The Nutrition Program Among Preschoolers of Dumaguete City: Perception on Implementation and Impact

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This paper examines the extent of the implementation of the nutrition programs of Dumaguete City among the preschool children as perceived by the barangay captains, the barangay nutrition workers, and the mothers of the beneficiaries. The results suggest that the overall implementation of the nutrition programs of the city was "very good" after one year of implementation. However, the prevalence of malnutrition was still higher than the cutoff score. Also, some barangays despite high implementation scores had high malnutrition prevalence rates. This may be because of the fact that less significant interventions garnered higher implementation scores than those which are more significant but with low implementation ratings. The findings of this study can help local nutrition committees to improve the management of their nutrition programs in order to significantly reduce malnutrition.

Keywords: nutrition, nutrition programs, nutrition interventions, malnutrition prevalence, Dumaguete City

INTRODUCTION

One of the major objectives of the Millennium Development Goals of the United Nations (UN-MDGs) is to eradicate extreme poverty and hunger. To achieve this goal, the strategies include reducing by half in 2015 the proportion of people living on less than a dollar a day, achieving full and productive employment and decent work for all, and reducing by half

the number of people who suffer from hunger. The main target is to reduce the prevalence of underweight children less than five years of age (United Nations Development Programme [UNDP], 2011).

In the Philippines, the results of the National Nutrition Survey (NNS) in 2008 conducted by the Food and Nutrition Research Institute (FNRI) revealed that 20.7% of preschool children are undernourished and are classified as either underweight or severely underweight (FNRI, 2010). In a study on the hunger incidence in the country based on the 2008 NNS, there was a significant increase (24.6%) in the proportion of underweight 0–5-year-old children and another significant increase (27.9%) of children who were stunted. Of the 20.7%, 4.3% were considered severe. In the same study, results showed that Central Visayas recorded 16.2% and 3.2% underweight and severely underweight preschool children, respectively (Mapa et al., 2010). The FNRI further describes undernutrition among children as still a significant public health concern (FNRI, 2010).

In its Regional Summary Report on Operation Timbang done in March 2010, the National Nutrition Council—Region VII ranked the Province of Negros Oriental number one in malnutrition with an 8.37% prevalence rate. Of the 16 cities included in the survey, Dumaguete City was number eight with a 4.40% prevalence rate.

The Medium-Term Philippine Plan of Action for Nutrition (MTPPAN) is the country's response to malnutrition. It is a vital contribution to the achievement of the Millennium Development Goals by 2015. Its overall goal is to improve quality of life by transforming the population into a well-nourished, healthy, mentally able, socially active, and economically productive human resource capable of contributing to and enjoying the fruits of the nation's development (National Nutrition Council [NNC], 2009).

In economically-challenged communities however, quality of life is hindered by malnutrition. Malnutrition is "the opposite of good nutrition". Claudio and Dirige (2002) in Basic Nutrition for Filipinos define malnutrition as a condition of the body resulting from a lack of one or more essential nutrients (nutritional deficiency), or it may be because of an excessive nutrient supply to the point of creating toxic or harmful effects (e.g., overnutrition and hypervitaminosis) (p. 1–7).

There are several forms of malnutrition. The most common form is known as undernutrition and is a condition which results from inadequate consumption of food over a long period of time. The individual may not

be able to maintain an adequate level of growth because his/her physical function is impaired (National Nutrition Council—University of the Philippines Los Baños [NNC-UPLB], 2011).

Malnutrition has the potential to cause severe and sometimes irreversible damage to individuals and communities in an intricate fashion (NNC, 2009). Evidence based on a study shows the clear association of infections and malnutrition in children and is seen as an important issue leading to severe and fatal outcomes. Common infections found in malnourished preschool children were gastroenteritis, acute respiratory tract infections, helminthic and protozoal infections, and sepsis (Ahmed, Ejaz, & Zehra, 2010).

Allen (2007) also observed that malnourished children tend to be born in poor households, and because of malnutrition, the likelihood of them getting higher income as adults is very slim resulting to them being parents to children who are also undernourished. And so this vicious cycle continues.

