one’s human right to plan and provide for oneself and one’s family - is another aspect that Malaysia needs to pay more attention to.

Moreover, the maternal health situation in Malaysia does not take into account ‘unmet need’ - i.e. the extent a country’s health system and social conditions can support a woman’s choice to delay or limit births.

Because of low mCPR, couples face greater uncertainty regarding the timing and spacing of births. Universal mCPR policies can decrease the number of unplanned pregnancies, hence boosting women’s human capital further as they can freely enter the workforce and remain in it longer.

(Note: the more educated a woman is, the less likely she is to report an unmet need compared to a less educated woman).

Modern contraceptives include oral contraceptives, sterilisation (for males and females), intrauterine contraceptive devices, injectables, implants, condoms, and more. In Malaysia, official mCPR statistics of women only cover those who are married — unofficial statistic are higher across all women of reproductive age.)
Investments in preventing and controlling cervical cancer include HPV vaccination and screening using methods such as pap smear or detection through HPV-DNA tests. In 2010, Malaysia introduced the national HPV immunisation programme, covering roughly 90% of the targeted population.

Uptake of Malaysia’s pap smear screening programme is low though – only 36.6% of women aged 20 and older had a pap smear examination between 2016 to 2019 (the National Health and Morbidity Survey 2019).

To solve this, in 2019, the Ministry of Health (MOH) and the Ministry of Women, Family, and Community Development (MWFCD) launched a pilot programme of HPV self-sampling test as a screening tool for cervical cancer, aiming for full adoption by 2023.
Comprehensive sexuality education (CSE) for adolescents not only prevent teenage pregnancies and HIV/STIs, but also free adolescents from the cycle of poverty by preventing them from dropping out from school, hence boosting their lifetime earnings and overall wellbeing.

With that in mind, Malaysia has introduced various CSE-related policies, including the National Policy and Plan of Action in Reproductive Health and Social Education (PEKERTI), and the Plan of Action and Sexual and Reproductive Health Education (PEERS), which focus on reproductive health and CSE.

However, not many adolescents in Malaysia have even basic knowledge of sexual reproductive organs. Their knowledge of sexual intercourse is even lower. More and more adolescents in Malaysia are having sex at a young age, and less than one-third use condoms or other birth control.

### 2.5 Gender-Based Violence (GBV)

Due to their lower economic and social status, girls and women face greater violence than their male counterparts. In Malaysia, between 2010 and 2017, 22,134 children were reported to have been sexually abused, most of them girls.

Violence affects women’s and girls’ physical and mental health, even years after the violence has stopped. The economic costs to the individual and the country also increase, such as health treatment costs, legal and counselling costs, the inability to work and loss of work productivity due to injury and mental distress.

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**2018**

- Adolescent birth rate were 8.8 births per 1,000 women aged 15–19 years.
- There were 15,000 cases of child marriage.
- Since 2008, there have been an estimated 100 cases of baby dumping.
Lack of work-life balance and expensive, poor-quality childcare shut out most women from the workforce, impacting their human capital, creativity and income. **Paid parental leave** and **high-quality childcare** are therefore the two main solutions to this problem.

In Norway for example, paid maternity leave has a positive impact on areas such as maternal health, behaviour, education and wage outcomes for children, especially those from lower-income categories. Recent studies show that paid maternity leave policies are cost-effective investments for lower-middle-income countries - improving their wellbeing and promoting sustainable development.

Men also benefit from parental leave. Studies show that men who take parental leave tend to bond more with their children, while also sharing house chores more equally with their spouses. The Malaysian government has introduced a minimum of 90 days maternity leave for female workers in the public and the private sectors, along with incentives as stated in Budget 2020.

These incentives are tax and work incentives for women, especially those from the B40 income group, to encourage them to return to work. Meanwhile, a law was passed recently giving new fathers seven days of paid leave.
Strategic investments in needs-based and rights-based SRH can promote socio-economic wellbeing on the individual and collective levels via five main ways. The diagrams below chart the life course approach of these investments which are centred around the female at various stages of her life, and the outcomes of these investments.

Human Capital Investments lead to Enhanced Female Human Capital

- Reduced HIV/STIs
- Reduced Adolescent, Unplanned Pregnancies
- Reduced Cervical Cancer
- Reduced Gender-Based Violence

- Decreased Morbidity & Mortality
- Improved Family Stability & Education
- Decreased Health Costs

Results In...

