# Antenatal Care Utilization of Mothers in Selected Cities in Bicol Region: A Quantitative Study

Mary Joy B. Sande, RM, RN, PhDNEd

College of Nursing, Bicol University, Legazpi City, Albay, Philippines

## ABSTRACT

**Background.** Antenatal Care (ANC) is an essential mandatory preventive care service freely given to pregnant women by the Philippine government. Despite the available ANC services in the country, not all pregnant women still avail of the service.

**Objective.** The study determined the socio-demographic profile of mothers, their ANC services utilization, and the different problems encountered during their antenatal care.

**Methods.** A descriptive research design was used. Purposive sampling was employed to identify the population of the study: women of reproductive age, 18-45 years old, and who had a live birth for the last three years regardless of utilization, partial utilization, or non-utilization of ANC services. Mothers who were currently pregnant and had a history of abortion or stillbirth delivery were excluded from participation. Proportionate sampling was computed to get the sample size: 334 mothers from Iriga City and 392 from Tabaco City. The survey questionnaire was based on the ANC guidelines of the DOH. The statistical treatment used was frequency counting, percentage, and ranking in data analysis.

**Results.** The mothers in Iriga City and Tabaco City were ages 23-27 years old who had 1-3 children, were single but living with partners, and in a nuclear type of family with 4-6 members, were unemployed/housewives, and belonged to a low-income family with >P7,890 family income. In Iriga City, the majority were high school graduates, while in Tabaco City, most were graduates of vocational courses; and elementary and high school undergraduates. There were excellent assessments for history-taking, physical examination, and care provisions in both cities, except for oral health care examination, tests for syphilis, stool examination, acetic acid wash, safe sex education, and oral health checkups and prophylaxis. The identified problems were financial constraints, lack of support system, busy taking care of the kids, sickness, forgetfulness, unwanted pregnancy, drunkard husband, difficult first trimester, bad attitude of midwives, nurses, doctors, and unequal treatment of poor patients.

**Conclusions.** Mothers in both cities were young adults with a low education level who lived with their partners in a poor small nuclear family. Not all ANC services were excellently utilized. Among these were the poor utilization of the tests for syphilis, stool, acetic acid wash; oral health care examination; safe sex education; and oral health checkups and prophylaxis. There were various problems that mothers encountered when seeking ANC services, the most common of which were financial and personal issues.

Keywords: antenatal care, service utilization, challenges, pregnant mothers

## **INTRODUCTION**

Corresponding author: Mary Joy B. Sande, RM, RN, PhDNEd College of Nursing Bicol University Rizal Street, Legazpi City, Albay, Philippines Email: mjbsande@bicol-u.edu.ph Antenatal Care (ANC) is an essential mandatory preventive care service freely given to pregnant women by the Philippine government. It is also known as prenatal care, which is preventive healthcare provided regularly to pregnant women allowing doctors, nurses, and midwives to identify, prevent and treat potential health problems throughout the pregnancy. It also promotes healthy lifestyles that benefit both mother and child.<sup>1</sup>

The World Health Organization (WHO) requires every pregnant mother to have focused antenatal care. Four ANC visits are needed to achieve the full life-saving potential for the mother and the unborn child.<sup>2</sup> It should be within the 8-12 weeks for the first visit; the second around 24-26 weeks, the third visit should be at 32 weeks, and lastly, 36-38 weeks. In the Philippine setting, the Department of Health (DOH) has a Nurse Deployment Program (NDP) under the Human Resource for Health (HRH) which seeks to send nurses to poor communities and Geographically Isolated and Disadvantaged Areas (GIDA) in the Philippines. The main goal is to improve the workforce in the rural health units, birthing homes, and barangay health stations. Midwives are also stationed in the City Health Offices or Rural health units under the Rural Health Midwives Placement Program (RHMPP) to address the inequitable distribution of midwives and equip them for facility-based BEmONC practice. Similarly, the Rural Health Team Placement Program (RHTPP) program of the DOH includes Dentists, medical technologists, and nutritionist-dietitians in the field health facilities to complement existing RHU personnel.

