

Seminar Proceedings

Adolescent Pregnancy and the First 1000 Days (the Philippine Situation)

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The Seminar on Adolescent Pregnancy and the First 1000 Days (the Philippine Situation) was held in Metro Manila on September 2013. The objectives were to: 1) describe the current nutrition and health status of Filipino adolescent females, including those pregnant and lactating; 2) discuss existing programs that address their concerns; and 3) identify gaps in existing knowledge and programs, and ways to address these gaps. Adolescent pregnancy rates had increased from 8% in 2003 to 10% in 2008. In 2008, more than 35 percent of pregnant women below 20 years old were considered nutritionally-at-risk. Iodine deficiency and anaemia were major health problems in both pregnant and lactating women of all ages. While government programs exist to address the needs of pregnant women, none were geared towards meeting the specific needs of pregnant adolescents. **Conclusions:** Studies are needed to find ways to improve adolescent health and to effectively prevent and deal with unwanted pregnancies among adolescents. Recommendations include 1) developing adolescent-friendly health centers, information and education materials to increase reproductive and health awareness among youth and health workers, 2) examining the psychosocial and nutritional factors that determine birth outcomes and nutritional status of pregnant/non-pregnant adolescents, 3) examining adolescent growth patterns following delivery, 4) evaluating the impact of current programs and interventions geared towards improving adolescent and maternal health, and more importantly, 5) identifying the underlying reasons for the continued rise in adolescent pregnancy in the country.

Key Words: adolescent females, maternal nutrition, adolescent pregnancy, pregnant and lactating women, Philippines

INTRODUCTION

According to the United Nations Children's Fund (UNICEF), the 1,000 days between a woman's pregnancy and her child's second birthday offer a unique window of opportunity to shape a healthier and more prosperous future. The right nutrition during this period can positively affect a child's ability to grow, learn, and rise out of poverty, and therefore, shape a society's long-term health, stability and prosperity.¹

In the Philippines, the health of mothers, their newborn infants and young children remain a major concern. The country has a high, although declining prevalence of low birth weight infants (i.e., 21% in 2008 which declined to 16% in 2011)² and high maternal mortality rates (i.e., 172 deaths per 100,000 live births in 1998 which declined to 162 deaths in 2006³ and currently stands at 99 deaths per 100,000 live births in 2010).⁴ Major underlying causes for maternal deaths and low birth weight infants were unintended, unwanted and unsupported pregnancy, maternal undernutrition, not securing adequate care during the course of pregnancy, delivering without being attended to by skilled health professionals, and not securing proper postpartum maternal and newborn care.⁵

Some reports have indicated that the Philippines is unlikely to achieve the millennium development goal (MDG5) of reducing maternal mortality rate by 75%

(from 1990 rates) in 2015.^{3,6} Doubts have also been raised as to whether the Philippines can achieve the millennium development goal (MDG 4) of reducing undernutrition by half (of 1990 rates) in 2015.⁷ The country is included among the 36 highest burden countries in terms of malnutrition³ and is one of 14 countries with the most number of children under 5 years who are moderately or severely stunted.⁸

In September 2013, the International Life Sciences Institute Southeast Asia (ILSI SEA) Region in collaboration with the Philippine Food and Nutrition Research Institute (FNRI) conducted a Seminar on Infant and Young Child Nutrition: Adolescent Pregnancy and the First 1000 Days (the Philippine Situation). The objectives of the seminar were to:

- Describe the current nutrition and health status of Filipino adolescent females, including pregnant and lactating adolescents;

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- Discuss existing programs that address the needs of these groups;
- Identify gaps in existing knowledge and programs using a continuum of care perspective;
- Examine possible ways (in terms of research, programs and resources) to overcome/address the identified gaps.

Since the present report documents the results of a seminar and workshop on adolescent pregnancy, ethical approval is not required.

DISCUSSION

Nutrition and health status of Filipino adolescent females, including pregnant and lactating adolescents

Female adolescents

The 7th National Nutrition Survey (NNS) in 2008⁹ showed that a total of 26.5% of female adolescents aged 11-19 years were underweight and mildly underweight (Table 1), while 4.4% were overweight.

