



# **THE IMPACT OF THE MATERNAL AND CHILD HEALTH CARE PROGRAM IMPLEMENTATION OF MEDICAL COLLEGES OF NORTHERN PHILIPPINES – COLLEGE OF NURSING IN SAN ISIDRO, IGUIG, CAGAYAN: A PROGRAM EVALUATION**

Alcabedos, Merly M.; Ryan C. Fontanilla, RN, MSN, LPT

---

## **ABSTRACT**

The World Health Organization (WHO) and the Department of Health (DOH) on the implementation of the Sustainable Development Goals (SDGs) has been directed towards health targets, ensuring healthy lives and promoting wellbeing for all at all ages. To fulfill these goals, intersectoral actions and linkages had been developed. Hence, the Medical Colleges of Northern Philippines (MCNP)-College of Nursing (CON), targeted to dwell and strengthen health systems to achieve Universal Health Care (UHC) in Maternal and Child Health Nursing. As a private academic institution, the MCNP-CON participated in the development of communities specifically focused on maternal and child health programs basing from the AO 2008-0029 entitled “Implementing Health Reforms for the Rapid Reduction of Maternal and Neonatal Mortality” as issued by the Department of Health. It serves as a guide for the development, implementation and monitoring or evaluation of various programs aimed at improving the health of women, mothers and children.

This focused community extension program of the institution aided in the reduction of the significant incidence of maternal and child mortality and morbidity as reproductive health education is still a taboo in the Philippines. The linkage between education and health plays a pivotal role in giving better understanding on maternal and child health care focusing on pregnancy including prevention of diseases, health promotion and treatment of problems during the pregnancy- puerperal cycle, for both woman and the new born; care of infant and children including promotion of health and prevention of diseases through proper nutrition, good personal hygiene, micronutrient supplementation and immunization.

This study was conducted by the MCNP -CON faculty to around 40 selected population using the cluster sampling technique. Descriptive Inferential research design was used and utilized through structured questionnaires. The data gathered was analyzed with the use of Frequency and Percentage distribution and Weighted Mean and Likert Scale.

---



The overall satisfaction of the respondents on the impact of the study was significantly achieved which can be attributed through their active involvement and participation during the conduct of the different programs that hasten their full understanding of the objectives of the program. Significant contribution of the demographic factors of the respondents to the satisfaction level of the program implementation regarding maternal and child health care can be as well noted.

To conclude, this study highlights the critical role of the Higher Education Institution (HEIs) on community development. The significant contribution of HEIs on program implementation, specifically the College of Nursing, drastically shaped the community to become aware of the different factors that can contribute to maternal and child morbidity and mortality.

Though findings are quite satisfactory, it is still essential to underscore the need for tailored, data-driven interventions to still address gaps in awareness, particularly among marginalized groups. By leveraging these insights to inform policy and program development, stakeholders can design targeted educational campaigns that promote more equitable access to reproductive health knowledge, empowering individuals to make informed decisions and fostering improved public health outcomes.

**Key words:** *Reproductive Health, Maternal and Child Health Care, Nutrition, Prenatal Care, Postnatal Care*

---

## INTRODUCTION

In the Philippines, universities and colleges have been mandated by the Commission on Higher Education (CHED) to extend their educational and civic services to the communities.

The College of Nursing of MCNP, as one of the HEI's in the country, also participates in the development of communities through partnership and linkages in collaboration with the Community Extension Service Office (CESO). Based from the result of the Needs Assessment conducted last November 6, 2018 in its partner community, San Isidro, Iguig, Cagayan, the CESO came up with an extension program entitled "Building a Healthy Community in San Isidro through Family Health Care." This aims to provide appropriate health promotion, disease prevention, medical care and support programs for each member of the family and the family as a whole leading to a productive and healthy community.

The health- related services that family wanted to acquire include Basic Life Support, infant care, and care across lifespan, personal hygiene, vital signs assessment, basic nutrition, maternal care, emergency preparedness, herbal gardening and preparation and elderly care.



