Post-Millennial Filipinos: Renewed Hope vs Risks

Further Studies of the 2013 Young Adult Fertility and Sexuality (YAFS) Study

Maternal Health-Seeking Behaviors of Teen and Young Adult Mothers in Caraga

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Mellanie C. Yubia, Maria Paz N. Marquez and Grace T. Cruz

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Message from the Executive Director

Since the turn of the century over fifteen years ago, the Philippines has seen the rise of the millennial generation of young Filipinos who are currently shaping the political landscape in late 2016 as they take a committed stand on the issues of the day.

It is appropriate for those concerned with Philippine development work to now start looking at the next generation of Filipinos and the Commission on Population has had a tradition of producing studies concerning young people.

"Post-Millennial Filipinos: Renewed Hope vs Risks" compiles 17 regional papers based on the dataset of the 2013 Young Adult Fertility and Sexuality (YAFS) Study. These studies explore and discuss the emerging issues and concerns of the youth that need appropriate policy and program responses.

The latest YAFS comes more than a decade after the 2002 YAFS. The 2002 YAFS showed the concerns of the millennial Filipino much like the latest YAFS of 2013 marks the rise of the Filipinos born around the turn of the century and could foretell the shape of things to come for the 21st century young Filipino.

The post-millennial Filipino is focused on screens (smart phone, tablet and monitor) and the media is full of "hashtag-worthy" statements of 140 words.

The studies we are presenting continue to note and update matters such as sexual risk behaviors, early sexual involvement, teen pregnancy, reproductive health problems including sexually-transmitted infections as well as non-sexual risk behaviors such as smoking, alcohol abuse and drug use as well as suicide ideation and lifestyle.

We invite you to tune in to the latest findings about the post-millennial Filipino. It can only result in a more informed thread of interaction with the shapers of our country's future.

Juan Antonio A. Perez III, MD, MPH
Executive Director
Commission on Population

Background

The 2013 Young Adult Fertility and Sexuality (YAFS) Study is the fourth installment of a series of nationally representative cross-sectional surveys on Filipino youth aged 15-24 (for YAFS 1 and 2 and 15-27 for YAFS 3). The YAFS has yielded valuable information about young people's sexual and non-sexual behavior, education, labor force participation, family relationships, attitudes and values regarding certain issues concerning them, personal characteristics like self-esteem, and adverse conditions like suicidal ideation and depression symptoms, all of which are of pertinence to one's understanding of this significant sector of society. The 2013 YAFS or YAFS 4 in particular was a response to the need of updating information on the situation of today's young people. From YAFS 3 in 2002, there have been many important new developments in the environment where young people are situated that need to be studied as these affect not just their sexual and non-sexual risk taking behaviors but also their total well-being. For instance, the changes in communication and information technology such as the prevalent use of cellular phones and the internet and the new forms of communication that these have produced like social networking were not explored in the previous YAFS. The foregoing expansion in technology is presumed to have resulted to notable changes in the patterns and topographies of courtship, dating and relationships among young people. The upsurge in the incidence of HIV infection primarily among men who have sex with other men (MSMs) requires more recent reliable data on male sexual and non-sexual risk behaviors which is currently not available because regular survey rounds like the National Demographic and Health Surveys conducted every five years does not routinely include men. Moreover, with YAFS 4, core behaviors that have been monitored over time in YAFS 1, 2 and 3 were also updated. Among these are the sexual risky behaviors, such as the prevalence of early sexual involvement, teen pregnancy and reproductive health problems including sexually transmitted infections (STIs) as well as non-sexual risk behavior like smoking, drinking and drug use.

With the wealth of information yielded by the YAFS 4, the Commission on Population (POPCOM) in partnership with the Demographic Research and Development Foundation, Inc. (DRDF) came up with seventeen (17) regional papers (Regions 1-13, 4B, CAR, NCR and ARMM) that explore and discuss the emerging issues and concerns of the young people that need appropriate policy and program responses.

Maternal Health-Seeking Behaviors of Teen and Young Adult Mothers in Caraga

Mellanie C. Yubia,[1] Maria Paz N. Marquez,[2] Grace T. Cruz[3]

Abstract

This study described the prevalence of the early onset of motherhood in Caraga and compared the maternal health-seeking behaviors of teen mothers (women whose first birth occurred at ages 15–19) and young adult mothers (women who had their first child at ages 20–24). This paper utilized data for Caraga drawn from the 2013 Young Adult Fertility and Sexuality Study, a nationally representative survey of Filipino youth aged 15 to 24 years. Results show that half of Caraga women 15 to 24 years old have already experienced being pregnant. The levels of maternal health-seeking behaviors of teen mothers did not significantly vary from those of their counterparts who became mothers at a later time. Overall, antenatal care (ANC) coverage by skilled birth attendants regardless of age at first live birth was considerably high, but it did not necessarily translate to the same level of healthier practice in the other components of maternal care, such as delivery and postnatal care. Logistic regression results show that young adult mothers who initiated ANC check-ups within the first trimester of pregnancy and those who had at least four ANC check-ups were more likely to deliver in a health facility and to be assisted by a skilled provider during delivery. By ethnicity, Cebuano teen mothers were more likely to have at least four ANC check-ups and to deliver in a health facility than non-Cebuano teen mothers in the region. Births to teen mothers that were wanted at the time of conception were less likely to be delivered in a health facility and to be assisted by a skilled birth attendant. However, young adult mothers with wanted births were more likely to have ANC check-ups within the first trimester of pregnancy than those whose pregnancies were unwanted.

Keywords: early motherhood, maternal health-seeking behavior, Caraga

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Background and context

Filipino youth share most of the challenges besetting the young people around the world. In this period of dynamic change, they are exposed to various susceptibilities such as those related to their sexual and reproductive health. In particular, adolescent childbearing, which is now a global concern, is also evident in the local setting. Around 19 percent of young women in developing countries become pregnant before age 18 (United Nations Population Fund [UNFPA], 2014). In the Philippines, data from the 2013 Young Adult Fertility and Sexuality Study (YAFS4) reveal a dramatic increase in the proportion of females aged 15 to 19 who have begun childbearing, from 6.3 percent in 2002 to 13.6 percent in 2013 (Demographic Research and Development Foundation [DRDF] & UP Population Institute [UPPI], 2014). The same leap was reported by the National Demographic and Health Survey (NDHS), from 8 percent in 2003 to 10.1 percent in 2013 (National Statistics Office [NSO] & ORC Macro, 2004; Philippine Statistics Authority [PSA] & ICF International, 2014). Regional differentials using the YAFS4 data show that Caraga is among the regions with a high proportion of teenage mothers aged 15 to 19 at 17.4 percent, ranking fourth after the Cordillera Administrative Region (18.4%), Cagayan Valley (18.1%), and the National Capital Region (17.7%; DRDF & UPPI, 2014). The 2013 NDHS, on the other hand, reported that Caraga registered the highest percentage (37.6%) of women aged 15 to 24 who have begun childbearing across the regions in the country (PSA & ICF International, 2014).

The foregoing figures provide a picture not only of young women who are at risk of life-changing socio-economic and developmental consequences associated with early childbearing, but also of women whose health is compromised. Young pregnant women are more prone to pregnancy complications and less likely to seek prenatal care (Commission on Population, 2003). They also face a higher risk of experiencing complications during delivery, which may result in higher morbidity and mortality for both themselves and their newborns (PSA & ICF International, 2014). For instance, very young mothers have a higher risk of obstructed labor because their pelvic bones and birth canals are still growing. Prolonged obstructed labor may cause mortality or obstetric fistula, a tear in the birth canal, if cesarean section delivery is not available (Bacci, 1993, as cited in Reynolds, Wright, Olukoya, & Neelofur-Khan, 2003; UNFPA, 2008). Moreover, compared with women in their twenties, teenage mothers 15–19 years old are twice more likely to die during childbirth, while girls under 15 are at five times greater risk (United Nations Children's Emergency Fund [UNICEF], 2000). Thus, pregnancy is identified as the leading cause of death for women ages 15 to 19 (UNFPA, 2004).