The 1987 Philippine Constitution guarantees child nutrition when it stated in Article XV Section 3 that, "The state shall defend… The right of the children to assistance, including proper care and nutrition…"

However, even before the 1973 Constitution was changed in 1987, many national level legislations and policies were enacted toward promoting good nutrition in the country. One of such laws is Presidential Decree 491 (1974) also known as the Nutrition Act of the Philippines. Presidential Decree 491 declared nutrition as a priority of the Philippine government. This law formally created the National Nutrition Council under the Office of the President and operates as the highest policy-making and coordinating body on nutrition and is mandated to formulate, monitor, coordinate, and evaluate the national nutrition program. Presidential Decree 491 paved the way to the realization of the country's response to malnutrition known as the Philippine Plan of Action for Nutrition (PPAN) and has since been updated as the Medium-Term Philippine Plan of Action for Nutrition 2005–2010 (NNC, 2009).

Letter of Instruction 441 (LOI 441, 1976) issued by the Office of the President of the Republic instructs all departments of the government to address malnutrition. Specifically, it authorized the Department of the Interior and Local Government (DILG) to establish nutrition committees at various administrative levels from the different geopolitical regions down to the barangays.

Furthermore, PD 1569 (Strengthening the Barangay Nutrition Program) of 1978 provides, among others, the employment of at least one (1) barangay nutrition scholar/worker in every barangay and, therefore, making the provision of a BNS/W in the barangay legally mandated. This, together with the devolution to the LGUs the delivery of basic services including health and nutrition through the Local Government Code of 1991 (RA 7160), gave more capacity to the BNC to fully address malnutrition in their locality.

In an article published in the Journal of Nutritionist–Dietitians' Association of the Philippines, former NNC Executive Director Elsa M. Bayani (2006) provided details of MTPPAN's impact programs as follows:

a. Home, school, and community food production — establishment of kitchen gardens in homes, schools, and communities using biointensive gardening and other regenerative agricultural technologies including urban and peri-urban gardening technologies; provision of initial seed supply and gardening implements; small animal dispersal particularly chicken for the eggs and poultry, goat for meat and milk, and fish like tilapia; and provision of potable water supply system.
b. Micronutrient supplementation — provision of pharmaceutical preparations of iron and vitamin A in the form of capsules, tablets, or syrup to identified priority groups.
c. Food fortification — the addition of micronutrients to a food or seasoning widely consumed by a specific population group.
d. Nutrition information, communication, and education — include the promotion of food and nutrition messages consistent with Nutrition Guidelines for Filipinos using different media; integration of nutrition messages in the school curricula; and conduct of nutrition education classes and counseling.
e. Food assistance — provision of food supplements to the malnourished as an emergency measure to alleviate hunger and malnutrition.
f. Livelihood assistance — families with underweight children will be given priority credit assistance to start income-generating projects or infuse additional capital to make existing income-generating projects more viable.
g. Reproductive health care delivery package — services especially

focusing on adolescent females and pregnant and lactating women.

h. Providing access to adequate and safe water supply as well as sanitation facilities and improving the knowledge of families and care givers on the importance of maintaining personal hygiene and cleanliness.
i. Integrated management of childhood illnesses — aims to promote health and well-being of children and reduce the negative impact of infections on nutritional status of children.

The implementing structure of MTPPAN may be viewed into two major parts: the national and subnational levels. At the national level, the NNC provides policies and standards and, although at a limited extent, technical assistance to the various stakeholders in the subnational levels. This function of the NNC is more ably done through their regional offices all over the country. At the subnational level, the implementation of the PPAN programs is the main responsibility of each local government unit. The local nutrition committees (LNCs), under the leadership of the local chief executives, are responsible for the management of these programs (Bayani, 2006). The LNC is defined by the NNC as the "…mechanism for planning, implementing, monitoring, evaluating, and coordinating the local nutrition action plan (LNAP)" (NNC-UPLB, 2011).