In 2016, at the start of the Sustainable Development Goals (SDGs) era, pregnancy-related preventable morbidity and mortality remained unacceptably high.<sup>3</sup> Many mothers continue to receive insufficient prenatal care.<sup>4</sup> The fact that roughly half of the deliveries were made at home supports this theory. Pregnant mothers, particularly in rural regions, require motivation and incentives to understand the necessity of antenatal check-ups and delivery in health facilities.

Despite the available ANC service in the country, not all pregnant women still avail of the service. In the Philippines, 78% of women had at least 4 ANC visits recorded in 2014; though incomplete, still considered a success by the DOH.<sup>1</sup> Although it improved in 2017 to 87% of women who had four or more ANC visits.<sup>5</sup> Poverty, distance, lack of information, inadequate services, and cultural practices prevent women from receiving or seeking care during pregnancy and childbirth.<sup>6</sup> Even with the hindrances mentioned, the skilled health care workers are doing their best to provide quality ANC services from the urban to the farthest rural areas of the community.

In 2012 (the latest data available during the conduct of the study), among the cities in the Bicol region, the City of Iriga had the highest Maternal Mortality Rate (MMR) of 5/1,000 live births, and Tabaco City had the lowest MMR of 1/1,000 live births.<sup>7</sup> Hence, the focus of the study was on Iriga City and Tabaco City, having the highest and lowest MMR in the Bicol region. In the 2019 report from the Philippine Health Statistics, the MMR in Tabaco City declined to 0.5/1,000 live births. However, in Iriga City, data was not computed due to the unavailability of the total number of non-residents.<sup>8</sup>

Specifically, the study determined the: (1) sociodemographic profile of the mothers along with Age, Number of children, Civil status, Type of family, Family Member, Educational attainment, Occupation, and Monthly family income; (2) ANC services utilization of pregnant mothers along with Assessment, Health promotion, and Care provision; and (3) different problems encountered in the utilization of ANC services. Primarily, the results are beneficial in the policy-making development of the DOH and the medicalnursing field that aims to improve the ANC services in the Bicol region and the country.

## MATERIALS AND METHODS

A quantitative descriptive research design was employed. Before the full implementation of the study, pilot testing was undertaken on five mothers to identify areas for improvement and validation of the research instrument. The mothers who delivered five years ago had trouble recalling the prenatal services; therefore, the coverage was reduced to 3 years of pregnancy. The statistical treatment used were frequency counting, percentage, and ranking in the descriptive analysis of the study results.

Purposive sampling was employed to identify the population of the study. The respondents were women of reproductive age, 18-45 years old, and who had a live birth for the last three years regardless of utilization, partial utilization, or non-utilization of ANC services. Mothers who were currently pregnant and had a history of abortion or stillbirth delivery were excluded from participation to avoid the possible risk of undue delivery brought about by the discomfort of the interview and psychological trauma to the mother since there is a recall of the loss of pregnancy.

A proportionate sampling of 10% was computed from the estimated number of pregnant women to get the proportional sample size, as shown in Table 1. The population of each city was multiplied by 2.7% per DOH protocol (the Head of Family Cluster Department of DOH Region V) to get the estimated number of pregnant mothers for a year. During the data-gathering period, they were selected randomly from the list of deliveries from the barangay health stations or the city's lying-in clinics covering November 2016 – March 2019.

