

The Implementation of the Maternal, Neonatal, Child Health, and Nutrition Strategy: An Impact Study

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ABSTRACT

The study determined the impact of the implementation of the Maternal, Neonatal, Child Health, and Nutrition (MNCHN) Strategy in Ilocos Sur. It focused on the three health status indicators of the MNCHN Strategy such as the Contraceptive Prevalence Rate (CPR), Maternal Mortality Rate (MMR), and Infant Mortality Rate (IMR) at the same time with the level of satisfaction of the mother-respondents on the MNCHN Strategy regarding maternal and child care. It also looked into the relationship between the impact of the MNCHN Strategy and its extent of implementation. The “Very High” extent of implementation of the MNCHN Strategy is not significantly related to the high CPR which is 50.27 % per 1,000 population, to the “Very Low” MMR which is 0.43 per 1,000 live birth, and to the “Very Low” IMR which is 2.18 per 1000 live births. Significant differences occurred in the implementation of the MNCHN Strategy among the 14 pairs of municipalities on the CPR, while there were four pairs of municipalities on the MMR. The mother-respondents felt that they are “Very Much Satisfied” with the implementation of the MNCHN Strategy. Finally, no significant relationship existed between the implementation of the MNCHN Strategy and the outcomes regarding the different health status indicators such as CPR, MMR, and IMR; and the level of satisfaction of the mothers on the implementation of the MNCHN Strategy along maternal and child care. It is recommended therefore that the Local Government Units (LGUs) must sustain their commitment to continuously support their respective Municipal Health Office (MHO) workers to sustain the “Very High” implementation of the MNCHN Strategy. The MHO personnel should intensify information dissemination on the health services that could be availed of by the community

residents for the people to remain empowered and to be active always in the participation of their health care.

Keywords: contraceptive prevalence rate, infant mortality rate, maternal mortality rate, MNCHN, and satisfaction

INTRODUCTION

As a health worker, it has been an observation that the delivery of a quality service and the active participation of the people are the most crucial factors in the maintenance of health of the population. Mothers and children, being the most vulnerable groups in the society, need the health workers' utmost commitment to achieve an optimum level of health. It is for this reason that their health must be treasured. Children are the primary determinants of the future condition of the world. Hence, they must be given the chance to develop to their maximum potential starting from pregnancy to birth and from birth to childhood years.

The same is true with mothers who carry and nurture the unborn child right from conception to delivery. They too must be given the best possible state of health. Children's health depends merely from the state of health of their mothers who take care of them and who provide their physical, emotional, moral, and spiritual needs.

The Health Sector in the country led by the Department of Health (DOH) strives to deliver various maternal, child health and nutrition programs. Numerous activities and programs are being carried out and implemented to promote the health of the mothers and children. These programs and activities address the different health problems suffered by them and at the same time this could be a means of preventing them to suffer from any kind of disease that will affect their physiologic functioning.

The indistinguishable goals of the decline in the maternal and neonatal mortality on the biological relationship between the mother and child is the objective of the DOH Maternal, Neonatal, Child Health and Nutrition (MNCHN) Manual of Operations of 2009. This is in line with the existing Safe Motherhood Program and Child Survival Program. It proposes a range of precaution that starts before pregnancy and continues during the course of pregnancy, childbirth and after delivery, and guarantees care for children and adolescents.

The DOH (2011) reiterated that a wider and more concerted efforts of the

government and different stakeholders to implement MCH programs is needed to reduce the MMR from 163 to 52 by 2015 and to achieve the Millennium Development Goal (MDG) 5. Further stated by the DOH of 2011 that the goal also aims to have an access to essential health care by everyone as manifested by longer life expectancy, low infant mortality, low maternal mortality and less disability through various interventions.

The CPR or the percentage of women aged 15-49 presently married or in union using natural and artificial method of contraception is one of the Millennium Development Goal (MDG) indicators. The contraceptive prevalence rate in Region I is only 19.41%, which means that there is a very low acceptance of the birth control program (DOH 2012). An attempt to increase the CPR means more extensive advocacies on the use of FP commodities and therefore the procurement or sourcing of these. There is a need to develop mechanisms to gather and consolidate information on purchases or distribution of FP commodities from all known suppliers or providers in the province (DOH, 2011).

Maternal mortality is the death of the woman while pregnant or within 42 days of term of pregnancy. This is irrespective of duration and site of pregnancy from any reason associated to or intensified by the pregnancy or its management (WHO, 2004). The MMR of the province had significantly decreased over the past 3-year period. The 2012 MMR of 37 per 100,000 live births had slightly increased by 6 points compared to 31 MMR of 2011. However, it is lower in comparison to the regional rate of 48/100,00 live births and way below the 2015 MDG target of 52/100,000 live birth. In 2012, the Province of Ilocos Sur recorded a total of five maternal deaths. Two cases were due to Postpartum Hemorrhage secondary to Uterine Atony and three cases were due to Pregnancy induced Hypertension (PIH) (DOH, 2012).

In Ilocos Sur, in a study conducted by Rios, Bermio, and Bautista (2014), results revealed that among the 67 patients diagnosed with (PIH) in Level II hospitals for the period January- December 2012, most of the respondents did not have any complications due to PIH. However, great majority of them delivered through Ceasarian Section.

