

# Sexual and Reproductive Health of Adolescents and Youths *in MALAYSIA*

*A Review of Literature and Projects  
2005*



**World Health  
Organization**

**Western Pacific Region**

# Sexual and Reproductive Health of Adolescents and Youths *in MALAYSIA*

*A Review of Literature and Projects  
2005*



World Health  
Organization

Western Pacific Region

## WHO Library Cataloguing in Publication Data

Sexual and reproductive health of adolescents and youths in Malaysia a review of literature and projects 2005.

1. Sexuality 2. Reproductive medicine 3. Adolescent 4. Malaysia

ISBN 978 92 9061 263 6 (NLM Classification: WS 462)

The World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full. Applications and enquiries should be addressed to the Office of Publications, World Health Organization, Geneva, Switzerland or to the Regional Office for the Western Pacific, Manila, Philippines, which will be glad to provide the latest information on any changes made to the text, plans for new editions, and reprints and translations already available.

© World Health Organization 2007

Publications of the World Health Organization enjoy copyright protection in accordance with the provisions of Protocol 2 of the Universal Copyright Convention. All rights reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

## Table of Contents

<b>Acronyms</b> .....	<b>7</b>
<b>Author's Statement</b> .....	<b>8</b>
<b>Executive Summary</b> .....	<b>9</b>
<b>Preface</b> .....	<b>13</b>
<b>1. Introduction</b> .....	<b>15</b>
<b>2. Methodology</b> .....	<b>15</b>
<b>3. Key findings</b> .....	<b>17</b>
3.1 Demography .....	17
3.1.1 General demography .....	17
3.1.2 Age of first marriage .....	21
3.2 Adolescent sexual and reproductive health .....	24
3.2.1 Knowledge and sources of information .....	24
3.2.2 Sexual development .....	27
3.2.3 Sexual behaviour .....	28
3.2.4 Pregnancy and childbirth .....	36
3.2.5 Sexually transmitted infections .....	39
3.2.6 Sexual violence .....	42
3.3 Policies and legislation .....	45
3.3.1 Policies .....	45
3.3.2 Legislation .....	46
3.4 Interventions .....	47
3.4.1 Education and information .....	48
3.4.2 Services .....	49
<b>4. Recommendations</b> .....	<b>51</b>
4.1 Raising awareness .....	51
4.2 Strengthening sexual and reproductive health education .....	51
4.3 Strengthening service provision .....	52
4.4 Clarifying polices .....	52
4.5 Enforcing existing laws and making new laws .....	53
4.6 Strengthening interagency partnerships .....	53
4.7 Conducting more research .....	53
<b>5. Conclusions</b> .....	<b>54</b>
<b>References</b> .....	<b>79</b>

## Tables and Figures

<b>Figure 1.</b> Percentage distribution of children and young people in Malaysia in selected years .....	20
<b>Figure 2.</b> Population of children and young people in Malaysia over the years .....	20
<b>Figure 3.</b> Distribution of adolescents (age 15-24), by gender .....	21
<b>Figure 4.</b> Distribution of young people (age 20-24), by ethnic group and gender .....	22
<b>Figure 5.</b> Distribution by urban-rural areas and gender for the 10-19 age group .....	22
<b>Figure 6.</b> Distribution by urban-rural areas and gender for the 20-24 age group .....	23
<b>Figure 7.</b> Percentage of male and female population (15-24 years old) ever married in 1970, 1980 and 1991 .....	24
<b>Figure 8.</b> Singular mean age at marriage by ethnicity, Peninsular Malaysia .....	25
<b>Figure 9.</b> Percentage of respondents engaged in sexual behaviour during dating, by gender .....	31
<b>Figure 10.</b> Percentage of births to mothers > 25 years in Peninsular Malaysia, by age of mother .....	39
<b>Figure 11.</b> Percentage distribution of pregnancy wastage, by age of mother .....	41

<b>Figure 12.</b> Number of HIV positives detected among 13-19 year olds, by year .....	42
<b>Figure 13.</b> Number of HIV positives detected among 20-29 year olds, by year .....	43
<b>Figure 14.</b> Number of reported cases of rape, by age of the survivors and year .....	45
<b>Figure 15.</b> Number of survivors of rape who were students, by year .....	45
<b>Table 1.</b> Percentage of currently married women who had ever heard of contraception, by age group .....	26
<b>Table 2.</b> Percentage of respondents with correct responses on reproductive anatomy and physiology and who had heard of contraception, STI and HIV/AIDS, by gender .....	27
<b>Table 3.</b> Percentage distribution of sources of information on sexual and reproductive health among adolescents aged 13-19 years .....	28
<b>Table 4.</b> Percentage of adolescents currently dating, by behaviour practised with dating partner and selected variables .....	31
<b>Table 5.</b> Age at first intercourse and sexual activity among adolescents .....	33
<b>Table 6.</b> Percentage distribution of currently married women aged 15-24 years who had ever used and were currently using contraceptives, by current age .....	35
<b>Table 7.</b> Age at first masturbation and percentage who had masturbated .....	37

<b>Table 8.</b> Number and percentage of live births in Peninsular Malaysia, by age of mother .....	39
<b>Table 9.</b> Mean number of children born (1974, 1984,1994), by age of mother .....	40
<b>Table 10.</b> Number and percentage of maternal deaths and maternal mortality ratios in Peninsular Malaysia and Malaysia in 1995 and 1996, by age of mother .....	41

## Acronyms

ASRH	Adolescent Sexual Reproductive Health
ARROW	Asian-Pacific Resource and Research Centre For Women
CSW	Commercial Sexual Workers
FFPAM	Federation of Family Planning Association Malaysia
FHE	Family Health Education
FPA	Family Planning Association
HIV/ AIDS	Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome
HeRDU	Health Research Development Unit, University of Malaya Medical Centre
HUKM	National University of Malaysia Hospital
IKIM	Institute of Islamic Understanding Malaysia
IMR	Institute of Medical Research
ITM	Mara Institute of Technology
IVDUs	Intravenous Drug Users
KAP	Knowledge Attitude Practice
KL	Kuala Lumpur City
MOH	Ministry of Health
NGOs	Nongovernmental Organisations
NPFDB	National Population and Family Development Board
PROSTAR	Healthy Without Aids Programme For Youth
PWHA	People Living With HIV/AIDS
SRH	Sexual Reproductive Health
STI	Sexually Transmitted Infection
TWG	Technical Working Group
UKM	National University of Malaysia
UM	University of Malaya
UNICEF	United Nation Children Fund
UPM	University Putra Malaysia
UUM	University Utara Malaysia
WAO	Women Aids Organisation
WHO	World Health Organization
WPRO	Western Pacific Regional Office



## **Authors' Statement**

This case review and report is the product of the combined efforts of the members of the Review Team:

**Dato' Dr. Narimah bt Awin**, Director of Family Health Development, Ministry of Health Malaysia, (principal investigator and editor)

**Dr. Ang Eng Suan**, Executive Director, Federation of Family Planning Association of Malaysia (FFPAM)

**Dr. Sarinah Low Wah Yun**, Professor and Head of Health Research Development Unit (HeRDU), University of Malaya Medical Centre, Kuala Lumpur, Malaysia

**Dr. Mary Huang Soo Lee**, Honorary Secretary General of FFPAM, and Associate Professor, Development of Community Health, Faculty of Medicine and Health Sciences, University Putra Malaysia

**Dr. Mymoon bt Alias**, Deputy Director, Family Health Development, Ministry of Health Malaysia

**Dr. Nik Rubiah bt Nik Abdul Rashid**, Principal Assistant Director, Family Health Development Division, Ministry of Health Malaysia.

The Review Team members would like to express their gratitude to the WHO Western Pacific Regional Office for inviting Malaysia to participate in the review, which has turned out to be an enriching experience. They also would like to thank the Ministry of Health, Malaysia, representing the Government of Malaysia, for giving permission and support for the review to be carried out.

The team/authors would like to dedicate this report to all adolescents and young people of Malaysia. It is hoped that the findings from the review will provide them with the aspiration to actively participate in working towards a bright and promising future, and will enhance their health and quality of life.

## Executive Summary

From June to September 2003, Malaysia participated in a case study on adolescent sexual and reproductive health, in the form of a review of literature, studies and projects, initiated by the WHO Regional Office for the Western Pacific. A total of 260 documents were reviewed, covering a wide range of concerns in the area of adolescent sexual and reproductive health. There is limited literature available on this important subject, which is hardly surprising given its cultural and religious sensitivity. It was particularly difficult to find accurate information about sensitive and controversial subjects such as premarital sex, contraceptive use by the unmarried, homosexuality and abortion.

Of the 260 documents reviewed, 178 were published and 82 were unpublished. They covered a range of subjects, which can be grouped into four categories: demography (25); status of adolescent and reproductive health (157); interventions (59); and policies and legislation (30). Most of the documents covered more than one area, with considerable overlap.

### *Demography*

The demographic profile of Malaysia is that of a country in transition from developing to developed status, with adolescents (aged 10-19) making up about one-fifth of the total population. Children (aged 10-19) make up 40%. In Malaysia today, young people of both sexes enter marriage later than in previous years, suggesting a delay in sexual activity. In 1984, the average age at first marriage was 26.9 years for men and 24.5 years for women; in 1994 the average age became 28 years for men and 24.9 years for women.

### **Adolescent sexual and reproductive health status**

The review covered six aspects of adolescent health:

- adolescents' level and sources of knowledge on sexual and reproductive health;
- sexual development;
- sexual behaviour, including dating behaviour;

- pregnancy and childbirth;
- sexually transmitted infections, including HIV/AIDS; and
- sexual violence.

Knowledge on matters related to sexual and reproductive health varies according to several studies, but it is clear that in some areas knowledge is still limited. In areas where knowledge appears adequate, it does not generally translate into behaviour. For puberty changes and similar matters, the usual sources of information are parents and teachers. For sexual relationships, however, the main sources are friends and peers.

There is little information on sexual development, and what is available is limited to menarche for girls and wet dreams for boys. Information on sexual behaviour, including dating behaviour, indicates that young people are involved in various types of specific sexual behaviour, including some considered unacceptable according to religious and cultural norms.

It is encouraging that the age of first pregnancy has increased and that the number of adolescent pregnancies has decreased over recent years. Maternal deaths are therefore relatively rare in the adolescent age group. Information on

abortion, which is illegal, was extremely difficult to find, and the situation can only be assessed from anecdotal and media reports.

The 20-29 year-old age group contributes to a high proportion of cases of STI, especially HIV/AIDS. In 2001, that age group accounted for 27.7% of cases, and in 2002, 30.4%. Intravenous drug use among young people remains the most challenging aspect of HIV transmission in Malaysia. The incidence rate among injecting drug users is about 25%-27%. There appears to be variable levels of knowledge, but more crucially, even when there is knowledge, it is not translated into healthy behaviour.

Young people, especially girls, are at risk of sexual violence, and a large proportion of reported rapes are perpetrated against girls below 16 years of age. In about three-quarters of reported cases, the rapist is someone known to the victim, and 13% are victims of incest. There are also reports of adolescents and young people being the perpetrators of sexual crimes. In about 7% of cases, the rapist is a student.

### ***Policies and legislation***

While there are some general adolescent health policies, few explicitly address sexual and reproductive health, due to

the sensitivity of the subject. Practices, especially regarding services, follow the religious and cultural realities of the country. Some of these are only based on understandings, with no explicit written policy, such as not making contraceptives available to unmarried people. Malaysia has a National Adolescent Health Policy, but it does not focus on sexual and reproductive health. There are, however, many laws aimed at protecting adolescent sexual and reproductive health, such as a law stipulating a minimum age for marriage, laws against sexual violence and rape, and laws against pornography and obscene materials.

### ***Interventions***

Many government agencies, including the Ministry of Health, have initiated service interventions (mainly counselling and education) for adolescents. Commendable efforts are also being made by nongovernmental organizations to promote adolescent health and provide specific services, including sexuality education. However, the review revealed several gaps and unmet needs.

### ***Recommendations***

Based on the findings of the review, the Review Team recommends:

- raising public awareness about the importance of adolescent and reproductive health;
- strengthening sexual and reproductive health education for all ages, especially the young;
- strengthening service provision;
- clarifying policies and reconciling them to meet real needs;
- enforcing existing laws and promulgating new ones if needed;
- strengthening interagency partnerships; and
- conducting more research on adolescents' sexual and reproductive health.

The review was a useful exercise to gather insight into adolescent sexual and reproductive health in Malaysia, and will provide useful information for the strengthening of efforts to improve adolescent health in the country.



This is one of the reviews on the literature and projects of sexual and reproductive health of adolescents and youths in eight Asian countries.\*

Adolescents and youth make up one-fourth of the population in the Western Pacific Region. At least 17 out of 37 countries and areas in the Region have a median age below 25 years. The health of adolescents is, therefore, a key element and an investment for social and economic progress in the Region. Many of the problems adolescents experience are inter-related and should be regarded in a comprehensive manner. However, adjusting to sexual development and protecting their reproductive health are the major challenges for adolescents.

Adolescents are vulnerable because they lack knowledge and skills to avoid risky behaviour and lack access to acceptable, affordable and appropriate reproductive health information and services. This is often compounded with environmental disadvantages such as poverty and unemployment. Social norms of sexuality have also changed



in the past 2 decades and puberty comes 2-3 years earlier over one century, but the environment to support adolescents has not changed. There is still much to be desired in terms of governments' institutionalization and allocation of funds. Also families and communities are still unprepared to provide accurate reproductive health information and services necessary for adolescents. Risks

---

\* *Cambodia, China, Lao People's Democratic Republic, Malaysia, Mongolia, Philippines, Republic of Korea, Viet Nam*

of unwanted pregnancies, unsafe abortions, pregnancy-related complications, sexually transmitted infections and HIV/AIDS, all of which are important elements of Millennium Development Goals (MDG), continue to threaten adolescents.

Since the International Conference on Population and Development (ICPD) in Cairo in 1994, where the importance of adolescent reproductive health was acknowledged, many studies and programmes have been carried out by various national and international agencies and nongovernmental organizations. In order to assist governments to achieve the objectives of ICPD and MDG, the WHO Western

Pacific Regional Office provided technical and financial support to several countries to conduct literature and programme reviews.

As a result of these reviews, countries now have evidence-based information for the development of national policies and strategies for adolescent sexual and reproductive health. I appreciate the practical and cost-effective use of existing information for increasing awareness of adolescent reproductive health and for improving our work. Here, I also would like to express my thanks to the governments, the reviewers and researchers for your contributions to improving the reproductive health of adolescents and youths.

Shigeru Omi, MD, Ph.D  
Regional Director

## 1. Introduction

Adolescence, the second decade of life, is increasingly recognized as a critical phase in the life course, especially from the health and social perspectives. The most challenging aspect of adolescence is sexual and reproductive health, as it is the area that poses the greatest difficulty in maintaining adolescents' health and implementing appropriate and effective interventions. For a start, there is a paucity of information and, if there is information, it is often uncoordinated and fragmented and not very useful for policy-making and programme interventions. The Western Pacific

Regional Office of the World Health Organization (WHO) conducted a review of the literature and programmes of adolescent sexual and reproductive health in selected countries in the Region. The review was undertaken on the premise that it would be a cost-effective way to collect and exchange evidence-based information that would contribute to reinforcing the alliance towards improving adolescents' sexual and reproductive health. Malaysia, through the Family Health Development Division of the Ministry of Health, participated in the review.

## 2. Methodology

The review in Malaysia was conducted from June to September 2003 by a study team with six members, who were from the Ministry of Health (3), universities (2) and the Federation of Family Planning Association of Malaysia (1). It was a 'desk review' and closely followed the guidelines of the WHO Regional Office for the Western Pacific. Before the review commenced, agreement was reached on the scope of "sexual and reproductive health in Malaysia" and the time-frame for the reviewed articles (past

10 years, but earlier studies were also used, especially for comparison). Agreement was also reached on the meanings of the terms "adolescent", "youth" and "young person"

A total of 260 documents were selected from more than 400 for inclusion in the review. Of those, 178 were published documents, including reports of departments and agencies, and 82 were unpublished documents, mainly papers presented at conferences and seminars.



The 260 documents can be classified using the four broad themes of: demography (25); sexual and reproductive health status (157); laws and policies (30); and interventions (59). The 157 documents on the second theme, sexual and reproductive health status, can be further classified into six sub-themes: knowledge, attitude and practice; sexual development; sexual behaviour, pregnancy and childbirth; sexually transmitted infections (STI) and HIV/AIDS; and sexual violence. Very often the articles address more than one of the sub-themes, with considerable overlap.

The sources reviewed included the following:

- (1) Annual reports on vital statistics, published by the Department of Statistics, provided most of the demographic and general health data.
- (2) Reports of the Ministry of Health provided data on incidence and prevalence and selected indicators on fertility and pregnancy outcomes. Some of the information on diseases, especially STI and HIV/AIDS was also from reports of the Ministry of Health. The Second National Health and Morbidity

Survey of the Ministry of Health (1996) provided some information on risky behaviour among adolescents.

- (3) Surveys carried out by the National Population and Family Development Board (NPFDB) and the Federation of Family Planning Associations of Malaysia (FFPAM) provided most of the information on sexual and reproductive health. Since 1966, four major surveys have been carried out in Peninsular Malaysia (1966, 1974, 1984 and 1994), with similar surveys carried out in Sabah and Sarawak in 1989. Other studies conducted by both or either one of those two agencies also provided a considerable volume of information for the review.
- (4) Several studies carried out on young people in the past two decades by some local universities and the FFPA were also sources of information.
- (5) For violence and sexual crimes, much of the information came from the Police Department and the Department of Social Welfare.

(6) Information on interventions, policies and legislation was obtained from reports and

papers written by relevant government agencies, including the Ministry of Health.

### 3. Key findings

The findings of the review are described under four main themes: demography; sexual and reproductive health status; policies/legislations; and interventions.

#### 3.1. Demography

Two aspects are presented – general demography and the age at marriage, the latter being relevant as a proxy indicator for sexual and reproductive health activities and especially for risk of pregnancy and its consequences for young females.

##### 3.1.1. General demography

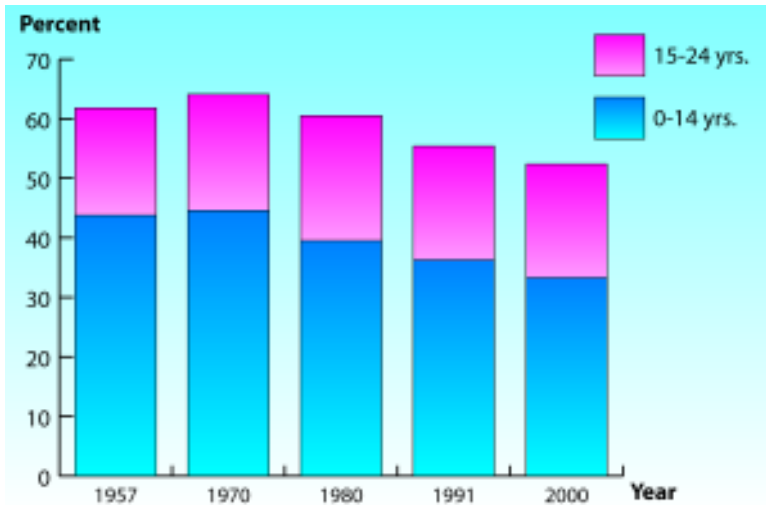
Malaysia comprises thirteen (13) states and three (3) federal territories in three regions – Peninsular Malaysia, Sabah and Sarawak. The country's population has more than tripled over the last four decades and, in 2002, was 24.5 million. The average annual rate of population growth is 2.6%. The per capital income in 2002 was RM13 781 (US\$ 3626), placing Malaysia among middle-income economies. The health profile of Malaysia resembles that of a country in transition from developing to developed national status.

The demographic profile shows a relatively “young nation”, with a sizeable population between the ages of 10 and 24. The population of young people is shown as a percentage in Figure 1 and in absolute numbers in Figure 2. While the percentage has remained almost stable, the absolute numbers of 0-24 year-olds have increased over the years.

Young people (15-24 years of age) make up a fifth of the population, while younger children (0-14 years of age) make up about 40%. On a population pyramid, Malaysia's population shows what is often termed a “youth bulge”, which has clear implications for the social and economic fabric of the nation, especially in terms of creating more demands for specific services for that age group. This is important since it provides policy-makers with evidence of the importance of the health of adolescents, a group that used to be considered less important simply because their mortality and morbidity rates are low. The fact that they contribute to a sizeable proportion of the population is enough reason for attention to be accorded to adolescents.