The survey questionnaire was developed using the WHO's ANC recommendations under DOH Administrative Order (AO) 0035 as a guide.<sup>3</sup> It was translated to the Tagalog version to understand the questions and was easily composed of three parts. The first part asked about the demographic profile of the respondents. The second part

Table 1. The sample size

Cities	Total population 2018 (projected)⁵	Estimated number of pregnant women (2.7%)	Proportionate sample size (10%)
Tabaco City	145, 412	3,926	392
Iriga Ciry	123,773	3,342	334
Total	269,185	7,268	726

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n	rofile	Iriga City (n=334)		Tabaco City (n=392)	
Р	ronie	f	%	f	%
Age	23-27	96	29	109	28
	28-32	80	24	102	26
Number of children	1-3	237	71	303	77
Civil status	Single	180	54	236	60
	Married	149	45	152	39
Type of family	Nuclear	189	57	201	51
Family member	4-6	195	58	233	59
Educational attainment	High school graduate	202	61	150	39
	VOC/EU/HSU	7	2	157	40
Occupation	Unemployed/housewife	274	82	314	80
Monthly family income	Poor ( <p7,890)< td=""><td>155</td><td>46</td><td>309</td><td>79</td></p7,890)<>	155	46	309	79

Table 2. Socio-demographic	profile of mothers	in Iriga City a	nd Tabaco Citv
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Legend: f — frequency; n — sample size; VOC/EU/HSU — Vocational / Elementary Undergraduate / High School Undergraduate

used ANC Services, assessment, health promotion, and care provision. The respondents answered YES if the ANC service was received and NO if not received, together with the reason/s. ANC utilization was determined by the percentage of mothers who utilized the services. It was further described as Poor utilization if only 1%-20% of the mothers received the services; Fair utilization for 21%-40%; Good utilization for 41%-60%; Very Good utilization for 61%-80%; and Excellent utilization for 81%-100% of the mothers. The last part was about the problems encountered during the utilization of ANC service that required multiple responses.

Data gathering commenced after the approvals from the City mayor, City Health Officers, Barangay Captains, and the respondent's consent. The Barangay Tanod/Barangay Health Workers served as Survey Guides during the data gathering. After collating the data, a focus group discussion (FGD) of selected mothers from each city was conducted to validate the study results. The participants either confirmed or rejected the results presented and added more information.

The study was only limited to the post-partum mothers who delivered three years back from the data gathering period. Their responses were confined to their ability to recall the ANC received; hence validation of results was done through FGD.

### **Ethical Considerations**

The research protocol was reviewed by the Bicol Consortium for Health Researches and Development (BCHRD) Technical Review Board. Meanwhile, the Bicol Regional Teaching and Training Hospital Institutional Review Board (BRTTH-IRB) ethically reviewed the protocol and issued the ethical clearance – IRB protocol Number 2018-014.

Informed consent was sought before the guided interview commenced. Respondents were instructed about the nature, benefits, and risks of the study and that anytime they feel uncomfortable and anxious during the conduct of the study, they may withdraw without punishment or castigation from the researchers. There was no monetary incentive given to the participants, and they were assured of their right to privacy and confidentiality. The data generated were used solely by the investigator for the research.

## RESULTS

Table 2 shows that most mothers from both cities are 23-27 years of age, have three children, are single in status but living with a partner, and belong to a nuclear family with 4-6 family members. In Iriga City, most mothers were High School graduates, while in Tabaco City, most were vocational graduates/elementary and high school undergraduates. Most mothers were unemployed/housewives in both cities with a monthly family income of less than P7,890, categorized as low-income families.

### **ANC Services Utilization of Pregnant Mothers**

Pregnant mothers received antenatal care from the health care providers (HCPs) of the cities. There was an assigned registered midwife and a registered nurse under the government's Nurse Deployment Program (NDP) for every barangay. The ANC services covered the assessment of pregnant mothers (taking their history, performing a physical examination, and requesting mothers for laboratory tests), promoting health, and providing care.

## **History Taking**

Both cities (Figure 1) have Excellent utilization (91%-100%) for all the ANC services relating to history taking.