The IMR of the province in 2012 is parallel to the Under Five Mortality Rate (UFMR) of the province in the last five years with the peak in 2009 and the lowest rate in CY 2012. IMR and UFMR for CY 2012 are lower by 1.08 and 0.75% respectively compared to the previous five years average (DOH 2012).

The National Health Plan (1995-2020) set its health goal to empower the Filipino population to achieve a level of health that will allow them to lead a

socially and economically productive life.

Results of the study could serve as a basis of the Provincial Health Office (PHO) to prepare more accessible and affordable health programs and services for the community people. Likewise, the DOH would be able to work closely in monitoring the Municipal Health Offices in the implementation of the MNCHN Strategy on improving the maternal, child health and nutrition programs of the DOH.

Finally, the findings of this study could guide in identifying what role to perform in the province so that these different maternal child health and nutrition programs may eventually benefit the people.

FRAMEWORK

The rate of decline in maternal and newborn mortality has decelerated in the past decades to a point where Philippine commitments to the Millennium Development Goals (MDGs) may not be achieved. In response, the Department of Health (DOH) issued Administrative Order 2008-0029 “Implementing Health Reforms for Rapid Reduction of Maternal and Neonatal Mortality”. This policy issuance provides the strategy for rapidly reducing maternal and neonatal deaths through the provision of a package of maternal, newborn, child health and nutrition (MNCHN) services. The goal of rapidly reducing maternal and neonatal mortality shall be achieved through effective population-wide provision and use of integrated MNCHN services as appropriate to any locality in the country (DOH MNCHN Manual of Operations of 2009).

The DOH MNCHN Manual of Operations of 2009 appeals for harmonized actions with the final objective of refining women and children’s health and subsequently effecting a quick drop in the maternal newborn and child deaths headed for attaining MDGs 4 and 5 within the prescribed time frame, and that one of the key indicators of the realization of MNCHN goals is the 60% contraceptive prevalence rate (CPR) by 2020.

Still from the same source, the Manual of Operations (MOP) for the Rapid Reduction of Maternal and Neonatal Mortality aims to guide and support efforts for an LGU-wide implementation of the MNCHN Strategy. The MOP provides a set of instructions for ensuring the provision of the core package of MNCHN services being provided by a service delivery network and supported by appropriate health systems 4 Chapter 1 instruments. It defines the standard package of services that should be delivered for each life event as well as the standards for each type of

facility such as appropriate infrastructure and equipment, adequate and capable staff, adequate logistics and supplies, available source of safe blood supply, as well as available transportation and communication systems. These standards shall be the bases of interventions that LGUs can propose and implement to improve delivery of MNCHN services in the localities. While the MOP describes the standard package of services for each level of care, it does not contain specific clinical and treatment standards and procedures for services such as Family Planning, Essential Newborn Care (ENC), Active Management of the Third Stage of Labor (AMTSL), Micronutrient Supplementation, Expanded Program for Immunization (EPI) and other MNCHN services.

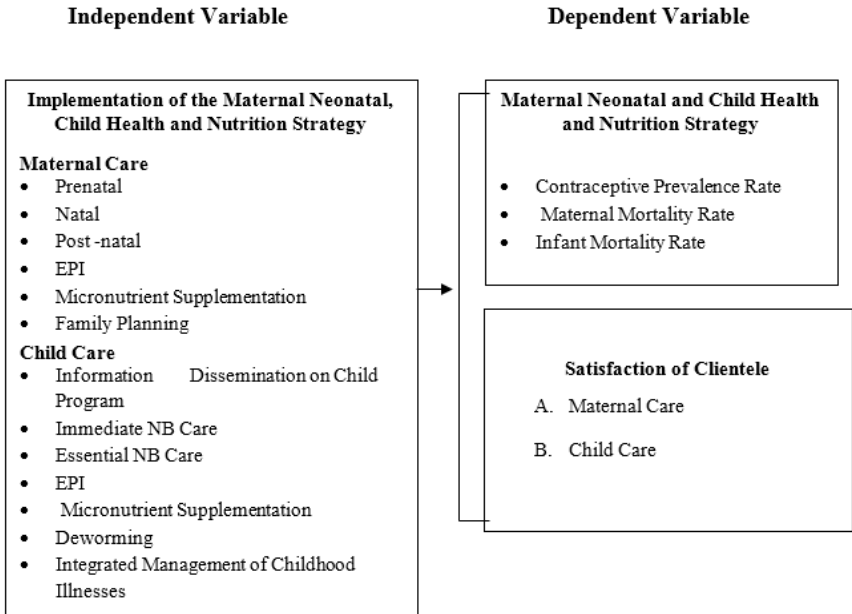


Figure 1. The Research Paradigm

The paradigm illustrates the relationship between the variables of the study. The MNCHN Strategy health status indicators (CPR, MMR, and IMR) and the satisfaction of the mother-respondents is posited to be influenced by the strategic implementation of the MNCHN Strategy.