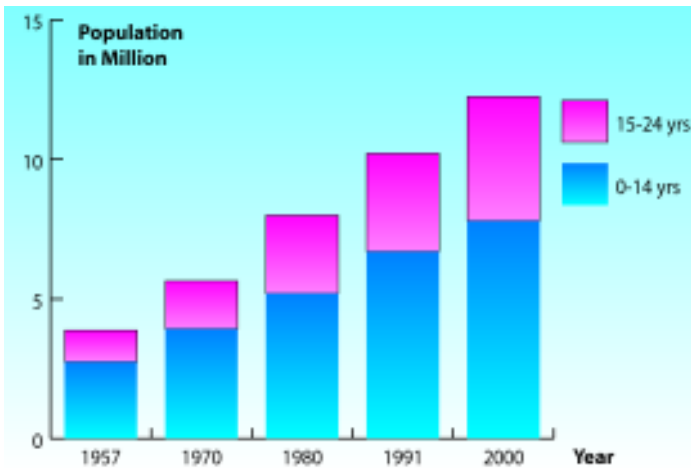
## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

Figure 1: Percentage distribution of children and young people in Malaysia in selected years



Source : Social Statistics Bulletin Malaysia

Figure 2: Population of children and young people in Malaysia over the years



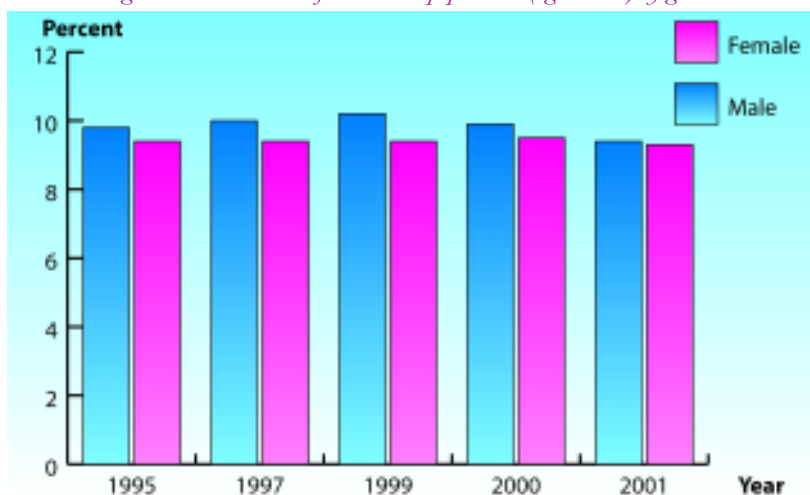
Source : Social Statistics Bulletin Malaysia

The gender distribution of young people aged 15-24 years is shown in Figure 3. Each account for 9%-10% of the population, thus together comprising about 20% or a fifth of the population as a whole. There are slightly more male than female young people.

Figure 4 shows that the major ethnic groups in Malaysia have maintained the same distribution. However, among the 20-24 year-old age group, there was an increase in non-citizens in 1995, followed by a decline between 1996 and 1999, and an upsurge in 2000. This may be explained by the flow of foreign workers, especially in the labour-intensive sectors, which employ mainly young workers. It also reflects the economic realities of Malaysia during these years. There was rapid

socioeconomic development in the late 1980s and early 1990s, followed by the financial crisis in 1997 and 1998, and the recovery in 2000. The presence of foreigners among the older young population as a result of labour market forces in the country calls for specific strategies in terms of health services for younger people, including sexual and reproductive health. The Malaysian Government has a policy of requiring health screening of all foreign workers before they enter the country, and annually thereafter. One of the conditions screened for is HIV/AIDS. Another implication of the presence of foreign workers is that they contribute significantly to patronization of sex workers. There have also been incidences of violence and crimes, including sexual crimes, committed by foreign workers.

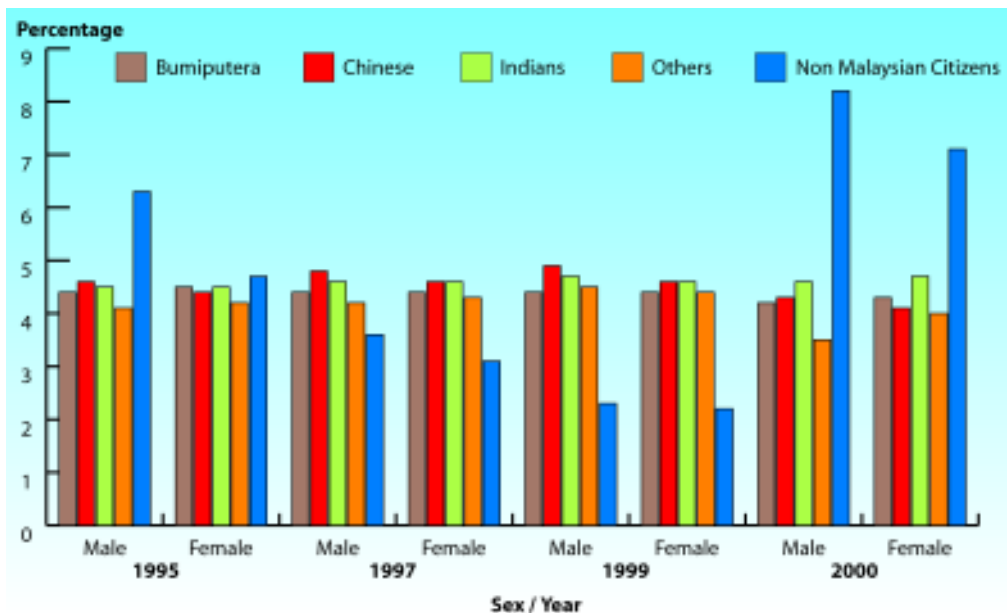
*Figure 3: Distribution of adolescent population (age 15-24) by gender*



*Source: Social statistics bulletin 1995, 1997, 1999, 2000 and 2001. Department of Statistics, Malaysia.*

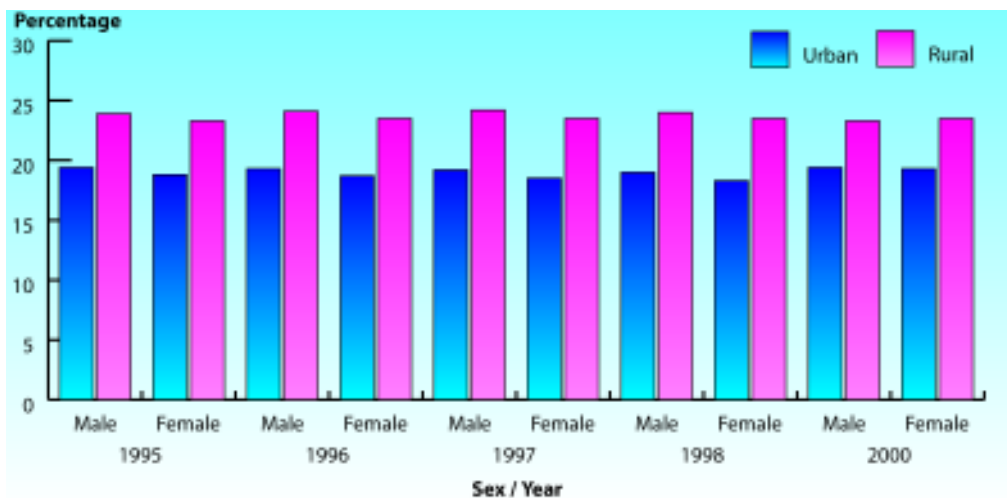
## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

Figure 4: Distribution of young population (aged 20-24) by ethnic group and gender



Source: Vital statistics Malaysia 1995, 1997, 1999; Population distribution and basic demographic characteristics; Population and Housing Census of Malaysia 2000. Department of Statistics, Malaysia.

Figure 5: Distribution by urban-rural areas and gender for the 10-19 age group



Source: Vital statistics Malaysia 2000: Education and social characteristics of the population. Department of Statistics, Malaysia.

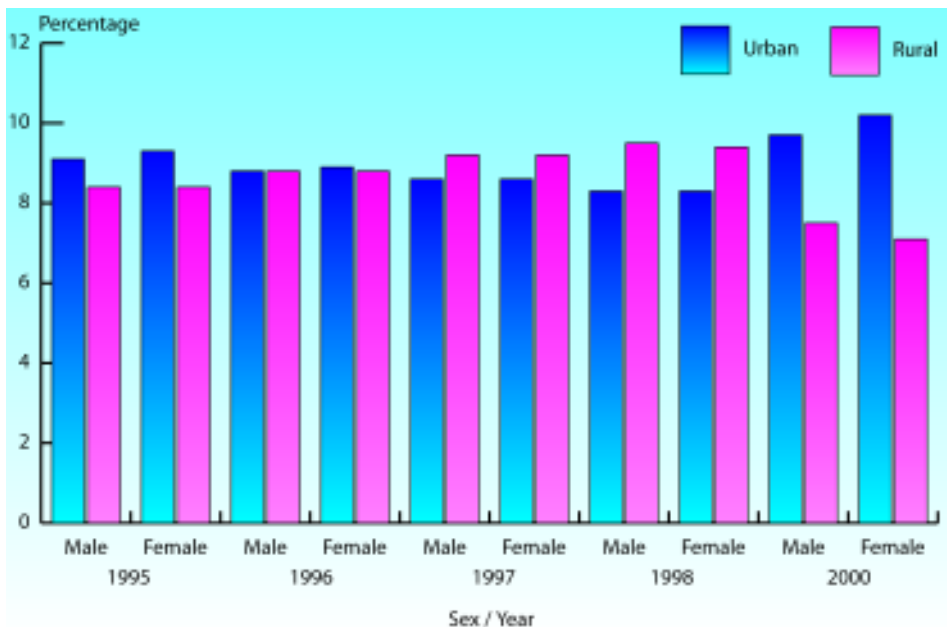
The distribution of young people in urban and rural areas from 1995 to 2000 is shown in Figure 5 (10-19 years) and Figure 6 (20-24 years). There were more younger adolescents in rural areas than in urban, but the opposite was true for older adolescents, who are more likely to move to towns for higher education and employment.

The findings on adolescent demography with respect to the above variables are useful in formulating further actions to improve adolescents' sexual and reproductive health.

### 3.1.2. Age at first marriage

The proportion of young people ever married declined for both males and females aged 15-24 years between 1970 and 1991 (Figure 7). Age at first marriage is used as a measure of entry into sexual activity for both boys and girls, as well as exposure to risk of pregnancy and childbirth for girls. Besides the biological aspect, marriage also has significant social and economic repercussions. Marriage includes formal

*Figure 6: Distribution by urban-rural areas and gender for the 20-24 age group*



*Source: Vital statistics Malaysia 2000. Department of Statistics.*

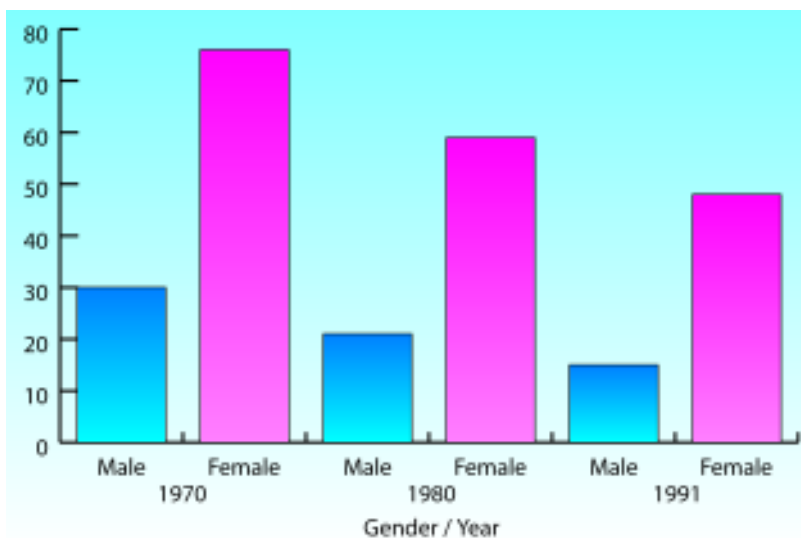
marriages, such as civil and registered marriages, religious marriages, customary weddings and common law marriages. Under the Malaysian Shari'ah law (for Muslims), the minimum age for marriage for women is 16 years and for men it is 18 years. Under the Civil Marriages law (for non-Muslims), the minimum age at first marriage for both women and men is 18 years of age.

The mean age at first marriage has increased. From below 20 in 1970 it rose to 23.3 years in 1990. In 1984, it was 26.9 years for men and 24.5 years for women, increasing to 28 years for men

and 24.9 years for women in 1994. The change in mean age at first marriage for the three major ethnic groups in the last five decades is shown in Figure 8. An increase in age at first marriage was observed among all ethnic groups, with Chinese women marrying much later than Malays or Indians. The interethnic differential was greatest in the 1950s and for the 15-19 year-old cohort. While the same trend was observed for the older cohort, the interethnic difference was less dramatic. Age at first marriage was also higher in urban areas.

The overall trend in age at first marriage may be explained by a multitude of factors, but rapidly expanding

*Figure 7: Percentage of male and female population (15-24 years old) ever married in 1970, 1980 and 1991*

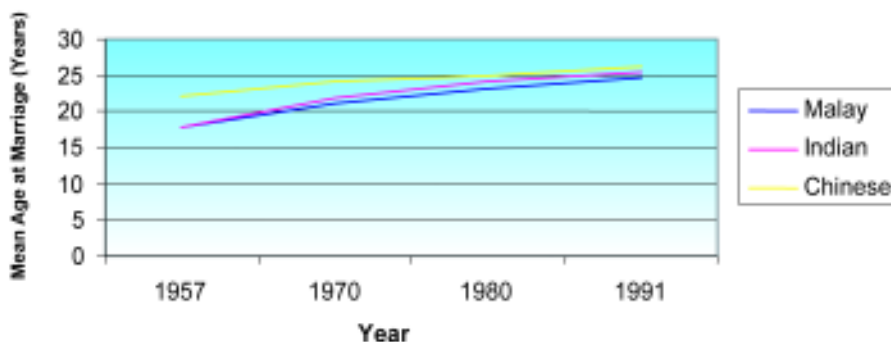


*Source: Population Census Report 1970, 1980, 1991. Department of Statistics, Malaysia.*

educational opportunities, especially for girls, may have resulted in the postponement of marriage. Other reasons include female independence and work participation away from home before marriage, and increasing freedom in the choice of marriage partner. The socioeconomic and educational basis behind the rising age of marriage is further strengthened by ethnic difference: Malay and Indian girls, as opposed to Chinese girls, had early marriages some three or two decades

ago, but that difference has decreased considerably. This single demographic profile is a significant contributor to better health for young people, especially girls and young women. The delay in marriage also has implications for family structures and population growth. As young people delay marriage, they also delay childbearing until they are older. Thus families tend to comprise older parents with fairly young children, and such couples are more likely to establish nuclear families.

*Figure 8: Singulate Mean Age at Marriage by Ethnicity, Peninsular Malaysia, 1957, 1970, 1980 and 1991*



*Source: Leete R. Malaysia's demographic transition: rapid development, culture and politics. Kuala Lumpur, Oxford University Press, 1996.*



### 3.2. Adolescent sexual and reproductive health status

This relatively broad theme is discussed under six sub-themes: knowledge, attitude and practice; sexual development; sexual behaviour; pregnancy and childbirth; STI and HIV/AIDS; and sexual violence. There is, as might be expected, considerable overlap among these sub-themes.

### 3.2.1. Knowledge and sources of information

The literature reviewed showed varying levels of knowledge among young people on various aspects of sexual and reproductive health. The Family Life Surveys, conducted from 1966 to 1989 (see Table 1), show that family planning knowledge has increased substantially and is widespread. Almost

Table 1: Percentage of currently married women who had heard of contraception, by age group; Peninsular Malaysia, 1966 and 1984; Sabah, 1989; and Sarawak, 1989

Survey	All methods	Efficient (Hormonal, IUD, sterilization and condoms)	Inefficient (Natural and traditional methods)
<u>WMFS, 1966-67 (1)</u>			
All respondents	82.0	-	-
Age group: 15-19 years	} 80.6		
Age group: 20-24 years			
<u>MPFS, 1984 (2)</u>			
All respondents	99	98	92
Age group: 15-19 years	96	95	84
Age group: 20-24 years	99	97	92
<u>Sabah PFS, 1989 (3)</u>			
	-	Lowest: vasectomy Highest: pill	Lowest: abstinence Highest: rhythm
All respondents		35.4 – 87.9	40.3 – 62.5
Age group: 15-19 years		8.7 – 75.0	23.9 – 53.5
Age group: 20-24 years		28.6 – 86.0	39.8 – 54.4
<u>Sarawak PFS, 1989 (4)</u>			
	-	Lowest: vasectomy Highest: pill	Lowest: abstinence Highest: rhythm
All respondents		36.1 – 96.8	31.0 – 55.5
Age group: 15-19 years		16.7 – 96.1	10.3 – 24.4
Age group: 20-24 years		26.4 – 98.8	28.3 – 48.8

Sources: (1) West Malaysian Family Survey 1966-1967; (2) Marriage and family formation in Peninsular Malaysia: analytical report of the 1984/85 Malaysian Population and Family Survey, 1988; (3) Population and Family Survey in Sabah 1989; (4) Population and Family Survey in Sarawak, 1989.

all the women interviewed reported that they had heard of family planning and were able to name at least three contraceptive methods. Adolescents aged 15-19 years knew less than young people aged 20-24 years. Another study in 1998 (see Table 2) showed that unmarried adolescents' knowledge on various aspects of sexual and reproductive health was variable.

Generally, girls knew more than boys about oral contraception (66.7% compared with 57.1%) but they were equal in terms of awareness on condoms. Both had a poor

understanding of the whole reproductive process, especially pregnancy. Knowledge on HIV/AIDS was more prevalent than on STI, possibly due to the extensive media coverage of HIV/AIDS, which could also explain the higher prevalence of knowledge on condoms among both sexes.

Table 3 illustrates that young people talk to mothers, teachers and friends about equally regarding puberty changes, pregnancy and contraception. However for male-female and sexual relationships, most of them talk with friends rather than mothers and teachers.

*Table 2: Percentage of respondents with correct responses on reproductive anatomy and physiology and who had heard of contraception, STI and HIV/AIDS, by gender*

Knowledge	Sex	
	Boys	Girls
Male reproductive anatomy	20.9	10.6
Female reproductive anatomy	25.3	23.3
Reproductive physiology – foetal development	47.8	61.0
Reproductive physiology – birth canal	36.0	44.6
Pregnancy – through sexual intercourse		85.3
Pregnancy – most likely at mid-cycle		18.7
Contraception – condoms	67.7	63.3
Contraception – pills	57.1	66.7
STI – ever heard of		65.3
AIDS - ever heard of		98.1
HIV Transmission – random sex		95.6
HIV Transmission – sharing needles		96.5

*Source: National study on reproductive health and sexuality of adolescents, 1994/1995. NPFDB, 1998.*

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

*Table 3: Percentage distribution of sources of information on sexual and reproductive health among adolescents aged 13-19 years*

	Source of information (ever discussed with) priority			
	First	Second	Third	Never
Puberty changes	Mothers (31.5%)	Teachers (31.5%)	Friends (29.4%)	(20.9%)
Male-female relationships	Friends (41.6%)	Mothers (11.2%)	Teachers (4.4%)	(35.5%)
Sexual relationships	Friends (21.1%)	Teachers (8.1%)	Mothers (5.7%)	(62.0%)
Pregnancy	Friends (14.5%)	Teachers (11.9%)	Mothers (11.0%)	(58.0%)
Contraception	Friends (11.2%)	Mothers (8.8%)	Teachers (7.5%)	(64.8%)

*Source: Report of the National Study on Reproductive Health and Sexuality of Adolescents, 1994/95. NPFDB, 1998.*

Besides these surveys, a 1986 study of 1200 mostly single adolescents aged 15-21 years in Kuala Lumpur city evaluated their knowledge of virginity, pregnancy, contraceptive methods, need for information and sources of information. About half of the respondents knew how virginity was lost, although 20.8% did not know. There was a significant difference between males and females, with 70% of males compared with 30% of females saying that "sexual intercourse" was how virginity was lost. About 50% of respondents scored "above average" on a set of six questions pertaining to pregnancy, while only 2.0% answered correctly, with female respondents faring better than their male counterparts. On

the whole, adolescents were not very knowledgeable about the various contraceptive methods apart from the pill and condoms, where 72% and 47.8% respectively were able to name the methods.