## **Physical Examination**

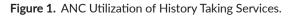
On physical examination (Figure 2), both cities have an Excellent utilization for BMI computation (100%, 99%), taking of blood pressure (99%, 99%), fetal growth and movement assessment (99%, 99%), and checking for multiple pregnancies (99%, 95%). Fair utilization in evaluating thyroid enlargement was also observed in both cities. Meanwhile, oral health care was Fairly utilized (37%) in Iriga City, while there was Good utilization in Tabaco City (45%).

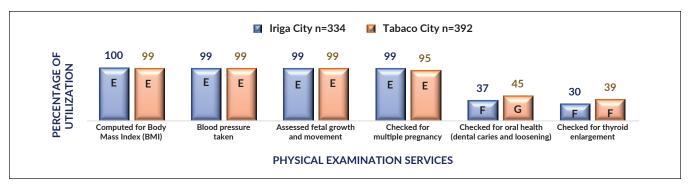
### Laboratory Tests

Between the two cities (Figure 3), utilization in Iriga City ranged from Poor to Very Good, while in Tabaco City from Fair to Excellent. Specifically, in Iriga City, Poorly utilized were tests for syphilis (17%), stool examination



41%-60% – Good utilization (G); 61%-80 % – Very Good utilization (VG); 81%-100% – Excellent utilization (E)





Legend: 0 – No utilization (NU); 1%-20% – Poor utilization (P); 21%-40% – Fair utilization (F); 41%-60% – Good utilization (G); 61%-80% – Very Good utilization (VG); 81%-100% – Excellent utilization (E)

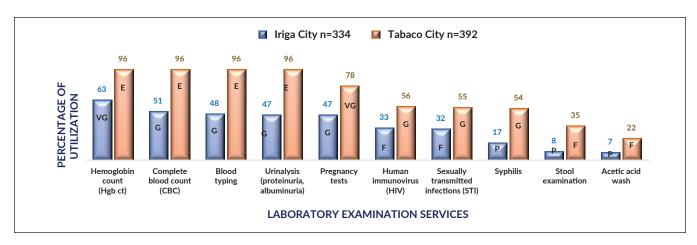


Figure 2. ANC Utilization of Physical Examination Services.

Legend: 0 – No utilization (NU); 1%-20% – Poor utilization (P); 21%-40% – Fair utilization (F); 41%-60% – Good utilization (G); 61%-80% – Very Good utilization (VG); 81%-100% – Excellent utilization (E)

Figure 3. ANC Utilization of Laboratory Examination Services.

(8%), and acetic acid wash (7%). Meanwhile, in Tabaco City, stool examination (35%) and acetic acid wash (22%) were Fairly utilized.

### Health Promotion

Health promotion for pregnant mothers was through health education and counseling (Figure 4). The health promotion services have Very Good utilization in Iriga City (62%-63%) but Excellently (92%-97%) utilized in Tabaco City; except for teaching safe sex (60%), which has Good utilization in Iriga City and Very Good utilization in Tabaco City.

### Care Provision

The pregnant mothers received care through Iron/ folic acid supplementation, Tetanus toxoid immunization, Oral health checkup, and prophylaxis (Figure 5). These care provision services were Excellently utilized in both cities except for oral health checkups and prophylaxis (20%), which was Poorly utilized in Iriga City and Fairly utilized in Tabaco City.

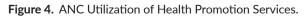
# The Different Problems Encountered in The Utilization of ANC Services

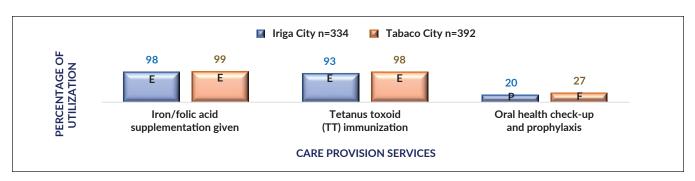
In the cities, mothers faced various issues when seeking ANC services (Figure 6). These were financial constraints, geographic barriers, transportation barriers, negative attitudes and behavior of HCPs, low-quality service, lack of information, communication barriers, unfavorable personal beliefs, cultural practices, and others.