OBJECTIVES OF THE STUDY

The study focused on the impact of the “Very High” extent of implementation of the Maternal, Neonatal, Child Health and Nutrition (MNCHN) Program along the three health status indicators namely: the CPR, MMR, and the IMR and the level of satisfaction of the mother-respondents. Specifically, it determined the: a) significant difference on CPR, MMR, and IMR between and among the MHOs, b) relationship between the extent of implementation of the MNCHN program and the health status indicators such as the CPR, MMR, and IMR, and c) relationship between the extent of implementation of the MNCHN program and the level of satisfaction of the mother-respondents.

METHODS

This study employed the descriptive-comparative and correlational method of research. The study described the: a) impact of the implementation of the MNCHN Strategy along the three health status indicators namely: the CPR, MMR and IMR for the Calendar Years 2010, 2011, and 2012, b) impact of the implementation of the MNCHN strategy to the 400 mother-respondents with 0-5 children by evaluating their level of satisfaction c) significant difference on CPR, MMR, and IMR between and among the MHOs. As a correlational research, it determined the relationship between the extent of implementation of the MNCHN strategy and the a) health status indicators such as the CPR, MMR, and IMR, and the b) level of satisfaction of the mother-respondents.

The implementer- respondents were all the 244 MHO personnel which includes 19 public health nurses / permanent nurse, 89 rural health midwives, and the DOH support personnel which includes 110 RNs and 32 RHMPP in the 16 selected MHOs of Ilocos Sur. The 400 mother- respondents with 0-5 children who were the clientele of the services were requested to indicate their level of satisfaction on the MNCHN Strategy implemented by the MHO Personnel. The sample size was computed using the Slovin's formula. They were chosen through purposive sampling.

The impact on the health status indicators was based on the records filed at the 16 MHOs, namely: MHOs with BEMONC facility such as: Bantay, San Vicente, Santa Catalina, Sto. Domingo, Cabugao, Santa, Candon, and Cervantes and those MHOs without BEMONC facility which includes Magsingal, San Ildefonso, Caoayan, Narvacan, Burgos, Santa Maria, San Esteban, and Santiago.

The level of satisfaction of the mother-respondents was elicited through the use of a questionnaire formulated by the researcher with a validity index of 4.33. The questionnaire was based on printed literatures, DOH guideline and from the questionnaire of Pascual (2012) and was augmented with an individual interview.

The researcher requested permission from the Municipal Mayors of the sixteen municipalities covered in this study to gather data in their respective areas of jurisdiction. Meanwhile, the researcher conducted a preliminary survey at the different Municipal Health Offices to determine the total number of mother-respondents on each municipality using the Slovincs Formula. The researcher personally administered the questionnaire to the implementer-respondents to elicit data on the extent of implementation of the MNCHN strategy. Likewise to the mother-respondents to elicit data on the level of satisfaction on the MNCHN strategy along maternal and child care. It was augmented with an interview and it was conducted in the MHOs during prenatal visit and immunization days. Permission was sought from the respective Municipal Health Officers prior to the conduct of the interview in MHOs during the prenatal visit and immunization days. There are some municipalities in which mothers were interviewed at their own homes, and some were interviewed at day care centers. .

The data gathered in this study were treated, using a) Mean to determine the extent of implementation of the MNCHN Strategy, b) ANOVA to determine the significant difference in the outcomes of the MNCHN Strategy before and after its implementation between and among the MHOs, c) Scheffe' Multiple Comparison to determine which among the sixteen municipalities significantly differ in the outcomes of MNCHN Strategy in terms of CPR, MMR, and IMR. d) Simple Linear Correlation Analysis to determine the relationship between the extent of implementation of the MNCHN Strategy and the outcomes of the MNCHN Strategy along the three health status indicators (CPR, MMR, and IMR) and the level of satisfaction of the mother-respondents on the implementation of the said strategy.

RESULTS AND DISCUSSION

On the Profile of the Implementer- Respondents

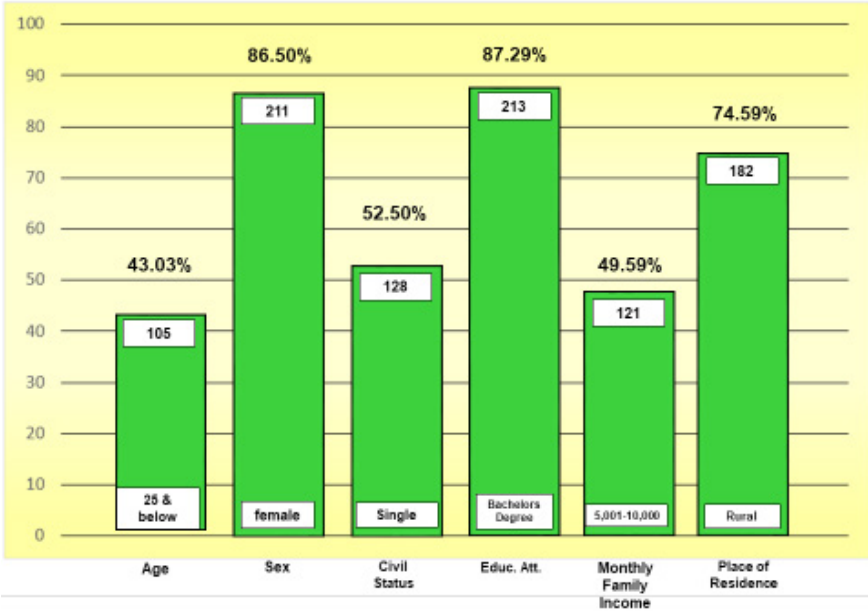


Figure 2. Profile of the Respondents

A great number of the implementer -respondents belong to age bracket 25 years old and below, have a monthly salary of P 5, 001-10, 000. Most of the implementer-respondents are females, are bachelor's degree holders. The majority are single, reside in the rural area.