Given the risks posed by early childbearing, it is thus important to look into the plight of these young women who entered motherhood at a young age in terms of how they seek maternal health care services. Although the early onset of pregnancy is not encouraged,

understanding how this sector is managing and coping with their vulnerabilities is important for policy makers in crafting interventions regarding maternal health. Specifically, this paper will delve into whether young mothers seek and are able to access professional help and services during pregnancy, delivery, and the postpartum period in the context of Caraga.

Caraga at a glance

Caraga is an administrative region of the Philippines situated in the northeastern part of Mindanao. It was created through Republic Act 7901 on February 25, 1995. It is composed of five provinces (Agusan del Norte, Agusan del Sur, Surigao del Norte, Surigao del Sur, and Dinagat Island), six cities, 67 municipalities, and 1,310 barangays.

Based on the 2010 census, Caraga has a land area of 20,710.9 square kilometers with a total population of 2,581,399, of which 13.6 percent are women 15–19 years old and 10.7 percent are women 20–24 years old. The majority of the region's inhabitants are of Visayan lineage. Caraga is among the regions in the country with a highly diverse ethnic population. The population of indigenous people (IPs) in the region is estimated at 500,000, which constitutes around 21 percent of the region's total population (International Labor Organization [ILO], 2012). Most of these IPs belong to the Manobo, Mamanwa, Higaonon, Banwaon, and Mandaya tribal groups and live in ancestral territories richly endowed with natural resources such as minerals, timber, and marine products (ILO, 2012).

The Department of Health Center for Health Development (DOH-CHD) Caraga Annual Report for 2010 noted that from 2001 to 2010, Caraga was one of the regions with the highest maternal mortality ratios, with an average of at least one maternal death for every 1,000 live births. Most of the reported causes of maternal deaths in the region are postpartum hemorrhages precipitated by specific causes such as retained placenta, eclampsia, septicemia, and amniotic fluid embolism. In 2010, efforts geared toward embarking on an intensified health agenda nationwide known as the Aquino Health Agenda (AHA) were implemented. The AHA aims to achieve universal health care for all Filipinos through Administrative Order 2010-0036. DOH-CHD Caraga, just like its other regional counterparts, spearheaded the implementation of all health programs guided by this administrative order. Breakthroughs were expected to redound to different areas including maternal health programs and service delivery.

The same report also highlighted that the region has gained headway in attaining the targets of the Millennium Development Goals (MDGs) concerning the reduction of the infant mortality rate (IMR) and maternal mortality rate (MMR). The region was able to lower its IMR from 17.4 deaths per 1,000 live births in 2001 to 6.55 deaths per 1,000 live births in

2014. The latest figure signifies that the region has already surpassed the 2015 IMR target of 17 per 1,000 live births. As to MMR, the region has also progressed in lowering maternal deaths from 161 maternal deaths per 100,000 live births in 2001 to 58 maternal deaths per 100,000 live births in 2014, which is a few points away from the MDG target earmarked at 52 deaths per 100,000 live births.

Review of related literature

Entry into motherhood: Implications and risks

Motherhood is a momentous event, since the birth of a woman's first child has an enormous lifelong impact on her (Simkin, 1991). Nicolson (1998, p. 1) aptly described motherhood as an

> intensely personal experience and a state to which a large proportion of women aspire. It is a challenging time in a woman's life in such a way that to progress from non-mother to mother changes a woman's relationships, her body, her identity, her behavior, and her future life prospects.

Rindfuss and St. John (1983, p. 1) further elaborated that motherhood signifies the woman

> taking on the roles and responsibilities of a mother, often to the exclusion of further education and career building roles. The earlier these roles and responsibilities are undertaken, the less likely are alternatives to be taken and the greater is the expected quantity and pace of subsequent childbearing.

While pregnancy and childbirth are usually times of joy and excitement for most parents and families, when such events happen earlier in life, they may also pose risks and far-reaching adverse implications in many aspects. Of particular importance is their impact on the health of the mother. Data show that globally, more than half a million women die each year from pregnancy-related causes (UNFPA, 2010). In the Philippines, recent estimates show that around 11 women die every day because of pregnancy and childbirth complications. Seven out of ten of these deaths occur at childbirth or within a day after delivery; four out of ten are due to complications and widespread infections (UNICEF, 2008). As earlier mentioned, reports from international agencies (UNFPA, 2014; UNICEF, 2008; World Health Organization, 2012) have pointed out that the leading causes of death for girls between ages 15 and 19 in many developing countries are complications from pregnancy and childbirth, with around 70,000 adolescents dying annually of maternal causes.

Moreover, having lesser life skills, a young mother's struggles are often passed down to her child, who also starts life at a disadvantage. It has been widely documented that teen mothers are more likely to deliver prematurely and to have a low-birth-weight infant than women who gave birth in their 20s. They are also more likely to experience stillbirths, to lose their infants in the first month of life, and to give birth to children who are less likely to survive infancy. Infants who survive are more likely to be impoverished throughout life (Save the Children, 2004, 2014). A recent empirical study using data from Kenya, Zambia, India, Guatemala, and Argentina revealed that pregnancy among women 15 to 19 years old is associated with adverse perinatal outcomes such as preterm birth, low birth weight, stillbirths, and neonatal death (Althabe et al., 2015).

Factors affecting maternal health-seeking behaviors

A multitude of studies have documented the influence of demographic characteristics, socio-economic status, cultural factors, and accessibility of services on the extent to which women seek maternal care and avail of maternal health services. Most of these studies investigated such factors as the women's age, education, place of residence, household income, and the parity of pregnancy.

A number of empirical investigations have demonstrated the effect of the mother's age on the likelihood of seeking maternal care. Generally, younger women have poorer health-seeking behaviors. As Reynolds et al. (2003) noted, younger women face a greater risk of maternal morbidity, yet they are also identified with poor or delayed use of services from pregnancy to childbirth. Atuyambe et al. (2008) elaborated that young women are significantly more disadvantaged in seeking maternal care and are faced with greater challenges in terms of stigma for being pregnant early while they have no disposable income. They may also experience rejection from their parents or even from their partners. Parents may feel that they have wasted their scarce resources, while partners who are also young may shun responsibility (Atuyambe et al., 2005, as cited in Atuyambe et al., 2008). Magadi, Agwanda, and Obare (2007) showed that young women were more likely to initiate antenatal care (ANC) at a later period, have fewer antenatal visits, and be less likely to deliver assisted by a skilled provider compared with older women. Late initiation to ANC was also noted by Ochako, Fotso, Ikamari, and Khasakhala (2011) and Yubia (2011). Babalola and Fatusi (2009), however, noted that there seems to be a curvilinear relationship between maternal age at birth of the last child and use of ANC services: The use of ANC services initially increases with age up to a certain threshold but decreases thereafter.