In this light, the College of Nursing supports this extension program focusing on Maternal and Child Health considering that it is still one of the challenges being faced by the World Health Organization one of which to reduce the maternal and child mortality.

Care focused on pregnancy includes prevention of diseases, health promotion and treatment of problems during the pregnancy- puerperal cycle, for both woman and the new born. On the other hand, care of infant and children includes promotion of health and prevention of diseases through proper nutrition, good personal hygiene, micronutrient supplementation and immunization.

To evaluate the intervention and program implementation of the College, this study was conducted to serve as basis for the community extension programs specifically the Maternal and Child Health Care for further enhancement or improvement in the services rendered.

This study is achieved through the concept of Community Development wherein it is viewed as a process and an outcome. As a process it entails people's active participation in bringing about solutions to problems collectively identified. As an outcome, it speaks of a state in which people enjoy better health through their own efforts or to a broader sense better quality of life (McEwen., 2019). Community development is used both as a tool and process to address the challenges faced by respective communities. Community development is a process where government, non-government organizations and even private corporation work together to empower communities economically, socially and even politically (Perkins., 2004).

The CON-MCNP as a private academic institution, also participates in the development of communities in collaboration with the Community Extension Services of the said institution. They specifically focus on maternal and child health programs basing from the AO 2008-0029 entitled "Implementing Health Reforms for the Rapid Reduction of Maternal and Neonatal Mortality" as issued by the Department of Health. It serves as a guide for the development, implementation and monitoring or evaluation of various programs aimed at improving the health of women, mothers and children.

In this study, the concept of Community Development is applicable because determining the impact and level of satisfaction to the different extension programs will show if there is a change in the health behaviors of the clients. Furthermore, it will also outline the positive outcomes of the extension programs implemented furthering to client empowerment and community development.

This study was done to determine the impact of the Community Extension Program of MCNP-CON among the Residence of San Isidro, Iguig, Cagayan. By determining the mediating roles of respondent's demographic profile and degree of assessment of the Maternal and Child Health Care program focusing on clinical care, maternal care and nutrition implementation, this study aimed to



provide clear reference on respondents' satisfaction level to the over-all evaluation of the program implementation. The significance of this study therefore lies on the success of the program implementation.

## **METHODOLOGY**

### **Research Design**

The study utilized a descriptive survey research design as it aimed in evaluating the extension program specifically maternal and child care programs implemented by the College of Nursing.

### **Data Gathering Procedure**

In this study, a questionnaire was used as the main instrument to determine the impact of the program implementation of the MCNP-CON regarding Maternal and Child Health Care in San Isidro, Iguig, Cagayan. Participants were identified through records from the RHU through the Barangay Midwife. After the questionnaire was constructed, a letter of intent was created and submitted to the Research and Development Office, the Community Extension Office and the partner barangay. A letter was also given to selected respondents requesting permission if they are willing to participate in the study. It is also stated in the said letter that their information will be strictly confidential and fully anonymous if they will participate in the said study. Questionnaires were personally distributed to the respondents and were asked to answer each question honestly. After which, the collected data were added up, tabulated, and analyzed and was forwarded to the statistician to compute the tabulated result.

### **Respondents of the Study**

The respondents of the study were 40 Bonafide residents of Barangay San Isidro Iguig Cagayan or residing in Barangay San Isidro for the past 5 years who participated in any of the maternal and child health care community extension programs implemented by the College with inclusive participation from 2020-2024.