- Parental Leave & Childcare
Women’s productivity at work and their earnings are greatly boosted by better educational attainment, better health and better on-the-job experience. Also, if a woman can freely decide the timing of the birth of her child, the more she is able to increase her human capital and labour earnings.

SRH investments greatly increase the savings of individuals and families alike, relieving them of unexpected expenditures related to mistimed pregnancies and health-related costs such as maternal health, cervical cancer, and so on.

#1 Increased Female Labour Participation

Difficulties in work/family balance hinder women from participating in the workplace. Better childcare policies, together with family planning interventions, thus improve women’s control over their desired number, timing and spacing of births, enabling better work/family balance. Women who previously quit their jobs now can re-enter the workforce and remain motivated to do so.

#2 Increased female educational attainment

Combined with expected wages, comprehensive sexuality education (CSE) and family planning, education can break the cycle of poverty for adolescents and women from low-income backgrounds who are at higher risk for unintended pregnancies or HIV/sexually-transmitted infections (STIs).

#3 Increased job experience and productivity

Women’s productivity at work and their earnings are greatly boosted by better educational attainment, better health and better on-the-job experience. Also, if a woman can freely decide the timing of the birth of her child, the more she is able to increase her human capital and labour earnings.

#4 Improvements in the health of women and their children

Much can be benefited from greater investments in maternal health, family planning, violence prevention, CSE and HPV prevention/screening.

#5 Greater accumulation of savings

SRH investments greatly increase the savings of individuals and families alike, relieving them of unexpected expenditures related to mistimed pregnancies and health-related costs such as maternal health, cervical cancer, and so on.
IMPACTS OF SEXUAL AND REPRODUCTIVE HEALTH INVESTMENTS

A review of relevant literature and empirical analyses on data sourced from the Department of Statistics Malaysia (DOSM) and other national surveys found a multitude of socioeconomic benefits from investments in sexual and reproductive health (SRH). This section will provide a brief overview of these benefits, which encompass five areas, namely: labour force participation, education, productivity, health, and savings.

4.1 Labour Force Participation

The number of women in the Malaysian labour force has steadily increased over time, closing the gender gap, although it has historically still lagged behind that of men. As of 2019, 55.6% of women were in the labour force (i.e. working), as opposed to 80.8% of men, according to the Labour Force Survey Report 2019.

Despite the gradual increase, the female participation rate of 55.6% is still lower than the 68% rate in high-income OECD (Organisation for Economic Co-operation and Development) countries.

The data suggest that delaying marriage and having children at a later age have contributed to higher numbers of women in the labour force. When it comes to married women who aren’t working, almost half (22%) expressed a desire to return to the workforce, if obstacles to their employability were removed.
Some of these obstacles include domestic responsibilities – housework, eldercare, and childcare, where the latter was identified as the main reason for women leaving the workforce.

It should be noted that 50.9% of married women saddled with childcare responsibilities want to go back to work, which is significantly more than those without childcare issues. This shows that better childcare policies can increase the employment rate of married women, by as much as 15%, placing it on par with high-income OECD countries.

In typically developed economies such as the US and Japan, women leave the workforce post-marriage and childbirth, but they re-enter years later.

Most Western-based studies have found that when women are able to choose when to have children, they are better able to re-enter the workforce, leading to higher female productivity and earnings.

However, this is not the case for Malaysia – since the 1980s, there has been a downward trend in female workforce participation once women marry and have children. The more children women have, the less likely they will be employed. This is even more likely for women with lower educational attainment – balancing work and family is far more difficult for them.

If we want to harness the full potential of women in the workforce, we ought to have better childcare policies to reduce the burden of childcare on women.
Key to human capital development and socioeconomic well-being is the attainment of and quality of education. Although Malaysia enjoys high levels of school completion rates, secondary school dropout rates differ amongst states, with some double that of the national average. The 5th Malaysian Population and Family Survey found that teenage pregnancy correlated with lower educational attainment. Among those between 15 - 59 years old and have been married at least once with one child, only 20% who had a child as an adolescent managed to complete at least secondary school. 65% of women who had their first child after the age of 20 managed to complete their secondary education.