Education has consistently been found to be a strong determinant in the use of maternal health services. Having a higher level of education increases the likelihood of using these services (Bhanderi & Srinivasan, 2015; Babalola & Fatusi, 2009; Chomat, Solomons,

Montenegro, Crowley, & Bermudez, 2014; Haque, 2009; Ochako et al., 2011; Stephenson, Baschieri, Clements, Hennink, & Madise, 2006). Living in urban areas also increases the likelihood that women will seek maternal care (Hazarika, 2010; Jayaraman, Chandrasekhar, & Gebreselassie, 2008; Mekonnen & Mekonnen, 2002; Ochako et al., 2011; Rahman, 2009). In addition, evidence shows that belonging to a household of higher wealth status is strongly and positively associated with the utilization of maternal health services (Chomat et al., 2014; Kalule-Sabiti, Amoateng, & Ngake, 2014). Meanwhile, other studies have shown that maternal health utilization decreases with higher parity (Hazarika, 2010; Islam, Rakibul, Amirul, & Banowary, 2009; Jayaraman et al., 2008; Ochako et al., 2011; Short & Zhang, 2004).

The association between wantedness of pregnancy at the time of conception and use of maternal health services has also been examined by a number of studies. Kost, Landry, and Darroch (1998) found that women's behavior during pregnancy may be influenced by their attitude toward their pregnancy. Specifically, women with intended conceptions are more likely to recognize early signs of pregnancy and to seek out early prenatal care. Dibaba, Fantahun, and Hindin (2013) also found that unintended pregnancy is associated with late initiation and inadequate use of ANC services. Women who consider their pregnancy unwanted are less likely to utilize antenatal services because they may go through a period of denial, causing them to delay the first check-up either in the hope that the pregnancy will disappear or to conceal the pregnancy from friends and family (Weller et al., 1987, as cited in Gupta et al., 2014). However, studies on the influence of wantedness of conception on delivery and childbirth practices have mixed findings. On the one hand, Kamal and Hassan (2013) found that women in Bangladesh, India, Nepal, and Pakistan who consider their pregnancy unintended are less likely to deliver in a health facility and seek the assistance of a skilled provider. On the other hand, the investigation of Marston and Cleland (2003) in Bolivia, Egypt, Kenya, Peru, and the Philippines showed that while pregnancy intention has a significant effect on seeking adequate ANC, it has little or no effect on the likelihood of delivering in a health facility or being assisted by a skilled provider once the impact of socio-economic and demographic characteristics (i.e., education, parity, household wealth status, and type of place of residence) are taken into account. This finding is consistent with a more recent study that demonstrated that Ethiopian women with unintended pregnancies were less likely to have less than four ANC visits, but the association with pregnancy intention and delivery care was attenuated after introducing other factors (Wado, Afework, & Hindin, 2013). The study by Marquez (2015) of Filipino women 15–24 years old also found no association between unintended pregnancy and delivery and postnatal care indicators.

The roles of cultural beliefs, attitudes, and practices in seeking maternal care are also well documented. For instance, Short and Zhang (2004) noted that ethnicity may be associated with cultural attitudes and practices that encourage or discourage the use of

maternal health services. These beliefs and practices often lead to self-care, home remedies, and consultation with traditional healers in rural communities (Shaikh & Hatcher, 2005). These factors, along with advice from elder women in the household, which is usually not ignored, may cause delay in seeking care. Indigenous women around the world are more vulnerable to pregnancy and childbirth complications and may have MMRs that are two to three times higher than the national averages (Chomat et al., 2014). Thus, a better understanding of local, indigenous cultural preferences and practices is critical in designing and implementing any maternal health intervention program (Chomat et al., 2014).

The interlinkages among the three components of maternal care have also been demonstrated in the literature. ANC facilitates the likelihood of accessing other components of maternal care such as delivery and postnatal care services (Dibaba et al., 2013; Hazarika, 2010; Islam, Islam, & Yoshimura, 2014; Jayaraman et al., 2008; Pomeroy, Koblinsky, & Alva, 2014; Ochako et al., 2011). ANC is considered the key entry point for pregnant women to receive a broad range of health promotion and preventive health services, including nutritional support; prevention and treatment of anemia; prevention, detection, and treatment of malaria, tuberculosis, and sexually transmitted infections and HIV/AIDS (particularly prevention of HIV transmission from mother to child); and tetanus toxoid immunization (USAID, 2007). Pomeroy et al. (2014) found that women are more likely to deliver in a health facility if they have had one or more ANC visits; this effect increases as the number of visits increases. This may be a reflection of the direct effect of health counseling during ANC check-ups or of indirect factors such as greater health concerns or greater confidence in the health delivery system and/or health provider. Thus, recognizing the interplay of the three components of maternal care, Dilip and Mishra (2009) underscored the need for these components to be promoted together to ensure safe motherhood.

In view of the foregoing studies, this paper aims to (1) estimate the level of early motherhood in Caraga, (2) describe and compare the level of maternal health-seeking behaviors of teen mothers (women whose first birth occurred when they were 15 to 19 years old) and young adult mothers (women who had their first child when they were 20 to 24 years old), and (3) examine covariates of maternal health-seeking behaviors of teen mothers and young adult mothers. The study will focus on two factors affecting the maternal health-seeking behavior of young Caraga women, namely ethnicity and wantedness of conception. As described earlier, Caraga is among the regions in the Philippines with highly diverse indigenous inhabitants.

Data and methods

Data

This study utilizes a subsample of the data for Caraga drawn from YAFS4. The survey is the fourth in a series of national surveys on Filipino youth conducted since 1982 by UPPI and DRDF. YAFS is one of the primary sources of information on sexual and non-sexual risk behaviors and their determinants in the Philippines at the national and regional levels.

For the purpose of this study, the unweighted data for Caraga were used, which comprise a total of 1,259 youth respondents aged 15–24, 603 of which are female respondents. In consideration of the central theme of this study, the analysis was restricted to the 324 women who have had a live birth. Of these women, 116 gave birth for the first time when they were 15 to 19 years old (teen mothers), and 59 had their first child when they were 20 to 24 years old (young adult mothers). In addition, the child datafile comprising 324 pregnancies was employed to provide a background on early motherhood in the region.

Study variables

Questions pertaining to pregnancy and other fertility-related behaviors were used in the analysis. In this study, maternal health-seeking behavior is classified into the three components of maternal care: ANC, delivery care, and postnatal care (PNC). ANC-seeking behaviors refer to the care-seeking actions of a woman from the onset of her pregnancy to the period before she gives birth. This includes whether she has ANC check-ups, the type of ANC provider (skilled provider or otherwise), the frequency of ANC check-ups (at least four times or fewer than four times), and the timing of the first ANC check-up (within the first trimester of pregnancy or later). Delivery care-seeking behaviors pertain to the care-seeking actions of the woman during childbirth. This component is measured in terms of the type of birth attendant (skilled birth attendant or traditional birth attendant) and place of delivery (home or facility-based delivery). PNC-seeking behaviors refer to the care-seeking actions of the mother shortly after childbirth and include whether she had a PNC check-up from a skilled provider within the first 48 hours after delivery. The three components are examined using indicators based on the DOH benchmarks on the maternal child health and nutrition service package: (1) a mother should have herself checked by a skilled provider (doctor, nurse, midwife) at least four times throughout her pregnancy, the first of which should happen within the first trimester; (2) a mother should deliver in a health facility assisted by a skilled provider; and (3) a mother should be checked by a skilled provider within the first 48 hours after delivery (NSO & ICF Macro, 2009).