### **Data Gathering Tool**

This research employed a survey questionnaire to gather the requisite data. The survey questionnaires were constructed in accordance with the study's aims and pertinent literature to guarantee alignment with the measured variables. The questionnaire consisted of three parts: The first part encompassed demographic information, including age, sex, household monthly income, highest educational attainment, occupation and number of children. The second part dwelled on the impact and



extent of maternal and child health care where participants answered specific questions based from the inquiries in the statement of the problem; Prenatal Care, Postnatal Care, and Nutrition. For part II, it is answered through Likert Scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The third part dwelled on the level of satisfaction of the respondents with the extension programs and for part III, it is answered through Likert Scale ranging from 1 (Very Dissatisfied) to 5 (Very Satisfied). The last part-Part IV dwelled on the general evaluation and recommendation of the program implemented. In general, the study employed a four-point scale, with each point representing a Likert item utilized in the survey questionnaire.

### Data Analysis

To interpret the data effectively, the researcher used different statistical methods. Frequency and Percentage distribution was the first technique used. This method was used to tally all the responses and calculate the distribution of respondent's individual characteristics which are their profile variables. The weighted mean was also utilized to get an average computed by giving different weights to some of the individual values, used to analyze the level of awareness and satisfaction of the Maternal and Child Health Program of the College in terms of Prenatal Care, Postnatal Care and Nutrition in order to know the average value of the data. The 4-point Likert scale was also used in rating the perceived impact, satisfaction level and extend of implementation of the said program.

## RESULTS AND DISCUSSION

TABLE 1.1. DISTRIBUTION ON THE PROFILE OF THE RESPONDENTS IN TERMS OF SEX

CATEGORY	FREQUENCY	PERCENTAGE
Male	3	7.5
Female	37	92.5
<b>TOTAL</b>	<b>40</b>	<b>100.00</b>

The data in table 1.1. displayed the gender distribution of the respondents from barangay San Isidro Iguig, Cagayan Majority of the respondents (92.2%) are female, highlighting a female-dominated sample. Males constitute a smaller proportion (7.5%).

TABLE 1.2. DISTRIBUTION ON THE PROFILE OF THE RESPONDENTS IN TERMS OF AGE

CATEGORY	FREQUENCY	PERCENTAGE
----------	-----------	------------



15 - 20 years old	3	7.5
21 - 30 years old	11	27.5
31 - 40 years old	9	22.5
41 - 50 years old	10	25.0
51 - 60 years old	6	15.0
61 - 70 years old	1	2.5
<b>TOTAL</b>	<b>40</b>	<b>100.00</b>

The data in table 1.2 shows the age distribution of the respondents from barangay San Isidro, Iguig, Cagayan. The largest group (27.5%) falls within the 21-30 years age range, indicating a substantial representation of early adulthood individuals. A significant number (7.5%) are younger (15-20 years), while a small percentage (2.5%) are older (61-70years). This implies that the majority of the respondents are in their reproductive and prime working years.

**TABLE 1.3. DISTRIBUTION ON THE PROFILE OF THE RESPONDENTS IN TERMS OF CIVIL STATUS**

<b>CATEGORY</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
Single	12	30.0
Married	25	62.5
Widowed	3	7.5
<b>TOTAL</b>	<b>40</b>	<b>100.00</b>

The data in table 1.3. displayed the civil status distribution of the respondents from barangay San Isidro, Iguig, Cagayan. The majority of the respondents (62.5%) are married, highlighting a married-dominated sample. Widowed constitute a smaller proportion (7.5%).

**TABLE 1.4. DISTRIBUTION ON THE PROFILE OF THE RESPONDENTS IN TERMS OF NUMBER OF CHILDREN**

<b>CATEGORY</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
-----------------	------------------	-------------------



One	13	32.5
Two	11	27.5
Three	10	25.0
Three above	6	15.0
<b>TOTAL</b>	<b>40</b>	<b>100.00</b>

The data in table 1.4. displayed the number of children of the respondents from barangay San Isidro, Iguig, Cagayan. The majority of the respondents (27.5%) has two children, highlighting a female-dominated sample. A significant number (25. %) has three children, while a small percentage (15%) are having 6 children.

