

## Teenage Pregnancy in the Philippines: Trends, Correlates and Data Sources

Josefina Natividad

*Population Institute, College of Social Sciences and Philosophy, University of the Philippines, Diliman, Quezon City*

### Abstract

Results from cumulative years of the National Demographic and Health Survey and the latest result of the 2011 Family Health Survey, shows that teenage pregnancy in the Philippines, measured as the proportion of women who have begun childbearing in their teen years, has been steadily rising over a 35-year period. These teenage mothers are predominantly poor, reside in rural areas and have low educational attainment. However, this paper observes a trend of increasing proportions of teenagers who are not poor, who have better education and are residents of urban areas, who have begun childbearing in their teens. Among the factors that could help explain this trend are the younger age at menarche, premarital sexual activity at a young age, the rise in cohabiting unions in this age group and the possible decrease in the stigma of out-of-wedlock pregnancy.

*Key words: teenage pregnancy, early childbearing, age at menarche*

### INTRODUCTION

Women's age-specific fertility rates<sup>1</sup> follow a characteristic pattern. Soon after menarche, the fertility rate starts at a low level, peaks at ages 20-29, then declines until it stops completely following menopause. The optimal ages for successful pregnancy are in the peak reproductive years. At either end of the reproductive spectrum, that is at the youngest (below 20) and the oldest (40 and above) ages, there is a higher risk of adverse pregnancy outcomes. Studies have shown that at age 35 and over, and especially at 45 and over, women are more likely to experience gestational diabetes, placenta previa, breech presentation and operative vaginal delivery than younger women aged 20-29. Other observed complications that are more prevalent among older mothers compared to mothers in their twenties are preeclampsia, gestational hypertension, cesarean delivery, abruptio placenta and preterm delivery.<sup>1</sup>

Similarly, when the woman is at the younger extreme of the reproductive age spectrum, below 20 years, pregnancy carries the same elevated risk of adverse outcomes.<sup>2</sup> Many studies consistently show that teenage mothers are at increased risk of pre-term delivery and low birth weight.<sup>3-6</sup>

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<sup>1</sup>The age-specific fertility rate is the number of births per thousand women of a given age or age group. An age-specific fertility rate is generally computed as a ratio. The numerator is the number of live births to women in a particular age group during a period of time, and the denominator is an estimate of the number of person-years lived by women in that same age group during the same period of time. It is expressed as births per 1,000 women.

(Source: [http://www.un.org/esa/population/publications/WFR2009\\_Web/Data/Meta\\_Data/ASFR.pdf](http://www.un.org/esa/population/publications/WFR2009_Web/Data/Meta_Data/ASFR.pdf) Retrieved 7 May 2013)

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From a large data base of births in the Latin American Center for Perinatology and Human Development in Uruguay, it was found that after adjusting for major confounding factors, women age 15 and younger were at increased risk for maternal death, early neonatal death and anemia compared with women age 20-24. Furthermore, women aged less than 20 had higher risk for postpartum hemorrhage, puerperal endometritis, operative vaginal delivery, low birth weight, pre-term delivery and small for gestational age infants.<sup>7</sup> The same elevated risks for teenage pregnancies, independent of known major confounders like low socioeconomic status, inadequate prenatal care and inadequate weight gain during pregnancy were documented using data from the 1995-2000 nationally linked birth/infant death data set of the United States compiled by the National Center for Health Statistics and the Centers for Disease Control and Prevention.<sup>8</sup> In developing countries where no large data bases exist, evidence from smaller samples show similar results indicating that the risks are not specifically linked to the level of development of a country's health care system and the availability of appropriate maternal care for very young pregnant women,<sup>4</sup> but are specific to the age group and its accompanying implication of biological immaturity for childbearing. The risks follow an age gradient; they are generally higher at the younger end of the teenage years and diminish toward the latter teen years.