Yet another study involving older respondents (average age 22.6 years) at a university in the Klang Valley found that knowledge was low. Of the 114 medical students (year 4), 81 nursing students (years 2 and 3), and 85 students who registered for a Sexual Health Course, the average score was only 39.84 out of 72. The students were asked about physiological, psychological and social aspects of sexuality through the Sex Knowledge and Attitude Test Form

II. Male students scored higher than female students, and medical students did better than non-medical students, scoring 60.6% on average. A baseline survey of 100 students aged 15-17 years in the State of Melaka found that friends were the main source of social support and information, followed by teachers, magazines (girls only) and the Internet. On the other hand, family problems were discussed within the family. When asked to name information sources for sexual and reproductive health topics, about one-third to two-fifths answered "do not understand the meaning" and a quarter said "nobody." Newspapers and magazines were the primary sources for information about family planning, abortion and STI.

The varying, but generally low levels of knowledge in some areas of sexual and reproductive health is a cause for concern. Other disturbing features are the fact that this appears not to have improved over time, and that whatever little and often inaccurate information they have comes from sources that are not very reliable (such as from one another). The fact that young people do not, as a preference, approach parents and teachers for information on sexual relationships needs to be studied carefully. The reasons could reside in any number of possible areas, such as cultural norms, failure of parents/

teachers to communicate, or their own attitudes and lack of knowledge. This is relevant because interventions will need to be guided by the reasons. It is also significant that large number of adolescents (73%) expressed the need for more knowledge, indicating that they were aware of their own lack of information. This is a positive finding that needs to be used optimally in the formulation of policies, strategies and activities.

### **3.2.2. Sexual development**

The review could find very little literature on sexual development. Information was only found on menarche for girls and wet dreams for boys. For menarche, the 1994/1995 National Study on Reproductive Health and Sexuality showed that the overall mean age at menarche among the 706 female respondents (now aged 13-19 years) was 12.6 years. The range was from younger than 10 years (2.7%) to 14 years (5.4%). The majority (68.2%) had their first menstruation at the age of 11 or 12. When asked about their feelings at first menstruation, slightly more than half (54.0%) indicated that they had expected the event. Of those who had expected it, 48.2% said they had "felt afraid." That percentage rose to 77.4% for those who had not expected the onset of menstruation.

In terms of wet dreams, the NPFDB study reported that 63.2% of the 673 male respondents had had a wet dream, and the mean age at first experience was 13.8 years. Slightly more than half of the respondents (51.0%) had expected the event, and the majority (73.9%) had not been afraid. By comparison, 53.4% of the male adolescents who had not expected the event had also not been frightened by the experience, indicating that expectation is not associated with absence of fear.

### **3.2.3. Sexual behaviour**

Four aspects of sexual behaviour were discussed in the literature: dating behaviour; sexual debut; safe and unsafe sex, including contraceptive use; and masturbation.

#### **(1) Dating behaviour**

The 1994 -1995 National Study on Reproductive Health of Adolescents found that 73.5% of adolescents who had a special friend of the opposite sex (21.6%) had engaged in what they

perceived as “dating”. The frequency of dating increased from 55.5% among the 13-15 year-old age group to 72.7% for the 16-17 year-olds and 88.7% for those aged 18-19 years. The main venues for dating were shopping complexes, fast-food centres and lake gardens. Around 72% admitted that they had held hands, about 22% said they had kissed, and 11% said that they had engaged in “petting” (Table 4). A higher percentage of males than females reported that they had engaged in petting.

In a 1995 study in Kuala Lumpur, 1181 unmarried respondents were interviewed about their dating behaviour. The results are shown in Figure 9. In the study, 44% of the 1181 unmarried respondents (15-21 years old) had dated. The incidences of the various types of behaviour engaged in during dating varied between male and female respondents for “kissing and necking”, “petting” and “sexual intercourse”, with males reporting a higher level than girls. Female respondents reported a higher level of “no physical intimacy” than male respondents.

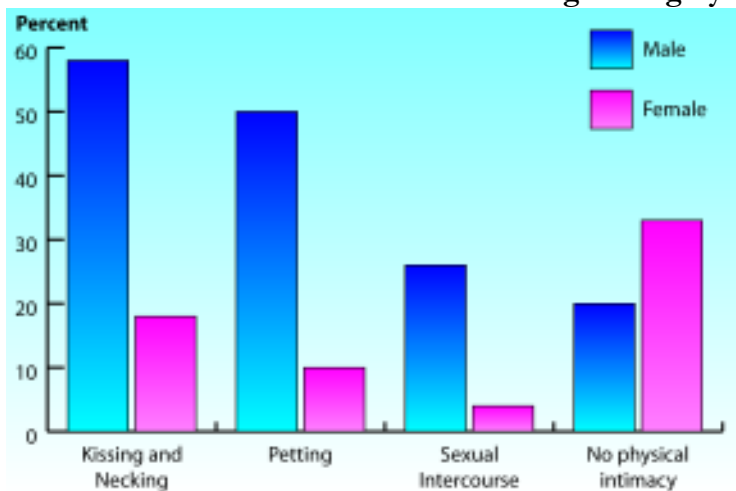
*Table 4: Percentage of adolescents currently dating, by behaviour practised with dating partner and selected variables*

	Holding hands	Kissing	Petting	Total number of adolescents
All	71.8	21.8	11.3	142
Sex				
Male	78.3	26.1	18.8	69
Female	65.8	47.6	4.1	73
Age				
13-15 years	51.6	9.7	6.4	48
16-17 years	68.8	12.5	8.3	63
18-19 years	84.1	34.9	15.9	
Residence				75
Urban	76.0	26.7	14.7	67
Rural	67.2	16.4	7.5	

*Source: National Study on Reproductive Health and Sexuality of Adolescents, 1994/95. NPFDB, 1998*

*Figure 9: Percentage of respondents engaging in sexual behaviour during dating, by gender*

**Distribution of Behaviour Performed During Dating by Sex**



*Source: Zulkifli SN, Low WY, Yusof K. Sexual activities of Malaysian adolescents. Medical journal of Malaysia, 1995, Vol 50 No 1 March 1995:4-10.*

The FFPAM Youth Sexuality Survey covered 1303 respondents aged 15-24 years of age from four states. Students (in-school adolescents) began dating at age 15, and the highest frequency was at age 18, for both girls and boys. For out-of-school young people, the first age for dating was between 18 to 20 years. The majority of in-school females (62.4%) had dated one to three males. A third had only dated one person. A maximum record of 10 partners was reported by 4.7% of the respondents. Some reported having 4-10 partners. Of the out-of-school young people, 40.4% of the females and 23.7% of the males had dated only one partner. The majority of those who had dated claimed "liking a person and wanting to know him/her better." It was reported that "couples tended to be circumspect on their dates," with the major physical contact being "holding hands". Few had engaged in sexual intercourse.

The findings regarding dating behaviour cannot be assumed to be very accurate, considering the sensitivity of the questions. Dating is an anathema to the old tradition of arranged marriages, which used to be common among all ethnic groups in Malaysia. The sensitivity becomes more apparent when the differentials between boys and girls are noted. Boys tend to claim they have been involved in such dating behaviour as

necking and petting, while girls tend to deny such behaviour. The differences reported are not likely to be the pattern in reality, since they involve reciprocal behaviour involving both sexes. The urban-rural difference and the age-specific pattern are as expected, with more urban and older youngsters involved in each type of dating behaviour. The challenge to policy-makers is obvious; if such types of behaviour are to be sanctioned based on cultural/religious grounds, and yet there is evidence that young people are engaged in them, what is the most appropriate response? To disallow such behaviour would require the very arduous task of putting in place sanctions to be enforced and monitored, let alone assessing their consequences. However, freely allowing such behaviour and taking a liberal approach is also not appropriate or acceptable.

## **(2) Age at sexual initiation (sexual debut) and sexual activity**

Data on age at first intercourse and incidence of sexual activity among adolescents are summarized in Table 5. The age at first intercourse (sexual debut) ranged from 9 to 24 years, with the highest frequency at 17-18 years. The percentage of young people who were sexually active ranged from 1% of adolescents aged 13 to 19 years

interviewed in a household survey, to 54% of inmates in drug rehabilitation centres. The NPFDB National Study found that only about 1% (13 of 1379 adolescents) admitted they had ever engaged in sexual intercourse. The FFPAM Youth Sexuality Survey found

that age at first intercourse was as young as nine years for male and female in-school respondents. Female out-of-school respondents and male out-of-school respondents reported their sexual debut took place between 15 and 25 years of age.

*Table 5: Age at first intercourse and sexual activity among adolescents*

Title of study	Respondents	Age at first intercourse (range)	Percentage sexually active
National Study on Reproductive Health of Adolescents 1994/95. (NPFDB, 1998)	Male: 673 Female: 706 N = 1379	15-17	<u>Ever had sex</u> 0.94 (13 cases)
- Household Survey	Male: 1242 Female: 654 N = 1896	16.4	27.2
Report on FFPAM Youth Sexuality Survey 1994. (Chiam HK, 1995)	<u>In-school</u> Male: 277 Female: 352 <u>Out-of-school</u> Male: 337 Female: 337 N = 1303	<u>In-school</u> Male: 10-21 Female: 11-21 <u>Out-of-school</u> Male: 15-25 Female: 9-24	<u>In-school</u> Male: 11.2 Female: 14.5 <u>Out-of-school</u> Male: 27.0 Female: 6.5
Sexual activities of Malaysian adolescents (Zulkifli, Low WY, Yusof K. Medical journal of Malaysia, Vol 50, No 1 March 1995.	Male: 792 Female: 408 N1 = 1200 N2 = 1181 (Unmarried)	n.a.	<u>All respondents</u> 8.9 Ever dated 20.1 Male: 26 Female: 5
Adolescents and AIDS (Ramaja Dan AIDS) (Samsuddin AR, Iran H, 1996)	3462 students 885 youths in rehabilitation centres		Students: 6 Inmates: 54
Sexual behaviour and HIV knowledge among dermatology cum genitourinary clinic attendees (Choon et al, Medical Journal of Malaysia, Dec 1997, 52(4): 318-324.)		Percentage who had intercourse before age of 20 years: Males: 22.5 Females: 30.9	-
JOICFP Project: Baseline Survey on Sexual and Reproductive Health of Adolescents and Youth (FFPAM, 2000)	<u>School-based (15-17 years)</u> Male: 50 Female: 50	n.a.	<u>School-based</u> 2 (2 cases)
Sexual practices in Malaysia. (Zulkifli SN, Low WY. Journal of adolescent health, 2000, 27:276-280)	Male: 242 Female: 225		All: 13 Male: 18.2 Female: 7.1

*Sources: As listed under column 1.*



The place for first sexual intercourse was “the bedroom” in about half of the responses, and male respondents reported “a hotel” as a close second choice. The survey also reported that, in most cases, the partner for the first sexual intercourse was a “date” or “steady girlfriend/boyfriend.” About 15% of in-school males and almost 27% of out-of-school males reported that their first sexual encounter was with a “prostitute.” For out-of-school females, 10 out of 22 reported that their first experience was coerced, with a “stepfather,” “conman” or “others.”

Besides the above surveys, the National Health and Morbidity Survey 1996 also asked

30 000 school-going respondents about their sexual behaviour, and 1.8% said they had had sexual intercourse, with male students twice as likely to be sexually involved than female (2.5% versus 1.2%). Of that number, 63.2% were heterosexual, 19.9% were homosexual, and 9.4% had sex with prostitutes.

A comparative study of students and drug rehabilitation centre inmates found that 6% of students and 54% of inmates had had intercourse before the age of 20. A study of attendees at one clinic reported that 22.5% of males and

30.9% of females had had intercourse before the age of 20. Another study of 100 students aged 15-17 years found that the incidence was only 2%. The mode age of sexual debut, 17-18 years, is probably not different from other similar countries. Whether or not this has changed over the years is not clear, since not many studies on sexual activity have been conducted on a longitudinal basis.

The common assumption that “most, if not all births occur within marriage” may not be true. Evidence shows that the mean age at first childbirth is 21 years; while the mean age at first marriage for females is 23.5 years (1980) and 25 years (1998). There are also data on births that record the ages of mothers as “unknown”. From anecdotal and media reports on the incidence of abandoned babies, it is reasonable to postulate that many of those mothers of “unknown” age are unmarried young women who have no recourse to family and other institutional support, and therefore abandon their babies hoping that someone will take better care of them. Inherent in this phenomenon is the deep sense of shame related to the societal sanction placed upon illegitimate births. As, in almost all cases, the identity of a woman who has given birth and abandoned her baby is not known, such events take place under clandestine circumstances.

### **(3) Contraceptive use and safe/unsafe sex**

The results of the fertility and family/population surveys carried out by the NFPB generated information on contraceptive use among married women. The rate increased almost seven times over four decades, from 8.8% in the mid-1960s to 55.8% in 1994 (Table 6). There was also an increase among younger age groups.

The prevalence of contraceptive use among the population is variable. In the NPFDB study, one-fifth of respondents said they had used condoms (21.5%), with lower rates for other methods: pills (6.1%); spermicides (2.2%); intrauterine devices (1.3%); and injectables (1.1%). In the Youth Sexuality Survey, when sexually active females were

asked about “precautions to prevent pregnancy,” 90% of the in-school females questioned admitted to not taking any measures, but 60% of the out-of-school females said that they did. On the other hand, about 30% of in-school males and 15% of out-of-school males said they took precautions to prevent pregnancy.

In another study, conducted in Kuala Lumpur, only 37% of the sexually active teenage respondents said they used some form of birth control, even although the majority knew about birth control methods. By far the most common method used was the condom (51%), followed by oral contraceptives (18%) and withdrawal (15%). Among those who did not use any contraceptives, about half explained that sex was not much fun with

*Table 6: Percentage distribution of currently married women aged 15-24 years who had ever used and were currently using contraception, by current age*

Survey	Ever used contraception			Currently using contraception		
	All	15-19 yr	20-24 yr	All	15-19 yr	20-24 yr
WMFS 1966-67	14		10	9.1		5.0
MFFS 1974	53	23.7	45.4	35.3	21.2	38.2
MPFS 1984/85	77	-	-	52.2	31	53
Sabah PFS 1989*	72.0	41.3	58.1	50.1	21.7	34.5
Sarawak PFS 1989*	77.7	52.6	71.3	57.9	37.2	51.6
MPFS 1994	Na	Na	Na	55.8		41.5

*Sources: (1) Report on the West Malaysian Family Survey 1966-1967. NFPB, 1968; (2) Malaysian Family and Fertility Survey 1974. NFPB; (3) Marriage and family formation in Peninsular Malaysia: analytical report of the 1984/85 Malaysian Population and Family Survey. NPFDB, 1988; (4) Population and Family Survey in Sabah 1989. NPFDB, 1992; (5) Report of the Population and Family Survey in Sarawak, 1989. NPFDB, 1992. (6) Population profile Malaysia. NPFDB, 1998.*

contraceptives or that they found contraceptives too difficult to use. One out of the two students in the Melaka study reported using contraception.

A concern, therefore, is that most sexual encounters are unsafe, with no protection against unwanted pregnancies or STI. From the various data sources, it is quite fair to estimate that that is the case for about 10%-20% of young people, and it appears that the issue of teen sexuality is not being adequately addressed by the relevant sectors.

Contraceptive use is a sensitive issue for which accurate information is not easy to obtain. Indeed the only reliable information is that for married women, for which the trend over time is very encouraging. Of course married couples practice contraception mainly for child spacing and family size limitation. The very few studies on unmarried young people suggest a relatively low usage rate. The condom is the most common method, probably due to easier availability, being available at retail outlets, and to increased awareness about safe sex since the spread of the AIDS epidemic. There were some respondents who cited "too difficult to use" as the reason for not using contraceptives.

In countries where policies do not disallow or criminalize contraception in

unmarried people, education on using various methods is carried out. In Malaysia, this is clearly out of the question. This review gives ample evidence that young people know about family planning, yet many of them do not access such services, citing reasons like being unprepared. The barriers to service utilization may also be service policies affecting family planning services in the country. Generally family planning is promoted for health reasons, with emphasis on child spacing and avoidance of risky pregnancies, and clinical services in the country's public sector are targeted at married couples. Those who are not married usually obtain services from the private sector and FPA clinics, while hormonal pills can be obtained from pharmacy retail outlets and condoms from general goods outlets. The FFPAM and other nongovernmental organizations are increasingly advocating for the promotion of sexual and reproductive health of adolescents, primarily through prevention education and also through provision of selected clinical services. However, it is feared that such services are unlikely to be utilized fully in view of the social sensitivity and religious sanctions against many matters related to sexuality.

**(4) Masturbation**

Three studies included questions about masturbation (see Table 7). The age at first masturbation was usually about 13-15 years, but a few respondents reported the first occurrence at 7-9 years for boys and 9-12 years for girls. All the studies show that more males than females engage in masturbation.

The NPFDB media survey reported that adolescents started masturbating at a mean age of 13.7 years. Two-thirds had masturbated, with a higher incidence among male (91.0%) than female respondents (61.2%). Slightly more than half masturbated one to three times per week. In the FFPAM study, the age at first masturbation ranged widely from seven to 23 years. The incidence of

masturbation among girls was less than 10%, compared with over 50% for boys. It should be noted, however, that 42.4% of in-school and 60.5% of out-of-school female respondents responded “do not know the meaning” or “no response” to the question. In-school males often masturbated to release tension (35.2%) and 29.2% had guilty feelings. For the in-school females, 23.1% had feelings of guilt. Some male and female respondents, 13.4% and 15.4% respectively, were “fearful it might harm the body.” Among the out-of-school subjects, 35.1% of males and 50.0% of females felt guilty. Another 16.0% and 25.0%, respectively, were fearful that it might harm the body. About a quarter of the out-of-school males reported that masturbation was for releasing tension. None of the female

*Table 7: Age at first masturbation and percentage who had masturbated*

Age at first masturbation (range)	Percentage who had masturbated
13.7 (mean age)	<u>Ever Masturbated</u> All: 70.0 Male: 90.0 Female: 61.2
<u>In-school</u> Males: 9-21 Females: 9-19	<u>In-school</u> Males: 55.6 Females: 7.4
<u>Out-of-school</u> Males: 7-23 Females: 12-23	<u>Out-of-school</u> Males: 68.5 Females: 5.0
Male: 14.4 Females: 15.5	

*Sources: As listed under column 1.*

respondents reported feeling good after masturbation.

An analysis of the sexual practices of the 1181 adolescents in the Kuala Lumpur study found that more males masturbated than females. Also, males started masturbating relatively early (at a mean age of 14.4 years, compared with 15.5 for females). Almost half of those who masturbated were worried, especially the females.

Like dating and contraception, Islam does not allow masturbation. The review shows that boys, and to a lesser extent girls, of all religious and ethnic groups do masturbate despite sanctions and rulings, and it is a difficult issue for policy-makers. It is extremely difficult (but not impossible) to reconcile religious/cultural standards and rulings to actual adolescent behaviour that is a natural outcome of biological and psychological changes. The fact that Malaysia consists of many communities with different religions and cultures makes the issue even more complex.

The sense of guilt and fear of bodily harm among adolescents who masturbate is also a matter of concern. Such feelings in themselves indicate poor mental health (anxiety and fear) for adolescents and their quality of life will be compromised by them. The sense

of guilt indicates that they are aware of the “wrongness” of the practice, but it does not stop them from practising it.

### **3.2.4. Pregnancy and childbirth**

Adolescents are not ready to start a family, from both a biological and a social perspective. Pregnancy and childbirth are high-risk events for young women because they are not physiologically or psychologically mature. This sub-theme is presented under three aspects: births/safe deliveries, abortions and maternal deaths

#### **(1) Births and safe deliveries**

The number of births to adolescent mothers in Peninsular Malaysia decreased from

23 113 in 1980 to 12 320 in 1998. (see Table 8 and Figure 11). Births to mothers in the 20-24 year-old age group decreased from about 101 685 births in 1980 for a period of about 10 years, but have stabilized at about 86 000 births annually. In both the below-19 and the 20-24 year-old age groups, total births declined between 1980 and 1998. The fact that so many mothers below 19 years of age still give birth is a cause for concern. However, the fact that the trend is declining is encouraging. The high proportion of safe deliveries (more than

97%) is another encouraging trend, if it can be assumed that this does not differ among the age groups. There are reports that indicate that “safe deliveries” increased from 85% in 1995 to almost

97% fifteen years later, and that “unsafe delivery” has been reduced to 0.8% in Peninsular Malaysia and 2.06% in Sarawak.