Among Southeast Asian countries, the Philippines ranked third highest in terms of adolescent birth rate for the period 1991-2010 (Table 2). Adolescent pregnancy rates increased from 8% in 2003 to 10% in 2008.¹⁰ While the fertility rate in all women decreased over the years, the rate among 15-19 year olds increased slightly over the last three decades.¹⁰

In 2008, 10% of women age 15-19 years were already mothers or were pregnant with their first child.¹¹ Table 3 shows trends in age-specific fertility rate among Filipino females aged 15-19 years for the period 2008 and 2013. Adolescent fertility is higher in rural than in urban areas.

Table 1. BMI-for-age[†] of female adolescents aged 11-19 years, Philippines 7th National Nutrition Survey 2008

BMI-for age cut-off	Classification	Prevalence (%)
<P ₅	Underweight	11.7
P ₅ to <P ₁₅	Mild underweight	14.8
P ₁₅ to P ₈₅	Normal	69.0
>P ₈₅	Overweight	4.4

[†]Based on WHO BMI-for-age percentiles for girls age 5-19 years; available from: http://www.who.int/growthref/cht_bmifa_girls_perc_5_19years.pdf?ua=1.

Table 2. Adolescent birth rate in Southeast Asian countries[†]

Country	Adolescent birth rate per 1000 women aged 15-19, 1991/2010
Lao PDR	110
Indonesia	66
Philippines	53
Cambodia	48
Thailand	47
Vietnam	35
Brunei	18
Myanmar	17
Malaysia	14
Singapore	6

[†]Taken from UNFPA State of the World Population 2012. Available from: http://www.unfpa.org/webdav/site/global/shared/swp/2012/EN_SWOP2012_Report.pdf.

In urban areas, fertility rate increased from 42 per 1000 women in 2008 to 52 per 1000 women in 2013. In rural areas, fertility declined from 71 per 1000 women to 63 per 1000 women during the same period. Overall, adolescent fertility increased from 54 per 1000 women to 57 per 1000 women during the period 2008 to 2013.¹²

Pregnant and lactating adolescents

The 7th NNS defined nutritionally at-risk pregnant women as those with BMI-for-age <P₉₅.⁹ Based on this criteria, 35.1% of pregnant women below 20 years of age were nutritionally at-risk (Table 4). Within the same age group, 12.9% of lactating women were underweight, while 6.7% were overweight.

Table 4 also shows that in 2008, vitamin A deficiency (defined as serum retinol below 20 µg/dL or 0.70 µmol/L) was identified as a mild public health problem among pregnant and lactating women (all ages). Iodine deficiency is also a public health problem among pregnant and lactating women, with 67.3% of pregnant and 59.5% of lactating women classified as having insufficient iodine status in 2008. Anaemia is considered a moderate public health problem among pregnant women and a mild public health problem among lactating women, with prevalence of 25.2% and 16.6%, respectively, in 2013.

Supplement intake. The nationally representative 2011 Updating of Nutritional Status of Filipino Children and Other Population Groups¹³ showed that most mothers (86.2%) have taken some form of supplements during their pregnancy. Types of supplements taken were iron (82.2%), folic acid (4.7%), multivitamins with iron (14.3%), and iron with folic acid (2.5%).

Use of health services. The use of professional assistance during delivery is generally low in the Philippines. The Updating Survey in 2011¹³ showed that only sixty percent of women (all ages) who delivered in the last five years preceding the survey were assisted by a health professional during their most recent delivery. During the course of pregnancy, 94.3% of respondents received some form of prenatal care and 70% received postnatal care (Figure 1).

Existing programs that address the needs of female and pregnant adolescents

Programs for adolescent females

The Philippine Obstetrical and Gynecological Society (POGS) have led a number of programs to improve the health of Filipino adolescents. These programs focused on the WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Outcomes among Adolescents in Developing Countries, namely: 1) preventing early marriage; 2) preventing early pregnancy through sexuality education; 3) increasing education opportunities, economic and social support programs; 4) increasing the use of contraception; 5) reducing coerced sex; 6) preventing unsafe abortion; and 7) increasing the use of prenatal care childbirth and postpartum care services.