Teenage pregnancy carries other significant non-health risks which are specific to this stage in the life course.<sup>9</sup> For example, when a teenager bears a child and consequently either marries formally or enters into a consensual union,

*Corresponding author: Josefina N. Natividad, Sc.D.*

*Director, U.P. Population Institute of the Philippines  
Diliman, 1101, Quezon City, Philippines*

*Tel. No. +632-9818500 loc. 2468 and 2457*

*Telefax: +632-9205402*

*E-mail: [jnatividad55@yahoo.com](mailto:jnatividad55@yahoo.com)*

she puts herself at risk of not finishing her education<sup>10-11</sup> and of limiting her chances of realizing her full potential by being burdened with child care when she herself is still, almost a child. If the teenager remains unmarried following a pregnancy, she risks social stigma from having an out-of-wedlock pregnancy and of having to bear its negative consequences.<sup>12</sup> At the aggregate level, a high teenage pregnancy rate contributes to high population growth as teenage mothers will have considerably longer exposure to the risk of pregnancy than those who enter into marital unions at a later age.

Teenage pregnancy has two aspects, and both could occur concurrently within the same country, whether developed or developing. On the one hand, high teenage pregnancy rates may result from the culturally sanctioned practice of early marriage and early marital childbearing, and on the other, from premarital intercourse and unintended pregnancy. Research evidence points to a shift in behaviors among young people in patterns of sexual activity such that early childbearing is becoming more a consequence of early intercourse. This is more often true in urban than in rural areas.<sup>13</sup> Additionally, a downward trend in the age at menarche in both developed and developing countries has been reported in a number of studies.<sup>14-16</sup> Zabin and Kiragu (1998) in their review report a connection between age of onset of sexual activity or age at first birth and age at menarche resulting in earlier onset of childbearing for the current generation of teenagers compared with earlier cohorts.<sup>17</sup>

Because of the increased risks to both mother and child of too early childbearing, there is a need to understand the situation on teenage pregnancy in any country in order to design appropriate interventions. But obtaining reliable and valid data for analysis is not always easy, especially in a developing country.

This paper consists of two parts: the first discusses data sources for the study of teenage pregnancy in general; the second part presents trends in teenage pregnancy in the Philippines, some correlates and an analysis of the drivers for the observed trend using a specific data source. We will use data from the National Demographic and Health Survey (NDHS) conducted in the Philippines at 5-year intervals since 1968. The NDHS surveys are part of the DHS program of surveys that are highly regarded for methodological soundness and rigor in the design and conduct of data collection. With a common research design and questionnaire adopted throughout all the surveys in the series, NDHS data lends itself well to the analysis of long term trends in teenage pregnancy in the Philippines.

## Sources of Data on Teenage Pregnancy

### *Hospital-based records*

Data for the study of levels, trends, determinants and consequences of teenage pregnancy are usually derived from varied sources and using a wide range of data collection methods. Studies on the consequences of early childbearing, particularly the risk of adverse outcomes normally use hospital-based records, using either prospective or retrospective designs. For example, completed charts on births occurring in a hospital over a given period can be the source of information for studying pregnancy outcomes, as these will normally contain basic demographic information: the mother's age, the pregnancy order as predictor variables and factors like maternal complications, placental complications, medications administered in hospital and neonatal outcomes as outcome indicators.<sup>2</sup> The advantage of these data sets is that they provide reliable and valid reports on the pregnancy outcomes under study using medically accepted diagnostic criteria and are not based on the teenage mother's self-report. The main disadvantage is possible misclassification by age if there is reason for the mother to conceal her true age. If such a bias exists, it is likely to be higher in the younger adolescent than the older adolescent years as it may be less socially acceptable to have a birth at age 12 or 13 than at 18 or 19. Background variables on the mother that can serve as explanatory factors may also be limited; some will record education but socioeconomic status is normally not included in hospital records. As a data source for determining the total number of teenage pregnancies, hospital-based records are not reliable as these cover only hospital-based births. In most developing countries, majority of births occur in non-hospital settings.

### *Vital statistics*

To determine the level of teenage pregnancy in a given country, one potential data source is the Vital Registration System, which collects vital statistics such as births, death and marriages in the population. Usually, the national government requires that these vital events are officially reported through birth registration, death registration and marriage registration. In the Philippines, recording these events is the main duty of Local Civil Registrars. In some developed countries, there is a separate perinatal statistics collection system based on data collected by midwives and other health practitioners for each live and still birth which takes place in hospital and for home births.<sup>18</sup> The vital registration system is an ideal way to capture the level of teenage pregnancy year-on-year because it is a continuing record of births as they occur. Unfortunately, most vital

registration systems especially in developing countries are hobbled by problems of underreporting and incompleteness. For example, it is estimated that in 2000, the level of completeness of birth registration in the Philippines was 78 percent, i.e., only 78 per cent of 5-year-olds at the time of the survey have been registered in the birth registry (have a birth certificate, whether or not it was physically with the household at the time of the survey)<sup>†</sup>. There is also a marked disparity among regions in the Philippines in the completeness of birth registration, with the Autonomous Region of Muslim Mindanao registering the lowest level of completeness of birth registration.