On the Extent of Implementation of the MNCHN Program Along Maternal and Child Care

Table 1

The Extent of Implementation of the MNCHN Strategy Regarding Maternal and Child Care

| Indicators | Mean | Descriptive Rating |
|--|-------------|--------------------|
| Maternal Care | | |
| Prenatal Care | 4.64 | Very High |
| Natal Care | 4.64 | Very High |
| Post-Natal care | 4.92 | Very High |
| Expanded Program on Immunization | 4.65 | Very High |
| Micronutrient Supplementation | 4.43 | Very High |
| Family Planning | 4.14 | High |
| Overall | 4.58 | Very High |
| Child Care | | |
| Information Dissemination on Child Programs | 4.82 | Very High |
| Immediate Newborn Care | 4.81 | Very High |
| Provision of Essential Newborn Care | 4.83 | Very High |
| Expanded Program of Immunization | 4.78 | Very High |
| Micronutrient Supplementation | 4.57 | Very High |
| Deworming | 4.91 | Very High |
| Integrated Management of Childhood Illnesses | 4.87 | Very High |
| Overall | 4.68 | Very High |
| Grand Mean | 4.69 | Very High |

The mean and extent of implementation of the MNCHN Strategy was the combined assessment of the Implementer–Respondents and the Municipal Health Officers. Table 1 depicts the summary of the extent of implementation of the MNCHN Strategy regarding maternal and child care.

As a whole, the extent of implementation of the MNCHN Strategy is “Very High” as evidenced by the grand mean rating of 4.69.

The Impact of the MNCHN Strategy on the Health Status Indicators Regarding CPR, MMR, and IMR

A. On Contraceptive Prevalence Rate

Figure 3 presents the Three- Year Mean Outcomes of the MNCHN Strategy, Calendar Years 2010, 2011, and 2012 Along CPR.

As a whole, Ilocos Sur’s three year mean contraceptive prevalence rate is 50.27% which is very near to the national benchmark of 60%. Relatively, Cervantes exceeded the national benchmark of 60%.

Taken individually, the Municipality of Narvacan has the highest three-year mean contraceptive prevalence rate (76.07%), while Magsingal, gained the lowest three-year mean contraceptive prevalence rate of 19.77%.

The findings of the study may be ascribed to the bigger number of population. Magsingal, has a population of 31,986.

One of the objectives of the family planning program of the Department of Health is the increase in the contraceptive prevalence rate from 45.6% in 1998 to 57% in 2008 (DOH, 2008).

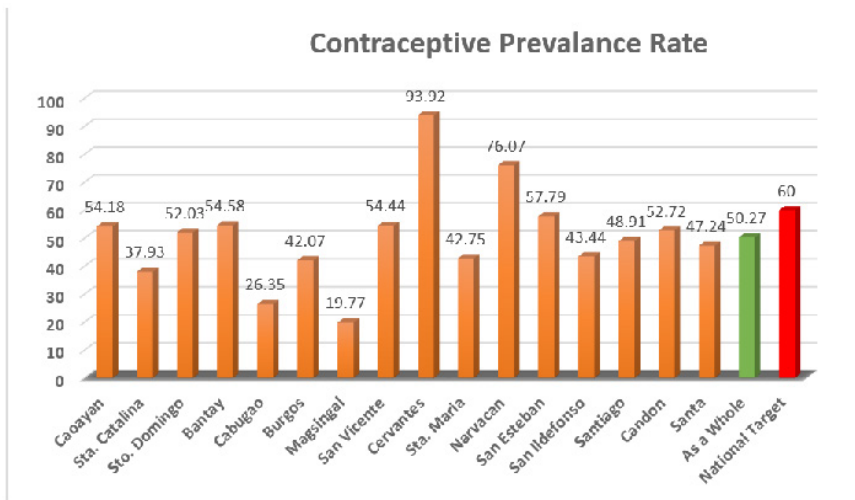


Figure 3. Impact of the MNCHN Strategy along CPR

B. On Maternal Mortality Rate

Figure 4 presents the impact of the MNCHN Strategy along MMR. Taken collectively, the three-year mean of Ilocos Sur along Maternal Mortality Rate is 0.43/1000 live births which is very low compared to the national target of 52/100,000 live births. However, the table reveals that Sto. Domingo has the highest three- year mean (3.33/1,000 live births) of maternal mortality while Sta. Catalina, Bantay, Burgos, Magsingal, San Vicente, Cervantes, Sta. Maria, Narvacan, San Esteban, San Ildefonso, Santiago, and Santa remained to have no maternal death after the implementation of MNCHN Strategy.