**TABLE 1.5. DISTRIBUTION ON THE PROFILE OF THE RESPONDENTS IN TERMS OF HIGHEST EDUCATIONAL ATTAINMENT**

CATEGORY	FREQUENCY	PERCENTAGE
Elementary	8	20.0
Secondary	24	60.0
College	8	20.0
<b>TOTAL</b>	<b>40</b>	<b>100.00</b>

The data in Table 1.6 demonstrated a diverse range of educational attainment that shows a significant concentration in the high school graduate level (60%), followed by college and elementary level graduate (20%)

**TABLE 1.6. DISTRIBUTION ON THE PROFILE OF THE RESPONDENTS IN TERMS OF OCCUPATION**

CATEGORY	FREQUENCY	PERCENTAGE
BHW	8	20.0



BNS	2	5.0
Brgy. Official	8	20.0
Farm Laborer	1	2.5
Housewife	21	52.5
<b>TOTAL</b>	<b>40</b>	<b>100.00</b>

The data in table 1.6 showed the distribution based on respondents' occupation. The majority of respondents are housewife (52.2%) followed by the BHW and Brgy officials (20. %) Only a small percentage 2.5%) are farm laborer

**TABLE 1.7. DISTRIBUTION ON THE PROFILE OF THE RESPONDENTS IN TERMS OF MONTHLY HOUSEHOLD INCOME**

CATEGORY	FREQUENCY	PERCENTAGE
Below ₱10,000.00	37	92.5
₱10,000.00- ₱20,000.00	3	7.5





---

**TOTAL****40****100.00**

---

The data in table 1.7 illustrated the distribution based on monthly household income. The majority of respondents (92.5%) fall into the lowest socioeconomic bracket (Less Than ₱10,000) while only a small percentage (7.5%) belong to the higher brackets. (₱10,000.00- ₱20,000.00)

**TABLE 2. PERCEIVED IMPACT OF THE MATERNAL AND CHILD HEALTH CARE PROGRAM OF THE COLLEGE OF NURSING AS ASSESSED BY THE RESPONDENTS**

STATEMENTS	MEAN	DESCRIPTION
1. The access to prenatal care services has improved maternal health outcomes, reduced maternal mortality rates, and better birth outcomes	4.85	STRONGLY AGREE
2. Regular check-ups, early detection of complications, and timely interventions contribute to healthier pregnancies and safer deliveries.	4.85	STRONGLY AGREE
3. Comprehensive postnatal care, including breastfeeding support, immunization programs, and newborn screening, has shown positive effects on child health and development.	4.85	STRONGLY AGREE
4. Timely vaccinations significantly reduce infant mortality and morbidity rates, preventing the spread of infectious diseases.	4.60	STRONGLY AGREE
5. Breastfeeding, with proper guidance and support, promotes optimal nutrition,	4.85	STRONGLY AGREE



immune system development, and bonding between mothers and their children.

6. Community-based interventions, such as health education programs and outreach services, proven effective in improving maternal and child health.	4.78	STRONGLY AGREE
7. Awareness about nutrition, hygiene practices, family planning, and disease prevention, leading to healthier lifestyles and reduced risks.	4.78	STRONGLY AGREE

<b>CATEGORICAL MEAN</b>	<b>4.79</b>	<b>STRONGLY AGREE</b>
-------------------------	-------------	-----------------------

The data in Table 2 presented the perceived impact of the Maternal and Child health care program of the College of Nursing as assessed by the respondents. The responses were categorized as “Strongly Agree,” “Agree,” or implicitly “Disagree/Neutral”

The categorical mean of 4.79 indicated a generally strong agreement, reflecting a high level of perception of the possible impact of the program implemented by the CON among respondents regarding Maternal and Child Health Care.