### Survey data

Even when vital registry data effectively capture all births in its reporting system, the type of information contained in birth registration forms will still be unable to answer many questions that will help understand fertility and its determinants better. Sample surveys fill in this gap. The most commonly accepted alternative source of data for estimating teenage pregnancy and investigating its correlates are nationally representative surveys of women in the reproductive years (15-49), extracting the relevant data for women aged 15-19 in the sample. Respondent to these surveys are the women themselves.

There have been a number of recent publications from the World Health Organization, USAID and other international groups providing guidelines for the conduct of ethical research when the subjects are children and adolescents. Among the recommendations are procedures for securing informed consent from parents/guardians when the subject is a minor<sup>‡</sup>. The recommended practice respects country-specific customs and traditions and may waive the requirement for written parental consent and accept alternative procedures for documenting consent that are appropriate to the local setting.<sup>22-23</sup> In the field of survey research on fertility at all ages including the teenage years, the Demographic and Health Surveys (DHS) program funded by USAID and implemented by ORC-Macro has been the gold standard.

DHS data are publicly available and easily downloadable hence are commonly used in many cross-country comparisons. In the Philippines, the National Demographic and Health Survey (NDHS) series is the major data source on long-term trends in teenage pregnancy and its determinants. The surveys are undertaken in the Philippines by the National Statistics

Office in collaboration with the Department of Health and ORC Macro.<sup>24-25</sup> The sample of women in the reproductive years is representative at the national and regional levels. The NDHS follows a standard protocol for obtaining informed consent from survey respondents.

In the succeeding analysis of teenage pregnancy in the Philippines, we use mainly the NDHS survey results from various survey dates. For the long term trend in the age-specific fertility rate at ages 15-19, we use NDHS data from 1973 to 2008. For the analysis of determinants we refer to the survey results from 1993 to 2008 NDHS. Other data sources on correlates of teenage pregnancy cited in this paper are the Young Adult Fertility and Sexuality surveys of 1994 (YAFS 2) and 2002 (YAFS 3) and the 2011 Family Health Survey (FHS). YAFS is a series of surveys on young adults aged 15-24 gathering information on sexual and non-sexual risk behaviors and its correlates while the 2011 FHS is the latest round of what used to be known as the Family Planning Survey (FPS) series, also covering women age 15-49 as does the NDHS, but mostly focused in scope on family planning. Since 2006, the FPS has incorporated a complete birth history for measuring fertility and infant child mortality and a special module to collect information for estimating maternal mortality.

### Teenage pregnancy in the Philippines

Survey data from both the NDHS Series and the 2011 FHS supports findings of other studies from other countries about the elevated risk of early neonatal deaths among teenage mothers (Table 1).

**Table 1.** Neonatal and infant mortality rate for the 10-year period preceding the survey

Age of mother	2003 NDHS		2008 NDHS		2011 FPS	
	Neonatal mortality	Infant mortality	Neonatal mortality	Infant mortality	Neonatal mortality	Infant mortality
<20	28	42	23	36	21	31
20-29	16	26	14	25	13	22
30-39	15	28	19	29	12	20
40-49	32	66	20	48	15	30

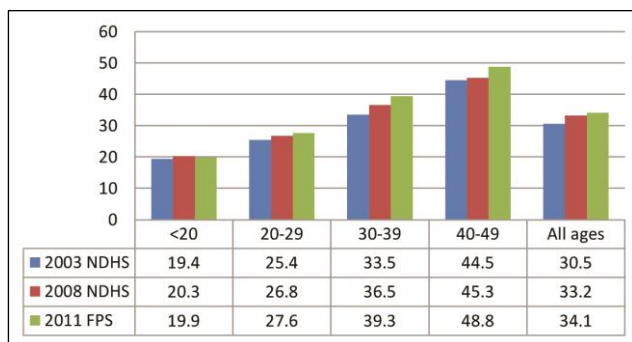
Neonatal and infant mortality tend to be higher at both ends of the reproductive spectrum, i.e., the youngest (less than 20) and the oldest (aged 45-49) age groups. Teenage mothers also compare poorly with mothers from the older age groups in a number of reproductive health indicators. For one, they tend to have the shortest birth intervals (Figure 1) of all age groups. Taking into account the fact that their bodies are not yet ready for the physical demands of childbearing, having closely spaced births exposes young mothers to further health risks.