Comprehensive sexuality education (CSE) is a proven and cost-effective intervention to decrease risky sexual behaviour, unintended pregnancy and the spread of STIs (sexually-transmitted infections). Malaysia’s CSE programme, PEERS (Pendidikan Kesihatan Reproduktif dan Sosial), is an evidence-based, culturally-sensitive and age-appropriate curriculum to help children understand and prepare for experiences in life that deal with various aspects of human sexuality.

Increased investments in CSEs like PEERS can help lower the school dropout rate caused by unintended pregnancies. Sadly, adolescents from low-income households are at a higher risk for unintended pregnancies and STI transmissions, which affect their educational completion and attainment. Increased investments in CSEs will have life-long positive impacts - more female adolescents can complete their education, and increase their potential earnings (across their lifetime). This would go towards helping to break the cycle of poverty.
Women with tertiary education are 20% more likely to be in the labour force than those without formal education, according to the 2018 Labour Force Survey. A 2014 World Bank study found that women in Malaysia who have higher education levels also benefit from increased wages.

### Wage Increases For Every 1 Additional Year of Studies

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Education</td>
<td>6.8</td>
<td>7.6</td>
</tr>
<tr>
<td>Secondary Education</td>
<td>12.3</td>
<td>9.3</td>
</tr>
<tr>
<td>Tertiary Education</td>
<td>23.1</td>
<td>21.8</td>
</tr>
</tbody>
</table>

Investments in Sexual and Reproductive Health (SRH) may further improve these increases as they help women reconcile work and motherhood – they are more able to be in the workforce when they don’t have unintended pregnancies, for one.

Women are more likely to be offered a job commensurate with their qualifications and experience, as well as experience career advancement opportunities and increased wages. The value of investing in women rises when perceived impediments to her participation in the workforce are reduced (e.g. having children).

Increased SRH investments will eventually generate more income for households too, which can help society better adjust towards an ageing society.
What is Human Capital?

DEFINITION
The economic value of a worker's experience and skills

COMPONENTS
Education
Training & Work Experience
Health

Benefits of Increasing Female Human Capital

- Increased Human Capital
- Increased Potential Earnings
- Good Health
- Better Education
- More Work Experience
Percentage of currently employed ever-married women aged 15-59 in the bottom 20 per cent and top 20 per cent of the labour income distribution, by education level.

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Bottom 20%</th>
<th>Top 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Formal Education</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>Primary</td>
<td>40</td>
<td>5</td>
</tr>
<tr>
<td>Secondary</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Post-Secondary</td>
<td>45</td>
<td>60</td>
</tr>
</tbody>
</table>
Female human capital is affected by motherhood and childcare responsibilities

- **Negative health effects from pregnancies**
- **Reduced work experience (less time in the workforce)**
- **Having children can affect educational attainment**

Investments in SRH translate into multiple health benefits throughout the lives of women and children.

*If childcare prevents a woman from working for a long period of time, it may be impossible for her to re-enter the workforce!***
Modern family planning practices reduce unintended pregnancies and extend IPIs (interpregnancy intervals). IPI is the time between a mother's pregnancies; the shorter it is, the higher her risk of adverse maternal, perinatal, and infant issues.

This means that mothers who wait longer between having children have a lower risk of the above issues.

Women in lower-income states are twice as likely to have short IPIs, putting them at higher risk of poorer health and economic outcomes.
4.4.1 Infant/Child Health

Shorter IPIs are also associated with infant and child health issues, such as low birth weight, preterm births, and smaller sizes in pregnancy – these are all associated with childhood stunting.

The risk of preterm births is 29% higher in mothers aged 10-19. The rate of stunting in children is about 20.7%, which translates to over 36 million disability-adjusted life years (DALYs) over the next 70 years. A significant amount of these DALYs can be averted through SRH investments in CSE and family planning.

4.4.2 Adolescent Sexual and Reproductive Health

Pregnancy and childbirth complications are the leading cause of death for girls aged 15-19 globally. The reduction of unintended teenage pregnancies and unsafe abortions through CSE interventions can significantly avert death, disability and health problems in teenage mothers.

4.4.3 Cervical Cancer, HPV Vaccination and Screening

Cervical cancer tends to affect working-age women, with incidences rising after 25 years of age. Globally, cervical cancer is strongly correlated with lower socioeconomic status, mainly due to lower access to and uptake of cervical cancer screening, a trend that’s also seen in Malaysia.