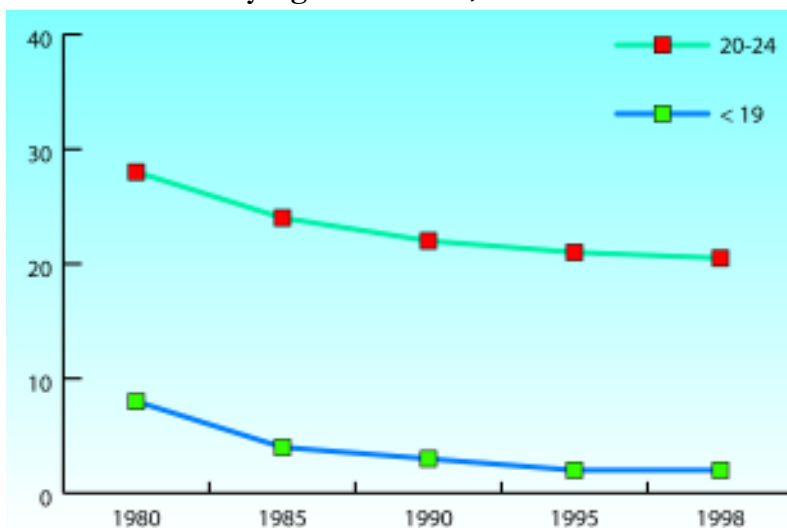
*Table 8: Number and percentage of live births in Peninsular Malaysia, by age of mother*

Age Group	1980	1985	1990	1995	1998
<15 years	165 (0.05)	130 (0.03)	133 (0.03)	164 (0.04)	132 (0.03)
15-19 years	22 948 (6.61)	17 645 (4.33)	13 433 (3.40)	13 110 (3.08)	12 188 (2.87)
20-24 years	101 685 (29.30)	103 288 (25.39)	84 810 (21.45)	88 627 (20.80)	86 517 (20.40)
> 25 years	221 926 (63.95)	284 975 (70.05)	296 526 (75.01)	323 496 (75.95)	323 112 (76.18)
Unknown	291 (0.08)	768 (0.19)	419 (0.11)	542 (0.13)	2208 (0.52)
Total	347 015 (100.0)	406 806 (100.0)	395 321 (100.0)	425 939 (100.0)	424 157 (100.0)

*Source: Vital statistics reports (various years). Department of Statistics, Malaysia.*

*Figure 10: Percentage of births to mothers <25 years in Peninsular Malaysia, by age of mother*

**Percentage of Births to Mothers, Peninsular Malaysia  
By Age of Mother, 1980-1998**



*Source: Vital statistics reports (various years). Department of Statistics, Malaysia.*

Another useful statistic is the number of children born to mothers in different age groups. Table 9 shows the mean number of children born, by age of the mother, in four surveys covering almost 30 years. As expected, the number of children born increased with the increasing age group.

## **(2) Abortions**

There is a paucity of data on abortions in the country, especially for the unmarried and adolescent population. Of the 3866 women surveyed in 1984, 16.3% had experienced at least one spontaneous abortion and 5.8% at least one induced abortion. Figure 13 shows the percentage distribution of the different types of abortion, by three age groups.

Lack of information is a major barrier to making any meaningful situational analysis. However, whether more data would lead to more meaningful interventions is questionable, given the religious and cultural sanctions against abortion. Even although “hard” data are not available on rates of abortion, observations and anecdotal reports suggest that the rates are not as low as might be expected.

## **(3) Maternal deaths**

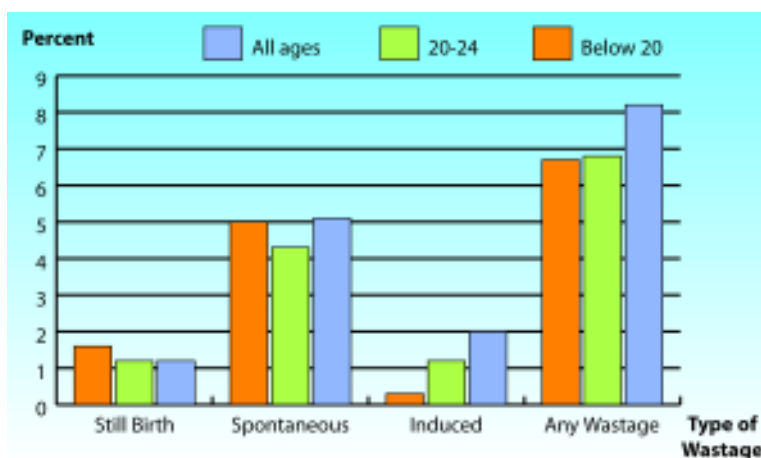
The Report on the Confidential Enquiries into Maternal Deaths in Malaysia in 1995 and 1996 states that only 3.6% of all maternal deaths were in women aged 15 to 19 years. That figure rose to 12%-13% for women aged 20 to 24 years (Table 10).

*Table 9: Mean number of children born (1974, 1984 and 1994), by age of mother*

Survey	15-19 years	20-24 years	All women
WMFS 1966		1.9	4.1
MFPS 1974	0.8	1.7	4.2
MPFS 1984	0.9	1.5	3.6
MPFS 1994	0.7	1.2	3.4

*Source: Population profile Malaysia. NPFDB, 1999.*

Figure 11: Percentage distribution of pregnancy wastage, by age of mother (MFSS 1984)



Source: *Marriage and family formation in Peninsular Malaysia: analytical report of the 1984/85. Malaysian Population and Family Survey. NPFDB, 1988.*

Table 10: Number and percentage of maternal deaths and maternal mortality ratios in Peninsular Malaysia and Malaysia in 1995 and 1996, by age of mother

Age	Peninsular Malaysia						Malaysia			
	No	1995 %	MMR	No	1996 %	MMR	No	1995 %	No	1996 %
All	189	100.0	44.4	159	100.0	36.7	251	100.0	220	100.0
15-19	4	2.1	30.5	4	2.5	29.4	9	3.6	8	3.6
20-24	31	16.4	34.9	20	15.9	22.1	45	17.9	29	13.2

Source: Report on the confidential enquiries into maternal deaths in Malaysia, 1995-1996. *Ministry of Health, Malaysia, 2000.*

The low rates in these groups correspond to the lower levels of fertility. A significant finding of the study was that almost two-thirds of women who died had never practised family planning. While the number of pregnancies in these age groups is also lower than in older age groups, it must be remembered that the risk of maternal death is highest

at extremes of age, and all efforts should be made to discourage births in young women.

### 3.2.5. Sexually transmitted infections

Two aspects are presented in this review – the incidence of sexually transmitted



infections, and the knowledge, attitudes and practices related to them

### **(1) Incidence**

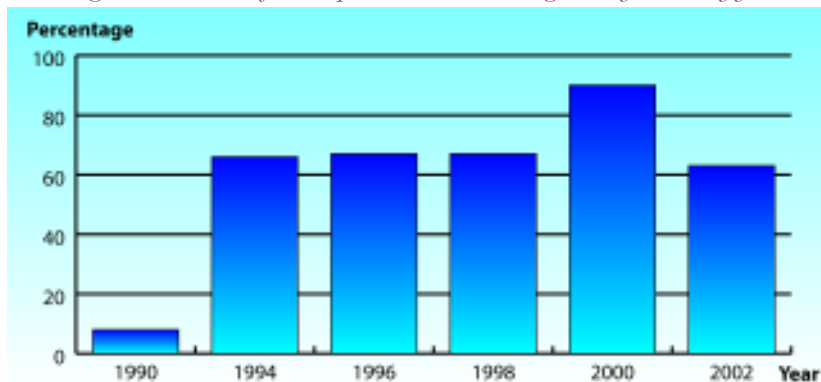
Figures on the incidence of sexually transmitted infections (STI) among adolescents were difficult to obtain. An analysis of 5485 visits by adolescents to eight government clinics found only seven cases (0.1%) had gone for treatment for urethral discharge and another 12, or 0.2%, for urinary tract infections. While such ailments cannot be construed as synonymous with STI, it is known that adolescents with sex-related problems often shy away from public clinics, where confidentiality is not well maintained.

HIV/AIDS was first detected in Malaysia in 1986, with the number of infected Malaysians increasing to 51 256 by the end of 2002. In 1990, 364 cases were

detected in those aged 20 to 29. There were only eight HIV-positive people between the ages of 13 and 19 years (see Figures 12 and 13). In 2001, 4.6% of HIV-infected persons seen at government clinics were in the 13-19 year-old age group, and 27.7% in the 20-29 year-old age group. In 2002, the percentages were 4.0% in 13-19 year-olds and 30.4% in 20-29 year-olds.

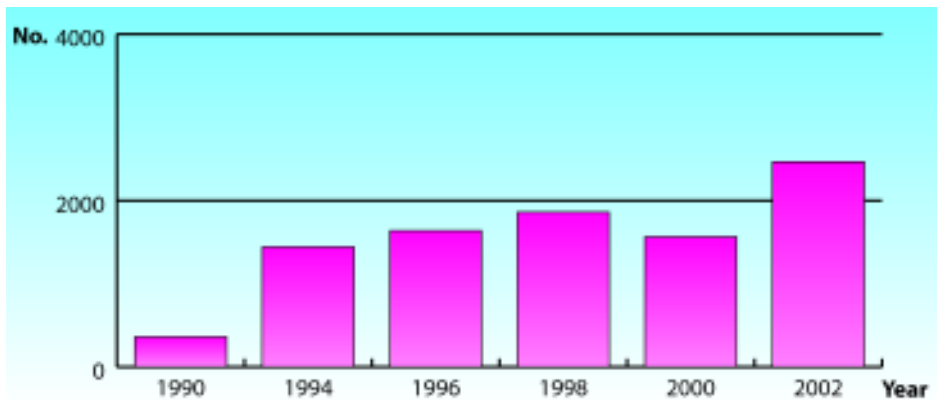
HIV/AIDS in Malaysia is closely linked to the drug epidemic. HIV rates among intravenous drug users were 21% in 1998, 27% in 1999 and 25% in 2000. It is also well known to be linked with factors associated with infection, included frequenting sex workers and the use / non-use of condoms. A study in 1995 showed that 80% of those infected did not use condoms, compared with 63.4% of non-positive respondents.

*Figure 12: Number of HIV-positives detected among 13-19 year-olds, by year*



*Source: Ministry of Health, Malaysia*

*Figure 13: Number of HIV-positives detected among 20-29 year-olds, by year*



*Source: Ministry of Health, Malaysia*

## **(2) Knowledge, attitudes and practices**

From the many studies reviewed, findings on knowledge, attitudes and practices regarding STI and HIV/AIDS include the following:

- Knowledge of HIV/AIDS is generally high and has improved over the years. HIV is better known than AIDS. A large proportion of young people know that there is no cure for AIDS. Those who are older and have had more years of formal education are more knowledgeable. Those who are older and/or better educated are more likely to acknowledge the fact that they need to take special precautions against HIV infection.

- The main modes of transmission (sex, needle sharing and blood transfusion) are known to almost all young people, but some mistakenly believe that mosquito bites and blood donations can also transmit the virus. Most young people know that befriending people living with HIV/AIDS, kissing on the cheek, sharing utensils and dishes, sharing toilets and holding or shaking hands are not modes of transmission.
- Some adolescents do not realize that people living with HIV/AIDS may not show symptoms until the later stages of their lives and that it is impossible to identify those with HIV/AIDS except through testing. Still, many are not willing

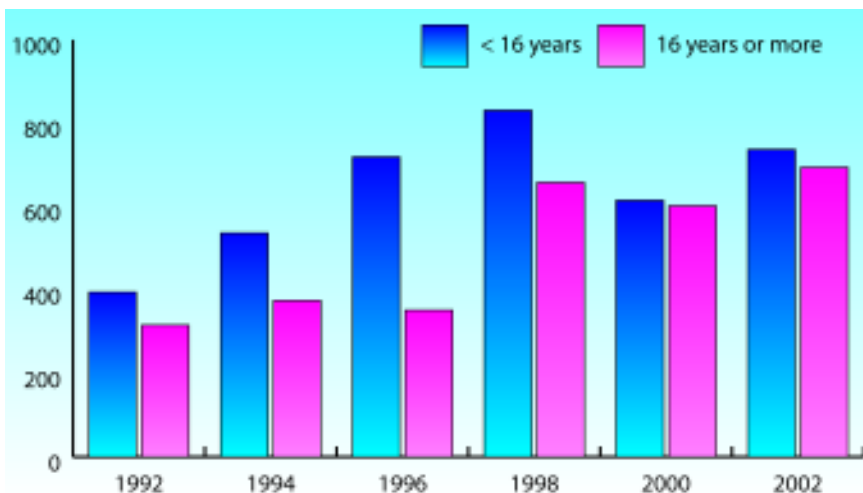
to mix with them. Knowledge of HIV/AIDS is positively correlated to acceptance of people living with HIV/AIDS. In general, adolescents are sympathetic towards those living with HIV/AIDS and believe in protecting their rights, but they are not able to translate that attitude into behaviour change within themselves.

- Young people do not see themselves as vulnerable, even although they know how the virus is spread. Perceived susceptibility, severity of HIV/AIDS and ability to protect from HIV infection are positively related to attitudes towards HIV/AIDS. Only perceived severity of HIV/AIDS and subjective norms (peer pressure) tend to have influence over behaviour.
- Knowledge and use of condoms is low, even among vulnerable groups like drug addicts, which is a worrying trend considering three-quarters of HIV/AIDS cases in Malaysia are among injecting drug users. Many adolescents would not insist on using a condom to protect themselves from HIV/AIDS.

### **3.2.6. Sexual violence**

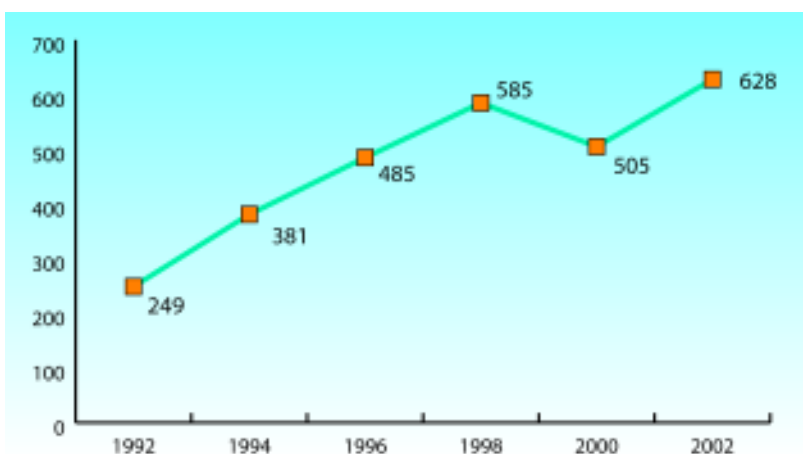
Large numbers of young men and women face risks to their sexual and reproductive health, such as HIV, STI, sexual violence, and drug and alcohol abuse. Young women face particular risks because of their biology, discrimination regarding access to information and services, and constraints imposed by society (see Figures 14 and 15). While violence against women has been hotly debated in the last few years, violence against adolescents, specifically adolescent girls, has been neglected. In a study of 616 paramedic students, it was found that 8% of the women and 2% of the men had reported sexual abuse. This was defined as “vaginal or anal penetration, or unsolicited sexual contact and witnessing exhibitionism before the age of 18”. In another study of 214 female dental nursing students, 1.4% of the respondents reported that they had been raped when they were five or six years old. The data suggest that sexual abuse is more common than is being reported to the police. The 2002 Rape Report quoted a local study by a doctor at the General Hospital in Kuala Lumpur, who estimated that only one in ten rape survivors report their rape.

Figure 14: Number of reported cases of rape, by age of the survivors and year



Sources: (1) Rastam A, ed. *The rape report: an overview of rape in Malaysia*. AWAM and SIRD, 2002; (2) The Royal Malaysian Police.

Figure 15: Number of rape survivors who were students, by year



Sources: (1) Rastam A, ed. *The rape report: an overview of rape in Malaysia*. AWAM and SIRD, 2002; (2) The Royal Malaysian Police.

Little information about the perpetrators is available. However data for 2000, 2001 and 2002 reveal that 6.4%, 6.6% and 7.4%, respectively, were students. Thus there seems to have been an increase in the number of adolescent perpetrators. Findings indicate that the rapist is often known to the victim, and that many cases of rape occur, not in isolated places, but in places assumed to be safe by the victims, suggesting an element of gullibility, and perhaps fear among the victims. This is also a clear indication of breach of trust, and suggests that the number of cases reported to the police is likely to be much lower than actual incidence, since many of the victims, especially the young, would be coaxed or coerced into keeping their silence. The fact that some perpetrators of rape are young people themselves, albeit not a very large proportion, is in itself a reflection of unhealthy behaviour among young people.

Contrary to belief, only 20% of rapes took place in isolated places and 67% took place in the home or buildings (not hotels), places generally regarded as safe by women. Using 1988 data, analysis of the relationship of the perpetrator and the rape survivor revealed that 16% were strangers and 8% were new

acquaintances. The rest of the survivors knew the person who raped them, with 35% being colleagues or people from the same village, 19% boyfriends, 13% were cases of incest, 7% family members, and another 8% employers, teachers or the “*Bomoh*” (traditional medicine man).

Incest is defined as being raped by a blood relative, and involves a severe breach of trust. The impact is often long-lasting. Victims are often children and the violation has often occurred over a long period of time before being reported. Victims are forced into silence or, in some cases, made to take the blame. Because the Royal Malaysian Police classify suspects into specific categories, it is not possible to differentiate a blood relative from one who is related by marriage. Incest is assumed to be more serious than rape, not only from the point of view of unhealthy familial dynamics, but also the likelihood that it can be perpetrated over a longer period of time, especially if the girl is coaxed or coerced into silence. Further, the psychological effect of incest is more severe than rape considering the family relationships and the complexity of the factors that lead to incest and help to maintain it, including in many cases, the role and knowledge of the victim’s mother.

### **3.3. Policies and legislation**

#### **3.3.1. Policies**

The review revealed some very encouraging trends in terms of the overall policy environment concerning adolescent general health. However, it is also apparent that sexual and reproductive health is not being addressed as extensively as other areas of adolescent health, especially in government policies, which is a reflection of the sensitivity of the subject due to religious teachings and rules governing sexuality. From the literature reviewed, policies in Malaysia that address adolescent health can be divided into three areas: the overall policy environment; the National Adolescent Health Policy; and other, less specific policies that contribute to adolescent health.

##### **(1) Overall policy environment**

In the social sector, the three main agencies (health, education and social welfare) have clear and deliberate policies that enhance the well-being and development of children, adolescents and young people. National policies support the positive development of children through education. However, the literature suggests that little is being done regarding sex education in schools.

##### **(2) The National Adolescent Health Policy**

Malaysia is one of the first few countries in the WHO Western Pacific Region to have formulated a specific health policy for adolescents. In 2001, the National Adolescent Health Policy was launched. The policy is designed to “encourage and ensure the development of adolescents in realizing their responsibilities for health and empower them with appropriate knowledge and assertive skills to enable them to practice healthy behaviour through active participation.” It is a health policy, but it also addresses issues related to other sectors, such as social sectors, which involve the family, society, employment and the law.

##### **(3) Other supporting policies**

There are other specific policies in the health and health-related sectors that address adolescent health. The 1990 National Social Welfare Policy emphasizes social integration, social cohesion, community participation, social education, social development and care of special groups to ensure optimal realization of potential and opportunities. Among the special groups served are children, adolescents and women who are in difficult circumstances. The Education Development Plan aims to ensure that

all citizens have access to 12 years of quality education. The National Youth Development Policy 1997 is designed for young people aged 18 to 25 years and advocates several health-promoting activities among young people. However, sexuality is still not explicitly addressed. There are also other initiatives to improve the health of young people. For example, Muslim couples intending to marry are required to undergo formal training to enhance their knowledge of the responsibilities of married life and parenthood before they can obtain a license to marry. Efforts have begun to introduce such a practice to the other religious groups in the country.

### **3.3.2. Legislation**

The protection of children, adolescents and young people is addressed by various laws. In many areas of sexual and reproductive health, especially those related to marriage, family and inheritance, there are different laws for Muslims (subject to Shari'ah law) and non-Muslims (subject to civil law).

#### **(1) Marriage, sexual relations**

In many societies, sexual relations and pregnancy are socially and legally acceptable only if they occur within marriage. Many individuals, adolescents

included, receive their sexual initiation upon marriage. Laws setting a minimum age for marriage are almost universal. The Malaysia civil law (Family Law on Marriage) states that a person must be at least 18 years of age, and the consent of parents/ guardian must be obtained for those older than 18 but younger than 21 years of age. Under Muslim law, the minimum age for girls to marry is 16 years, and for boys it is 18 years. Consent is a requirement for all girls and women, irrespective of age.