Still, having closely spaced births is not necessarily a matter of choice for these young mothers as implied by the finding from the 2003 and 2008 NDHS and the 2011 FHS that currently married women aged less than 20 have the highest unmet need for contraception (Figure 2). For example, in the 2011 FHS, 37 percent of currently married

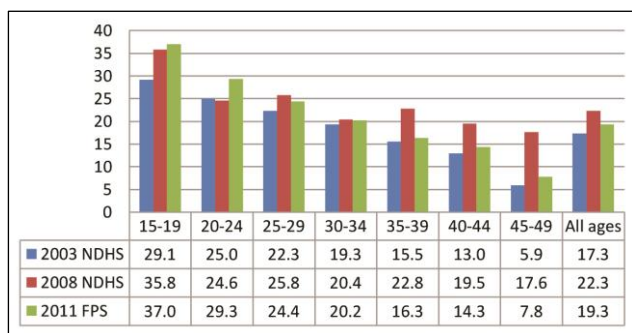
<sup>†</sup> (<http://www.indexmundi.com/facts/indicators/SP.REG.BRTH.RU.ZS/compare?country=ph#country=pg;pe:ph:th> Retrieved 11 April 2013).

<sup>‡‡</sup> The practice of securing written informed consent for surveys is a matter of ongoing debate in the social science survey community as the practice has been shown to affect participation rates and may compromise the validity of the research findings Please cite references number 20 and 21 here.

15-19 year olds had an unmet need for contraception, mostly for spacing of births, compared to 19 percent for all currently married women. This is an indication that adolescent mothers are an underserved segment of reproductive health programs and services.



**Figure 1.** Median number of months since preceding birth

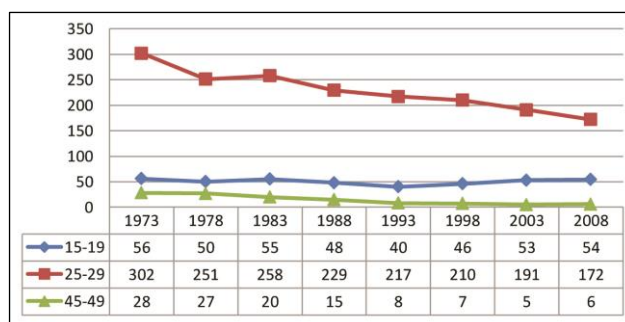


**Figure 2.** Percent of women with unmet need for family planning

The WHO reports that about 16 million adolescent girls aged 15-19 give birth each year, roughly 11% of all births worldwide. Almost 95% of these births occur in developing countries. The adolescent fertility rate worldwide was estimated to be 55.3 per thousand for the 2000-2005 period, meaning that on average about 5.5% of adolescents give birth each year. In the Philippines, according to the latest Vital Statistics Report released by the National Statistics Office, in 2008 a total 1,784,316 births were registered; of these 10.4%, (186,527 births) were born to mothers under 20 years of age. Total registered births in 2008 increased by 2% from the previous year's 1,749,878 births while births to teenage mothers increased by 7.6 %, from 173,282 in 2007. Assuming the same level of underreporting for teenage births as for total births, a comparison of the percent increase of total births and births to teenage mothers suggests that fertility has a faster pace in the youngest reproductive ages.

To get further insight into how the fertility at the youngest reproductive age group compares with that of later years, Figure 3 shows the long-term trend in fertility rates at three age groups, the youngest (15-19), the peak

reproductive years (25-29) and the oldest reproductive group (45-49) over a 35-year period.