Human papillomavirus (HPV) is a known cause of cervical cancer, though not all cases are caused by HPV. Nevertheless, HPV vaccination in younger women and tests such as pap smears and HPV tests are highly effective at preventing cervical cancer in girls and women.

This is even more effective if such testing is paired with education on HPV and cervical cancer, which are commonly found in CSE programmes.
4.5 Savings Accumulation

Sexual and Reproductive Health (SRH) investments can increase monetary savings for individuals and families in three ways.

**Lower unplanned spending on mistimed pregnancies**

Given that the median annual household income in Malaysia was approximately RM44,000 (2019), mistimed pregnancies can significantly affect the financial stability of families, especially among the bottom 40% (B40 households). Access to high-quality family planning services can help couples plan better and establish stronger financial foundations to cope with pregnancies and childbirth.

**Lower out-of-pocket spending on medical costs**

Investments in universal SRH services can help offset catastrophic health spending for individuals and families. Approximately 26.9% of health expenditures at hospitals are out-of-pocket, posing a huge financial burden on families should the mother or child require medical treatment for HPV, cervical cancer, or infant/child morbidities, for example.

**Potential increases in income**

Reductions in unintended pregnancies (especially at younger ages) mean more women can join the workforce. This results in increased productivity as girls’ and women’s studies and careers aren’t disrupted. This, in turn, leads to higher expected earnings and helps to increase average household incomes that can be reinvested into children’s education and well-being.
Sexual and Reproductive Health (SRH) investments can impact the economy and society in two ways.

**Impact of savings on the ageing economy**

Malaysia is an ageing population, and relying on the younger generation to sustain the socioeconomic well-being of the older generation is no longer sustainable. When women have opportunities to invest in old age, it helps reduce the collective burden of ageing on the nation’s economy.

There is possible gender inequality in health status and healthcare utilisation – women generally report worse health indicators than men, regardless of their age. Older women also tend to be more financially insecure than men their age.

The higher economic and financial insecurity among women is due to the existing gender wage gap, as well as lower labour force participation, the latter of which is hampered by a number of factors discussed in this chapter.

**Impact of savings on the healthcare system**

Appropriate SRH investments can lead to cost savings within the healthcare system. In particular, reducing the risk of preterm births from pregnancies with shorter IPIs can lead to tens of thousands in savings for the public healthcare system.

**AVERAGE 31% HIGHER RISK**

of preterm births in short Interpregnancy Intervals (IPI) pregnancies

**RM 19,659,754**

Total Annual Savings in the Healthcare System
(with modern and universal family planning services)
This section measures the return on investment (ROI) of three SRH interventions: comprehensive sexuality education (CSE), HPV vaccination and screening, and family planning; and family support policies as a fourth intervention. The estimates here only include some of the quantifiable data. As such, the ROIs are likely underestimated.

CSE has been proven to be effective at reducing unintended pregnancies and STIs among adolescents, and yields direct benefits by preventing mortality and morbidity impacts and decreased educational attainment, which also has lifetime negative consequences. However, CSE must be “medically accurate, evidence-based, and age-appropriate, and should include the benefits of delaying sexual intercourse, while also providing information about normal reproductive development, contraception to prevent unintended pregnancies, as well as barrier protection to prevent STIs.”

Evidence shows a minimum of five years of CSE can reduce unintended adolescent pregnancies by 49 per cent, or about 1,800 live births. Concurrently, a single year of decreased educational attainment, from adolescent pregnancy or otherwise, can lead to an average decrease in lifetime earnings by about RM120,000. Assuming each woman with an unintended adolescent birth loses one year of schooling, an effective CSE programme can prevent total lost lifetime earnings of about RM216 million.

The same programme is also up to 62% more effective at curbing new HIV infections. This alone could account for up to RM1.28 billion in increased value for a single birth cohort.
HPV vaccination and screening is crucial to the elimination of cervical cancer, with screening crucial to reduce the rate of new cases in the short term, and vaccinations reducing this in the long term. By 2070, it is estimated that vaccination alone can prevent 61.7 per cent of global deaths. With screening included, this increases to 88.9 per cent.

With the life expectancy of Malaysian women at about 78 years, and the age of death of cervical cancer is around 59 years, this increase in life expectancy can bring up to RM2.65 million in benefit per averted death. This does not include further benefits such as averted medical costs, improved quality of life, and increased labour force participation and productivity.