To achieve these objectives, the POGS carried out the following research, information, education, and communication activities:

- Conducted studies on the current situation of teenage pregnancy in Metro Manila and Cebu, using the UN

brochure entitled "Giving Girls Today & Tomorrow: Breaking the Cycle Of Adolescent Pregnancy" as reference;

- Developed an educational module - Adolescent Health Issues & Perspectives (AHIP) comprising four modules on adolescent health, myths and misconceptions, risk-taking behaviour, guidance and interventions;
- Organized a Summit on Health Education in Reproduction entitled "The Young and the Restless: Demands and Challenges in Adolescent Reproductive Health" on

July 17, 2013. The Summit presented topics on Understanding Adolescent Behaviour, Sexual Health Implications in the Adolescent, Complications of Teenage Pregnancy, Communicating Tools, and Talking to Adolescents. A panel discussion on Contraceptive Counselling and Services for the Adolescent was included;

- Published a resource book on gender-based violence entitled "Breaking Barriers";
- Published and circulated the Clinical Practice Guide-

Table 3. Fertility rate per 1000 women aged 15-24 years, Philippines, 2008 and 2013[†]

Age (years)	Urban		Rural		Total	
	2008	2013	2008	2013	2008	2013
15-19	42	52	71	63	54	57
20-24	134	128	202	174	163	148

[†]Philippines National Demographic Health Surveys 2008 and 2013.

Table 4. Nutritional status of pregnant and lactating women based on results of Philippine National Nutrition Surveys (2008[†] & 2013[‡])

Population group	Prevalence (%)
Pregnant women aged <20 yrs who were nutritionally at-risk (BMI for age <P ₉₅)	35.1
Lactating women aged <20 yrs who were	
Underweight (BMI for age < P ₁₅)	12.9
Overweight (BMI for age >P ₈₅)	6.7
Prevalence of vitamin A deficiency (all age groups)(serum retinol <20 µg/dL or 0.70 µmol/L)	
Pregnant	9.5
Lactating	6.4
Prevalence of iodine insufficiency (UIE <150 µg/L) (all age groups)	
Pregnant	67.3
Lactating	59.5
Prevalence of iodine deficiency (UIE <50 µg/L) (all age groups)	
Pregnant	25.8
Lactating	34.0
Prevalence of anaemia (2013) [*]	
Pregnant(Haemoglobin level of <11 g/dL)	25.2
Lactating(Haemoglobin level of <12 g/dL)	16.6

[†]Food and Nutrition Research Institute. 7th National Nutrition Survey. Available from: <http://www.fnri.dost.gov.ph/index.php?option=content&task=view&id=1770>.

[‡]2013 National Nutrition Survey (unpublished).

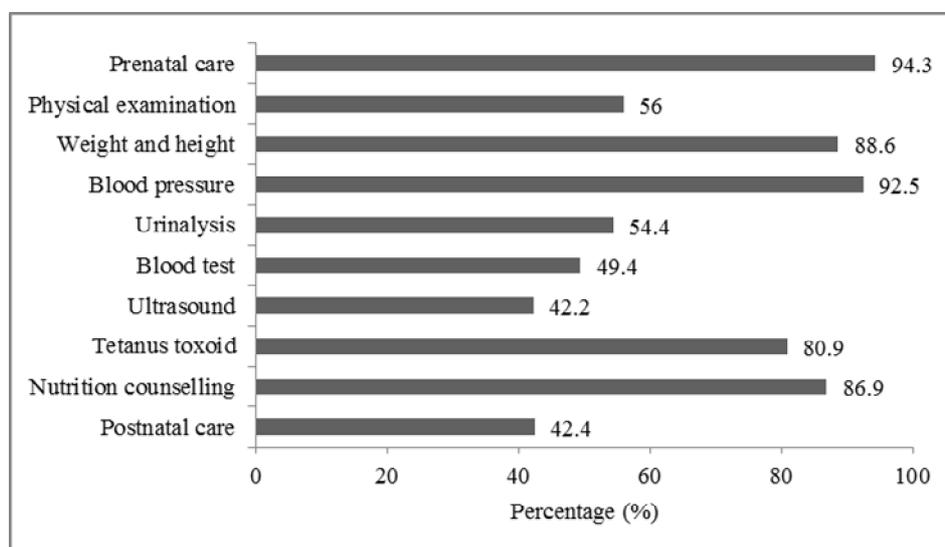


Figure 1. Percentage of mothers (all ages) who received pre-natal care and various health services during pregnancy with the youngest child. Reprinted with permission from FNRI-DOST. Philippine Nutrition Facts and Figures 2012.

lines on Abortion – the guidelines aim to prevent unsafe abortion and enable health practitioners to properly respond to post abortive complications;

- Conducted an intensive Training of Midwives from 2010-2011– the goal is to increase the availability of pre- and postnatal health services;
- Conducted lectures on Good Prenatal Care and Proper Nutrition during Pregnancy.