**Figure 3.** Age-specific fertility rates for women aged 15-19, 25-29 and 45-49, 1973 to 2008 NDHS

Over this period, there has been a dramatic decrease in the fertility rate at the largest and the oldest reproductive age groups, accounting in large measure for the decline in the total fertility rate<sup>5\*\*</sup> of the Philippines from 6.0 children in 1973 to 3.3 in 2008. In 1973, there were 302 births per thousand women aged 25-29; by 2008 this has dropped considerably to 172. Similarly, in 1973, there were 28 births per thousand women aged 45-49 dropping dramatically to only 6 births per thousand women in 2008. But, amidst these declining rates in the reproductive ages above 20, the 35-year trend indicates that the fertility rate in the 15-19 age group has remained virtually unchanged, from 56 births per thousand women in 1973 to 54 in 2008.

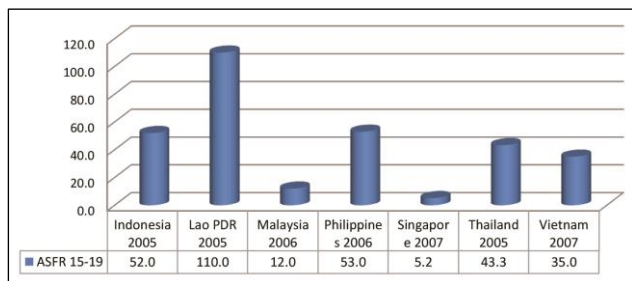
Compared with the rest of the world, the Philippines' adolescent fertility rate is within the average range. Compared with its neighbors in Southeast Asia, it is also mid-range, at the same level as Indonesia, but higher than Thailand and Vietnam (Figure 4). Despite anecdotal reports to the contrary, the adolescent fertility rate has not changed significantly in four decades.

The age-specific fertility rate (ASFR) for women 15-19 is a measure of the incidence of fertility; it is the rate of births relative to the person years of exposure to the risk of childbearing within the given age group. It is highly possible for one woman to contribute more than one birth to the numerator as the reference period is usually about five years before the survey date. Therefore, for purposes of gauging the level of early childbearing in the population, the ASFR is not a good measure.

In place of the ASFR at 15-19, a more appropriate gauge of early childbearing is the proportion of women in the age

<sup>\*\*</sup> The total fertility rate is a basic indicator of the level of fertility. It is calculated by summing age-specific fertility rates over all reproductive ages. It may be interpreted as the expected number of children a woman who survives to the end of the reproductive age span will have during her lifetime if she experiences the given age-specific rates.  
Source: <http://data.un.org/Glossary.aspx?q=total+fertility+rate> retrieved 7 May 2013

group who are pregnant/who have become mothers.<sup>12,26,27</sup> Unlike the ASFR, in this measure a woman can only be counted once. The proportion of women who have already given birth at a certain age is a measure of the timing of first birth and is an indicator of how early child bearing has begun in the population.

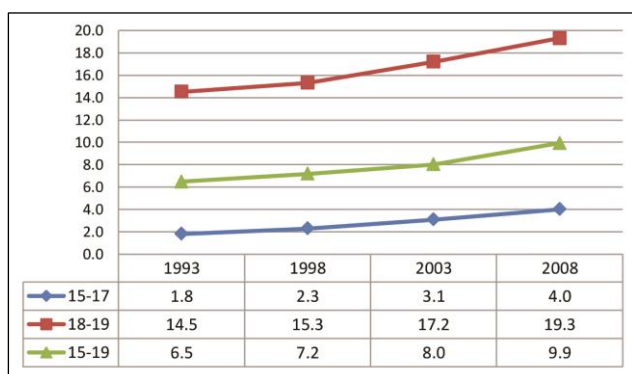


Source: World Health Organization (<http://apps.who.int/gho/data/view.main.310?lang=en> accessed 15 April 2013)

**Figure 4.** Adolescent Fertility Rate in Selected Southeast Asian Countries

Figure 5 presents the trend in the proportion who have begun childbearing at 15-19 over a 15-year period based on the 1993-2008 NDHS. The measure is further broken down into a younger (15-17) and older group (18-19).

Figure 4 shows that the proportion of 15-19 year olds who have begun childbearing has been steadily rising, from about 7 percent in 1998 to 10 percent in 2008. The increase is steeper among the older teens (18-19) but there is a 100 percent increase among the younger teens, from 2 per hundred in 1993 to 4 per hundred in 2008. Overall, the picture presented in this figure is that the proportion of teenagers who have begun childbearing is higher in 2008 than in 1993. Thus by this measure, we can conclude that indeed more women are getting pregnant or have become mothers in their teens nowadays than in the past and that the picture depicted by the age-specific fertility rate is a misleading one when describing the trend in teenage pregnancy.