While several studies have delved into the relationship between socio-economic and demographic characteristics (e.g., age, education, type of place of residence, education, socio-economic status, and parity) and health-seeking behaviors, this study focuses on ethnicity and wantedness of conception and the influence of ANC behavior on delivery and PNC-seeking actions. Ethnicity refers to whether the mother classifies herself as Cebuano or non-Cebuano. Cebuano, Surigaonon, and Manobo/Ata-Manobo are the groups with a relatively higher number of cases in the study. Other ethnic groups with very few cases (6 or less) such as Kamayo, Waray, Ilonggo/Hiligaynon, Agusanon, Higaonon, and Boholano were excluded from the analysis and constitute around 10 percent of the sample. Meanwhile, wantedness of conception refers to whether the young mother considered her pregnancy wanted or not wanted at the time she became pregnant. For the purpose of this study, wanted conception includes those reported wanted by the mother at the time she conceived, while unwanted conception includes those that were reported by the mother as either wanted later or not wanted at all.

Analytic approach

To provide a picture of the incidence of early motherhood in the region, the proportion of young women who have ever been pregnant and other pregnancy-related indicators such as the number of pregnancies and specific pregnancy outcomes were first described. To give a profile of the young mothers based on the levels of maternal health-seeking behaviors, frequency distributions and crosstabulations of the women's background characteristics by indicators of antenatal, delivery, and postnatal care were presented. Chi-square test statistics were used to determine whether the levels of women's care-seeking behaviors differ significantly across these characteristics. To examine the odds of having healthier care-seeking behaviors based on the selected indicators of maternal care of young mothers, binary logistic regression was employed. Analyses focused on the maternal health-seeking behavior of the women at the time of their pregnancy that resulted in a live birth. Analyses were done separately for teen mothers, defined as women who became mothers for the first time when they were 15 to 19 years old, and young adult mothers, referring to women who entered motherhood at the age of 20 to 24 years.

Results

Early motherhood among Caraga youth

Of the 603 respondents in the ages 15 to 24, more than half (53.7%) have already experienced being pregnant. As depicted in Figure 1, eight out of ten of these pregnancies resulted in live births. It is also worth mentioning that three of these reported live births were conceived when the mothers were below 15 years old (data not shown in the figure). Around 6.8 percent were lost before full term, while 1.5 percent were born dead. These figures combined imply that 8 percent of pregnancies resulted in fetal loss that may have been due to pregnancy and childbirth complications. Further examination of the data revealed that around one out of ten young mothers reported that they experienced complications that required treatment when they gave birth, which includes prolonged labor, excessive bleeding, high fever with bad smelling vaginal discharge, and convulsions. Furthermore, 4.3 percent had a non-vaginal birth or delivery by cesarean section.

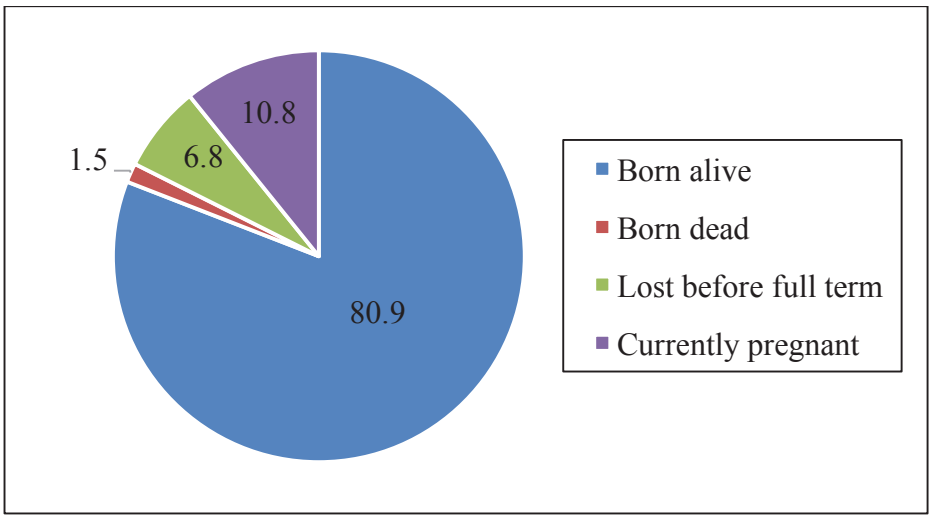

Figure 1. Percent distribution of outcomes of pregnancies of mothers 15–24 years old

Figure 2 shows the parity of these pregnancies. More than two thirds (67.6%) of the pregnancies were first pregnancies, while almost a quarter (24.4%) were second pregnancies. Eight percent were higher-order pregnancies, with five pregnancies as the maximum number of pregnancies among these women aged 15–24.

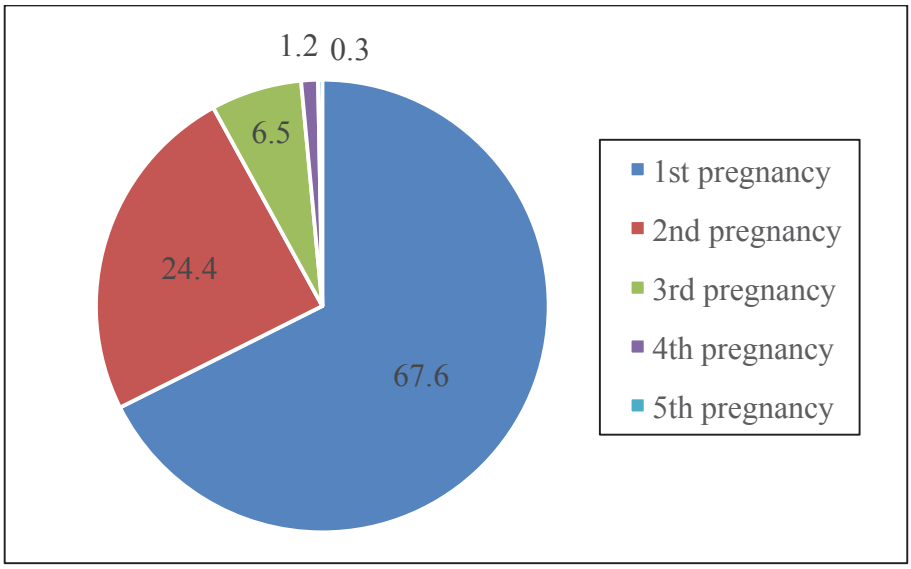

Figure 2. Percent distribution of the pregnancy line of pregnancies of mothers 15–24 years old

Profile of mothers

As mentioned earlier, the analysis of maternal health-seeking behavior focuses on the care-seeking actions of the mothers during their first pregnancy that resulted in a live birth. Of women with live births, 66.3 percent (n = 116) gave birth during their teen years (teen mothers), while 33.7 percent (n = 59) were born to young adult mothers. Table 1 shows the characteristics of these women at the time of the survey, disaggregated by the mothers' age at first live birth.

As regards education, young adult mothers have attained a relatively higher level of education, with 23.7 percent of them reaching college as compared to only 14.7 percent among teen mothers, suggesting the possible disruption in the teen mothers' schooling due to early pregnancy.

Most mothers in Caraga are rural dwellers. Around seven in ten women belong to the poor households (poorest or second lowest wealth quintiles)—72.4 percent among teen mothers and 72.9 percent among young adult mothers. Nine out of ten teen mothers and eight out of ten young adult mothers are neither working nor studying. They are mostly those who stay at home doing household chores unpaid. Looking at marital status, a significantly higher percentage for both age groups is in a living-in arrangement. Around seven in ten of those who entered motherhood when they were in their teens are currently living in, while five in ten among those who became mothers later are in the same arrangement.

More than half of these first live births were born to Cebuano young mothers, while around one in ten were born to Manobo/Ata-Manobo. Although comparatively more mothers for both age groups wanted their pregnancy at the time of their conception, a significant proportion said they did not want their pregnancy at all; 26.7 percent and 22 percent among those aged 15–19 and 20–24 years old, respectively. Table 1 also shows a high percentage of unintended pregnancy among young mothers in the region.