The Society was instrumental in the signing of Presidential Proclamation No.569 in 2004, declaring March 10 as “Arawng mgaBuntis” (*Pregnant Women’s Day*), in coordination with the Department of Health. The bill declared that all pregnant women, by virtue of their bringing another life into the world, are heroes in their own right.

Programs and policies for pregnant/lactating women (all ages)

The rate of decline in maternal and newborn mortality has decelerated in the past decades to a point where Philippine commitments to the Millennium Development Goals (MDGs) may not be achieved.

In response, the Department of Health issued Administrative Order 2008-0029⁵ “Implementing Health Reforms for Rapid Reduction of Maternal and Neonatal Mortality”. This law mandates the provision of a package of maternal and newborn, child health and nutrition (MNCHN) services in each locality.

The program is based on the following principles: 1) every pregnancy is wanted, planned and supported; 2) every pregnancy is adequately managed throughout its course; 3) every delivery is facility-based and managed by skilled birth attendants or skilled health professionals; and 4) every mother and newborn pair secures proper post-partum and newborn care with smooth transitions to the women’s health care package for the mother and child survival package for the newborn. A Core Service Package using a life cycle approach and consisting of the following services is made available to all women:

- Pre-pregnancy package-includes micronutrient supplementation particularly iron with folic acid, tetanus toxoid immunization, fertility awareness, especially among adolescents, birth spacing and family planning counselling, nutrition and healthy lifestyle, oral health, counselling and services on STD/HIV/AIDS, management of lifestyle-related diseases, and adolescent health.
- Prenatal package - consists of monitoring height and weight, blood pressure determination and monitoring, pregnancy test, urinalysis, complete blood count (CBC), blood typing and sexually-transmitted infections (STI) screening, pap smear and acetic acid wash, blood sugar determination, micronutrient supplementation, tetanus toxoid, malaria prophylaxis, oral health and birth spacing. In addition, assessment of fetal growth and well-being, counselling on healthy lifestyle, prevention and management of bleeding in early pregnancy, early detection and management of danger signs and complications of pregnancy, prevention and management of other diseases and counselling on breastfeeding and family planning methods are also part of the prenatal package.
- Post-partum Service Package - include physical examination, identification of early signs and symptoms of

post-partum complications, micronutrient supplementation, provision of breastfeeding support, provision of family planning services and counselling on nutrition, exclusive breastfeeding up to six months and neonatal care.

- Emergency maternal and newborn service package - refers to provision of facilities capable of managing complicated deliveries and newborn emergencies.

Issues and gaps in existing knowledge and ways to address these gaps

The following needs and knowledge gaps regarding adolescent pregnancy in the Philippines were identified.

The need to find effective ways of dealing with unplanned and unwanted pregnancies

Early studies showed that most teenage pregnancies (65%) in the Philippines were unplanned and that one out of five teenage pregnancies was unwanted, leading to abortion.^{14,15} In 2008 and 2012, it was estimated that 560,000 and 610,000 cases, respectively, of induced abortions occurred across all ages.¹⁶ According to the Department of Health, approximately 12% of maternal deaths are due to unsafe abortions.¹⁷ Hence, there is a need to find effective ways of preventing adolescent pregnancies and dealing with these pregnancies once they occur.

The need to plan interventions based on knowledge of Filipino adolescent behaviour

The Cebu Longitudinal Health and Nutrition Survey (CLHNS) is the longest running birth cohort study in Southeast Asia.¹⁸ It was initially designed to examine the determinants and consequences of pregnancy outcomes, particularly low birth weight. The study included relevant issues in the life course of the cohort participants, such as sexual and reproductive health. Table 5 shows a profile of pregnant teenagers in Cebu City, derived from index children of first-generation study participants. Using knowledge obtained from this study (as well as other local studies), interventions can be planned to effectively mold adolescent behaviour towards sexual abstinence and pregnancy prevention, and for those already pregnant, to ensure good birth outcomes.