**TABLE 3. ASSESSMENT OF THE RESPONDENTS ON THE EXTENT OF IMPLEMENTATION OF THE NUTRITION PROGRAM OF THE COLLEGE OF NURSING - DOH- PROGRAM IMPLEMENTATION GARANTISADONG PAMBATA AND OPERATION TIMBANG (OPT)**

STATEMENTS	MEAN	DESCRIPTION
1. Weight and height monitoring	4.68	ALWAYS
2. Supplemental feeding	4.70	ALWAYS
3. Breastfeeding importance and different techniques employed	4.73	ALWAYS
<b>CATEGORICAL MEAN</b>	<b>4.70</b>	<b>ALWAYS</b>

The data in Table 3 presented the respondents’ assessment on the extent of implementation of the Nutrition program of the college of Nursing - DOH- program implementation *garantisadong pambata*



and operation timbang (opt). The responses were categorized as “Always,” “Sometimes,” “Rarely” and “Never”

The categorical mean of 4.70 indicated a generally strong agreement that the program is by far, implemented by the CON.

**TABLE 4.1. ASSESSMENT OF THE RESPONDENTS ON THE EXTENT OF IMPLEMENTATION OF THE MATERNAL AND HEALTH CARE PROGRAM OF THE COLLEGE OF NURSING IN TERMS OF PRENATAL CARE**

STATEMENTS	MEAN	DESCRIPTION
Conduct of health education sessions:		
1. Importance of Prenatal check- up /visits to the nearest health station or RHU for Obstetrical History and Physical Examination	4.85	ALWAYS
2. Importance of Oral-dental health care during pregnancy	4.70	ALWAYS
3. Nutrition and the impact of healthy food choices during pregnancy with emphasis on Iron, Folic Acid and Calcium Supplementation	4.83	ALWAYS
<b>CATEGORICAL MEAN</b>	<b>4.79</b>	<b>ALWAYS</b>

The data in Table 4.1 presented the respondents’ assessment on the extent of implementation of the Maternal and Child Care Program of the CON in terms of Prenatal Care. The responses were categorized as “Always,” “Sometimes,” “Rarely” and “Never”

The categorical mean of 4.79 indicated a generally strong agreement that the program is by far, implemented by the CON.

**TABLE 4.2. ASSESSMENT OF THE RESPONDENTS ON THE EXTENT OF IMPLEMENTATION OF THE MATERNAL AND HEALTH CARE PROGRAM OF THE COLLEGE OF NURSING IN TERMS OF POST- NATAL CARE**

STATEMENTS	MEAN	DESCRIPTION
------------	------	-------------



Conduct of health education sessions:

1. Postpartum check-up /visits to the nearest health station or RHU for physical examination	4.80	ALWAYS
2. Recommended exercises post- partum	4.80	ALWAYS
3. Nutrition and the impact of healthy food choices after delivery	4.85	ALWAYS
4. Observance of Family planning use either natural or artificial	4.90	ALWAYS
<b>CATEGORICAL MEAN</b>	<b>4.84</b>	<b>ALWAYS</b>

The data in Table 4.2 presented the respondents' assessment on the extent of implementation of the Maternal and Child Care Program of the CON in terms of Prenatal Care. The responses were categorized as "Always," "Sometimes," "Rarely" and "Never"

The categorical mean of 4.79 indicated a generally strong agreement that the program is by far, implemented by the CON.

**TABLE 5. LEVEL OF SATISFACTION OF THE RESPONDENTS IN THE DELIVERY OF THE MCHC PROGRAM**

STATEMENTS	MEAN	DESCRIPTION
1. Quality of maternal health care services received from MCNP-CON	4.63	VERY SATISFIED
2. Maternal health care services adequately addressing your needs?	4.85	VERY SATISFIED
3. Quality of child health care services the child/children received as to Immunizations Growth monitoring Nutritional counseling, breastfeeding support, and early childhood development programs	4.80	VERY SATISFIED



4. Quality of maternal health care services received as to Prenatal check-ups including Iron and folic acid supplementation, Tetanus toxoid vaccination and Blood pressure monitoring	4.83	VERY SATISFIED
5. Quality of maternal and child health care services received as to the conduct of health education programs and outreach services	4.83	VERY SATISFIED
<b>CATEGORICAL MEAN</b>	<b>4.79</b>	<b>VERY SATISFIED</b>

The data in Table 4.2 presented the respondents' satisfaction on the delivery of the Maternal and Child Care Program of the CON. The responses were categorized as "Very Satisfied" "Satisfied," Neutral" "Dissatisfied" and "Very Dissatisfied"

The categorical mean of 4.79 indicated that the responded are very satisfied of all the programs implemented by the CON.