Table 1. Percent distribution of mothers 15–24 years old by background characteristics and age at first live birth

Characteristics	Age at first live birth		Total
	15–19 years old	20–24 years old	
Education			
No schooling or elementary	14.7	13.6	24.3
High school undergraduate	35.3	13.6	28.0
High school graduate/vocational	35.5	33.9	34.9
College undergraduate	14.7	23.7	17.7
College graduate or higher	0.0	15.3	5.1

Table 1. Percent distribution of mothers 15–24 years old by background characteristics and age at first live birth (con't)

Characteristics	Age at first live birth		Total
	15–19 years old	20–24 years old	
Type of place of residence			
Urban	15.5	10.2	13.7
Rural	84.5	89.8	86.3
Household wealth status			
Poorest	38.8	35.6	37.7
Second	33.6	37.3	34.9
Middle	19.0	20.3	19.4
Fourth	6.9	1.7	5.1
Wealthiest	1.7	5.1	2.9
Main activity			
Studying	5.2	1.7	4.0
Working	4.3	18.6	9.2
Neither working nor studying	90.5	79.7	86.8
Marital status			
Never married	11.2	23.7	15.4
Formally married	16.4	25.4	19.4
Living in	69.0	50.8	62.9
Separated or widowed	3.4	0.0	2.3
Ethnicity			
Cebuano	63.4	58.8	61.8
Surigaonon	24.8	33.3	27.6
Manobo/Ata-Manobo	11.9	7.9	10.5
Wantedness of conception of first birth			
Wanted then	46.6	42.4	45.1
Wanted later	26.7	35.6	29.7
Did not want at all	26.7	22.0	25.1
Total	100.0	100.0	100.0
No. of mothers	116	59	175

Antenatal care

Almost all (96.6%) of the young mothers in Caraga had an ANC check-up during their first pregnancy (Table 2). In terms of type of ANC provider, nearly all mothers (99.4%) consulted a skilled health professional (i.e., doctor, nurse, or midwife); none of the young adult mothers sought a traditional birth attendant (TBA). Midwives were the most common skilled ANC providers of these women, regardless of age at first birth.

Table 2. Percent distribution of mothers 15–24 years old by antenatal care-seeking behaviors and age at first live birth: Caraga

Antenatal care (ANC) indicators	Age at first live birth			Sig
	15–19 years old	20–24 years old	Total	
ANC check-up				ns
With ANC check-up	96.6	96.6	96.6	
Without ANC check-up	3.4	3.4	3.4	
Total	100.0	100.0	100.0	
No. of mothers	116	59	175	
ANC provider				ns
Traditional birth attendant	0.9	0.0	0.6	
Skilled birth attendant				
Midwife	81.5	84.2	80.4	
Doctor	11.6	12.3	11.6	
Nurse	6.2	3.5	4.7	
Total	100.0	100.0	100.0	
No. of mothers with ANC	112	57	169	
Timing of the first ANC check-up				ns
1st to 3rd month (1st trimester)	46.4	42.1	44.3	
4th to 5th month	38.4	43.9	41.2	
6th month and beyond	15.2	14.0	14.7	
Total	100.0	100.0	100.0	
No. of mothers with ANC	112	57	169	
Frequency of ANC check-up				ns
Once	5.4	1.8	3.7	
Twice	8.9	8.8	8.9	
Thrice	16.1	24.6	20.0	
Four times or more	69.6	64.9	67.3	
Total	100.0	100.0	100.0	
No. of mothers with ANC	112	57	169	

Note. ns = not significant.

However, fewer mothers complied with the recommended timing of the first ANC check-up. Among women with ANC, less than half had their first ANC check-up within the first trimester of their pregnancy. Slightly more young adult mothers had their initial ANC check-up during the fourth or fifth month of pregnancy (43.9%) than during the first trimester (42.1%).

In terms of the number of ANC visits, high proportions of women (69.6% of teen mothers and 64.9% of young adult mothers) had themselves checked for the recommended frequency of four times or more. Some women had only one ANC check-up throughout their pregnancy. This proportion is higher among teen mothers (5.4%) than their older counterparts (1.8%).

Chi-square tests of significance, however, did not yield statistically significant variations between the ANC indicators examined and the women's age at first live birth.

Delivery care

With regard to the place of delivery, most first-time mothers (70.4% among teen mothers and 77.6% among young adult mothers) delivered in a health facility (Table 3). Results also reveal that the majority of childbirths were assisted by skilled health personnel (76.6% among teen mothers and 80.7% among young adult mothers). However, the remaining one fifth of deliveries assisted by TBAs is quite substantial and should be a cause for concern among program implementers, as TBAs may not possess the necessary knowledge and skills to ensure the mothers' safe delivery. Among the skilled birth attendants, doctors were relied upon by most women to assist during their delivery.

Chi-square tests of significance did not show a statistically significant variation among the indicators of delivery care examined by age at first live birth.

Table 3. Percent distribution of mothers 15–24 years old by delivery care-seeking behaviors and age at first live birth

Delivery care indicators	Age at first live birth			Sig
	15–19 years old	20–24 years old	Total	
Place of delivery				ns
Home	29.6	22.4	26.0	
Health facility	70.4	77.6	74.0	
Total	100.0	100.0	100.0	
No. of mothers	116	59	175	
Birth attendant				ns
Traditional birth attendant	23.4	19.3	21.4	
Skilled birth attendant				
Doctor	42.4	40.4	41.3	
Midwife	28.0	31.6	29.7	
Nurse	6.3	8.8	7.5	
Total	100.0	100.0	100.0	
No. of mothers	116	59	175	

Note. Totals may not add up to 100 percent due to rounding. ns = not significant.

Postnatal care

As shown in Table 4, PNC is less common than ANC among young mothers in Caraga. Only 72.9 percent of young adult mothers and an even lower proportion (62.1%) of teen mothers availed of check-ups after their delivery. Among women with PNC, more teen mothers than young adult mothers sought PNC check-ups from a skilled provider (72.2% vs. 69.7%, respectively). Roughly three in ten women in both age groups had themselves checked by a TBA or a *hilot* after giving birth. With regard to the timing of PNC, 31.1 percent of the mothers for both age groups had their PNC within the first 48 hours after delivery, more among the teens (26.9%) than their older counterparts (40.0%).

Similar to ANC and delivery care indicators, PNC between teen mothers and young adult mothers is not significantly different.

Table 4. Percent distribution of mothers 15–24 years old by postnatal care-seeking behaviors and age at first live birth

Postnatal care (PNC) indicators	Age at first live birth		Total	Sig
	15-19 years old	20-24 years old		
PNC				ns
With PNC	62.1	72.9	65.7	
Without PNC	37.9	27.1	34.3	
Total	100.0	100.0	100.0	
No. of mothers	116	59	175	
PNC provider				ns
Traditional birth attendant	27.7	30.2	28.8	
Skilled provider				
Midwife	30.5	27.9	29.6	
Doctor	27.8	13.9	23.1	
Nurse	13.9	27.9	18.7	
Total	100.0	100.0	100.0	
No. of mothers with PNC	72	43	115	
PNC timing				ns
With PNC within the first 48 hours of delivery	26.9	40.0	31.1	
With PNC beyond the first 48 hours of delivery	73.1	60.0	68.9	
Total	100.0	100.0	100.0	
No. of mothers with PNC from a skilled provider	52	30	82	

Note. Totals may not add up to 100 percent due to rounding. ns = not significant.