Other issues affecting adolescents and pregnant women, in general, include:

- The need for psychosocial adaptation to the condition of pregnancy (including physical changes and stress within the family) which, accompanied by changes due to puberty, make adolescent pregnancy a dual developmental crisis.
- The health status of the teenager, her requirements for growth and those of her baby can only be met through sound dietary patterns and eating habits. This may be difficult to achieve given the existing commercial, cultural and psychosocial environment in which teenagers live.

In order to address these gaps, the following recommendations were given:

- 1) Develop a clear understanding of the psyche of Filipino adolescents. It is important to understand the adolescent’s frame of mind in order to understand her behaviour. We need to be able to evaluate the

Table 5. Profile of pregnant adolescents in the Cebu Longitudinal Health and Nutrition Survey

Profile of pregnant adolescents	Description
Sexual activity	<ul style="list-style-type: none"> - The age of sexual debut is between 16-17 years old. Majority got pregnant at age 17-19 years old. - Most are monogamous but rural teenagers tend to have more partners, with some who even had 20 or more.
Trend in marriage status	<ul style="list-style-type: none"> - There is a trend towards less women getting married through the years. The percentage of married teenagers decline, and cohabitation or “live-in” status emerged as a huge component in the provincial areas while city teenagers are mostly single.
Socio-demographic characteristics	<ul style="list-style-type: none"> - Most teenage mothers reached high school, thus, have a good literacy rate - Majority of the teenage mothers lived below the poverty line - Majority were unemployed and highly reliant on their parents or partners and only few are students. - About half belong to extended family system - Household income is shared by a bigger number of heads
Family environment	<ul style="list-style-type: none"> - Most teenage mothers reported to be coming from a generally friendly home atmosphere. - About one in every 6 teenagers was exposed to or engaged in frequent fights with the partner, mother, stepfather or siblings. - Sexual and physical abuse is not common but emotional abuse is reported in 1 out of 4 rural teenagers.
Knowledge about sex, HIV, and risk behaviours	<ul style="list-style-type: none"> - Substance abuse is not common. City teenagers are occasional smokers and beer drinkers while teenagers in the rural areas are more of beer drinkers. - Majority of the teenagers (65%) reported that they didn’t have formal sex education class. Among those who had, more were from rural teenagers than city teenagers at 43% and 18%, respectively. - About a third or only 34% had family planning classes, most given by a local health worker at the local health center.

adolescent’s responses and ideas to help her weigh decisions or options, assist her to see the consequences of her actions, develop alternatives, and identify areas of potential conflict.

- 2) Prioritize the development of adolescent-friendly health centers integrating nutrition screening as part of holistic approach to health care. The government should also focus on improving the knowledge and skills of health providers in assessment and management of nutrition problems, improving education of in-school and out-of-school youth to debunk nutrition myths and address socio-cultural differences.
- 3) Three approaches for public health intervention for adolescent health and birth outcomes were recommended. First is for national government, community-based, health, youth-serving non-government organizations to provide evidence-based sex education information, support the nutritional needs of teens throughout their development, provide sexually-active teens access with effective and affordable contraceptives, and improve access to home, worksite or school income-generating activities (IGA). Second is to have a youth-friendly individualized comprehensive nutrition counseling within the life cycle and adapted to socio-cultural perspectives, taking into consideration the food-based and micronutrient supplementation, focus on weight gain and growth patterns for optimal birth outcomes, and healthy eating habits, lifestyle changes, and self-esteem strengthening. The third is to have teen-friendly clinics that will conduct screening and risk prevention, growth and development assessment, discuss birth control options towards healthy

pregnancy and prevention of consequences, and effective communication of teens with healthcare professionals and parents.