Extrapolating from global average estimates, vaccinating alone would avert about 32,000 deaths by 2070. If screening is included, 61,900 deaths would be averted by 2070, for an **ROI of 9.6:1**.

Assuming a Value of Statistical Life Year (VSLY) value of three times GDP per capita per student (~RM315), a five-year CSE programme can bring about up to RM1.5 billion in benefit, an **ROI of 2.64:1**. Even the lower assumption of a VSLY value of GDP per capita per student, the benefit is ~RM641.35 million, an **ROI of 1.13:1**.

This assumes training costs of ~RM4,000 per instructor, the need for two instructors per school, and calculating for the 10,208 primary and secondary schools in Malaysia, a five-year, fully implemented PEERS CSE programme would cost about RM 565.5 million, about RM119 per student for all five years. Even this is an overestimation, as it only assumes the one birth cohort will benefit from this implementation and does not include any other benefits from the programme, such as averted costs due to unsafe abortion and improved maternal and infant/child health.

5.2 Return on investment for HPV vaccination and screening

HPV vaccination and screening is crucial to the elimination of cervical cancer, with screening crucial to reduce the rate of new cases in the short term, and vaccinations reducing this in the long term. By 2070, it is estimated that vaccination alone can prevent 61.7 per cent of global deaths. With screening included, this increases to 88.9 per cent.

With the life expectancy of Malaysian women at about 78 years, and the age of death of cervical cancer is around 59 years, this increase in life expectancy can bring up to RM2.65 million in benefit per averted death. This does not include further benefits such as averted medical costs, improved quality of life, and increased labour force participation and productivity.

The cost to vaccinate 90% of the targeted population in Malaysia to count for high vaccination coverage is calculated at RM452,000 per death averted by 2070 (assuming the use of the ~RM1,350 HPV vaccine Gardasil 9 which covers 90 per cent of HPV strains responsible for cervical cancer). If screening is included, the cost is further lowered to RM227,000 per death averted by 2070.

Extrapolating from global average estimates, vaccinating alone would avert about 32,000 deaths by 2070. If screening is included, 61,900 deaths would be averted by 2070, for an **ROI of 9.6:1**.
5.3 Return on investment for family planning

Family planning investments can yield sizable returns in health, economic, and social dimensions for a relatively small cost, and pushes Malaysia to meet the UN SDG target of increasing “contraceptive demand satisfied by modern methods” to at least 75 per cent in all countries by 2030. Malaysia currently has a modern contraceptive prevalence rate (mCPR) of 34.3 per cent, significantly lower than the OECD average of 64.7 per cent.

Increasing the mCPR enhances human capital by increasing female labour force participation, educational attainment, labour productivity, earnings, and savings for old age.

In comparing three scenarios, the current mCPR and levels of unmet needs in family planning (as of 2021), against an all-needs-met scenario, against an all-needs-met with more generous family support policies, a conservative estimate has the second scenario providing an **ROI of 2.2:1**, with the third scenario **providing an ROI of 3.27:1**.

By meeting all modern contraceptive needs alone, Malaysia stands to gain 0.11 per cent in GDP, compared to an estimated cost of 0.05 per cent of GDP (cost of all methods of contraception, inclusive of service delivery estimates).

5.4 Return on investment for family support policies

Appropriate family support policies also help to bring more women to the labour force, in particular among older women who already have children. Such policies are effective way to improve work/family balance, and combats the steep decline in female labour force participation in Malaysia.

A survey shows half of women with children in Malaysia report a desire to work, and proper policies should see a 0.4 per cent increase in the labour force, and a 0.16 per cent increase in GDP, the **ROI of 3.27:1** of the third scenario above.
### Section Five