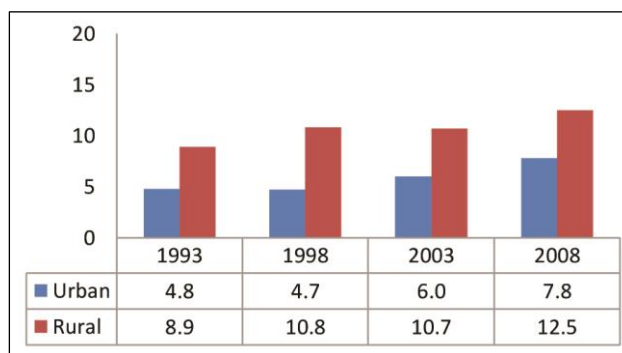
**Figure 5.** Percent who have begun childbearing, 1993-2008 NDHS

The question to ask now is, “Does early childbearing occur equally in all segments of the young female population or does it occur more often in some subgroups than others?”

Three factors are usually cited as sources of variability in teenage pregnancy rates in any population. Across countries, teenage pregnancy tends to be more prevalent in rural areas, among women with low education and among the poor.

To investigate the situation in the Philippines, the next set of figures presents the same longitudinal trend broken down by rural-urban residence, educational attainment and socioeconomic status (as measured by the wealth index<sup>††</sup>). Those who had no formal schooling are excluded in the analysis because they comprise a very small proportion of the sample population

In terms of residence, Figure 6 shows that the percent who have begun childbearing at 15-19 is generally higher in rural than in urban areas but the percent change from 1993 to 2008 is higher in the urban (62.5 percent) than in the rural (40.4 percent). In both areas the proportions who have become mothers has been steadily increasing in the 15-year reference period.



**Figure 6.** Percent who have begun childbearing by rural-urban residence, 1993 to 2008 NDHS

By educational attainment (Figure 7) there is a clear education gradient in early childbearing but while teenagers with elementary level schooling have the highest proportions who have become mothers, the trend shows no consistent pattern of increase through the years. The rise in early childbearing is more pronounced among those with high school and college education where the trend shows a persistent upward climb for each survey round. The upsurge is especially pronounced among those with college education with the increase in early childbearing from 1993 to 2008, a striking 290 percent change.

Figure 8 compares early childbearing across the wealth quintiles with the first quintile representing the poorest

<sup>††</sup>The wealth index is a composite measure of a household’s cumulative living standard. It is calculated using easy-to-collect data on a household’s ownership of selected assets, such as televisions and bicycles; materials used for housing construction; and types of water access and sanitation facilities. It divides households into five quintiles, with quintile 1 representing the poorest 20 % and quintile 5 the richest 20%. (Measure DHS. <http://www.measuredhs.com/topics/Wealth-Index.cfm> Accessed 15 April 2013)

20% of the women (based on the status of their household) and the fifth quintile the richest 20%. Only two data points are compared because only the 2003 and 2008 NDHS rounds had available information to compute the wealth index. The results indicate a gradient of difference by socioeconomic status similar to that observed with educational attainment, which is to be expected as these two variables are highly correlated, i.e., those with the lowest education will tend to be among the poorest. Overall, early childbearing is most prevalent among women in the poorest (first and second) quintiles. Comparing the 2003 and 2008 data it appears that the prevalence of early childbearing did not change much for women from a high prevalence level in the two lowest quintiles (in fact it decreased among the poorest teenagers) but definitely increased for the higher quintiles (3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup>).