DOH, 2016 claimed that infant and maternal mortality are the most useful indicators since they reflect the general condition of the health system. According to the National Statistics Office of 2008, there was a decreasing trend in Infant Mortality Rate (IMR) over the last decade. It dropped from 57 infant deaths per 1000 live births in 1990 to 25 infant deaths per 1000 live births in 2008.

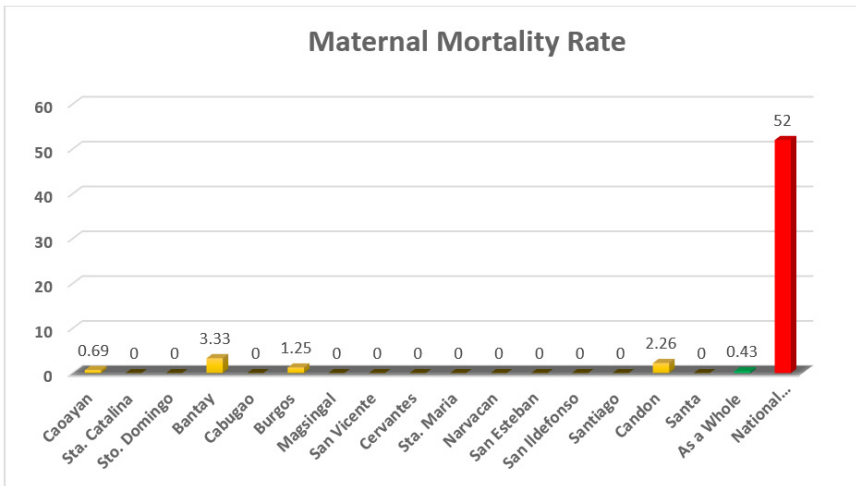


Figure 4. Impact of the MNCHN Strategy along MMR

C. On Infant Mortality Rate

Figure 5 presents the impact of the MNCHN Strategy Along IMR. It is reflected in the figure that taken as one; the three-year mean infant mortality rate of Ilocos Sur is at 2.18/1000 live births. Meanwhile, it can be seen in the table that Sta. Maria and Candon have the highest three-year mean (5.92/1000 live birth and 5.34/1000 live birth respectively, while San Esteban and San Ildefonso remained to have no infant death after the implementation of MNCHN Strategy. This may be due to the fact that San Esteban and San Ildefonso, being one of the municipalities with a small population, and had exceeded the required number of RHMs in their MHO, could strictly monitor the health status of the pregnant mothers.

As a whole, the data tend to imply that infant mortality rate is low and it may be attributed to the strengthened delivery of maternal, neonatal, child health and nutrition strategy regarding maternal and child care.

Ilocos Sur has put in place measures to reduce infant mortality rate like newborn screening, immunization of mother and child, IMCI training of health personnel, provision of medicines, monitoring and surveillance, and advocacies on the importance of prenatal check-ups and facility-based deliveries.

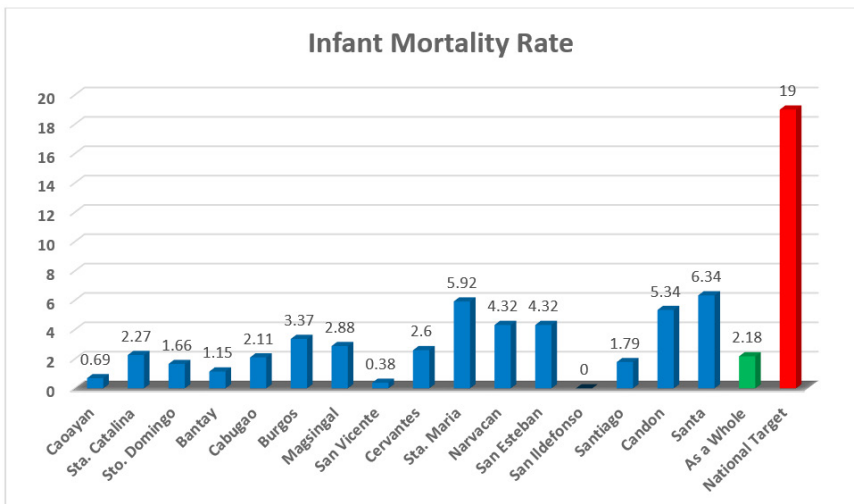


Figure 5. Impact of the MNCHN Strategy along IMR

On the Significant Differences on the Health Status Indicators of the MNCHN

Table 2 shows the significant differences in the health status indicators of the MNCHN Strategy of the DOH between and among the MHOs.

Table 2

Summary on the Difference on the Health Status Indicators of the MNCHN Strategy Between and Among the MHOs

| Components | F - Ratio | F - Prob | Decision |
|-------------------------------|-----------|----------|------------------|
| Contraceptive Prevalence Rate | 1.866 | .027 | Reject Ho |
| Maternal Mortality Rate | 2.796 | .001 | Reject Ho |
| Infant Mortality Rate | 0.609 | .867 | Do not Reject Ho |

The computed F-ratios of 1.866 for contraceptive prevalence rate and 2.796 for maternal mortality rate are higher compared to the value at 0.05 level of significance. This means that there are significant differences in the outcomes of the MNCHN Strategy between and among the MHOs in Ilocos Sur.