Compliance with Department of Health recommendations

It would be programmatically relevant to examine the women's compliance with the recommendations of DOH for safer motherhood. Table 5 reveals that for both age groups, less than half (40.5% among teen mothers and 35.6% among young adult mothers) were able to comply with all three recommendations for ANC. As presented earlier, there is high ANC coverage in the region (99.6%) as far as ANC by a skilled provider is concerned. However, when combined with the timing of the first ANC and the number of times the woman had herself checked throughout her pregnancy, the proportion dropped dramatically. This means that there are mothers who may have had ANC check-ups by a skilled provider at least four times, but the ANC was initiated at a later time than the first trimester, or the ANC may have started during the first trimester but the total number of ANC visits falls short of the recommended frequency of at least four times.

Table 5 also shows that 69 percent of teen mothers and 74.6 percent of young adult mothers conformed to the recommended services for safer delivery in a health facility with the assistance of a skilled provider. Moreover, among all three components of maternal care, it is in PNC where the young mothers in Caraga lag behind the most, with only 12.1 percent of teen mothers and 16.9 percent of young adult mothers checked by a skilled provider within the first 48 hours after delivery.

Table 5. Percentage of mothers 15–24 years old who complied with Department of Health recommendations for safer pregnancy, childbirth, and postpartum by age at first live birth

Department of Health recommendations	Age at first live birth			Sig
	15–19 years old	20–24 years old	Total	
Antenatal care (ANC)				
% who have ANC check-ups by a skilled provider at least 4 times, the first of which happened in the first trimester	40.5	35.6	38.9	ns
Delivery care				
% who delivered in a health facility assisted by a skilled provider	69.0	74.6	70.9	ns
Postnatal care (PNC)				
% who had PNC check-up by a skilled provider within the first 48 hours after delivery	12.1	16.9	13.7	ns
No. of mothers	116	59	175	

Note. ns = not significant.

Ethnicity and maternal health-seeking behaviors

An examination of the maternal care indicators by the mother's ethnic group shows no significant variation for all mothers (Table 6). However, when disaggregated by the age at first live birth, two indicators showed statistically significant differences between Cebuano and non-Cebuano mothers.

Among the ANC indicators, only the frequency of ANC check-ups of teen mothers significantly varies with ethnicity. Almost three quarters of Cebuano teen mothers had themselves checked at least four times when they were pregnant with their first child. The corresponding proportion for non-Cebuano teen mothers is substantially lower at 51.4 percent. This scenario does not hold true for older mothers, whose number of ANC visits does not significantly vary by ethnicity.

Meanwhile, among the delivery care indicators, the place of delivery significantly varies by ethnicity as far as women who became first-time mothers in their teens are concerned. As depicted in Table 6, a significantly higher percentage of Cebuano teen mothers (76.2%) than non-Cebuano teen mothers (56.8%) delivered their first child in a health facility.

Table 6. Percentage of mothers 15–24 years old with maternal health-seeking behavior by age at first live birth and ethnicity

Maternal health-seeking behavior	Age at first live birth 15–19 years old			20–24 years old			Total		
	Cebuano	Non-Cebuano	Sig	Cebuano	Non-Cebuano	Sig	Cebuano	Non-Cebuano	Sig
% with ANC check-up by skilled provider	96.9	91.9	ns	96.7	(95.2)	ns	96.8	93.1	ns
% with first ANC check-up within the first trimester	46.9	37.8	ns	43.3	(33.3)	ns	45.7	36.2	ns
% with at least four ANC visits	73.4	51.4	*	66.7	(61.9)	ns	71.3	52.2	ns
% who delivered in a health facility	76.2	56.8	*	80.0	(81.0)	ns	77.4	65.5	ns
% assisted by a skilled provider during delivery	79.4	69.7	ns	89.7	(80.0)	ns	82.6	73.6	ns
% with PNC by a skilled provider	46.9	37.8	ns	46.7	(52.4)	ns	46.8	43.1	ns
% with PNC by a skilled provider within the first 48 hours after delivery	12.5	5.4	ns	20.0	(4.8)	ns	14.9	5.2	ns
No. of mothers	64	37		30	21		98	58	

Note. Figures in parentheses are based on fewer than 30 cases. ANC = antenatal care. PNC = postnatal care. ns = not significant.
* $p < .05$. ** $p < .01$.

Wantedness of conception and maternal health-seeking behaviors

Table 7 shows that among the ANC indicators examined, a significant variation by wantedness of conception was only found in the timing of the first ANC check-up of young adult mothers. Among those who became first-time mothers when they were in their 20s, more women (56.0% vs. 29.4%) who wanted their conception initiated their first ANC within the first trimester of their pregnancy. This also holds true with their counterparts who became mothers when they were teens, but the variation is not statistically significant.

Data for delivery care yield interesting results. As shown in Table 7, the place of delivery and the type of birth attendant of teen mothers significantly vary by wantedness of their pregnancy. Contrary to expectations, a larger proportion of mothers who declared their pregnancy as unwanted delivered in a health facility and sought the help of a skilled birth attendant during delivery compared with those with wanted pregnancies. Specifically, around eight in ten teen mothers with unwanted pregnancies delivered in a health facility, while only six in ten teen mothers with wanted pregnancies did so. Furthermore, a higher percentage of teen mothers who considered their pregnancy unwanted sought the assistance of a skilled birth attendant during delivery compared with teen mothers with wanted pregnancies (86.4% vs. 65.4%, respectively). Almost the same scenario was observed among young adult mothers, but the differences are not statistically significant.

With regard to PNC, none of the PNC indicators produced significant variations by wantedness of conception.

Table 7. Percentage of mothers 15–24 years old with maternal health-seeking behavior by age at first live birth and wantedness of conception

Maternal health-seeking behavior	Age at first live birth 15–19 years old			20–24 years old			Total		
	Wanted	**Unwanted**	**Sig**	**Wanted**	**Unwanted**	**Sig**	**Wanted**	**Unwanted**	**Sig**
% with ANC check-up by skilled provider	94.4	96.8	ns	(96.0)	97.1	ns	94.9	96.9	ns
% with first ANC check-up within the first trimester	44.4	45.2	ns	(56.0)	29.4	*	48.1	39.6	ns
% with at least four ANC visits	66.7	67.7	ns	(68.0)	58.8	ns	67.1	64.6	ns
% who delivered in a health facility	60.4	79.0	*	(76.0)	79.4	ns	65.4	79.2	*
% assisted by a skilled provider during delivery	65.4	86.4	**	(79.2)	81.8	ns	69.7	84.8	*
% with PNC by a skilled provider	42.6	46.8	ns	(52.0)	50.0	ns	45.6	47.9	ns
% with PNC by a skilled provider within the first 48 hours after delivery	9.3	14.5	ns	(16.0)	17.6	ns	11.4	15.6	ns
No. of mothers	54	62		25	34		79	96	

Note. Figures in parentheses are based on fewer than 30 cases. ANC = antenatal care. PNC = postnatal care. ns = not significant.
* $p < .05$. ** $p < .01$.

Determinants of health-seeking behaviors among teen mothers

The results of the logistic regression analyses predicting the likelihood of maternal health-seeking behavior are shown separately for teen mothers (Table 8) and young adult mothers (Table 9). The analyses focus on the association of ethnicity and wantedness of conception in the regression models.

Table 8 reveals that among teen mothers in Caraga, ethnicity is significantly associated with the frequency of ANC check-ups and the place of delivery. Cebuano teen mothers are 1.1 times more likely to have four or more ANC check-ups than their non-Cebuano counterparts. They are also 2.4 times more likely to deliver in a health facility than non-Cebuano teen mothers.