In Iriga City, most of the respondents identified specific problems enumerated, and these include lack of support system, busy taking care of the kids, sickness, forgetfulness, and unwanted pregnancy. Financial constraint was the second, followed by geographic barriers. On the other hand, the main issue in Tabaco City was financial limits. Other problems enumerated included a limited support system; according to the mothers, they have no one to leave their children, especially when visiting the BHS for ANC checkups or going to CHO for laboratory tests. If they choose to bring their children, it becomes hard for them, so they opt not to consult for the next scheduled visit. The second was the unsupporting mother-in-law. The third was the respondent's personal choice due to some problems encountered, like drunkard husband, difficult first trimester, bad attitude of midwives,



Legend: 0 – No utilization (NU); 1%-20% – Poor utilization (P); 21%-40% – Fair utilization (F); 41%-60% – Good utilization (G); 61%-80% – Very Good utilization (VG); 81%-100% – Excellent utilization (E)





Legend: 0 – No utilization (NU); 1%-20% – Poor utilization (P); 21%-40% – Fair utilization (F); 41%-60% – Good utilization (G); 61%-80% – Very Good utilization (VG); 81%-100% – Excellent utilization (E)

Figure 5. ANC Utilization of Care Provision Services.

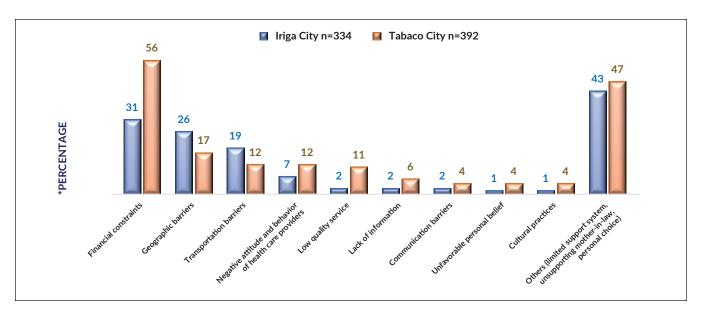


Figure 6. The Different Problems Encountered in The Utilization of ANC Services by Mothers in Iriga City and Tabaco City, Albay.

nurses, and doctors, unequal treatment to poor patients, and no available medicines. These included lack of support system, busy taking care of the kids, sickness, forgetfulness, and unwanted pregnancy. Financial constraints (31%) were the second most identified problem of the pregnant mothers, followed by geographic barriers by 26% of the respondents.

# DISCUSSION

The majority of the mothers from both cities were 23-27 years of age, had three children, were single but living with a partner, and belonged to a nuclear family with 4-6 family members. In Iriga City, most mothers were High School graduates, while in Tabaco City, most were vocational graduates/elementary and high school undergraduates. Most mothers were unemployed/housewives in both cities with a monthly family income of less than P7,890, categorized as low-income families. It was implied that the mothers were young adults who had a developed personal lifestyle and established relationships with a significant other that reflected a commitment to something.<sup>9</sup> HCPs accepted the respondents' chosen lifestyle, assisted with the necessary adjustment, recognized the responsibility, and supported the required changes to health.

According to the 2017 National Demographic and Health Survey (NDHS), 54% of married women currently employ family planning methods. The mean ideal family size in the Philippines was 2.7 children for all women and 3.0 children for currently married women.<sup>5</sup> Hence, the minimal number of children of the mothers from Iriga City and Tabaco City reflected good family planning practices.

Given the expensive cost of raising children, today's couples are more cautious of the number of children they want to have as a family. During the FGD, our respondents confirmed that with difficulty raising so many children, they availed of the free Family Planning methods from the city health office (pills, injectable, implant, and IUD).