The F-ratio, .609 indicates that there is no significant difference on the health status indicators of the MNCHN Strategy between and among the MHOs in Ilocos Sur regarding infant mortality rate.

To determine which pairs of mean per implementation are significantly different, the Scheffe' Multiple Comparison Test is presented in Table 3.

Table 3

Scheffe' Multiple Comparison Test on the Difference in the Contraceptive Prevalence Rate of the MNCHN Strategy of the DOH Between and Among the MHOs

| | Caoayan | Sta. Catalina | Sto. Domingo | Bantay | Cabugao | Burgos | Magsingal | San vicente | Cervantes | Sta. Maria | Navacan | San esteban | San ildefonso | Santiago | Candon | Santa |
|---------------|---------|---------------|--------------|--------|---------|--------|-----------|-------------|-----------|------------|---------|-------------|---------------|----------|--------|-------|
| Caoayan | - | | | | | | | | | | | | | | | |
| Sta. Catalina | .081 | - | | | | | | | | | | | | | | |
| Catalina | | | | | | | | | | | | | | | | |
| Sto. Domingo | .085 | .004 | - | | | | | | | | | | | | | |
| Domingo | | | | | | | | | | | | | | | | |
| Bantay | .189 | .107 | .103 | - | | | | | | | | | | | | |
| Cabugao | .223* | .141 | .137 | .034 | - | | | | | | | | | | | |
| Burgos | .215* | .134 | .130 | .027 | .007 | - | | | | | | | | | | |
| Magsingal | .091 | .009 | .006 | .098 | .132 | .124 | - | | | | | | | | | |

Table 3 continued

| | Caoayan | Sta. Catalina | Sto. Domingo | Bantay | Cabugao | Burgos | Magsingal | San vicente | Cervantes | Sta. Maria | Narvacan | San esteban | San ildefonso | Santiago | Candon | Santa |
|----------------|---------|---------------|--------------|--------|---------|---------|-----------|-------------|-----------|------------|----------|-------------|---------------|----------|--------|-------|
| San Vicente | .097 | .015 | .012 | .092 | .126 | .118 | .006 | - | | | | | | | | |
| Cervantes | .043 | .124 | .128 | - | - | -.258* | .134 | .140 | - | | | | | | | |
| | | | | .232* | .266* | | | | | | | | | | | |
| Sta. Maria | .274* | .163 | .149 | .046 | .012 | .189 | .143 | .137 | .277 | - | | | | | | |
| Narvacan | .051 | .030 | .034 | .138 | .171 | .164 | .040 | .046 | .094 | .183 | - | | | | | |
| San Esteban | .003 | .079 | .083 | .186 | - | -.213.* | .089 | .095 | .045 | - | .049 | - | | | | |
| | | | | | | | | | | .232* | | | | | | |
| San Ildelfonso | .185 | .14 | .100 | .004 | .037 | .030 | .094 | .088 | .228* | .049 | .134 | .183 | - | | | |
| Santiago | .162 | .080 | .077 | .027 | .061 | .053 | .071 | .065 | .205* | .072 | .111 | .160 | .02 | - | | |
| Candon | .070 | .012 | .015 | .119 | .153 | .145 | .021 | .027 | .113 | .164 | .019 | .068 | .115 | .092 | - | |
| Santa | .003 | .085 | .088 | .192 | - | .218 | .094 | .100 | .040* | - | .054 | .005* | .188 | .165 | .073 | - |
| | | | | | .226* | | | | | .237* | | | | | | |

On Contraceptive Prevalence Rate

As seen from Table 3, there are 16 pairs of municipalities that significantly differ on contraceptive prevalence rate after the implementation of the MNCHN Strategy.

It is reflected in the table that the municipality of Caoayan has higher contraceptive prevalence rate when compared to Cabugao, Burgos, and Sta. Maria. It is further reflected in the table that the municipalities of Bantay, Cabugao, and Burgos have lower contraceptive prevalence rate when compared to Cervantes. In addition, the municipality of Bantay, Cabugao, and Burgos, have lower contraceptive prevalence rate when compared to Cervantes while the municipalities of San Ildelfonso, Santiago, and Santa has higher contraceptive prevalence rate when compared to Cervantes. Moreover, San Esteban has higher contraceptive prevalence rate when compared to Cabugao, Burgos, and Santa Maria while the municipality of Santa has lower contraceptive prevalence rate when compared to San Esteban. Furthermore, the municipality of Cervantes has higher contraceptive prevalence rate when compared to Santiago. And lastly, Cabugao and Sta. Maria have lower contraceptive prevalence rate when compared to the municipality of Santa.

The findings imply that those MHOs which have a better contraceptive prevalence rate are the MHOs which have a higher extent of implementation of the family planning program. Furthermore, the municipal health personnel are better advocates of the different family planning methods. They are those who

strictly monitor mothers who belong to reproductive age.