Table 8. Odds ratios predicting the likelihood of maternal health-seeking behavior of teen mothers

Characteristics	Antenatal care (ANC)		Delivery care		Postnatal care (PNC)	
	1st ANC within the 1st trimester	At least 4 ANC visits	Delivery in a health facility	Delivery assisted by a skilled provider	PNC from a skilled provider	1st PNC within the 1st 48 hours after delivery
Background characteristics						
Ethnicity						
Cebuano	1.4	1.1*	2.4*	1.7	1.5	2.5
Non-Cebuano (ref.)						
Wantedness of conception						
Wanted	1.1	1.1	-0.4*	-0.3*	0.8	-0.6
Unwanted (ref.)						
ANC indicators						
Timing of the 1st ANC check-up						
Within the 1st trimester	NA	NA	1.1	-0.8	1.1	-0.6
Beyond the 1st trimester (ref.)						
Frequency of ANC check-ups						
At least 4 ANC visits	NA	NA	2.1	1.5	0.8	-0.8
Less than 4 ANC visits (ref.)						

Note. NA = not applicable.
* $p < .05$.

Moreover, consistent with the results of the differentials shown earlier, wantedness of conception is significantly associated with the place of delivery and the type of birth attendant among Caraga teen mothers. Teen mothers who considered their pregnancy wanted are 60 percent less likely to deliver in a health facility than those who declared their pregnancy unwanted. They are also 70 percent less likely to seek the assistance of a skilled provider during delivery.

None of the ANC indicators manifested significant associations with delivery care and PNC-seeking actions among teen mothers.

Determinants of health-seeking behaviors among young adult mothers

Among young adult mothers, ethnicity is not significantly associated with any of the health care-seeking actions during pregnancy, childbirth, and the postpartum period (Table 9). However, wantedness of conception emerged as significantly associated with the timing of initiation of ANC check-ups. Young adult mothers who consider their pregnancy wanted are 3.2 times more likely to have their first ANC check-up within the first trimester of their pregnancy than their counterparts with unwanted pregnancy. Pregnancy wantedness did not manifest a significant association with other examined indicators of maternal care.

A noteworthy finding is the significant association between ANC indicators and the place of delivery and type of birth attendant. Young adult mothers who had their first ANC visit during the first trimester of their pregnancy are five times more likely to deliver in a health facility and around 8.6 times more likely to seek the assistance of a skilled health provider during delivery. Similarly, those who had ANC check-ups at least four times are nine times more likely to deliver in a health facility and 27.8 times more likely to be assisted by a skilled health provider during childbirth.

There is no significant association between the ANC variables and PNC indicators examined.

Table 9. Odds ratios predicting the likelihood of maternal health-seeking behaviors of young adult mothers

Characteristics	Antenatal care (ANC)		Delivery care		Postnatal care (PNC)	
	1st ANC within the 1st trimester	At least 4 ANC visits	Delivery in a health facility	Delivery assisted by a skilled provider	PNC from a skilled provider	1st PNC within the 1st 48 hours after delivery
Background characteristics						
Ethnicity						
Cebuano	1.5	1.2	-0.9	2.2	-0.8	5.0
Non-Cebuano (ref.)						
Wantedness of conception						
Wanted	3.2*	1.6	-0.9	-0.8	1.1	-0.9
Unwanted (ref.)						
ANC indicators						
Timing of the 1st ANC check-up						
Within the 1st trimester	NA	NA	5.0*	8.6*	1.3	1.3
Beyond the 1st trimester (ref.)						
Frequency of ANC check-ups						
At least 4 ANC visits	NA	NA	9.0**	27.8**	1.1	-0.5
Less than 4 ANC visits (ref.)						

Note. ns = not significant.

* $p < .05$. ** $p < .01$.

Summary and discussion

Entry into motherhood in Caraga

Results show that entering motherhood at ages 15 to 24 is not an uncommon situation among young women in Caraga, with more than half of the women having already experienced being pregnant. Moreover, results show that pregnancy wastage among young mothers in Caraga is quite high. Around 8.3 percent of pregnancies either end as stillbirths or are lost before full term. In addition, around one in ten mothers experienced complications that required treatment during delivery. Younger women, especially those aged 15 to 19, are more at risk of delivering prematurely, experiencing stillbirths, and losing their infant in the first month of life. The pelvic bones and birth canals of these young women are not yet fully mature, making them more susceptible to complications during childbirth, such as obstructed labor, which, when not properly managed, may cause long-term injuries such as obstetric fistulae (Bacci, 1993, as cited in Reynolds et al., 2003; Save the Children, 2014).

Levels of maternal health-seeking behaviors of young women in Caraga

Results indicate that generally, in Caraga, levels of care-seeking actions do not significantly differ between those who became mothers for the first time when they were teens (15 to 19 years old) and those who became first-time mothers at a later time (20 to 24 years old). They both have the same level of ANC coverage at 96.6 percent, almost all of which were provided by a skilled health professional at least once throughout their pregnancy. Midwives were the most sought-after ANC provider. However, when closely examined as to initiation and frequency of ANC, the proportions drop. Less than 70 percent of women who became mothers in both age groups had at least four ANC check-ups, and less than 50 percent had ANC in the first trimester of their pregnancy. This finding on the late initiation of ANC of the youth is consistent with the findings of Magadi et al. (2007) among women in sub-Saharan countries and the findings of Ochako et al. (2011) among Kenyan women. The study of Yubia (2011) also found that late initiation of ANC was marked among young Filipino women, especially those who are 15 to 19 years old. The literature review indicates that this may be due to the stigma associated with early pregnancy, rejection from their family and partners, and the greater challenges posed by having no disposable income at a young age (Ayutambe et al., 2008). The delay in young women's PNC may also be due to the lack of knowledge about what services exist, when care should be sought, and how to find care at the right time, as well as the possible fear of embarrassment about seeking help from service providers who may be judgmental of the women's situation.

Levels of delivery care-seeking behaviors also did not display a significant difference between the two groups examined. Both groups of mothers, whether teen mothers or young adult mothers, registered facility-based delivery above 70 percent, and

around eight in ten were assisted by a skilled birth attendant during delivery. This implies that a considerable proportion of young mothers still deliver at home and leave their childbirth experience in the hands of TBAs (*hilot*). Cited in the most recent DOH-CHD Caraga Annual Report were the health facilities and health manpower in Caraga; the report showed only a slight difference in the total number of facilities and skilled health workers in the region from 2010 to 2014 (DOH-CHD, 2014). The DOH-CHD Caraga Annual Report for 2010 also stated that efforts have been made to intensify the promotion and advocacy for expectant mothers to deliver only in health facilities and to deliver with the assistance of skilled birth attendants. Accordingly, facility-based delivery in the region increased from around 20 percent in 2005 to 60 percent in 2010, while skilled birth assistance during delivery rose from 49.5 percent in 2005 to 73.3 percent in 2010. As the most recent report highlighted the breakthrough in maternal health as manifested by the reduction in the maternal mortality in the region from a high of 161 maternal deaths per 100,000 live births in 2001 to 58 per 100,000 live births in 2014, it is worth looking into whether this redounds to a specific vulnerable sector such as the young adults.