#### **(2) Abortion**

Laws authorize abortion only where the life or the health of the woman is threatened, Section 312 of the Penal Code allows "medical practitioners registered under the Medical Act 1971 to terminate the pregnancy, if he/she is of opinion, formed in good faith, that continuation of the pregnancy would pose a greater risk to the life, or mental or physical health of the pregnant woman than if the pregnancy were terminated". The *fatwa* (Muslim ruling) on termination of pregnancy allows it with no conditions within 40 days of conception, and between 40 and 120 days on the condition that continuation of the pregnancy would endanger the health or life of the mother and fetus.

**(3) Protection against abuse and exploitation**

The Child Act 2001, which covers persons under the age of 18 years and is in line with the Convention on the Rights of Child, provides protection for children against abuse, exploitation and violence. It is a promulgation of three acts: the 1947 Juvenile Court Act; the 1973 Protection of Women and Girls Act; and the 1991 Protection of Children Act. The Penal Code (Act 574) addresses a minimum age for specific offences. The law protects children from being sold or bought for the purpose of prostitution: “Whoever buys, hires or otherwise obtains possession of any person under the age of 21 years with intent that such person shall be employed or used for the purpose of prostitution or illicit intercourse shall be punished with imprisonment for a term which may extend to ten years and shall be liable to a fine.” A section addresses kidnapping of a minor from lawful guardianship. It states that “whoever takes or entices any minor under 14 years for male, and 16 years for female, out of keeping of the lawful guardian of such minor, without consent of such guardian, is said to kidnap such minor from lawful guardianship”. Regarding consent for sexual relationships, the age of consent is 16 years for females and 13 years for males. Any sexual relationship below the age of consent is statutory rape

**(4) Access to obscene materials**

The sale of obscene objects to young persons is addressed in Section 293 of the Penal Code. It states that “whoever sells, lets to hire, distribute, exhibits or circulates to any person under the age of 20 years any such obscene objects or offers or attempts so to do, shall be punished with imprisonment for a term which may extend to five years or with a fine or with both.” While the control of obscene material on the Internet is a very challenging issue, there are several cyber laws that can be applied to protect young people from such negative influences.

**(5) Access to and use of substances (drugs and tobacco)**

It is common for adolescents who use drugs and alcohol to engage in risky types of behaviour, including sex. Pertinent to this is the law governing the sale of tobacco products, by which a seller commits a crime if he sells tobacco to persons below 18 years.

***3.4. Interventions***

The review revealed that some interventions have been put in place to respond to adolescent sexual and reproductive health needs. While there are many kinds of intervention, two major types are described: education and



information; and services, especially health services.

### **3.4.1. Education and information**

While there are no laws requiring schools to include sexuality education in their curricula, some efforts have been made to address other aspects of adolescent health. The slow and uncertain uptake of sex education is due to the cultural and religious realities of the country. Informal sex education has also taken place outside the school setting, carried out by both governmental and nongovernmental agencies.

#### **(1) Formal (school) education**

The Ministry of Education's Family Health Education programme provides education and training to encourage healthy lifestyles and responsible living. Sex education or adolescent reproductive health is called Family Health Education (FHE) in Malaysian schools, and is an educational programme designed to give students accurate, up-to-date knowledge about human sexuality — its biological, psychological, sociocultural and moral dimensions. Since the implementation of the Integrated Secondary School Curriculum in 1989, elements of FHE have been taught in secondary schools through physical and health education, science, biology, moral and Islamic

education classes. Since 1994, elements of FHE have also been introduced to primary-school children through physical and health education. The aim of FHE is to help students learn about the physical, educational and social changes they undergo. FHE also gives them skills to cope with those changes and maintain healthy relationships with family members, friends and other members of the community.

At the same time, curricular materials and teaching strategies are tailored to suit the special needs of schools in high-risk areas. Special projects, such as the Healthy Lifestyle Pilot Project and Preventive Education on HIV/ AIDS, are intervention programmes aimed at equipping both teachers and students with specific skills. For Muslims, sexual and reproductive health is taught in Islamic Education, which is a compulsory subject. It includes the internalization of Islamic values and good conduct, as well as practices contained in the instructions for the Muslim way and duties of life.

The Ministry of Education faces several challenges with FHE and Islamic Education. FHE, despite being around for many years, has not been as effective as was hoped. Monitoring efforts have found that teachers either shy away from teaching the component or do not have

the skills to deal with sensitive subjects. Such situations are lost opportunities because schools have the resources and facilities to make educational programmes work.

## **(2) Informal (out-of-school) education**

Several other agencies, in both the government and non-government sectors, have started programmes to address adolescent health. These are carried out through youth activities, the majority of which are community-based. Under the AIDS Prevention Programme, there is a special activity targeting young people on how to live a life free from HIV/AIDS using peer education. Other agencies involved in developing and implementing training modules related to adolescent health are NPFDB, the Muslim Religious Council, the Malaysian AIDS Council, FFPAM and other nongovernmental organizations. Education materials produced by religious government agencies do not cover topics related to sexuality and do not mention sexual harassment. The products of nongovernmental organizations are often more creative and explicit when compared with those produced by government agencies. There is concern about the availability of materials in multiple languages, including Braille and

sign language, to ensure balanced coverage for all ethnic groups and the disabled. Another concern is the training of teachers, trainers, facilitators and counsellors to deliver effective sexuality education.

Several training modules have been developed for health care workers, including one on health problems commonly encountered among adolescents and how to manage them, a module focusing on mental health of young people, and another on counselling techniques. There is also a document on standard operating procedures for managing adolescents' clinics. More innovative approaches have been designed for education on sexual and reproductive health. For example, the FFPAM has developed the electronic Reproductive Health of Adolescents Module (e-RHAM), which will enable wider coverage and a more current mode of learning.

### **3.4.2. Services**

Adolescents need a wide range of services, especially health services. While health care is the core function of the Ministry of Health, other government agencies also provide health care to young people. In addition, many nongovernmental organizations provide adolescent health services.

#### **(1) The providers**

Several government ministries are actively involved in activities related to adolescent sexual and reproductive health, including the Ministry of Health, the Ministry of Education, the Ministry of National Unity and Welfare Services, the Ministry of Women and Family Development, and the Ministry of Youth and Sport. The police and local authorities are also involved. The FFPAM is a nongovernmental organization that provides family planning and reproductive health services to everyone, including young people. With branches in all the states, FFPAM provides static, as well as outreach reproductive health services throughout the country. Other active nongovernmental organizations include the Women's Action Society Malaysia, the Women AIDS Organization (WAO), and the Malaysian AIDS Council. The private sector provides curative and rehabilitative care at private hospitals and doctors' offices for those with illnesses related to sexual and reproductive health.

#### **(2) The approach and principles**

The review found several key principles of adolescent health, most detailed in the Ministry of Health's National Adolescent Health Policy, including:

- responding to the real needs of adolescents and young people;
- availability of and access to youth-friendly services;
- active participation by adolescents in health-related activities;
- intersectoral collaboration to address the spectrum of biological, social, economic, cultural and political factors that affect adolescents' sexual and reproductive health;
- community participation;
- consideration of cultural sensitivity; and
- encouraging research to improve services.

#### **(3) The content**

Much of the reviewed literature emphasizes that services related to contraception are only available for married young people through the family planning services offered by the respective agencies. However, it is probable that unmarried young people avail of such services from the private sector and also from nongovernmental

organizations. The situation appears ambiguous – while it is a religious ruling that disallows contraceptives from being provided to unmarried couples, it is most often taken to be an understanding that this should be so. There is no explicit policy to that effect and no laws to provide for it. Thus in non-government service outlets, young unmarried individuals may get advice and other services related to family planning.

#### **(4) Information system**

Some of the literature reviewed mentions the need for an information system to capture relevant and useful information. A comprehensive national information system on adolescent health is especially important in planning, monitoring and evaluating activities, so that remedial action can be taken. Sharing and optimal use of data are also important for further research in relevant areas. There is also a need for better coordination of all parties involved, including community participation and active involvement.

## **4. Recommendations**

Based on the findings and the discussions on this review of adolescents' sexual and reproductive health, the following seven recommendations are put forward:

### ***4.1. Raising awareness***

Policy-makers should be better informed about the importance of adolescent health and sexual and reproductive health. They should also understand the serious consequences if this important issue is not addressed adequately. The general public plays an important role in supporting policies and programmes for adolescents. There is a need to use the mass media optimally, and to ensure that there are many avenues for disseminating

information about adolescent health. Bearing in mind the sensitivity of the subject, it will require innovation to identify effective approaches for public education and information.

### ***4.2. Strengthening sexual and reproductive health education***

The review found that many young people had expressed a need for more sexual and reproductive health knowledge. Current efforts in sexual and reproductive health education should therefore be scaled up. Two of the most significant findings from the review were: adolescents' uneven knowledge on sexual and reproductive health; and,

where knowledge was high, the fact that it was not being applied by following safe practices. Sexuality education must also be designed to ensure that knowledge can be accompanied by skills. There appears to be a good amount of teaching material, but it is not being used optimally. The proposals for sexual and reproductive health education for those outside the school system, including very young children and pre-schoolers, should also be actively pursued. It is also recommended that current educational efforts and methods be evaluated, so that weaknesses and strengths can be identified and necessary improvements made.

### ***4.3. Strengthening service provision***

While the Ministry of Health and several other agencies have begun to provide adolescent health services, the content emphasis is less on sexual and reproductive health and more on general health. It will require motivated health service providers to carry out sexual and reproductive health services, including counselling. However, many health providers do not have enough knowledge and skills to do so. Efforts begun by the Ministry of Health to develop modules for health providers should be continued and strengthened.

Health care providers need to be aware of their own attitudes towards adolescents' sexual and reproductive health. Health care workers will also need training in how to be sensitive to adolescents' needs and concerns while still respecting cultural beliefs. Several reports state that services provided by the Ministry of Health are not adolescent-friendly. This is postulated to contribute to the underutilization of health services. In addition to the attitudes of service providers, the design and layout of clinics may also be discouraging young people from using them.

### ***4.4. Clarifying policies***

It is challenging to reconcile ideal goals with what happens in reality with respect to service provision regarding such areas as pre-marital sex and non-use of contraceptives among young people engaged in sex. Such a difficulty, however, should not be seen as an insurmountable barrier. More efforts should be made to consult with religious leaders and other community leaders. It is suggested in some of the literature that not enough effort has been made to reconcile educational and other policies with social and religious values and rulings.

#### ***4.5. Enforcing existing laws and making new laws***

There are laws protecting young people, such as those prohibiting sexual violence. However, several reports claim that enforcement may not always be optimal. Some studies suggest that the rate of reporting is low, and that there is likely to be a higher incidence of sexual abuse than reported. Therefore it is recommended that the reporting system be improved. Efforts should be made to identify new areas for legislation, such as a stronger, more explicit policy on sexuality education.

#### ***4.6. Strengthening interagency partnerships***

Since it is clear that many agencies need to be involved in adolescents' sexual and reproductive health, interagency partnership and coordination is crucial. Some studies suggest that schools have been unable to carry out sexual and reproductive health education because of a shortage of trained teachers, but that they have not tried to get support from other agencies or nongovernmental organizations. Several approaches can be identified to strengthen interagency

partnership, and these must be pursued actively by all agencies, such as by forming a task force involving all concerned.

#### ***4.7. Conducting more research***

There are several gaps in current knowledge on adolescents' sexual and reproductive health in Malaysia. For example, there is little information about abortion, and such knowledge could be useful in making policies and designing intervention strategies. It could also highlight the impact of current policies. There is no information about sexual development, except concerning wet dreams and onset of menarche. Research is needed to identify the best approaches for adolescents' sexual and reproductive health education, and to evaluate the impact of such education. There is also a need to improve and standardize research methods to obtain reliable information. Non-threatening approaches should be used to gather information from and about adolescents. It is also recommended that all agencies should coordinate their research, so that important areas are covered and duplication is avoided.

## **5. Conclusions**

Adolescent health is increasingly being recognized as an important component of a country's well-being and of health services provision. Like many other countries, Malaysia will need to increase efforts in this area, based on adequate information and evidence. There are several studies and much literature produced by many sectors and individuals interested and involved in adolescent health. However, while they contain useful information, it is scattered and fragmented. This review has managed to bring together some of that information, and the analyses carried out have provided an impetus for more work to be done towards improvement of adolescent health in terms of policies, strategies, activities and interventions.

## Annex 1. List of literature search on adolescent sexual and reproductive health in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
1	Remaja dan AIDS (Adolescents and AIDS)	AIDS Unit, Ministry of Health, Malaysia	Rahim SA, Herman I	1996	Yes	Text	reproductive health status.
2	Penilaian Intervensi Sosial PROSTAR Terhadap Kesedaran AIDS di Kalangan Remaja (Evaluation of PROSTAR as Intervention for increasing awareness on AIDS among adolescents)	HIV AIDS Unit, Ministry of Health, Malaysia	-		Yes	Text	Intervention (services)
3	HIV/AIDS: the realities, the challenges	Ministry of Health, Malaysia	Riji HM, Pataki-Schweizer KJ	2002	Yes	Report/Monograph	Reproductive health status, challenges
4	Malaysian Health and Lifestyle Survey 1992	AIDS Unit, Ministry of Health, Malaysia	-	1992	Yes	Report	Reproductive health status demographic profile
5	Consensus report on STI, HIV/AIDS epidemiology, Malaysia	Ministry of Health, Malaysia	-	2001	Yes	Report	Reproductive health status
6	Prevalence survey of STD among sex workers and women attending antenatal clinics 1999-2000	WHO Western Pacific Regional Office/Ministry of Health, Malaysia	-	2000	Yes	Report	Reproductive health status
7	HIV/AIDS epidemic in Malaysia	AIDS Unit, Ministry of Health, Malaysia	Kasri AR	2002	No	Ministry of Health Report/Updates	Reproductive health status
8	HIV AIDS situation, Malaysia	AIDS Unit, Ministry of Health, Malaysia	Kasri AR	-	No	Ministry of Health Report	Reproductive health status
9	HIV seroprevalence and behaviour among long distance drivers	AIDS Unit, Ministry of Health, Malaysia	-	2001	No	Report	Reproductive health status
10	HIV seroprevalence and behaviour among inmates in Pusat Serenti	AIDS Unit, Ministry of Health, Malaysia	-	1998	No	Report	Reproductive health status
11	Behavioral survey of commercial sex workers in Kuching	AIDS Unit, Ministry of Health, Malaysia	-	2001	No	Report	Reproductive health status
12	HIV seroprevalence survey of commercial sex workers in Kuala Lumpur	AIDS Unit, Ministry of Health, Malaysia	-	2000	No	Report	Reproductive health status
13	HIV seroprevalence among pregnant women in KL	AIDS Unit, Ministry of Health, Malaysia	-	1999	No	Report	Reproductive health status
14	HIV seroprevalen dan factor yang mempengaruhi nya di kalangan nelayan (HIV seroprevalence and factors affecting it among fishermen)	AIDS Unit, Ministry of Health, Malaysia	-	1997	No	Report	Reproductive health status
15	Family profile	National Population and Family Development Board, Malaysia (NPFDB)	-	1999	Yes	Report	Reproductive health status Demographic profile



## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
16	Population profile	NPFDB	-		Yes	Report	Reproductive health status Demographic profile
17	National Study on Reproductive Health and Sexuality of Adolescents in Malaysia	NPFDB	Karim R	1996	Yes	Executive summary	Reproductive health status, KAPB, Problems, Challenges & Recommendations
18	V2F Project: Study of reproductive health of adolescents in Malaysia- Annual report 1996	NPFDBM, FFPAM, Ministry of Health, Malaysia	-	1997	Yes	Report	Intervention (Services)
19	The rape report 2002	Royal Malaysian Police	-	2002	No	Report	Reproductive health status Demographic Profile
20	Penal Code (Act 574)	Legal Research Board	-	2000	Yes	Text	Laws & policies
21	Sexual and reproductive health education in schools – Family health education and Islamic education: the curriculum, implementation and challenges	Curriculum Development Centre, Ministry of Education, Malaysia	Maimunah SZ	2003	No	Paper presented at Seminar on National Advocacy On Educating Young People About Sreproductive health Rights 23-24 March 2003	Intervention (Education) Problems, Challenges & Recommendations.
22	Laporan Kumpulan Kerja Teknikal Mengkaji Isi Kandungan Bahan Pendidikan Kesihatan Reproduksi / Seksualiti (Report of TWG on content for sexual and reproductive health education)	Kementerian Pendidikan Malaysia (Ministry of Education)	-	2002	Yes	Technical Working Group Report	Intervention (Education)
23	Study on health and behavioral problems of adolescents: a school-based intervention program	Public Health Dept, HUKM	Hanafiah MS et al	1996 – 1999	Yes	Public Health Bulletin 2000 (Special Edition)	Intervention, KAPB, Areproductive health concerns & needs
24	Predictors of high-risk adolescents to sexual behaviour	Public Health Dept, HUKM	Hanafiah MS et al	Aug 1992	No	Paper presented at HUKM	Reproductive health status of women, reproductive health concerns & needs
25	Adolescent problems and parental roles- A case study	Public Health Dept, HUKM	Hanafiah MS et al	Feb 1992	Yes	Proceedings of 2nd National Conference on Caring Society, ISIS, Malaysia	Areproductive health needs & concern Reproductive health status
26	Induced abortions among women in KL (Epidemiological features and reasons for induced abortions among women in KL)	Public Health Dept, HUKM	Hanafiah MS et al	1989	Yes	Research Priority	Reproductive health status of women

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
27	Psychosocial problems among female adolescents from two schools in KL	Public Health Dept, HUKM	Hanafiah MS et al	1993	Yes	Medical journal of UKM, 1993, 15(2):143-149	reproductive health status reproductive health status
28	An important predictor of potential child neglect among adolescents	Public Health Dept, HUKM	Hanafiah MS et al	1994	Yes	10th International Congress on Child Abuse and Neglect	Reproductive health status
29	Contraception practices among unmarried women versus married women	Public Health Dept, HUKM	Hanafiah MS et al	1989	-	-	Reproductive health status
30	Study on health and behavioural problems of adolescents: a school - based intervention programme	Public Health Dept, HUKM	Hanafiah MS et al	1999	Yes	IRPA Report	Reproductive health status
31	Perbandingan perilaku pelajar di antara Sek. Men. Agama dan Sek. Men Kebangsaan (Comparative study on the behaviour of students in religious school and secular school)	Public Health Dept, HUKM	Hanafiah MS et al	2000	Yes	National Education Seminar Proceedings	Reproductive health status
32	Masalah disiplin remaja: hubungannya dengan status interaksi remaja dengan ibu bapa di kalangan remaja sek. men. di Gombak (Adolescent disciplinary problems associated with parental interaction, in Gombak District)	Public Health Dept, HUKM	Hanafiah MS et al	2000	Yes	National Education Seminar Proceedings	Reproductive health status and reproductive health concerns and needs Intervention
33	Cabaran-cabaran dalam melakukan intervensi terhadap remaja (Challenges in carrying out interventions among adolescent)	Public Health Dept, HUKM	Hanafiah MS et al	2002	No	Report paper	Reproductive health status Intervention
34	Faktor risiko dan perilaku berisiko tinggi di kalangan remaja awal perbandingan etnik (Risk factors and high risk behaviours among early adolescence by ethnic)	Public Health Dept, HUKM	Hanafiah MS et al	N A	N A	Report paper	Reproductive health status, Concerns and needs
35	Kajian perbandingan antara remaja berisiko dan remaja normal mengenai kaedah keibubapaan (Comparative study on parenting method between high risk and normal adolescents)	Public Health Dept, HUKM	Hanafiah MS et al	2003	Yes	IRPA Report	Reproductive health status, Concerns & needs
36	Kajian terhadap keluarga yang mempunyai remaja berisiko tinggi, terhadap intervensi bersandar komuniti (Study on families with high-risk adolescents)	Public Health Dept, HUKM	Hanafiah MS et al	2003	Yes	Report	Reproductive health status