**TABLE 6. OVERALL EVALUATION OF THE RESPONDENTS ON THE PROGRAM OF COLLEGE OF NURSING**

STATEMENTS	MEAN	DESCRIPTION
1. Overall Evaluation	5.00	HIGHLY EFFECTIVE
<b>CATEGORICAL MEAN</b>	<b>5.00</b>	<b>HIGHLY EFFECTIVE</b>

The data in Table 6 presented the respondents' over-all evaluation of the Maernal and Child Care Program of the CON. The responses were categorized as "Highly effective" "Mostly effective" "Moderately effective" "Slightly effective" "Not effective"

The categorical mean of 5.0 indicated that the respondents are very satisfied and much aware of the implication of all the programs implemented by the CON particularly on Maternal and Child Health.

## DISCUSSION

Based on the data gathered and analyzed, there were 40 respondents who participated in the said study. The data revealed that the age group of the respondents ranges from 20-60 years old in which majority of them are female, married, secondary level graduates, has 2-3 children, housewife and belong to lower income family.



The study showed strong satisfaction of the respondents as to the Maternal and Child Health Care Program of the College of Nursing. Their active involvement and participation during the conduct of the different programs hasten their full understanding of the objectives of the program.

## **CONCLUSION**

The study highlights the critical role of the HEIs on community development. The significant contribution of HEIs on program implementation, specifically the College of Nursing, drastically shaped the community to become aware of the different factors that can contribute to maternal and child morbidity and mortality.

Though findings are quite satisfactory, it is still essential to underscore the need for tailored, data-driven interventions to address gaps in awareness, particularly among marginalized groups. By leveraging these insights to inform policy and program development, stakeholders can design targeted educational campaigns that promote more equitable access to reproductive health knowledge, empowering individuals to make informed decisions and fostering improved public health outcomes.

## **RECOMMENDATIONS**

Recommendations were made to sustain the program implemented by the College of Nursing, to the residents of San Isidro, Iguig, Cagayan. This way, the barangay can continue to adapt and meet the community's needs. Taking these steps will help the barangay make its residents more informed and empowered about importance of Maternal and Child Health Care , leading to a healthier and stronger community.

1. Conduct of more specific programs that is focused on Maternal and Child Health Care. These actions provide access to better information and services in making informed decisions on health care. This can be included during barangay sessions and assemblies and during youth organization regular community education session.
2. Peer education programs can be created whereby trained youth leaders share information with their peers. This method is easier for the younger residents because it gets information to them in a way that they understand more comfortably.
3. Education materials in the local language to be made available (brochures, posters).
4. Regular evaluation of the program to have timely feedback that will serve as reference to meeting improvements.

## **REFERENCES**



McEwen M., Wills E. (2019). *Theoretical Foundation in Nursing*. 5<sup>th</sup> edition, Wolters Kluwer, Philadelphia

Nies, M., McEwen M. (2015). *Community and Public Health Nursing*. 7<sup>th</sup> edition. Elsevier

Ledwit. M, (2011). *Community Development: A critical Approach*. 2<sup>nd</sup> edition. The University of Edinburgh

Tomasella B. et.al;(2022) *The Role of Higher Education Institutions (HEIs) in Educating Future Leaders with Social Impact contributing to the Sustainable Development Goals*. *Social Enterprise Journal*

*Sustainable Development Goals* [17.booksclub/.bit.ly](https://booksclub.org/17)