As a member of the Dumaguete City Nutrition Council and a partner in the delivery and implementation of the MTPPAN from 2005 to 2010, the Silliman University Nutrition and Dietetics Department conducted a study on the perception on the implementation and impact of the nutrition program among preschoolers of the city. The results of the study may lead to a review of the policies and implementation guidelines that may strengthen the Barangay Nutrition Committee (BNC) and the development of a more realistic and sound Barangay Nutrition Action Plan (BNAP) in every barangay of Dumaguete City. Specifically, this study addresses the central question on the perceptions of the barangay captains, barangay nutrition workers, and mothers about the implementation of barangay nutrition program and its impact on the nutritional status of preschool children. Furthermore, it examines the implementation of individual programs in every barangay and the city in general.

METHODS

The study covered 47 nutrition centers of the 25 barangays of Dumaguete City in Negros Oriental. The respondents were 25 barangay captains, 46 barangay nutrition workers (formerly known as barangay nutrition scholars [BNS]), and 25 mothers of preschool children who were recipients of nutrition programs. The research instruments used were interview schedules, checklists, and secondary data from the Dumaguete City Nutrition Council (DCNC). The checklist was used to gather the extent of implementation of the interventions of the BNAP. The researchers personally interviewed the respondents, conducted field observations using the checklist, and reviewed documents at the City Nutrition Office (CNO). The statistical tools used descriptive statistics and Spearman rho to test the hypothesis regarding the relationship between the perceived extent of implementation of interventions and the nutritional status of preschoolers.

To get the implementation score, the nutrition workers were given a questionnaire on extent of implementation where they rated the quality of the implementation of the strategies of the seven impact programs. They rated 0 for never implemented, 1 for poor implementation, 2 for fair implementation, 3 for good implementation, 4 for very good implementation, and 5 for excellent implementation. The overall implementation score per intervention per barangay is expressed in percentage. Consequently, the range of percentage is given appropriate description: 0% — never implemented, 1–20% — poor implementation, 21–40% — fair implementation, 41–60% — good implementation, 61–80% — very good implementation, and 81–100% — excellent implementation.

RESULTS

Perspectives of barangay captains and nutrition workers. The implementation of the proposed program includes supporting options that will intensify the delivery and management of the nutrition interventions. One of these facilitating activities is the development of human resources; in the case of Dumaguete, 84% of the barangay captains were equipped with basic knowledge in the formulation of the guidelines in nutrition program management. The percentage of the nutrition workers equipped with the said basic knowledge is higher (93.48%) compared with that of

the barangay captains. Moreover, among the barangay captains, only 52% admitted to have attended trainings on nutrition program management compared with the 97% of the nutrition workers. The participation of local leaders in the formulation of the implementation guidelines is important because this document will govern, direct, and facilitate delivery of all nutrition improvement efforts as mandated in Medium-Term Philippine Plan of Action for Nutrition. This document provides the standard operating procedures that guide the decisions and actions of implementers (Bayani, 2006).

The study also revealed that, among the barangays, 56% have partnerships with the private sectors to care for the malnourished children in their respective areas. The potential of partnership of the government with the private sector to care for the malnourished children has to be explored more. However, partnerships with NGOs as a strategy to effect the implementaton of the nutrition programs of the barangays in Dumaguete City remain unexplored. Partnerships with other entities are oftentimes needed because the government may not have enough resources to achieve fuller implementation of its nutrition programs. Partnerships with nongovernment organizations (NGOs) could be of help particularly in reaching out to communities identified to have the strongest need of interventions. For example, in a study by Linnemayr et al. (2011), partner NGOs were asked to provide a list of villages in which they had the means and intentions to intervene in. It was believed that these NGOs chose to intervene in the village with the highest net benefit of intervention because they were concerned about impacts. The results of the said study show that the NGOs were able to deliver health inputs and to improve the nutrition knowledge and best practices of target communities.