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
37	Comparison of parenting practice Between High Risk Adolescent and Low Risk Adolescent in Selayang Selangor	Public Health Dept, HUKM	Hanafiah MS et al	2000	Yes	Paper presented at IRPA Conference	Reproductive health status, KAPB
38	Cabaran Remaja di Alaf Baru: Dari Perspektif Ibu Bapa (Adolescent challenges in the new era: from parents' perspective)	Public Health Dept, HUKM	Hanafiah MS et al	1998	NA	Report	Reproductive health status, Concerns and needs
39	Challenges in school and community-based Interventions for high-risk adolescents	Public Health Dept, HUKM	Hanafiah MS et al	2003	Yes	Report	Intervention, Reproductive health concern and needs
40	Perbandingan persepsi interaksi antara anak remaja, ibu dan bapa bagi remaja berisiko tinggi (Comparative study on the perception of interaction between high-risk adolescents and their parents)	Public Health Dept, HUKM	Hanafiah MS et al	2002	Yes	Colloquium	Reproductive health status concern & needs
41	Status of Islamic religiosity among early adolescents with high-risk behaviours in a secondary school in Gombak district	Public Health Dept, HUKM	Hanafiah MS et al	2002	Yes	Colloquium	Reproductive health status, Reproductive health concerns and needs
42	Pengetahuan Amalan dan Penghayatan Agama Islam Di Kalangan Remaja Awal Berisiko Tinggi Dalam Satu Program Intervensi Khemah Ibadat (Knowledge, practice and Islamic religiosity among high-risk adolescents in a religious intervention programme)	Public Health Dept, HUKM	Hanafiah MS et al	2002	Yes	9th National Public Health Colloquium	Reproductive health status
43	Adolescents academic achievement and family factors	Public Health Dept, HUKM	Hanafiah MS et al	2002	Yes	Symposium Family Health and Family Lifestyle	Reproductive health status
44	Perbandingan status interaksi remaja dan ibubapa di kalangan bangsa (Comparative study on status of interaction between adolescents and parents by ethnics)	Public Health Dept, HUKM	Hanafiah MS et al	2001	No	Poster presentation	Reproductive health status
45	Perbandingan status fungsi keluarga di kalangan bangsa (Comparative study on status of family function by ethnicity)	Public Health Dept, HUKM	Hanafiah MS et al	2001	No	Poster presentation	Reproductive health status

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
46	Perbandingan status kemahiran keibubapaan di kalangan bangsa (Comparative study of parenting skill status by ethnicity)	Public Health Dept, HUKM	Hanafiah MS et al	2001	No	Poster Presentation	Reproductive health status
47	Adolescents risk behaviours and relationships with family background and parenting technique	Public Health Dept, HUKM	Hanafiah MS et al	2001	Yes	1st Asean Conference on Medical Sciences	Reproductive health status, Intervention
48	The promoting and preventing factors towards negative behaviour among school adolescents	Public Health Dept, HUKM	Hanafiah MS et al	2001	Yes	Conference	Reproductive health status, Intervention
49	Perbandingan teknik keibubapaan antara Melayu dan bukan Melayu di kalangan remaja berperilaku negatif (Comparison of parenting technique in Malays and non Malays among adolescent with negative behaviours)	Public Health Dept, HUKM	Hanafiah MS et al	2001	Yes	Conference	Reproductive health status, Intervention
50	Kajian terhadap pengetahuan dan sikap pelajar yang merokok mengenai masalah merokok dan bahayanya (Study on knowledge and attitude of students who smoke on problems and dangers of smoking)	Public Health Dept, HUKM	Hanafiah MS et al	2001	Yes	2nd National Public Health Conference	KAPB, Reproductive health status
51	How much change could be seen if counselors were used to doing family counselling activities in the community?	Public Health Dept, HUKM	Hanafiah MS et al	2001	Yes	Malaysian journal of public health medicine, 2002, Vol 2(2): 27-31	Intervention (services)
52	Masalah disiplin remaja: hubungannya dengan status interaksi remaja dengan ibu bapa di kalangan pelajar sekolah menengah di daerah Gombak (Disciplinary problems and their relationship with parents among secondary school in Gombak district)	Public Health Dept, HUKM	Hanafiah MS et al	2000	Yes	National Education Seminar Proceedings	Reproductive health status, KAPB, Intervention

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
53	Ciri-ciri remaja berisiko tinggi dan persepsi mereka tentang interaksi mereka dengan ibu bapa, keterampilan keibubapaan dan status fungsi keluarga (Characteristics of high-risk adolescents and their perception towards interaction with their parents, parents' personalities and family functions)	Public Health Dept, HUKM	Hanafiah MS et al	2000	Yes	7th National Public Health Colloquium	Reproductive health status, KAPB, Intervention
54	Masalah disiplin remaja dan kaitannya dengan faktor amalan keibubapaan : kajian di kalangan remaja Sekolah Menengah di Daerah Gombak (Discipline problems among adolescents and relationship with parenting styles; study among adolescents in a secondary school in Gombak district)	Public Health Dept, HUKM	Hanafiah MS et al	2000	Yes	7th National Public Health Colloquium	KAPB, Intervention
55	Perbandingan perilaku pelajar diantar sekolah menengah agama dan sekolah menengah kebangsaan (Comparative study on students behaviour in secondary religious and secular schools )	Public Health Dept, HUKM	Hanafiah MS et al	2000	Yes	7th National Public Health Colloquium	Reproductive health status, KAPB, Intervention
56	Kajian terhadap keluarga yang mempunyai remaja berisiko tinggi (Study on families with high-risk adolescents)	Public Health Dept, HUKM	Hanafiah MS et al	2000	Yes	IRPA Technical Report	Reproductive health status, Demographic profile
57	Kertas kerja cabaran remaja di alaf baru (Adolescent challenges in the new era)	Public Health Dept, HUKM	Hanafiah MS et al	1998	No	Paper presentation	Reproductive health status
58	Remaja dan undang-undang pemahaman dan penerimaan di kawasan Bandar dan Luar bandar (Adolescent and Laws, the understanding and acceptance in the Urban and Rural areas)	Law Faculty, UKM	Mohamed ARB	1994	No	Thesis	Policies and legislation
59	PenganiayaanKanak-kanak suatu bahagian yang diabaikan : sekolah (Child Abuse: a neglected area in school)	Law Faculty, UKM	Noh ABA	1993	No	Thesis	Reproductive health status

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
60	Undang-undang kanak-kanak di Malaysia: hak dan tanggunggan di bawah undang-undang torts, kontrak dan jenayah ( Laws on children in Malaysia)	Law Faculty, UKM	-	1991-1992	No	Thesis	Policies and legislation
61	Pusat perlindungan wanita dan gadis (masalah gadis bawah umur) masalah perlindungan dari segi undang-undang dan cara penyelesaian. Kajian khas di Taman Seri Puteri, rembau, negeri sembilan (Protection homes for women and girls, protection problem from the legal perspective and its solution)	Law Faculty, UKM	Mustapha MA	1995	No	Thesis	Policies and legislation
62	Welfare of the child: the role and effectiveness of child welfare homes	Law Faculty, UKM	Abdullah MB	1991	No	Thesis	Intervention
63	Penderaan kanak-kanak di Malaysia: Kajian dari segi sosio undang-undang (Child abuse in Malaysia : study from social legal perspective)	Law Faculty, UKM	Yusuf RB	1994	No	Thesis	Policies and legislation
64	Child abuse: How far does the law protect the abused, with special reference to the Federal Territory of Kuala Lumpur	Law Faculty, UKM	Kamaruzzaman SB	1989	No	Thesis	Policies and legislation
65	Penahanan juvana dibawah akta Mahkamah Juvana 1947: Kajian Khusus di W. Persekutuan (Juvenile detention under the Juvenile Court Act 1947: specific study in Federal Territory)	Law Faculty, UKM	Rose SC	1995	No	Thesis	Policies and legislation
66	Laporan Persidangan Nasional Mengenai Kaum Remaja Di Malaysia ( Report of the National Conference on Adolescents in Malaysia)	Education Faculty, University Malaya (UM)	-	1982	Yes	Conference report	Demographic profile, Reproductive health status, KAPB
67	Buletin Perangkaan Kebajikan 1999 ( Welfare Statistics Bulletin 1999)	Dept of Social Welfare, Malaysia	-	1999	Yes	Annual Report	Demographic profile, reproductive health status
68	Laporan tahunan 1990 ( Annual report 1990)	Dept of Social Welfare, Malaysia	-	1990	Yes	Annual Report	Demographic profile, Reproductive health status
69	Laporan tahunan 2001 (Annual report 2001)	Dept of Social Welfare, Malaysia	-	2001	Yes	Annual Report	Demographic profile, Reproductive health status

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
70	Juvena era Gglobalisasi (Juvenciles in the globalization era)	Dept of Social Welfare, Malaysia and UNICEF	-	Tiada	Yes	Dept. Report	Intervention (Services)
71	Dasar Kebajikan Masyarakat Negara (National Social Welfare Policy)	Ministry of Social Welfare and National Unity, Malaysia	-	Tiada	Yes	National Policy	Policy
72	Remaja dan strategi penyelesaian masalah (Adolescents and problem-solving strategies)	-	Siraj S	2000	Yes	Text	Reproductive health concerns and needs, Intervention
73	Bohsia mengenal punca dan permasalahanya (Causes and solution of "Bohsia" problem among adolescents)	Islamic Religious Dept., Prime Minister's Dept., Malaysia	-	1994	Yes	Text	Reproductive health status, Challenges and recommendations
74	Tingkah laku lepak di kalangan remaja (Loafing behaviour among adolescents)	Ministry of Youth and Sports, Malaysia	Rahim SA	1994	Yes	Text	Reproductive health status, KAPB
75	Gaya hidup remaja masakini (Adolescent current lifestyles)	ITM	Shah AI et al	1999	Yes	Text	Reproductive health status, KAPB
76	Seksualiti manusia keharmonian jalinan antara jantina (Human sexuality by gender)	-	Sidi H, Shaharom MH, Hassan R	1999	Yes	Text	Reproductive health status
77	Juvenile delinquency: a study report	Malaysian Crime Prevention	Kasmini K et al	2001	Yes	Report	KAPB, Reproductive health status
78	Memahami jiwa dan minda remaja (Understanding the soul and mind of adolescents)	-	Majzub RM	1998	Yes	Text	Reproductive health status, Challenges and recommendations
79	Jenayah remaja permasalahan dan penyelesaian (Adolescent crimes: problems and solutions)	-	Ghani HB, Rahman MSA	1995	Yes	Text	Reproductive health status, Adolescent reproductive health, Concerns and needs
80	Membina kesejahteraan remaja (Developing adolescent well-being)	-	Noor ABM, Herman I	1995	Yes	Text	Reproductive health status
81	Titian remaja kearah kedewasaan (From adolescent to adulthood)	-	Sherina	1996	Yes	Text	Reproductive health status, Adolescent reproductive health, Concerns and needs
82	Panduan membimbing remaja (Guideline for adolescents)	-	Hamzah RK	1995	Yes	Text	Adolescent reproductive health, Concerns and needs, Intervention

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
83	Remaja dan cabaran hidup (Adolescent and life challenges)	-	Hamzah RK	1994	Yes	Text	Adolescent reproductive health, Concerns and Needs, Intervention (Education)
84	Rakan Muda Yakin Boloh	Ministry of Youth and Sports, Malaysia	-	2000	Yes	Report	Intervention
85	Masalah Remaja Daripada Keluarga Tunggal (Problems of adolescents in the single family)	-	Hussin S, Omar CZ	2002	Yes	Text	Reproductive health status, Adolescent reproductive health concern and needs.
86	Laporan Tahunan Institut Kefahaman Islam Malaysia (IKIM) (Institute of Islamic Understanding Annual Report)	IKIM	-	2001	Yes	Annual Report	Intervention (Services)
87	Perangkaan pendidikan Malaysia 2001 (Education statistics 2001)	Ministry of Education, Malaysia	-	2002	Yes	Report	Intervention (Education)
88	Perangkaan pendidikan 2003 (Education statistics 2003)	Ministry of Education, Malaysia	-	2003	Yes	Report	Intervention (Education)
89	Malaysia educational statistics: Quick facts 2002	Ministry of Education, Malaysia	-	2003	Yes	Report	Intervention (Education)
90	Nilai Keadaan Jenayah Di Malaysia Bagi Tahun 1995 (Crime situation in Malaysia 1995)	Royal Malaysian Police	-	1995	Yes	Report	Reproductive health status
91	Data Jenayah Rogol 1991-1998 & 2000-2003 (Data on rape 1991-1998 and 2000-2003)	Royal Malaysian Police	-	2003	No	Report	Reproductive health status
92	Epidemiology of substance use among urban secondary school children in Kuala Lumpur	Institute of Medical Research	Hanje K et al	1995	Yes	Drugs: Education, prevention and policy, Vol 4, No. 2, 1997	Reproductive health status
93	Risk factors of cigarette smoking among secondary school adolescents in Kuala Lumpur	Institute of Medical Research	Hanjeet K et al	1995	Yes	Journal of international medical research, (2001); 5(2), 59-63	Reproductive health status
94	Adolescent health and development policy: Country case study	Ministry of Health, Malaysia	Awin N, Norbaya S	2002	Yes	Report of case study by Ministry of Health	Policy
95	Malaysia's experience in capacity building in adolescent health (including RH)	Ministry of Health, Malaysia	Awin N	2000	Yes	Paper presented at National Congress of Perinasia & International Symposium, Semarang Indonesia 18-21 Nov 2000	Interventions, Problems, challenges and recommendations



## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
96	Sexual and reproductive health of young people in Malaysia- The national perspective	Ministry of Health, Malaysia	Awin N	2002	Yes	Seminar Paper; National Youth Seminar, Kuala Lumpur, 9 August 2002	Reproductive health status
97	Prevention strategies in adolescent health	Ministry of Health, Malaysia	Awin N	-	Yes	Report	Interventions (Services)
98	National Adolescent Health Policy	Ministry of Health, Malaysia	-	2001	Yes	Policy	Policy
99	Summary of reports related to adolescent-friendly services	Ministry of Health, Malaysia	-	2000	Yes	Report by FHDD, Ministry of Health	Interventions (Services)
100	Enhancing the quality and improving the accessibility of school-going adolescents to the health services they need	Ministry of Health, Malaysia	-	2000	No	Project report	Interventions (Services)
101	Program Kesihatan Remaja Daerah Jasin Melaka 2002 (Adolescent health programme in Jasin District, Melaka, 2002)	District Health Office, Jasin Melaka	-	2002	No	Project report	Interventions
102	Perlaksanaan Projek Kesihatan Remaja, Klinik Kesihatan Bukit Waha, Kota Tinggi, Johor (Implementation of the Adolescent Health Project in Bukit Waha Health Clinic, Kota Tinggi, Johor)	Ministry of Health, Malaysia	-	1999	No	Project report	Interventions (Services)
103	.Laporan Program Kesihatan Remaja Daerah Kesihatan Kluang (Report on the Adolescent Health Programme in Kluang District, Johor)	Ministry of Health, Malaysia	-	1999	No	Programme report	Intervention (Services)
104	Laporan Latihan Kesihatan Remaja (Adolescent health training report)	National Health Institute, Ministry of Health, Malaysia	-	1999	No	Programme report	Intervention (Services)
105	Faktor-faktor yg menyebabkan berlaku masalah juvana di kalangan remaja: kajian kes di Asrama Rusila, Terengganu (Factors related to juvenile problems in Rusila Hostel, Terengganu)	Public Health Department, UUM	Taib A	November 2002	No	Thesis	Reproductive health status, needs and concerns, Qualitative study
106	Penghayatan agama dan kesejahteraan sosial. Kajian mengenai remaja Melayu di Sek. Tunas Bakti Sg Lereh, Melaka (Religious adherence and social wellbeing: A study among Malaya adolescents in Tunas Bakti Sg Lereh School, Melaka)	Public Health Department, UUM	Musa M	1997	No	Thesis	Reproductive health status, KAPB, Qualitative study

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
107	Pengaruh gaya asuhan ibubapa terhadap personality remaja: Satu kajian di dua buah pusat pemulihan akhlak dan di dua buah sekolah menengah luar Bandar (Influence of parenting styles on adolescent personality : A study in two moral rehabilitation centres and two secondary schools)	Public Health Department, UPM	Selamat S	1993	No	Thesis	Interventions, Psychology, KAPB, Needs and concerns, Qualitative study
108	Kajian penerimaan terhadap remaja di Pusat Pemulihan Akhlak:Kajian kes dari perspektif pelajar sekolah Tunas Bakti, Teluk Air Tawar, P.Pinang ( A study on the acceptance of adolescents in rehabilitation centres: Ccse study from the inmate's perspective)	Public Health Department, UPM	Ibrahim NM	2001	No	Thesis	Reproductive health status, KAPB
109	Perlakuan jenayah remaja lelaki di Malaysia: Kajian kes di Sekolah Tunas Bakti, Sg Besi (Criminal acts among male adolescents in Malaysia)	Public Health Dept. UKM	Ahmad H	2002	No	Thesis	Reproductive health status, KAPB
110	Pendidikan dan Amalan Keagamaan di kalangan remaja perempuan delinkuen dan bukan delinkuen (Education and religious practice among female delinquent and non-delinquent adolescents)	Public Health Dept. UPM	Sulaiman N	1998	No	Thesis	Intervention KAPB
111	Persepsi Juvana Delinkuen terhadap keberkesanan Program Rawatan Pemulihan Akhlak di Sekolah Tunas Bakti Telok Air Tawar, Butterworth (Juvenile delinquents' perceptions of the effectiveness of the rehabilitation programme at Tunas Bakti School in Butterworth)	Public Health Dept. UPM	Salleh SR	1999	No	Thesis	Reproductive health status, KAPB, Qualitative study
112	Dinamika keberkesanan program pemulihan dari perspektif penghuni pusat pemulihan akhlak: Satu kajian kes (Dynamics of the effectiveness of rehabilitation programmes at rehabilitation centres from the inmates' perspective)	Public Health Dept. UKM	Soaid M	2003	No	Thesis	Intervention, Adolescent reproductive health, Needs and concerns

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
113	Faktor kenakalan remaja lelaki, kes kajian di Sekolah Tunas Bakti lelaki, Jerantut, Pahang (Delinquent factors of male adolescents in Tunas Bakti School, Jerantut, Pahang)	Public Health Dept. UUM	Idris NA	2002	No	Thesis	Reproductive health status, KAPB
114	Hubungan faktor pendorong remaja lari dari rumah dgn konsep sendiri (Relationship between self esteem and factors that prompt adolescents to run away from home)	Public Health Dept. UKM	Sharip S	1995	No	Thesis	Reproductive health status, Adolescent reproductive health, Needs and concerns
115	Perangkaan Penting Malaysia (Edisi Khas) 2000 (Vital Statistics Malaysia, Special edition 2000)	Statistics Dept. Malaysia	-	2000	Yes	Report	Demographic Profile
116	Laporan Persidangan Tinjauan Kesihatan dan Morbiditi Kebangsaan Kedua (2nd National Health Morbidity Survey Report)	Ministry of Health	-	1997	Yes	Report	Reproductive health status, Adolescent reproductive health, Needs and concerns
117	Annual Report Ministry of Health	Ministry of Health	-	2000	Yes	Report	Demographic profile, Intervention
118	Family Health Sub System, Health Management Information System, 2001	Ministry of Health	-	2001	Yes	Report	Reproductive health status
119	Report on the confidential enquiries into maternal deaths In Malaysia 1995-1996	Ministry of Health	-	1996	Yes	Report	Reproductive health status
120	Perkembangan Pertimbangan Moral di Kalangan Kaum Remaja Melayu di Pulau Pinang-Satu Kajian Perkembangan (Moral development among Malay adolescents in Penang)	FSKK, UKM	Noor AM et al	1992	No	Thesis	Demographic, cultural, ethnic and geographic influences
121	Youth problems and the role of public opinion research in Malaysia	The School of Communication, University of Washington, Seattle, USA	Ahmad M	1976	No	Thesis	Reproductive health status, Cultural, ethnic and geographic influences
122	Knowledge of sex education, sexually transmitted diseases and contraception among undergraduates of University Malaya	Dept. of Pharmacy, Faculty of Medicine, UM	Rusli RA	2003	No	Thesis	
123	Knowledge and attitudes of Malaysian adolescents towards family planning	HeRDU, Faculty of Medicine, UM	Low WY, Zulkifli SN, Yusof K	1994	Yes	Singapore Journal of Obstetrics, and Gynaecology, Nov 1994:25(3): 279-288	Reproductive health status, KAPB