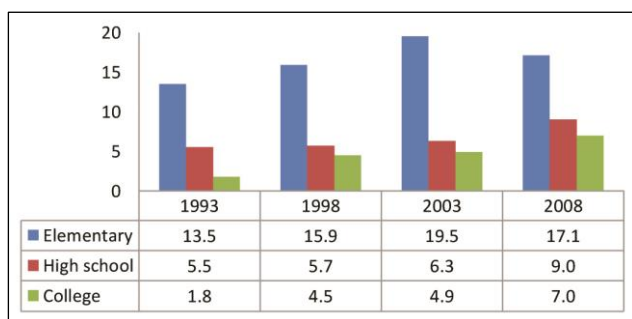


Figure 7. Percent who have begun childbearing by educational attainment, 1993-2008 NDHS

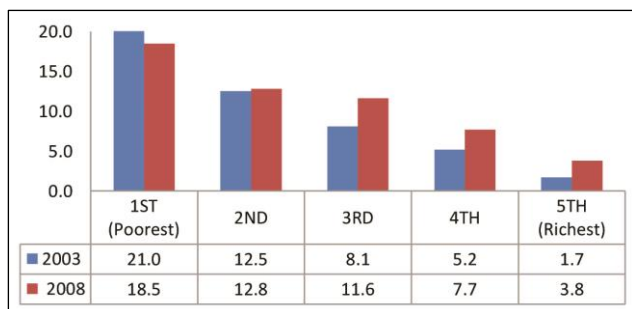


Figure 8. Percent who have begun childbearing by wealth quintile, 2003 and 2008 NDHS

The comparison of differences in early childbearing across residence, education and socioeconomic status of the adolescent suggest a changing pattern in early childbearing. Not only has the percentage who have become mothers in their teens been increasing, but the composition of these teenage mothers has been changing. The transition has moved from being mostly rural, poor and with the lowest educational attainment toward an increasing proportion of urban residents, better educated and those from the middle to the richest socioeconomic groups have likewise commenced childbearing in the teenage years.

What could be driving this trend of early childbearing among all groups in society? As stated earlier, this could be a result of early marriage or of premarital sexual activity leading to pregnancy or to both. To investigate which of these two factors could account for the change, we compare the 1993 to 2008 marital status of teenagers categorized as never married, married, living together and separated. Married refers to those who are formally in a marital union, living together refers to those who are in a consensual union and have not formally married.

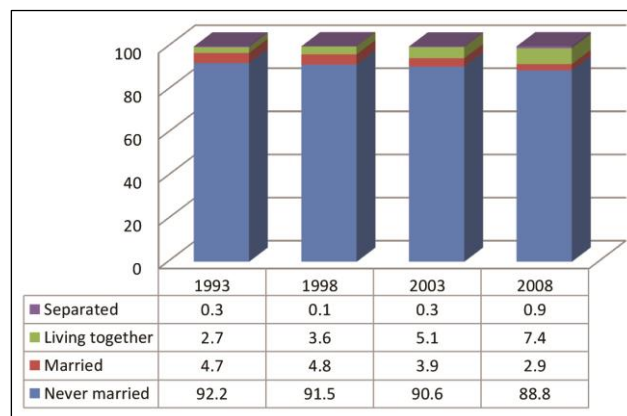


Figure 9. Marital status of women aged 15-19, 1993 to 2008 NDHS

Figure 9 shows that from the 1993 NDHS, 92 percent of teenagers were never married. This proportion has consistently declined through the years and in the 2008 NDHS, only 89 percent of teenagers were never married. If early marriage was driving the trend toward higher prevalence of early childbearing, the proportion married should correspondingly increase with the decline in the proportion never married. Figure 9 show that the proportion who are married has been declining. What is steadily on the rise is the proportion in a consensual union. This suggests that it is early premarital sexual activity that is the driver for the trend toward the increasing prevalence of early childbearing in the Philippines. Pregnancy resulting from premarital sexual activity often leads to the decision to begin cohabitation but not necessarily to a formalized marital union. Corroborating evidence for this shift toward non-marital fertility among teenage women is found in the vital statistics report of the National Statistics Office which states that in 2008 “Majority (79.2%) of babies born to women under 20 (years) of age were illegitimate.”# Illegitimate means that the mother and father were not formally married at the time the birth was registered. The trend toward non-marital fertility is by no means limited to the youngest women. The Vital Statistics Report for 2008 further states that of the total births registered in 2008, 37.5 percent were born out of wedlock and 40

# <http://www.census.gov.ph/article/registered-live-births-increased-20-percent-20082012-08-16-1700>

percent of illegitimate births were born to mothers in the age group 20-24.