The good family planning practices of the mothers can also be attributed to the fact that every barangay has an assigned midwife or nurse through the Rural Health Midwives Placement Program (RHMPP) and Nurse Deployment Program (NDP) of the DOH. It enables them to frequently and personally follow up on the needs of the women, especially their family planning needs. Ninetyfour percent of mothers who had at least one child in the previous five years received prenatal care from a doctor, nurse, or midwife for their most recent birth. Furthermore, 96% of women in urban areas and 93% in rural areas provided professional prenatal care. Prenatal care was also used by 95% of persons in the 30-34 age group, but only 87% of people in the 15-19 age group.<sup>10</sup>

Filipinos are family-oriented people, and the majority are Roman Catholics, so many single mothers reflect a low image of family values. According to the respondents, a wedding ceremony has expenses, and they don't have the monetary resources to afford such a ceremony. However, it was mentioned by the barangay officials during the FGD that usually, during the yearly fiesta celebration, they sponsor a mass wedding, so it is now the couple's personal choice not to join in the wedding ceremony. Information dissemination of the process and actual expenses of getting a marriage license was proposed to the barangay officials to encourage unmarried couples.

Most of the mothers from both cities belonged to a nuclear family when the father, mother, and children stayed together in one household. Moreover, the family size of the mothers conformed to the Average Household Size (AHS) in 2015, which was 4.4 persons, and in Bicol Region, 4.8 persons.<sup>11</sup> It reflected an excellent family image that can provide enough attention and care to children.

The mothers' educational attainment in both cities aligned with national data on the country's highest educational attainment, which has improved since 2000. High school graduates made up 19.1% of the population in 2010, compared to only 12.9 percent in 2000. From 4.3 percent in 2000 to 10.1 percent in 2010, the percentage of college graduates has increased.<sup>12</sup>

A housewife is a married woman whose primary responsibility is to look after her family, manage domestic matters, and handle housework. However, the mothers in both cities were primarily single housewives but with a partner, a challenging role to perform with the husbands' limited financial resources.

Women nowadays intend to help the family's finances. However, without someone to look after the children and the high monthly salary of housekeepers (Php 5,000-6,000), they end up as housewives. During the FGD, the mothers affirmed that instead of working for others, they have chosen to take good care of their children, and that way, they can also bond and personally look after the welfare of their kids.

Unfortunately, the monthly family income of mothers in both cities was less than P7,890, categorized as a low-income family with less than the official poverty threshold.<sup>13</sup> The respondents assured that they only knew the family finances based on how much their husbands gave them. With the majority within the low-income family bracket, even for a small family size of 4-6, the family income was insufficient for the family's needs, hence the government's importance of free health provisions.

### **Utilization of Antenatal Care**

During the assessment, the midwife or nurse inquired first about the pregnant mother's medical history, followed by a consultation with the doctor. All information was entered into the Mother and Child booklet. The history assessment began with interviewing the mothers about their current and previous pregnancies or obstetric history, including the last menstrual period (LMP), computation of the expected delivery date, the obstetrical history, and classification of the pregnant mother as basic ANC or specialized care. History-taking established rapport and trust between the HCP and the patient. It entailed good communication skills from the HCP. Accurate enough, the excellent utilization of the mothers in Iriga City and Tabaco City can attest to an excellent implementation of the ANC services on history taking. During the FGD, the mother knew they needed to visit the health care facility every month, or the midwives or nurses saw them unless there was a conflict in the schedule like they were not present at home. As validated by the head of the family cluster division of DOH-Region V, DOH protocol ensured that the minimum ANC visit was four times. However, HCPs instructed the mothers to visit at least monthly or more for particular concerns.

The physical examination proceeded after history taking during ANC. It involved the computation of body mass index (BMI), blood pressure, fetal growth, movement assessment, checking for multiple pregnancies, oral health (dental caries and loosening), and thyroid enlargement. The Fair to Good utilization of mothers in both cities for oral health care and thyroid assessment reflected a low percentage of mothers who received the care.