No significant variation between teen mothers and their counterparts was found with regard to the PNC indicators examined. Figures indicate that among the three components of maternal care, it is in this component where the least adherence to DOH recommendations was found. The postnatal check-up is considered a crucial component of safe motherhood because it provides an opportunity for the assessment and treatment of delivery complications and to advise the mother on how to take care of herself and her baby (NSO & ICF Macro, 2009). Results show that in Caraga, PNC check-up coverage by a skilled health provider is at 44.8 percent for teen mothers and at 50.8 percent for young adult mothers. This leaves a significantly large proportion of young women who were not checked by a skilled professional after delivery. Moreover, the proportion who reported having a PNC check-up by a skilled provider within the first 48 hours after delivery is very low (12.1% and 16.9% for teen and young adult mothers, respectively).

Overall, ANC coverage by a skilled birth attendant at least once among young mothers in Caraga regardless of their age at first live birth is universal. However, figures lag behind when examined in terms of the recommended initiation and adequate number of check-ups. Thus, ANC does not ensure and translate into the same level of healthier practice in delivery and PNC.

Covariates of maternal health-seeking behaviors of young women in Caraga

The results of the bivariate and multivariate analyses reveal that among the indicators of maternal care, it is only the frequency of ANC check-ups and place of delivery that significantly vary by ethnicity; this is only true among teen first-time mothers. Specifically, more Cebuano teen mothers have ANC check-ups four times or more, with almost three quarters of them doing so as compared to slightly more than 50 percent among non-Cebuano mothers. A significantly higher percentage of Cebuano teen

mothers (76.2%) delivered in a health facility compared with non-Cebuano teen mothers (56.8%). Multivariate analyses further indicate that Cebuano women who became mothers when they were teens are more likely to have at least four ANC check-ups and more likely to deliver their first child in a health facility compared with non-Cebuanos. As cited in the literature, ethnicity may be associated with cultural attitudes and practices that encourage or discourage the use of maternal health services, and these beliefs often lead to self-care, home remedies, and consultation with traditional healers, which may cause delays in seeking care (Shaik & Hatcher, 2004; Short & Zhang, 2004).

Looking into the influence of wantedness of conception on the different maternal care indicators yielded curious results. Bivariate and multivariate analyses illustrated that wantedness of conception posed a significant association with only three indicators: the timing of the first ANC check-up of young adult mothers, the place of delivery of teen mothers, and the type of birth attendant of teen mothers. First-time mothers in their 20s who consider their first pregnancy wanted are more likely to have their first ANC visit within the first trimester. This is consistent with the finding of Dibaba et al. (2013) that unintended pregnancy is associated with late initiation and inadequate use of ANC services. Contrary to the expectation that mothers who consider their pregnancy wanted will have healthier care-seeking actions, the results of this study reveal a significant negative association between having a wanted conception and delivering in a health facility and being assisted by a skilled birth attendant. Teen mothers in Caraga who consider their pregnancy wanted are less likely to deliver in a health facility and to seek the assistance of a skilled birth attendant during childbirth. This is a curious finding that merits further investigation. As cited in the earlier section, studies such as that of Kamal and Hassan (2013) and Marston and Cleland (2003) demonstrated no association between pregnancy intention and facility-based delivery and skilled birth attendance when other factors such as socio-economic and demographic characteristics were considered. In an attempt to indirectly explain this finding further, the retrospective characteristic of the wantedness of conception as a mental construct may be considered. As pointed out by Marston and Cleland (2003), the merit of analysis using pregnancy intentions depends on the validity and stability of women's retrospective reports of the wantedness of their pregnancies. A study by East, Chien, and Barber (2013) showed that the wantedness of pregnancy among Latina adolescents declines from prenatal to post birth such that during pregnancy, 76 percent of adolescents indicated that they wanted their pregnancy "very much," but the proportion decreased to 26 percent one year postpartum. Considering this, young women in Caraga who entered motherhood in their teens may have experienced such a change in feelings toward their pregnancy from conception to childbirth, which may have affected their delivery care-seeking actions. Again, this should be empirically investigated. Moreover, the stronger influence of other factors such as the capacity to pay for services should not be discounted. For instance, Envuladu, Agbo, Lassa, Kigbu, and Zoakah (2013) found a strong association between income and the decision to deliver in a health facility.

Finally, an examination of whether healthier ANC facilitates healthier care-seeking actions in the other components of maternal care revealed that for teen mothers, ANC variables did not yield a significant association with all the delivery care and PNC indicators. However, for young mothers who had their first child at a later time (20 to 24 years old), ANC-seeking actions have a significant association with the place of delivery and type of birth attendant. This confirms the findings of other studies that ANC facilitates the likelihood of accessing other components of maternal care (Dibaba et al., 2013; Islam et al., 2014; Ochako et al., 2011; Pomeroy et al., 2014). As articulated by Pomeroy et al. (2014), a woman is more likely to deliver in a health facility if she has one or more ANC visits, and this effect increases with an increasing number of visits, mirroring the direct effect of health counseling during antenatal visits or that of other indirect factors such as increased confidence in the health providers and in the health delivery system in general.

Summary and recommendations

The findings of this study mirror the headway reported regarding the efforts of concerned agencies in the region to improve programs for safer motherhood. Almost all young mothers reportedly had ANC check-ups from a skilled provider at least once during their first pregnancy. Delivery in a health facility (70.4% for teen mothers and 77.6% for young adult mothers) coincides with the promotion and advocacy efforts in the region for facility-based deliveries. While substantial gains are shown in this component of maternal health care, a significant proportion of women are still at risk. Thus, there is a need to further strengthen some efforts where there are gaps, such as having an adequate number of ANC check-ups and early ANC initiation, continuing to raise facility-based deliveries, and improving PNC coverage. It may help if concerned agencies will intensify pregnancy tracking in the communities so that women will be monitored and encouraged to seek appropriate care. DOH, for instance, should ensure youth-friendly services in public health facilities. Health workers should be trained to be youth friendly so that young mothers will not be intimidated to seek their help and services. Qualitative studies may also facilitate a better understanding of the reasons why most young mothers in the region have late ANC initiation and fewer ANC check-ups than what is recommended by DOH.

The study also reveals that entering motherhood at ages 15 to 24 is not uncommon among young women in Caraga. Thus, there is a need to create an enabling environment for young people, both girls and boys, to make available to them the necessary information and services that may help in delaying early entry into life-changing events such as parenthood. This means that much-needed education and services on sexuality and reproductive health should be present at home and in school, church, and the community. For instance, at home, parents should be equipped to be the primary sexuality educators of their children. The school can provide comprehensive sexuality education

and venues where young people will be empowered with life skills through organizations such as population and development clubs and peer education programs. At the college level, the adolescent health and development program may also be integrated into student organizations. Communities may consider establishing teen centers or teen hubs in the community where young people can avail of relevant services such as counseling, while church-based organizations could further promote values formation and spirituality.

Results also show that ethnicity is a differentiating factor with regard to the frequency of ANC check-ups and delivery in a health facility among teen mothers. Specifically, Cebuano teen mothers are more likely to have ANC check-ups at least four times and more likely to deliver in a health facility than their non-Cebuano counterparts. This implies that non-Cebuanos such as Manobo/Ata-Manobo and Surigaonon young mothers are at a disadvantageous position in terms of having an adequate number of ANC check-ups and delivering in a health facility. As Caraga is one of the regions in the country with a considerable number of indigenous people, further studies on the maternal health practices of this sector are warranted. As the literature has shown, some cultural beliefs may facilitate or impede health-seeking actions. This paper attempted to capture some variations in the health-seeking actions of mothers by ethnicity, but the analysis was limited to the ethnic groups with a sufficient number of cases. Hence, it is recommended that a study focusing on indigenous ethnic groups, particularly those located in geographically isolated and disadvantaged areas, be conducted to better understand their cultural practices as well as the presence of and access to facilities that may hinder their maternal health-seeking behavior.

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