Evidence for early premarital sexual activity is further supported by findings from two surveys on a national representative sample of young people aged 15-24 in the Philippines, the Young Adult Fertility and Sexuality Study done in 1994 (YAFS 2) and in 2002 (YAFS 3). In YAFS 2, 8 percent of 15-19 year olds reported ever having engaged in premarital sex; this increased in 2002 to 12 percent. Only 24 percent used contraception during their first premarital sexual activity.<sup>28</sup> Since YAFS was conducted more than a decade ago, presumptive changes in prevalent sexual behaviors and practices of young people may have undoubtedly contributed to the increasing proportion of teenage girls becoming mothers at a very early age.

Another contributory factor to the increasing prevalence of early childbearing is the decreasing age at menarche, a development that is consistently reported in the literature as occurring in countries that have experienced significant improvements in living conditions and the nutritional status of female children. Table 2 presents the reported age at menarche by women in the various reproductive age groups.

**Table 2.** Percent distribution of age at menarche by age at time of the survey, 2008 NDHS

Current age	Per cent reporting menarche at given age						Mean age at menarche
	≤ 10	11	12	13	14	15+	
15-19	2.5	9	31.3	29	19.1	9.2	12.8
20-24	2.9	8.9	28.2	27.3	17.9	14.9	13.0
25-29	2.4	8.6	26	26.5	19.1	17.5	13.2
30-34	3	7.5	23	24.5	22.4	19.6	13.3
35-39	2	7.6	22.1	22.5	22.4	23.2	13.4
40-44	2.5	6.2	24.8	21.1	19.1	26.3	13.5
45-49	1.4	6	20.9	20.6	20.4	30.7	13.7
<b>Total</b>	<b>2.4</b>	<b>7.9</b>	<b>25.8</b>	<b>25.1</b>	<b>19.9</b>	<b>18.8</b>	<b>13.2</b>

Table 2 indicates that the reported age at menarche has been declining across successive cohorts of women. For example, among the 15-19 year olds, the reported age at menarche peaks at age 12 (31%) while among the 45-49 year olds the peak is at 15 and above (30.7%). This trend is consistent with that reported in the literature about the decreasing trends in the age at menarche in other developed and developing countries.<sup>29</sup>

## DISCUSSION

Overall, the findings in this paper from the analysis of the Philippines' National Demographic and Health Survey series over a number of years, together with findings from the Family Health Survey, corroborates that more teenagers now are getting pregnant compared to earlier cohorts. A confluence of factors have come together to make this happen: a trend toward younger age at menarche, changing norms and practices with regard

premarital sexual activity among the youth and increasing acceptance of premarital sex coupled with less societal pressure to legitimize out-of-wedlock pregnancies. Although there are differences amongst groups, the increasing prevalence of early childbearing is observed in all socioeconomic classes, all levels of education and in both urban and rural settings.

Teenage pregnancy exposes both mother and child to many health and other risks, both and there is need to further study how to mitigate its effects or how to reverse the trend. Any interventions should be cognizant of the following factors:

1. While early childbearing has increased among the non-poor, the better educated and residents of urban areas, teenage pregnancy is still unacceptably higher among the poor, those with lower education and rural residents. Interventions designed to help reverse the trend should be tailored to the circumstances leading to early pregnancy that may be specific to these subgroups.
2. The timing of school-based interventions such as sexuality education should be mindful of the finding that teenage pregnancy is highest among those with the least education, specifically those with elementary or lower educational attainment. Thus age-appropriate sexuality education should begin in the pre-adolescent years before teenagers leave school. The high unmet need for contraception among currently cohabiting or married teens, requires specific services and family planning programs for this group. Teenage mothers have the lowest birth intervals (median of less than 24 months) and expose themselves and any more babies to greater risks if a subsequent pregnancy is not prevented. The fact that there is high unmet need for contraception in this age group indicates that there is a desire to space births longer but for some reason the expressed desire is not matched by the corresponding action of using contraception for birth spacing (Figure 2). Further studies should investigate barriers to the use of contraception among currently married teenagers as no direct answers are available from either the NDHS or the FHS.
3. Hospital-based prospective and retrospective studies to study the adverse outcomes of early pregnancy and childbirth on the mother and her baby compared to other age groups are needed to better understand the specific health risks in the Philippine setting. Findings of these studies will be an important input for intervention programs not only for the teenagers themselves, but also for health providers who will be involved in the delivery of services for this age group.

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