The Dental Health Program of the DOH, as mandated by the AO 2007-0007 of the DOH, covers every lifecycle group to be provided either in health facilities, schools, or at home. The Basic Oral Health Care Package includes Oral Examination, Oral Prophylaxis (scaling), Permanent fillings, Gum treatment Health instruction. Unfortunately, the respondents affirmed that they received no regular dental examination. Only those who suffered from dental discomforts received dental care and were requested to visit the dentist in the city health office. There was only one dentist in each city; hence it was impossible to conduct routine dental examinations for the pregnant population of the city. Besides, the school children in the community received routine dental care.

According to The American College of Obstetricians and Gynecologists, pregnancy brings about physiologic changes that may also result in changes in the oral cavity.<sup>14</sup> These changes include pregnancy gingivitis, benign oral lesions, tooth mobility, tooth erosion, dental caries, and severe gum infection. Therefore, it is essential to routinely perform an oral examination of the pregnant woman during antenatal care. Nurses and midwives can help the dentist through health education, specifically about the various gums and teeth changes during pregnancy, and reinforce good oral health habits to keep the gums and teeth healthy. But additional dentists to cover routine oral examinations can improve dental care services, especially for children and pregnant mothers.

Mothers received no examination of their necks for thyroid enlargement. During the FGD for HCPs in Iriga City, the participants confirmed that they did not know they needed to include thyroid examination in antenatal care. On the other hand, some HCPs in Tabaco City mentioned that they only perform a visual assessment of the patient's neck. The midwives did not know that palpation of the neck is necessary to feel for a mass. Thyroid hormone is vital for normal fetal growth and development; hence a mother lacking or in excess of the hormone can result in fetal abnormalities. However, this can be prevented through thyroid assessment, considering that pregnancy increases thyroid activity.

Furthermore, thyroid dysfunction is common in women during early pregnancy. Women diagnosed with thyroid disease after the pregnancy had high rates of unknown abnormal thyroid function during the pregnancy.<sup>15</sup> Hence, the importance of neck palpation during ANC visits as part of physical examination procedures.

Pregnant mothers were examined through laboratory tests. It included Hemoglobin count (Hgb ct), Complete blood count (CBC), Blood typing, Urinalysis (proteinuria, albuminuria), Pregnancy tests, Human immunodeficiency virus (HIV), and Sexually transmitted infections (STI), Syphilis, Stool examination, and Acetic acid wash. In the DOH AO 2016-0035 on the Guidelines on the Provision of Quality Antenatal Care in All Birthing Centers and Health Facilities Providing Maternity Care Services, these laboratory tests were performed during the first ANC visit (8-12 weeks) of the pregnant mothers. Laboratory tests aid the HCPs in determining the abnormalities or complications of pregnancies. Laboratory tests were available only in the city health offices in both cities. Those mothers who were not tested for pregnancy were pregnant when they came for an antenatal visit. Unfortunately, the acetic acid wash test was the least done.

More alarming was in the city of Iriga since it was performed only to 7% of the 334 mothers. Acetic acid wash is a Visual Inspection with Acetic acid (VIA). The naked eye inspection of the cervix after applying 3–5% acetic acid using a good light source to check for cervical cancer and decide on treatment or referral for further diagnostic work. The test is an outpatient procedure and does not require anesthesia, and it is safe, rapid, reliable, and inexpensive.<sup>16</sup>

Another test Poorly to Fairly utilized during pregnancy was stool examination. The test is for checking for intestinal parasites. However, the mothers from both cities did not submit stool specimens since no one told them to do so. In the focused antenatal care guidelines, it was part of the routine tests during the first visit (8-12 weeks).<sup>1</sup> Furthermore, tests for STIs, HIV, and syphilis were not done in the City Health Office (CHO) due to the unavailability of reagents. In the guidelines, when a birthing facility cannot provide the required services, it is a must that the doctor refers them to the appropriate laboratory facility for tests and treatment to ensure that the mother receives the care. Doctors provided referral requests; however, some mothers did comply because of monetary constraints.