On Maternal Mortality Rate

Table 4

Scheffé's Multiple Comparison Test on the Difference in the Maternal Mortality Rate of the MNCHN Strategy of the DOH Between and Among the MHOs

| | Caoayan | Sta. Catalina | Sto. Domingo | Bantay | Cabugao | Burgos | Magsingal | San vicente | Cervantes | Sta. Maria | Narvacan | San esteban | San ildefonso | Santiago | Candon | Santa |
|---------------|---------|---------------|--------------|--------|---------|--------|-----------|-------------|-----------|------------|----------|-------------|---------------|----------|--------|-------|
| Caoayan | - | | | | | | | | | | | | | | | |
| Sta. Catalina | .102 | - | | | | | | | | | | | | | | |
| Sto. Domingo | .202 | .100 | - | | | | | | | | | | | | | |
| Bantay | .186 | .084 | .016 | - | | | | | | | | | | | | |
| Cabugao | .464* | .361 | .262 | .277 | - | | | | | | | | | | | |
| Burgos | .445 | .343 | .243 | .260 | .018 | - | | | | | | | | | | |
| Magsingal | .222 | .120 | .020 | .037 | .241 | .22 | - | | | | | | | | | |
| San vicente | .059 | .042 | .143 | .127 | -.404* | .38 | .163 | - | | | | | | | | |
| Cervantes | .106 | .004 | .096 | .080 | .358 | .33 | .116 | .047 | - | | | | | | | |
| Sta. Maria | .256 | .153 | .054 | .070 | .208 | .19 | .033 | .196 | .150 | - | | | | | | |
| Narvacan | .182 | .080 | .020 | .004 | .282 | .26 | .041 | .122 | .076 | .074 | - | | | | | |
| San esteban | .015 | .087 | .187 | .171 | - | .43 | .201 | .044 | .091 | .241 | .167 | - | | | | |
| San ildefonso | .045 | .056 | .157 | .141 | - | .40 | .177 | .014 | .061 | .210 | .136 | .030 | - | | | |
| Santiago | .024 | .078 | .178 | .161 | .139 | .42 | .198 | .035 | .082 | .231 | .157 | .009 | .021 | - | | |
| Candon | .099 | .004 | .103 | .087 | .365 | .34 | .124 | .039 | .007 | .157 | .083 | .084 | .053 | .074 | - | |
| Santa | .052 | .050 | .150 | .134 | .411 | .39 | .170 | .007 | .054 | .203 | .129 | .037 | .007 | .028 | .046 | - |

It is reflected in Table 4 that there are nine pairs of municipalities that significantly differ in the maternal mortality rate in the implementation of the MNCHN Strategy.

It is also reflected in the table that the municipality of Caoayan has lower maternal mortality rate compared to Cabugao. It also reflected in the table that San Vicente, San Esteban, and San Ildefonso have lower maternal mortality rate when compared to Cabugao.

Table 4 depicts the Scheffe' Multiple Comparison Test on the difference in the maternal mortality rate of the MNCHN Strategy of the DOH between and among the MHOs.

In summary, those MHOs which have lower maternal mortality rates are the MHOs which implement the maternal programs better. Furthermore, those are the MHOs that strictly monitor the health of the mother all throughout their pregnancy, labor, and puerperium.

Relationship Between the Extent of Implementation of the MNCH Strategy and the Health Status Indicators

Table 5

Correlation Coefficients on the Relationship Between the Extent of Implementation of the MNCHN Strategy and the Health Status Indicators

| Health Status Indicators | Maternal Care | Child Care | Overall |
|---------------------------------|----------------------|-------------------|----------------|
| CPR | -.072 | -.052 | -.033 |
| MMR | -.075 | -.076 | -.122 |
| IMR | -.069 | -.077 | -.063 |
| OUTCOME as a whole | -.078 | -.061 | -.043 |

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

Table 5 depicts the correlation coefficients between the extent of implementation of the MNCHN Strategy of the DOH and the health status indicators along contraceptive prevalence rate, maternal mortality rate, and infant mortality rate.

It is reflected in the table that as a whole, ($r=-.043$) and when taken singly, the the health status indicators such as : contraceptive prevalence rate ($r=-.033$), maternal mortality rate ($r=-.122$), and infant mortality rate ($r= -.063$) are not significantly related to implementation of the MNCHN Strategy along maternal and child care.

This maybe because the MHO personnel are implementing the programs of the DOH as required and as expected.

On the Level of Satisfaction of Mother – Respondents on the MNCHN Strategy Regarding Maternal Care

As a whole, the mother-respondents feel that they are “Very Much Satisfied” on the implementation of the MNCHN Strategy regarding maternal care as evidenced by the overall mean rating of 4.41. This is backed up by the overall mean ratings of 4.70 obtained by the mother -respondents from Sta. Maria, 4.66 from San Esteban and 4.54 from Candon which indicate a “Very High” level of satisfaction of the mother-respondents on the implementation of the MNCHN Strategy along maternal care. Cabugao gained the lowest rating of 4.19 which is just on the “Much Satisfied” level.