#### 5.5 Return on investment summary

<table>
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<th>Policy</th>
<th>Key Benefits</th>
<th>ROI</th>
<th>Main Assumptions</th>
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<tr>
<td>Comprehensive 5-year fully-implemented sexuality education</td>
<td>• Increased lifetime earnings from fewer school dropouts</td>
<td>1.13:1</td>
<td>• ROI assumes value of one additional year of life as equal to GDP per capita.</td>
</tr>
<tr>
<td></td>
<td>• Decreased number of HIV incidents among adolescents and young adults</td>
<td></td>
<td>• Only girls who complete the full course benefit</td>
</tr>
<tr>
<td>HPV vaccination and screening for elimination of cervical cancer by 2070</td>
<td>Reduction in cervical cancer deaths</td>
<td>9.6:1</td>
<td>• Among impacts not included: reduction in unsafe abortions, improved maternal and infant/child health</td>
</tr>
<tr>
<td>Family planning: satisfying unmet modern contraceptive needs in a year</td>
<td>Increased female labour force participation</td>
<td>2.2:1</td>
<td>• Value of one additional year of life is assumed as GDP per capita</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Number of deaths averted based on global average estimates</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Among impacts not included: reduced morbidity, quality of life improvement, averted medical costs, prevention of other diseases through HPV vaccination (e.g. anal cancer, vulva and vaginal cancer, oral cancer, genital warts)</td>
</tr>
<tr>
<td>Integrated portfolio of family planning and more generous family support policies</td>
<td>Increased female labour force participation</td>
<td>3.27:1</td>
<td>• Among impacts not included: reduction in maternal and newborn deaths, unsafe abortions, and STIs, increased educational attainment, labour productivity, and savings</td>
</tr>
</tbody>
</table>

**Key Benefits**

- Increased lifetime earnings from fewer school dropouts
- Decreased number of HIV incidents among adolescents and young adults
- Reduction in cervical cancer deaths
- Increased female labour force participation
- Increased lifetime earnings from fewer school dropouts
- Decreased number of HIV incidents among adolescents and young adults
- Increased female labour force participation
- Increased female labour force participation

**Main Assumptions**

- Assumes 50% of women with averted unintended birth re-enter the workforce (as per results of survey)
- Among impacts not included: reduction in maternal and newborn deaths, unsafe abortions, and STIs, increased educational attainment, labour productivity, and savings
POLICY RECOMMENDATIONS AND CONCLUSION

This report has identified concrete and tangible ways SRH investments contribute to human capital, gender equity and Malaysia’s economic wellbeing, promoting inclusive growth of the country through cost-beneficial ways. From the study, six policy recommendations are made:

1. **Continue and strengthen high-quality maternal health services**

   Malaysia should continue with the confidential enquiry into maternal deaths (CEMD) which has greatly lowered maternal mortality, with the goal of ending preventable maternal deaths by 2030. It should also investigate maternal near-miss, in line with World Health Organization (WHO) guidelines. Both studies can identify problems of health system quality for maternal and newborn healthcare. Lastly, Malaysia should track a sample population of 1,000 women through pregnancy, delivery and postpartum care using the E-cohorts for Longitudinal Care Quality tool currently developed at the Harvard T.H. Chan School of Public Health.

2. **Improve family planning services**

   The report recommends universal, rights-based family planning policies and programmes to be integrated with the existing national population policy which should not be carried out by itself. Various multi-stakeholders, such as public/private sector individuals and religious leaders, must also be involved. While there should be universal access, the policies must especially target the B40 population, adolescents, informal sector workers, migrant workers and other vulnerable groups in order to be effective.

3. **Improve comprehensive sexuality education (CSE)**

   Malaysia’s current CSE programmes must be improved through better cultural understanding, the introduction of a streamlined national CSE curriculum, an increase in skills and knowledge of educators, an increase in parental involvement and buy-in, and lastly, a more targeted funding in CSE programmes’ design, implementation and evaluation.
Information on HPV vaccination and screening must be emphasised in the Pendidikan Kesihatan Reproduktif dan Sosial (PEERS) CSE curriculum. There must also be more public awareness, e.g. through the media and the education system.

Malaysia can emulate higher-income countries and adapt within its own context, in areas such as greater parental leave, wage replacement rates, public/private cost sharing and childcare subsidies. Parental leave for fathers must be further incentivised to encourage them to shoulder more childcare and housework responsibilities. It should be noted that all of these policies and benefits can be financed by contributions by government, employees, taxes and health insurance and not by employer contributions alone.

Data regarding gender-based violence (GBV) that is specific to Malaysia and its health/labour impacts must be further invested in. Furthermore, there must be more research in the screening, diagnosis and treatment of breast cancer.

This report identifies tangible pathways through which investments in SRH (in the form of CSE, family planning, and cervical cancer prevention and early detection) contribute to the stock of human capital in Malaysia. Combined with family support policies, these investments can thereby promote health, social and economic well-being within the country.

As such, the results point to SRH investments as a plausible and cost-beneficial pathway to promoting inclusive growth in Malaysia.
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