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
124	Dating Behaviour and premarital intimacies	HeRDU, Faculty of Medicine, UM	Low WY, Yusof K	1988	No	Thesis	Reproductive health status
125	Sexual health education for youths A Malaysian experience	HeRDU, Faculty of Medicine, UM	Low WY, Zulkifli SN	1999 /2000	Yes	Asia-Pacific journal of public health, 2000; 12(Supp): S58-S66	Intervention
126	A cross-cultural study of sexual knowledge and attitudes toward sexuality	HeRDU, Faculty of Medicine UM	Low WY	1987	Yes	Singapore journal of obstetrics and gynaecology, July 1987; 18(2): 59-66	Reproductive health status, KAPB
127	Review of the importance of family planning with reference to high-risk pregnancies in Malaysia	HeRDU, Faculty of Medicine, UM	Low WY, Yusof K	1988	No	Thesis	Intervention
128	Emerging issues in sexuality in Malaysia	HeRDU, Faculty of Medicine, UM	-	1997	Yes	Report International Conference On Expanding Choices For Women, 2-4 April 1997 Ed. J.Mbarker; pp 27-34	Reproductive health status
129	Sexual activities of Malaysian adolescents	HeRDU Faculty of Medicine, UM	Zulkifli SN, Low WY, Yusof K	1986	Yes	Medical journal of Malaysia Mar.1995; 50(1): 4-10	Reproductive health status
130	SexualPractices in Malaysia: determinants of sexual intercourse among unmarried youths	HeRDU Faculty of Medicine, UM	Zulkifli SN, Low WY	2000	Yes	Journal of adolescent health 2000; 27(4); 276-280	Reproductive health status
131	Socio-medical aspects of transsexuals in Kuala Lumpur	HeRDU Faculty of Medicine, UM	Low WY, Yong YL, Yusof K	1997	Yes	Singapore journal of obstetrics and gynaecology, July, November 1997; 28(2-3): 64-69	Reproductive health status, Cultural, ethnic & geographic influences
132	Sexual behaviour and HIV knowledge among Dermatology cum Genitourinary Clinic attendees in Johor Bahru, Malaysia	HeRDU Faculty of Medicine, UM	Choon SE et al	1997	Yes	Medical journal of Malaysia Dec. 1997; 52 (4): 318-324	Reproductive health status
133	Adolescents sexuality in Kuala Lumpur City	HeRDU Faculty of Medicine, UM	Low WY, Zulkifli SN, Yusof K	1988	Yes	Project Report Data Analysis for sample surveys	Reproductive health status
134	Sexuality and sexual problems in the Malaysian context	Medical Library Faculty Medicine, UM	Deva MP	1995	Yes	Medical journal of Malaysia Mar 1995; 50(1): 1-3	Reproductive health status
135	K.A.P study of family planning among Orang Asli women of Kuala Langat District, Selangor D. Ehsan	Medical Library Faculty Medicine, UM	Yahya Baba	1998	Yes	Malaysian Journal of Reproductive Health, 1990;8(2): 72-76.	Reproductive health status, KAPB
136	Family planning and sex education in sexually transmitted diseases (STD)	Medical Library Faculty Medicine, UM	Suan AE	1988	Yes	Malaysian Journal Of Reproductive Health, Dec 1989; 7(2): 92-158	Intervention, Problems, challenges & recommendations
137	Characteristics of patients referred for HIV pre-test counselling at University Hospital Kuala Lumpur 1991-1994	Medical Library Faculty Medicine, UM	Yen B, Teng CL, Shajahan MYM	1994	Yes	Medical Journal of Malaysia, Sept 1996; 51(3): 317-322	Reproductive health status, Problems, challenges & recommendations

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
138	Knowledge, attitude and behavioural tendency regarding AIDS in lower secondary schools in Petaling District, Selangor	Medical Library Faculty Medicine, UM	Lokman AR Osman A, Kasmini K	1994	Yes	Medical Journal of Malaysia, Sept 1996; 51(3): 372-379	Reproductive health status, KAPB
139	A study of knowledge and attitudes towards contraception among health care staff in Kelantan (Malaysia)	Medical Library Faculty Medicine, UM	Suhaimi H, Monga D, Siva A	1996	Yes	Singapore Medical Journal 1996; Vol 37:51-54	Reproductive health status, KAPB
140	The problem teenager	Medical Library Faculty Medicine, UM	Toh CL	2002	Yes	Medical Journal of Malaysia, Oct 2002; 57 (Supp D); S 73	Reproductive health status
141	Sexual and reproductive health: a youth's perspective	Medical Library Faculty Medicine, UM	Netto AA, Shalince N	2002	Yes	Medical Journal of Malaysia, Oct 2002; 57 (Supp D); S73	Reproductive health status
142	The physician's perspective	Medical Library Faculty Medicine, UM	Aili HH	2002	Yes	Medical Journal of Malaysia, Oct 2002; 57 (Supp D); S75	Reproductive health status
143	Pregnancy after contraceptive use	Medical Library Faculty Medicine, UM	Suan AE, Arshat H.	1986	Yes	Malaysian Journal of Reproductive Health, 1986; 4(1): 6-11	Reproductive health status
144	Predictors of contraceptive use among women in Kuala Lumpur and Petaling Jaya	Medical Library Faculty Medicine, UM	Salleh NM, Peng TN, Arshat H	1986	Yes	Malaysian Journal of Reproductive Health, 1986; 4(2): 57-64	Reproductive health status
145	Socioeconomic correlate of contraceptive knowledge among women in KL and PJ, Malaysia	Medical Library Faculty Medicine, UM	Salleh NM, Peng TN, Arshat H	1986	Yes	Malaysian Journal of Reproductive Health, 1986; 4(2): 65-71	Reproductive health status , KAPB
146	Teenage birth on the decline	Medical Library Faculty Medicine, UM	Peng TN	1986	Yes	Malaysian Journal of Reproductive Health, 1986; 4(2): 91-96	Reproductive health status
147	The family influence on sexual identity of adolescents: an overview	Zaaba Library, UM	Woon TH	1984	Yes	Report Department of Psychological Medicine University Malaya	Reproductive health status
148	A study of the acceptability and effectiveness of Norplant contraceptive implants in Kuala Lumpur Malaysia	Medical Library Faculty Medicine, UM	Arshat H et al	1990	Yes	Malaysian Journal of Reproductive Health, June 1990; 8(1): 21-29	Intervention
149	Adolescent problems	Medical Library Faculty of Medicine, UM	Kasmini K	1988	Yes	The Family Practioner (Journal) April and August, 1988; 11 (1&2): 18-21	Reproductive health status, Problems, challenges & recommendations
150	The mother's emotional reaction to a child's abnormal sexual pattern a case study	Medical Library Faculty of Medicine, UM	Kasmini K	1987	Yes	Malaysian Journal of Reproductive Health, 1987; 5(2): 117-119	Reproductive health status

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
151	Profiles of family planning acceptors in the National Programme	Medical Library Faculty Medicine, UM	Peng TN, Tan Boon A, Arshat H	1985	Yes	Malaysian Journal of Reproductive Health, 1985; 3(1): 20-30	Reproductive health status
152	A survey of sexuality and the physically disabled.	HeRDU, Faculty of Medicine, UM	Low WY, Zaliha O, Sandiyao S Sebastian	1995	Yes	Book. University Malaya, Kuala Lumpur	Reproductive health status, Adolescent reproductive health, Concerns & needs
153	A cross-cultural study of sexual knowledge and attitudes towards sexuality	HeRDU. Faculty of Medicine, UM	Low WY	1994	Yes	Thesis M.Sc.Med. Psychology. University of Surrey, England	Reproductive health status, Cultural, ethnic and geographic influences
154	Human sexuality (A Malaysian study)	Population Study Unit, Faculty of Economy & Administration, UM	Yusof K et al	January 1984	Yes	Report Population Study Unit, University Malaya	Reproductive health status, Cultural, ethnic and geographic influences
155	A study of marital patterns in Peninsular Malaysia	Population Study Unit, Faculty of Economy & Administration, UM	Siti Rohani Yahya	November 1981	Yes	Report	Demographic profile (Trend)
156	Pregnancy wastage	Population Study Unit, Faculty of Economy & Administration, UM	Tey Nai Peng, Philomena Ganga	1987	Yes	Seminar Report, Shangrila- Inn, Pulau Pinang, 25 Feb 1Mac 1987	Reproductive health status
157	Country Monograph Series No 13: Population of Malaysia	Population Study Unit, Faculty of Economy & Administration, UM	Noor Laily Binti Dato' Abu Bakar & Tan Boon Ann	1986	Yes	Article: Population Policy & Family Planning: 91-105	Demographic profile (Trend)
158	Malaysian Fertility and Family Survey- 1974 (Fertility and contraceptive knowledge and practice)	Department of Statistics & National Family Planning Board Malaysia, KL	Chander R et al	April 1977	Yes	Report	Demographic profile KAPB
159	Sexuality and counselling	Main Library of University Malaya	Ahmad Amin Mohd. Sulaiman	April 1995	Yes	Book. Ahmad Amin Mohd. Sulaiman, Serdang Selangor.	Intervention Problems, challenges & recommendations
160	Knowledge and use of contraception	Population Study Unit, Faculty of Economy & Administration, UM.	Tan Boon Ann, Chak Choy Sim	1987	Yes	Seminar Report	Reproductive health status, KAPB
161	Maternal health and early pregnancy wastage, Peninsular Malaysia 1974	FFPAM	-	1977	Yes	FFPAM Reports	Reproductive health status
162	Report on the National Study on Reproductive Health and Sexuality, 1994/1995	"	-	1997	Yes	LPPKN 1998/2002	Reproductive health status
163	Report on Youth Sexuality Survey by Prof. Chiam Heng Keng, October 1995	"	-	1995	Yes	FFPAM 1996	Reproductive health status
164	JOICFP: Report of the Baseline Survey on Sexual and Reproductive Health of Adolescent and Youth	"	-	2002	Yes	FFPAM 2002	Reproductive health status

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
165	Ford Foundation/IPPF Project on Empowerment of Young Women from Underserved Communities: Report of the Baseline Survey on Sexual and Reproductive Health [HER Initiative]	“	-	2001	Yes	FFPAM 2001	Intervention
166	Ford Foundation /IPPF Project on Empowering Young Women from Underserved Communities in Reproductive Rights (RR) and Reproductive Health (RH) [HER Initiate]. Process documentation report	“	-	2001	Yes	FFPAM 2002	Intervention
167	Ford Foundation/IPPF Project on Empowerment of Young Women from Underserved Communities in RR and reproductive health [HER Initiate]. Post-Intervention evaluation report.	“	-	2001	Yes	FFPAM 2002	Intervention
168	Ford Foundation/IPPF Project on Empowerment of Young Women from Underserved Communities in RR and reproductive health [HER Initiate]	“	-	2001	Yes	FFPAM 2002	Intervention
169	Louis and Herald Price Foundation report on operational research on promotion and provision of sexual and reproductive health services	“	-	2002	Yes	FFPAM 2002	Intervention
170	Louis and Herald Price Foundation report on needs assessment and baseline survey	“	-	2002	Yes	FFPAM 2002	Reproductive health status
171	IPPF i3 Indicate Project: Improving the Quality of Sexual and Reproductive Health Services for Young People through Operational Research	“	-	2001	Yes	FFPAM 2001	Intervention
172	IPPF Project/BMZ Funding: Educating Young People about Sexual and Reproductive Health Rights in Malaysia. (Recommendations only)	“	-	2003	Yes	FFPAM 2003	Intervention

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
173	e-RHAM for Youth Project: Providing Sexual and reproductive health Knowledge and Responsible Living Skills to Adolescents. Report on impact study: Pre-project Survey.	“	-	2003	Yes	FFPAM 2003	Intervention
174	UNFPA Project MAL/98/P02: Promoting Adolescent Reproductive Health and Healthy Living. Operational research and intervention strategies - three service Models.	“	-	2003	Yes	FFPAM 2003	Intervention
175	Knowledge, attitude and practice of reproductive health among unmarried women: a study among dental nurse trainers	Medical Library Faculty of Medicine & Health Sciences, University Putra Malaysia (UPM)	Umi Kalsom Abd Majid	Oct 2000	No	Thesis	Reproductive health status, KAPB
176	Knowledge, attitudes and practices regarding HIV/AIDS among Punjabi youths in The Klang Valley	Medical Library, Faculty of Medicine & Health Sciences, UPM	Suresh Kumar Dhawan	1998	No	Thesis	Reproductive health status, KAPB
177	Knowledge and attitude towards family planning among students from UPM and factors related to it.	Medical Library Faculty of Medicine & Health Sciences, UPM	Tan Chee Hoon	2001	No	Thesis	Reproductive health status KAPB
178	Konsep Kendiri dan Tahap Pengetahuan dan Sikap Terhadap HIV/AIDS di Kalangan Pelajar Tingkatan 4 Sek. Men Tarcisian Convent Ipoh.	Medical Library Faculty of Medicine & Health Sciences, UPM	Ong Hooi Bee	1997	No	Thesis	Reproductive health status, KAPB
179	Relationship between knowledge, attitude and practice on healthy lifestyle among students of Sekolah Menengah Sulaiman Bentong, Pahang.	Medical Library Faculty of Medicine & Health Sciences, UPM	Siti Sabariah Buhari	1998	No	Thesis	Reproductive health status, KAPB
180	The level of knowledge, attitude and practice of young adults towards AIDS	Medical Library Faculty of Medicine & Health Sciences, UPM.	Tee Guan Chong	1998	No	Thesis	Reproductive health status, KAPB
181	Promoting advocacy for adolescent reproductive and sexual health through effective communication: a training programme for media practitioners	Asian- Pacific Resource and Research Centre for Women (ARROW)	-	1999	Yes	AIDCOM (monograph)	Intervention
182	Adolescents' health: challenges of the 21st century	ARROW	Sinniah B, Rajeshwari B	1996	Yes	Malaysian Society of Health, Journal of Malaysian Society of Health, Sept 1997, 15:96	Reproductive health status



## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
183	Adolescents' health: challenges of the 21st century	ARROW	-	-	Yes	Malaysian Society of Health, Journal of Malaysian Society of Health, 96p	Reproductive health status
184	HIV/AIDS community (youths) mobilization programme on AIDS	ARROW	-	1999	Yes	Ministry of Health Malaysia. 16p	Reproductive health status
185	Innovative approaches to population programme management: youth reproductive health	ARROW	Jay S, Tahir S, Anderson C	1995	Yes	ICOMP109p	Intervention
186	Empowerment of schoolchildren	ARROW	Chan Foong Mac		No	Paper presented at the National Conference on Adolescent Health	Intervention
187	"Sex education: Is there a need?"	ARROW	Chan Foong Mac		No	Paper presented at the National Conference on Adolescent Health: Challenges for the 21st Century.	Intervention
188	Sexuality with youths with Disabilities	ARROW			Yes	FFPAM Youthlink. Occasional Issue No 7, June 1990: Pp 30-33	Reproductive health status
189	Reproductive health of adolescents module	ARROW			Yes	FFPAM News Issue. No 60, July1998: p15	Reproductive health status
190	Innovative approaches to population programme management	ARROW			Yes	ICOMP Youth Reproductive Health, Vol 2. 1995:63p	Intervention
191	Youth sexual and reproductive health	ARROW			Yes	IPPF-ESEAOR Report presented at the Regional Programme - Advisory Panel Meeting organised by IPPF-ESEAOR, Kuala Lumpur, 14-16 Nov 1997, 134p	Reproductive health status
192	Introducing young inspirers	ARROW			Yes	Nandini, Johri Paper presented at the workshop on Innovative Approaches in Adolescent/ Youth Reproductive Health Programmes, organised by ICOMP, KL, 1-4 June 1996, 37p	Intervention

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
193	Managing adolescent/ youth reproductive health programmes	ARROW	Jay S, Tahir S		Yes	Population Manager (Vol4) Managing Adolescent/ Youth Reproductive Health Programmes, KL.	Intervention
194	Knowledge, beliefs, attitude and behavioural intention in relation to HIV/ AIDS among schooling adolescents in Penang	Centre of Drug Research, University Sains Malaysia, Penang.	Punithavathi A, Navaratnam V	1999	Yes	International medical research journal, 1999, 3(2):103-109	Reproductive health status, KAPB
195	Sexual activities of Malaysian adolescents	Social Obst & Gynae Unit, Faculty of Medicine, UM		1995	Yes	Medical journal Malaysia, Vol 50 No 1 Mar 1995	Reproductive health status
196	Antenatal profile and obstetric outcome of adolescent pregnancy in a Malaysian semi-rural clinic	-	Kwa SK et al	1999	Yes	.Adolescent pregnancy	Reproductive health status
197	Sexual practices in Malaysia: Determinants of sexual intercourse among unmarried youths	-	Zulkifli SN, Low WY	2000	Yes	Journal of adolescent health, 2000:27:276-280	Reproductive health status
198	Family environment and premarital pregnancy: A case study among adolescents	Dept of Human Development, Faculty of Human Ecology, UPM	Kamsinah Aida Kamarudin	1998	No	Thesis	Reproductive health status
199	Family environment and gangsterism behaviour: A case study	Dept of Family Dev, Faculty of Human Ecology, UPM	Norwati Shafie	1998	No	Thesis	Reproductive health status
200	The influence of and involvement in the Bohsia problem among students of a higher education institution: A study in UPM, Serdang.	Dept of Social Dev, Faculty of Human Ecology, UPM	Zul Ezam Kamarul Ariffin	1998	No	Thesis	Reproductive health status
201	Knowledge and attitude towards sexuality in urban and rural adolescents	Dept of Human Dev, Faculty of Human Ecology, UPM	Aini Khamsiah Abdullah	2000	No	Thesis	Reproductive health status, KAPB
202	Stress and parental involvement in sex education of adolescents with Down Syndrome	Dept of Family Dev, Faculty of Human Ecology, UPM	Chan Wai Fong,	1998	No	Thesis	Reproductive health status
203	Drug addiction among female teenagers: A case study of Pusat Serenti, Serdang, Kedah	Faculty of Human Ecology, UPM	Suzana Abd Hamid	1999	No	Thesis	Reproductive health status
204	Relationship between parental religious teachings and practices and adolescent attitudes towards premarital sex	Dept of Family Dev, Faculty of Human Ecology, UPM	Fauzan Mustapha	1995	No	Thesis	Reproductive health status
205	Knowledge and attitudes towards risk behaviour with regards to AIDS among young adults	Faculty of Human Ecology, UPM	Valamathi Subramaniam	1995	No	Thesis	Reproductive health status, KAPB

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
206	Selected family factors and prostitution: A comparison study between ex-prostitutes and non-prostitutes	Dept of Family Development Faculty of Human Ecology, UPM	Rosmahwati Ishak	1995	No	Thesis	Reproductive health status
207	The sources of knowledge and attitudes towards sex among adolescents	Dept of Family Development Faculty of Human Ecology, UPM	Mohamad Thuairi Mohamed Tayeb,	1994	No	Thesis	Reproductive health status, KAPB
208	Knowledge, attitudes and practices regarding AIDS among UPM students	Dept of Family Development Faculty of Human Ecology, UPM	Mastura Harun	1993	No	Thesis	Reproductive health status, KAPB
209	Komunikasi Kesihatan Dalam Menyedarkan Pelajar UPM Mengenai Bahaya AIDS : Perspektif Pegawai dan Pemimpin Pelajar	Faculty of Human Ecology, UPM	Ismail Hussin	1993	No	Thesis	Intervention
210	Tahap Pengetahuan, Sikap dan Tingkahlaku yang Berkaitan Dengan Penyakit AIDS di kalangan Pelajar UPM	Dept of Nutrition and Community Health, Faculty of Human Ecology, UPM	Mok Fang Shang	1993	No	Thesis	Reproductive health status, KAPB
211	Knowledge, attitude and behaviour towards HIV/AIDS among secondary school students	Dept of Nutrition and Community Health, Faculty of Human Ecology, UPM	Gan Hock Cheng	1993	No	Thesis	Reproductive health status KAPB
212	Knowledge, attitudes and practices towards healthy lifestyle among Chinese adolescents at Seri Kembangan Secondary School, Selangor.	Dept of Nutrition and Community Health, Faculty of Human Ecology, UPM	Chai Tze Kong	1997	No	Thesis	Reproductive health status, KAPB
213	The comparison study of selected personality and family factors among teenagers of employed and unemployed mothers	Dept of Human Development, Faculty of Human Ecology, UPM	Che Radziah Yaakub	1992	No	Thesis	Reproductive health status
214	The relationship of drug addicts' selected personality factors with the level of drug abuse	Dept of Human Development Faculty of Human Ecology, UPM	Halimahton Kamarudin	1992	No	Thesis	Reproductive health status
215	Level of knowledge and sources of sex education among adolescents	Faculty of Agriculture	Zahila Mohamed	1991	No	Thesis	Reproductive health status, KAPB
216	The rape report: An overview of rape in Malaysia	Ministry of Health	Yan LS et al AWAM & SIRD 2002	2002	No	Thesis	Reproductive health status
217	Policies in health	Ministry of Health	-	1999	No	Draft Report	Policies
218	The National Policy on Women	Women's Affairs Division (HAWA), Ministry of National Unity and Social Development, Malaysia (MNUSD)	-	1995	Yes	Text	Policy
219	Plan of Action for the Advancement of Women	Women Affairs Department, MNUSD	-	1997	Yes	Report	Policy
220	National Youth Development Policy	Ministry Youth And Sports Malaysia	-	1997	Yes	Text	Policy
221	The National Plan of Action for Children 2001-2020	Department of Social Welfare Malaysia	-	2002	Yes	Report	Policy