The “Very Much Satisfied” level of satisfaction of the mother-respondents in all the MHOs especially from Sta. Maria, San Esteban and Candon coincide with the result of the interview with the mother-respondents that MHO personnel are accommodating and approachable. In addition , the mother-respondents claimed that during their pregnancy the MHO personnel teach the mother-respondents on the do’s and don’ts of a pregnant mother, give free vitamins, administer free tetanus toxoid immunization, render free pre-natal check up). The mother-respondents from Candon and Sta. Maria claimed that MHO personnel compute their expected date of confinement during their first pre-natal check up and even let them hear the fetal heart tone of their fetus through the use of a Doppler.) A mother from Candon even said the MHO personnel perform Leopold’s maneuver to them. . There was even a mother in Cervantes who claimed that that the MHO personnel conduct home visit during their pregnancy.

In terms of Family Planning Program, most of the mother-respondents said the MHO personnel provides adequate information on family planning and gives pills for free.

On the Level of Satisfaction on MNCHN Strategy Regarding Child Care

As a whole, the mother-respondents feel that they are “Very Much Satisfied” on the implementation of the MNCHN Strategy regarding child care as evidenced by the overall mean rating of 4.41. This is backed up by the overall mean rating obtained by the mother -respondents from Sta. Maria (\bar{x} =4.70), San Ildefonso (\bar{x} =4.78) and from Candon (\bar{x} = 4.54), which indicate a “Very Much Satisfied ” level of satisfaction of the mother-respondents on the implementation of the MNCHN Strategy regarding child care.

The mother-respondents from San Ildefonso even said that the MHO personnel conducts seminar on nutrition for them emphasizing the importance

of breastfeeding and food supplementation. Furthermore, the MHO personnel strictly implement the Executive Order 51 which is the Milk Code. Health personnel see to it that all postpartum mothers must not bottle-feed their babies with commercial milk since the breast milk contains all the needed nutrients for the baby and breastfeeding is very advantageous to the mother. The “Very High” extent of implementation of the expanded program on immunization maybe due to the strong commitment of the MHO personnel on their performance of their role on the Expanded Program on Immunization as embodied in the PD 969.

This also agrees with the claim of all the mother-respondents who were interviewed in the different municipalities saying “the health workers strictly monitors the children for immunization schedule and see to it that the complete dosage of vaccines are given within the scheduled time).” Also, a mother-respondent from Narvacan described herself as “she has nothing to worry about because her children are not sickly due to the vaccines given to her children.” Furthermore, a mother-respondent from Santiago even claimed that the MHO personnel even give free paracetamol as an antipyretic in case the child will suffer from fever as a side-effect of the vaccine given).

In terms of the administration of Vitamin A and deworming agent, the mother-respondents said that the deworming agent and vitamin A is made accessible for them that BHWs personally give the deworming agent and vitamin A at their own homes or at the barangay plaza. Also, a mother-respondent from Candon said that the commercial/formula milk given to preschoolers.

All of the mother-respondents interviewed said that the MNCHN Strategy is of big help especially to them who are poor. A mother-respondent from Santiago said that she can allocate the money for the immunizations, vitamins, and deworming agents to the other expenditures of the family.

Most of the mother-respondents regarded the MHO personnel as very active, accommodating, entertaining, kind, and helpful. A mother from Caoayan said that the MHO personnel gives the therapeutic touch to her child who had been febrile during the consultation. According to her, she appreciated much the TSB performed by the health personnel. Lastly a mother-respondent from one Municipality said that there are times when the doctor is out of town, they have no choice but to go to the hospital for consultation.

On the Extent of Implementation of the MNCHN Strategy and the Level of Satisfaction of the Mother-Respondents

Table 6

Correlation Coefficients on the Relationship Between the Extent of Implementation of the MNCHN Strategy and the Satisfaction of the Mother-Respondents

| Satisfaction of Mother Respondents | Maternal Care | Child Care | Overall |
|------------------------------------|---------------|------------|---------|
| Maternal Care | -.085 | -.078 | -.089 |
| Child Care | .027 | .004 | .007 |
| Satisfaction as a Whole | -.059 | -.053 | -.066 |

** . Correlation is significant at the 0.01 level

* . Correlation is significant at the 0.05 level

Table 6 depicts the correlation coefficients between the extent of implementation of the MNCHN Strategy of the DOH along satisfaction of the mother-respondents.

It is reflected in the table that, as a whole ($r = -.066$) and when taken singly, the satisfaction of the mother-respondents regarding maternal care ($r = -.089$) and child care ($r = .007$) showed no significant relationship with the implementation of the MNCHN Strategy.

CONCLUSIONS

The “Very High” extent of implementation of the MNCHN Strategy is a strong indication of the commitment of the MHO Personnel in the delivery of basic health services. However, this “Very High” extent of implementation is not significantly related to the “Very High” satisfaction of the mother-respondents and Contraceptive Prevalence Rate and to the “Very Low” Infant Mortality and Maternal Mortality Rate. The findings denote that the mother-respondents are highly empowered and actively participate in taking care of themselves, their infants and their family in general.

RECOMMENDATIONS

Based on the conclusions drawn, the following recommendations are made:

1.) The Local Government Units (LGUs) must sustain their commitment to continuously support their respective Municipal Health Office (MHO) workers to sustain the “Very High” implementation of the MNCHN Strategy; and

2.) The MHO personnel should intensify information dissemination on the health services that could be availed of by the community residents for the people to remain empowered and to be active always in the participation of their health care.

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