The following areas for future research and action were suggested:

- 1) Examine birth outcomes among adolescents and their growth patterns after giving birth;
- 2) Examine psychosocial factors that determine health and nutrition among adolescents, particularly pregnant adolescents;
- 3) Determine the impact of interventions (national, local, school- and home-based programs) on rates of pregnancy and identify the reasons underlying the continued increase in teenage pregnancy;
- 4) Develop the following information and education materials:
 - Intervention programs using social media targeting young girls;
 - Curriculum revisions that extend nutrition and physical activity from the school into the community;
 - Direct campaigns targeting the youth which focus on birth control and contraception, reproductive education, healthy diet and lifestyle;
 - Campaigns discouraging moralistic attitudes of health workers regarding teenage pregnancy, and promoting greater helpfulness and understanding to deal with this issue.

Issues that go beyond adolescence and the first 1000 days

In the Philippines, adolescent pregnancy is an issue close-

ly associated with poverty. Data from the 2008 Demographic and Health Survey²⁰ showed that adolescent birth rate per 1000 women aged 15-19 years was highest among those with no education, in the poorest income group, and who lived in rural areas (Table 6).

Studies from other countries indicate that unintended (or unwanted) pregnancies taken to term may have detrimental effects on both mother and child.²¹ Unintended pregnancy has been associated with maternal depression and anxiety.²¹ Among adolescents, pregnancy prevents achievement of a better life by inhibiting educational opportunities and increasing dependence as well as the probability of domestic violence.²¹ On the other hand, unwanted children are more likely to experience symptoms of illness, have lower nutritional status, and have fewer educational and development opportunities.²¹ An analysis of Demographic and Health Survey data from five developing countries, including the Philippines, found rising levels of unwantedness with increasing birth order.²² Filipino women whose pregnancy was unwanted had independently elevated odds of having received inadequate prenatal care, and unsupervised delivery was associated with higher birth order, lower maternal education, lower household wealth, and rural residence.²² These findings indicate that providing contraceptive family planning education and services targeting both adult women and adolescents in impoverished areas will contribute significantly to the nation's poverty alleviation efforts.

Conclusions

Studies have shown that delaying adolescent births could significantly lower population growth rates, potentially create broad economic and social benefits, in addition to improving the health of adolescents. Since 1999, adolescent birth rates have been increasing in the Philippines. At the same time, the decline in maternal and newborn mortality has decelerated to the point that the country is unable to meet its millennium development goals. Major underlying causes for maternal deaths and low birth weight infants include unintended pregnancy and maternal undernutrition, conditions highly relevant to adolescent pregnancy. Studies on the factors influencing adoles-

cent health and behaviour, as well as adolescent-friendly interventions and programs targeting their needs, are needed to address the escalating issue of teenage pregnancy.

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AUTHOR DISCLOSURES

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Table 6. Adolescent birth rate (ABR) per 1000 women aged 15-19 years, by background (Philippines DHS 2008)

Background	Adolescent birth rate (per 1000 women aged 15-19 yrs)
Area of residence	
Urban	42.4
Rural	70.8
Education	
No education	144
Primary	109
Secondary or higher	51.1
Income quintile	
Poorest	114
Second	80.6
Middle	51.8
Fourth	42.9
Richest	20.9

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少女怀孕和第一个 1000 天（菲律宾形势）

少女怀孕和第一个 1000 天（菲律宾形势）研讨会于 2013 年 9 月在马尼拉举行。主要目的是：1) 描述目前菲律宾青年女性怀孕和哺乳期营养及健康状况；2) 讨论引起她们关注的现有计划；3) 找出现有知识和计划之间的差距以及解决这些差距的方法。少女怀孕率从 2003 年的 8% 上升到 2008 年的 10%。2008 年，在 20 岁以下孕妇中 35% 以上被认定为有营养风险。碘缺乏和贫血是各年龄孕妇和哺乳期妇女的主要健康问题。虽然现行的政府计划也强调加强孕妇的需要，但没有一个是针对少女怀孕特殊需求的计划。结论：需要开展提高青少年健康和有效防范和应对少女意外怀孕的研究。建议包括：1) 发展青少年友好健康中心，在青年和健康工作人员中发放信息和教育材料以提高生殖和健康意识；2) 检查影响怀孕/非怀孕青少年确定出生结局和营养状况的心理及营养因素；3) 检查青年女性分娩后的成长模式；4) 评估目前计划和干预措施对改善青少年和产妇健康的影响；更重要的是，5) 找出菲律宾少女怀孕持续上升的可能原因。

关键词：菲律宾少女、孕妇营养、少女怀孕、孕妇和哺乳期妇女