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
222	Malaysian Mental Health Service- The Framework for Service Delivery Policy For Implementation	Ministry of Health	-	2002	No	Report	Policy
223	Executive Summary Education Development Plan 2001-2010	Ministry of Education, Malaysia	-	2001	Yes	Report	Policy
224	Pembangunan Pendidikan 2001-2010	Ministry of Education, Malaysia	-	2001	Yes	Report	Policy
225	Dasar Pendidikan Kebangsaan	Ministry of Education, Malaysia	-	1999	Yes	Text	Policy
226	Annual Report Family Health Development Division	Ministry of Health	-	2001	Yes	Report	Reproductive health status, Services and interventions
227	Annual Report 2002 FFPAM	FFPAM	-	2002	Yes	Report	Services and interventions
228	Family Soul of the nation	NPFDB	-	2001	Yes	Report	Services and interventions
229	Laws of Malaysia, Act 611, Child Act 2001	Legal Research Board, Malaysia	-	2001	Yes	Text	Law
230	Laws of Malaysia, Act 1152, Education (Amendment) Act 2002	Legal Research Board, Malaysia	-	2002	Yes	Text	Law
231	Laws of Malaysia, Penal Code (Act 574)	Legal Research Board, Malaysia	-	May 2000	Yes	Text	Law
232	Malaysian Family Law	-	-	-	Yes	Text	Law
233	Laws of Malaysia, Food Act 1983, (Control of Tobacco Product Regulations 1993)	-	-	May 1994	Yes	Text	Law
234	Adolescent health and development: The key to the future	World Health Organization, Geneva	-	Jan 1995	Yes	Text	Adolescent sexual and reproductive health status, Laws/ policies, Recommendations
235	The health of young people: A challenge and a promise	World Health Organization, Geneva	-	1993	Yes	Text	Adolescent sexual and reproductive health status, Laws/ policies, Recommendations
236	Laws and policies affecting adolescent health	World Health Organization, Geneva	JPaxman JM, Zuckerman RJ	1987	Yes	Text	Laws and Policies
237	UNICEF's priorities for children 2002 2005.	UNICEF	-	2002	Yes	Text (2nd Edn, UNICEF, New York, 2002)	Policies
238	Malaysia's demographic transition: Rapid development, culture and politics.	-	Leete R	1996	Yes	Text (Oxford University Press)	Demography
239	Youth, sexuality and public policy in Asia: A research perspective	-	Xenos P	1990	Yes	Report	Policy
240	Marriage trends among Peninsular Malaysia women.	NPFDB	Khalifah, Mohd Tom	1992	Yes	Report	Demography

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

No	Title	Organization/s	Source Individual/s	Year	Published or Not		Theme
					Yes/No	Type	
241	Trends in marriage and divorce in Peninsular Malaysia		Jones G	1980	Yes	Text	Demography
242	Vital statistics Peninsular Malaysia, (For the years 1970,1975, 1980, 1985, 1990, 1994, 1995, 1996, 1997, 1998, 1999, 2000)	Department of Statistics Malaysia	-	1970-2000	Yes	Text	Demography
243	Monthly statistical bulletin Malaysia, March 2001: Nov 2002, March 2003	Department of Statistics Malaysia	-	2001-2003	Yes	Report	Demography
244	Social statistics bulletin Malaysia, (For the years 1996, 1999, 2000, 2001, 2002)	Department of Statistics Malaysia	-	1996-2002	Yes	Report	Demography
245	General report of the Population Census Vol 2, 1991, 2000	Department of Statistics Malaysia	-	1991, 2000	Yes	Report	Demography
246	Education and social characteristics of the population 2000	Department of Statistics Malaysia	-	2000	Yes	Report	Demography
247	Population distribution and basic demographic characteristics, 2000	Department of Statistics Malaysia	-	2000	Yes	Report	Demography
248	Yearbook of statistics Malaysia, 2002	Department of Statistics Malaysia	-	2002	Yes	Report	Demography
249	World development report 1993	World Bank	-	1993	Yes	Report	Demography profile
250	Dawn of a new millennium: Future of public health issues in Malaysia. In: Issues and challenges of public health in the 21st century	-	Low WY, et al	1996	Yes	Text	Reproductive health status, Issues and challenges
251	Pengetahuan dan Sikap Remaja Terhadap HIV/AIDS: Kajian Kes di KK, Sabah (Knowledge and attitudes on HIV/AIDS: Case study at health clinics in Sabah)	-	Adi Fahrudin	2002	No	Paper presented	Reproductive health status, KAPB
252	HIV-associated risk behaviour among male drug abusers in Malaysia		Juita G, Osman A	1995	Yes	Medical journal of Malaysia, 1995, vol 50, no 4 pg 320-325	Reproductive health status, KAPB
253	Faktor-faktor Yang Berkaitan Dengan Tahap Pengetahuan dan Sikap Mengenai HIV/AIDS : Suatu Kajian di Kalangan Remaja Cina di Sekolah Menengah Kebangsaan Chung Ling Butterworth, Pulau Pinang (Factors related to knowledge and attitude on HIV/AIDS: A study among Chinese adolescents at Chung Ling Secondary School, Butterworth, Penang)	UPM	Koo P.F.	2000	No	Final year dissertation	Reproductive health status, KAPB

## A Review of Literature and Projects 2005

No	Title	Organization/s	Source Individual/s	Year	Published or Not Yes/No	Type	Theme
254	Pengetahuan, Sikap dan Amalan Terhadap Kesihatan Seksual dan Reproduksi di Kalangan Pelajar Cina Yang Tinggal di Luar Kampus (KAP on Sexual and Reproductive Health among Chinese Students Staying Out of Campus)	UPM	Low CM	2003	No	Final year dissertation	Reproductive health status, KAPB
255	Report of the Meeting (19-20 Nov 2000) on the Integration of Preventive Services in Adolescents Health	Department of Family Health Development, Ministry of Health, Malaysia		2000	No	Report	Intervention
256	Knowledge, attitudes and practice on HIV/AIDS adolescents in a new village, Penang	UPM		2000	No	Final year dissertation	Reproductive health status
257	Knowledge, attitudes and beliefs related to HIV/AIDS among adolescents in Malaysia	-	Zulkifli SN	2002	Yes	Medical journal of Malaysia, 2002, vol 57, no 1 pg 3-23	Reproductive health status
258	Pengaruh dan kesan bacaan lucah dalam kes jenayah seksual di kalangan remaja (Influence and effect of pornographic materials on adolescents involved in sexual crimes)	Universiti Sains Malaysia	Mohd Shukri Hanapi	2002	Yes	Prosiding Persidangan Kebangsaan Kerja Sosial 2002, ms 293-303	Reproductive health status
259	Belia Malaysia dan seks siber : Isu, masalah dan cabaran penyelesaian (Malaysia youth and cyber sex: Issues, problems and challenges)	Universiti Utara Malaysia	Rohana Yusof, Syamsul Anuar B. Ismail.	2002	Yes	Prosiding Persidangan Kebangsaan Kerja Sosial 2002, ms 330-339	Reproductive health status
260	Peranan bukan kerajaan (NGO) dalam menangani masalah gangguan seksual (Role of NGO in dealing with sexual harassment problems)	Universiti Utara Malaysia	Hajah Sabitha Marican	2002	Yes	Prosiding Persidangan Kebangsaan Kerja Sosial 2002, ms 351-368	Intervention



- Bar Council Malaysia. *Family Law – Marriage* <http://www.lawyerment.com.my/family/marriage.shtml>
- Chander R, Palan VT. *Malaysian Fertility and Family Survey – 1974: First country report*. Kuala Lumpur, Department of Statistics, 1997.
- Chiam HK. *Report on Youth Sexuality Survey*. Subang Jaya, Selangor, Federation of Family Planning Associations of Malaysia, 1996.
- Choon *et al.* Sexual behaviour and HIV knowledge among dermatology cum genitourinary clinic attendees in Johor Bharu Hospital, Malaysia. *Medical journal of Malaysia*, Dec 1997, 52(4): 318-324.
- Department of Statistics, Malaysia. *Vital statistics Peninsular Malaysia, 1970, 1975, 1980, 1985, 1990, 1994, 1995, 1996, 1997, 1998, 1999, 2000*.
- Department of Statistics, Malaysia. *Monthly statistical bulletin Malaysia, March 2001; November 2002; March 2003*.
- Department of Statistics, Malaysia. *Social statistics bulletin Malaysia, 1996, 1999, 2000, 2001, 2002*.
- Department of Statistics, Malaysia. *Social statistics bulletin Malaysia, 1996, 1999, 2000, 2001, 2002*.
- Department of Statistics, Malaysia. *General report on the population census, Volume 2, 1991*. 2000.
- Department of Statistics, Malaysia. *Education and social characteristics of the population, 2000*.
- Department of Statistics, Malaysia. *Population distribution and basic demographic characteristics, 2000*.
- Department of Statistics, Malaysia. *Yearbook of statistics Malaysia, 2002*.
- Department of Statistics, Malaysia. *Vital statistics report 2003*.
- Department of Statistics, Malaysia. *Social statistics bulletin Malaysia 2002*.
- Department of Social Welfare, Malaysia. *Annual report 2001*.
- Department of Social Welfare, Malaysia. *The National Plan of Action for Children 2001 – 2020*. 2002.
- Dhawan SK. *Knowledge, attitude and practice regarding HIV/AIDS among Punjabi youths in the Klang Valley*. 1999. (Final Year Dissertation U.P.M.)
- Fahrudin A. *Pengetahuan Dan Sikap Remaja Terhadap HIV/AIDS: Kajian Kes di Kota Kinabalu, Sabah*. Presented at “Persidangan Kebangsaan Kerja Sosial” 13-15 Ogos 2002.
- Federation of Family Planning Associations of Malaysia. *Report of the baseline survey on sexual and reproductive health of adolescents, JOICFP Project*. Subang Jaya, Selangor, 2000.



## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

- Federation of Family Planning Associations of Malaysia. *Annual report 2002*. Subang Jaya, Selangor, 2003.
- Jones G. Trends in marriage and divorce in Peninsular Malaysia. *Population studies*, 1980, 34(2): 279-292.
- Juita GAO. HIV-associated risk behaviour among male drug abusers in Malaysia. *Medical journal of Malaysia*, 1995, Vol. 50 No. 4: 320-325.
- Khalipah MT. *Marriage trends among Peninsular Malaysia women. Malaysian Family Life Survey II, 1988*. National Population and Family Development Board and RAND Corporation, 1992.
- Kasmini K. Adolescent problems. *The family practitioner*, 1988, Vol. 11 No. 1 and 2:18-21.
- Koo PF. Faktor-Faktor Yang berkaitan Dengan Tahap Pengetahuan Dan Sikap Mengenai HIV/AIDS: Suatu Kajian di Kalangan Remaja Cina di Sekolah Menengah Kebangsaan Chung Ling. Butterworth, Pulau Pinang, 2000. (Final Year Dissertation U.P.M.)
- Lokman AR *et al.* Knowledge, attitude and behavioral tendency about AIDS in lower secondary schools in the district of Petaling, Selangor. *Medical journal of Malaysia*, 1996, Vol. 51 No. 3: 372-379.
- Low WY, Yusof K. *Dating behaviour and premarital intimacies*. Paper prepared for 1<sup>st</sup> Malaysian Conference on Psychological Medicine, 29-31 January 1988, Kuala Lumpur.
- Low WY, Zulkifli SN, Yusof K. Knowledge and attitudes of Malaysian adolescents towards family planning. *Singapore journal of obstetrics and gynaecology*, 1994, 25(3): 279-288.
- Lai SY, Maria Chin Abdullah JLO, Wong, PL. In: Rastam A, ed. *The rape report: an overview of rape in Malaysia*. AWAM and SIRD, 2002.
- Low CM. *Pengetahuan, Sikap dan Amalan Terhadap Kesihatan Seksual dan Reproduksi Di Kalangan Pelajar Cina Yang Tinggal di Luar Kampus*. 2003. (Final Year Dissertation U.P.M.)
- Laws of Malaysia. *Law Reform (Marriage and Divorce) Act 1976 (Act 164)*. 1976.
- Laws of Malaysia. *Penal Code (Act 574) F.M.S. Cap 45*. International Law Book Series, 1995.
- Laws of Malaysia. *The Education Act 1996 (Act 550)*.
- Laws of Malaysia. *Child Act 2001 (Act 611)* Percetakan Nasional Malaysia Bhd, 2001.
- Laws of Malaysia. *Food Act and Regulations (Act 28)*. MDC Publisher Printer Sdn Bhd, 2001.
- Ministry of Health, Malaysia. *Report of the Second National Health and Morbidity Survey Conference*. Public Health Institute, Ministry of Health, 1997.
- Ministry of Health, Malaysia. *Annual report, Department of Public Health*. 1998.
- Ministry of Health, Malaysia. *Eighth Malaysia Plan 2001-2005. Book 1. Policies, objectives and strategies*. Planning and Development Division, Ministry of Health, 1999.

## *A Review of Literature and Projects 2005*

- Ministry of Health, Malaysia. *Eighth Malaysia Plan 2001-2005. Book 2 Chapter 4. Policies in health*. Public Health Department, Ministry of Health, 1999.
- Ministry of Health, Malaysia. *Policies in health*. July 1999.
- Ministry of Health, Malaysia. *Annual report 2000*.
- Ministry of Health, Malaysia. *Senarai Masalah Kesihatan Fizikal, Tingkah Laku dan Perkembangan Remaja*, Paper prepared for Mesyuarat Perancangan Integrasi Perkhidmatan Preventif Kesihatan Remaja, 19-22 November 2000, Kuala Terengganu. Department of Family Health Development, Ministry of Health, 2000.
- Ministry of Health, Malaysia. *Report on the confidential enquiries into maternal deaths in Malaysia, 1995-1996*. 2000.
- Ministry of Health, Malaysia. *National Adolescent Health Policy*.
- Ministry of Health, Malaysia. *Report of the Meeting (19-20 Nov. 2000) on the Integration of Preventive Services in Adolescents Health*. Department of Family Health Development, Department of Public Health, 2000.
- Ministry of Health, Malaysia. *Malaysian Mental Health Service – The framework for service delivery policy for implementation*. 2002.
- Ministry of Health, Malaysia. *Laporan Kumpulan Kerja Teknikal Pendidikan Kesihatan Reproduksi dan Seksualiti (Strategi)*. 2002 (unpublished).
- Ministry of Health, Malaysia. *HIV/AIDS update: 2002*. 2003.
- Ministry of Health, Malaysia, Family Health Development Division. *Annual report 2000*. 2001.
- Ministry of Health, Malaysia, Family Health Development Division. *Annual report 2001*. 2002.
- Ministry of National Unity and Social Development, Malaysia, Women's Affairs Division. *The National Policy on Women*. 1989.
- Ministry of Social Welfare, Malaysia. *The National Welfare Policy*. 1990.
- Ministry of Youth and Sports, Malaysia. *The National Youth Development Policy*. 1997.
- Ministry of Education, Malaysia. *The Education Development Plan (2001 –2010)*. 2001.
- Ministry of Education, Malaysia. *Laporan Kumpulan Kerja Teknikal Mengkaji Isi Kandungan Baban Pendidikan Kesihatan Reproduksi/ Seksualiti*. Pusat Perkembangan Kurikulum, Kementerian Pendidikan Malaysia. 2002.
- Ministry of Youth and Sports, Malaysia. *Malaysia Rakan Muda Yakin Boleh. A new vision for Malaysian youth*.
- National Population and Family Development Board. *Family profile Malaysia*.
- National Population and Family Development Board. *Report on the West Malaysian Family Survey 1966-1967*. Kuala Lumpur, 1968.

## Sexual and Reproductive Health of Adolescents and Youths in Malaysia

- National Population and Family Development Board. *Marriage and family formation in Peninsular Malaysia: Analytical report on the 1984/85 Malaysian Population and Family Survey*. 1988.
- National Population and Family Development Board. *Report of the Population and Family Survey in Sabah – 1989*. Kuala Lumpur, 1992.
- National Population and Family Development Board. *Report of the Population and Family Survey in Sarawak – 1989*. Kuala Lumpur, 1992.
- National and Population and Family Development Board. *Report: The National Study on Reproductive Health and Sexuality*. Kuala Lumpur, 1994-1995.
- National Population and Family Development Board. *Report of the National Study on Reproductive Health and Sexuality 1994/1995*. Kuala Lumpur, 1998.
- National Population and Family Development Board. *Population profile – Malaysia*. Kuala Lumpur, 1999.
- National Population and Family Development Board. *Family – Soul of the nation annual report*. Kuala Lumpur, 2001.
- Ng HP. *Knowledge, attitude and practice on HIV/AIDS in adolescents in a new village, Penang*. 2000 (Final Year Dissertation U.P.M.)
- Narimah A. *Sexual and reproductive health of young people – the national perspective*. Ministry of Health, Malaysia, 2002.
- Narimah A, Saidatul NB. *Adolescent Health and Development Policy- Country case study*. (commissioned and coordinated by WHO Western Pacific Regional Office). 2002.
- Paxman JM, Zuckerman RJ. *Laws and policies affecting adolescent health*. Geneva, World Health Organization, 1987.
- Leete R. *Malaysia's demographic transition: Rapid development, culture and politics*. Kuala Lumpur, Oxford University Press, 1996.
- Samsuddin AR, Herman I. *Remaja dan AIDS, Media, Nilai Personaliti dan Tingkah Laku*. Kuala Lumpur, Ministry of Health, 1996.
- Scott T, Bravo BF, Zulkifli SN. *Malaysian Health and Lifestyle Survey – 1992*. Kuala Lumpur, Ministry of Health, 1993.
- Sinnathuray TA et al. *Report on maternal health and early pregnancy wastage in Peninsular Malaysia*. Kuala Lumpur, Federation of Family Planning Associations of Malaysia, 1977.
- Samsuddin AR, Iran H. *Remaja Dan AIDS, Media, Nilai Personaliti dan Tingkah Laku*. Kuala Lumpur, Ministry of Health, 1996.
- Samsuddin AR, Pawanteh L. *Penilaian Intervensi Sosial PROSTAR Terhadap Kesedaran AIDS Di Kalangan Remaja*. Kuala Lumpur, Ministry of Health, 1996.

## A Review of Literature and Projects 2005

- Siti NZ, Low WY. Sexual health education for youths – A Malaysian experience. *Asia-Pacific journal of public health*, 2000; 12(Supp): S58-S66.
- Maimunah SZ. *Sexual and reproductive health education in schools – Family health education and Islamic education: The curriculum, implementation and challenges*. Kuala Lumpur, Ministry of Education, 2003.
- Umi Kalsom AM. *Tabap Pengetahuan, Sikap dan amalan Kesihatan Reproduksi di Kalangan Wanita Belum Berkahwin: Satu Kajian Ke atas Jururawat Pergigian Pelatih*. 2001 (Final Year Dissertation U.P.M.).
- Westley. 2002.
- World Bank. *World development report 1993*. New York, Oxford University Press, 1993.
- Wah Yun Low *et al.* Dawn of a new millennium: future of public health issues in Malaysia. In: Khairuddin Y, *et al* (eds.) *Issues and challenges of public health in the 21<sup>st</sup> century*. Kuala Lumpur: University of Malaya Press, 1996.
- World Health Organization. *Adolescent health and development. The key to the future*. Geneva, World Health Organization, 1996.
- World Health Organization and Ministry of Health, Malaysia. *Consensus report on STI, HIV and AIDS epidemiology Malaysia*. Kuala Lumpur, Ministry of Health, 2001.
- Xenos P. Youth, sexuality and public policy in Asia: a research perspective. In: Quah SR. (ed.). *The family as an asset: an international paper on marriage, parenthood and social policy*. Singapore, Times Academic Press, 1990.
- Zulkifli SN. Knowledge, attitudes and beliefs related to HIV/AIDS among adolescents in Malaysia. *Medical journal of Malaysia*, 2002, Vol. 57 No. 1:3-23.
- Zulkifli SN, Low WY. Sexual health education for youths – a Malaysian experience. *Asia-Pacific journal of public health*, 2000, 12: S58-S66.
- Zulkifli SN, Low WY. Sexual practices in Malaysia: determinants of sexual intercourse among unmarried youths. *Journal of adolescent health*, 2000, 27:276-280.
- Zulkifli SN, Low WY, Yusof K. Sexual activities of Malaysian adolescents. *Medical journal of Malaysia*, 1995, Vol 50 No 1 March 1995:4-10.