When laboratory test results are lacking during the antenatal care of pregnant mothers, there is difficulty in assessing for any complications that may arise during pregnancy. In the Bicol region, only a fraction of women had their urine (28.3%) or blood samples (18.1%) collected, as revealed in the study by Lee, Abellera, Triunfante, and Mirandilla.<sup>17</sup> Similarly, Desalegn, Abay, Abebe, Lulie, Dejene, Mersha, Addissie, and Taye found out that the unsatisfactory antenatal care laboratory services affected pregnancy outcomes, leading to mothers' dissatisfaction and delays in seeking and obtaining focused antenatal care services.<sup>18</sup>

Health promotion for pregnant mothers was through health education and counseling. Very good utilization was only a little more than half of the mothers who received counseling on safe sex. When validated during the FGD, they hesitated about the topic, and few would look down and be ashamed to share it. Culturally speaking, most women in the country were still conservative and had difficulty sharing sensitive issues. Otherwise, the data showed that the HCPs performed well with health education and counseling.

The pregnant mothers received care through Iron/folic acid supplementation, Tetanus toxoid immunization, Oral health checkup, and prophylaxis as preventive measures of antenatal care. The low percentage of mothers who received oral health examinations was consistent with Fair to Good utilization of physical examinations for dental health in both cities. The number of dentists assigned in the city health offices results in limited dental services.

# The Different Problems Encountered in The Utilization of ANC Services

The mothers pinpointed different problems encountered in using ANC services: financial constraints, lack of support system, busy taking care of the kids, sickness, forgetfulness, unwanted pregnancy, drunkard husband, difficult first trimester, bad attitude of midwives, nurses, doctors, and unequal treatment to poor patients. The findings confirmed with the study of Paredes that there was inequality in the use of maternal-child health services that had limited propoor improvements, and household income remained to be the significant driver of inequities in MCH services used in the Philippines.<sup>4</sup> Lee et al. also found out that threefourths of women expressed they have a problem accessing maternal health services in the Bicol region.<sup>17</sup>

Their top six problems related to their concerns regarding money (60.5%); lack of drugs (33.4%); distance of facility (31.0%); transport requirements (29.5%); lack of provider (26.6%); and a reluctance to travel alone (22.7 percent). Furthermore, the study by Vincent, Keerthana, Damotharan, Newtonraj, Bazroy, and Manikandan revealed that most women in rural areas sought care in government facilities due to its availability, accessibility, and affordability; their husbands mostly made decisions in health care, and transportation was a barrier to seeking health care.<sup>19</sup>

## CONCLUSION

Mothers in both cities were young adults with a low education level who lived with their partners in a poor small nuclear family. Not all ANC services were excellently utilized. Among these were the poor utilization of the tests for syphilis, stool, acetic acid wash; oral health care examination; safe sex education; and oral health checkups and prophylaxis. There were various problems that mothers encountered when seeking ANC services, the most common of which were financial and personal issues.

To meet the financial limits of mothers for examination costs in private laboratory facilities, improvements in antenatal care services may include the provision of ultrasound machines in every city or municipal health office. A review of the government's dental health program may address poor to fair oral/dental treatment usage, focusing on the low dentist-to-target-recipient ratio. The government's support creates a happy pregnancy experience and a well-informed and motivated pregnant mother.

### Acknowledgment

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### **Statement of Authorship**

The author's statements and views are her own and not an official position of the institution or funder. The author approved the final version submitted.

### **Author Disclosure**

The author discloses no personal relationships or activities with the funding agency that may affect the manuscript's content. The author further commits to transparency and does not necessarily indicate a bias. The author declared no conflicts of interest.

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