The assessment of the barangay captains, nutrition workers, and mothers regarding the implementation of their respective BNAPs is summarized in Table 1. Among the barangay captains, 72% said that the implementation of their respective BNAP was "good", while 67% of the nutrition workers and 92% of the mothers, respectively, said the same as well. On the other hand, 15% of the barangay captains, 33% of the nutrition workers, and 4% of the mothers consider that, although the BNAP implementation was "good", it still needed some improvement. One barangay captain perceived the implementation of the BNAP in his barangay as "not good" while one mother did not respond to the question.

Table 1. Assessment of the Implementation of the Barangay Nutrition Action Plan.

Responses	Barangay Captains (%)	Nutrition Workers (%)	Mothers (%)
Good	18 (72.00)	31 (67.00)	23 (92.00)
Good but needs improvement	6 (24.00)	25 (33.00)	1 (4.00)
Not good	1 (4.00)	—	—
No response	—	—	1 (4.00)
Total	**25 (100.00)**	**46 (100.00)**	**25 (100.00)**

According to 32% of the barangay captains and 26% of the nutrition workers, the number one problem encountered is the poor participation of the nutrition workers in the implementation of the BNAP. The malnutrition rate itself is pointed out by 16% of the barangay captains as one of the reasons. Another problem encountered according to 12% of the barangay captains and 17% of the nutrition workers is the limited or poor cooperation of the beneficiaries. Other reasons include the lack of budget according to 12% of the barangay captains and 4% of the nutrition workers. But it is the lack of support of the BNC in the BNAP implementation that is a serious problem according to 28% of the nutrition workers. Eight percent (8%) of the barangay captains considered lack of monitoring to be a problem in the BNAP implementation. A few BNWs (4.35%) considered the difficulty in the implementation of some specific interventions to be a problem. There were barangay captains (12%) and nutrition workers (20%) who refused to give answers.

The majority of the barangay captains (52.00%) and a good percentage of the nutrition workers (32.61%) considered the quality of support and cooperation from the BNC as a major factor that influenced the development of the BNAP. So, in barangays without the BNAP, the unsupportive or passive BNC could be a big reason for their failure to produce the BNAP. This condition is coupled with the presence or absence of monitoring of the nutritional status of children which is possibly affected by the amount of budget the barangays have for nutrition program. Another important factor that propelled the desire of the barangay is the prevalence of malnutrition among children that have to be addressed according to 28% of the barangay captains and about 7% of the nutrition workers. Some barangay captains (12%) and nutrition workers (24%) did not identify any factors that

influenced the quality of the development of their respective BNAPs.

Aside from the development of the BNAP, its implementation has also become an issue because the final measure of the quality of the plan is how it works and produces the desired results. Similarly, it is the quality or the lack of BNC support that primarily determined the success in the implementation of the plan according to 20% of the barangay captains and about 37% of the nutrition workers. The BNC support takes the form of involvement in planning, use of transportation, unity and teamwork of all barangay workers and officials, and participation in training. Meanwhile, 24% and about 20% of the barangay captains and nutrition workers, respectively, opined that the cooperation of the beneficiaries had influenced the success in the implementation of the BNAP being the primary targets of interventions. But this is maybe curtailed by the lack of budget according to 12% of the barangay captains and 13% of the nutrition workers. The lack of monitoring of the implementation of BNAP is another factor identified along with the prevalence of the malnutrition rate. Nonetheless, a few of the barangay captains said that there was minimal problem in the implementation of their BNAP while others did not give any reasons at all.

Given the situation earlier described regarding the implementation of the BNAP, the respondents were then asked for suggestions as to how this could be improved. Interestingly, a significant percentage of the nutrition workers (45.65%) suggested that their work performance should be seriously monitored and accompanied with regular meetings to discuss their accomplishments and problems. Only 8% of the barangay captains shared this same suggestion while 32% in contrast believed that improving the budget allocated for the nutrition program would help. The latter suggestion is supported by 28% of the nutrition workers. The support of the BNC manifested in their strong political will to implement the plan, the use of transportation, and the unity and cooperation of the council members were deemed necessary according to 28% of barangay captains and 22% of nutrition workers, but this has to be enhanced. Lastly, 32% of the barangay captains suggested that the provision of seminars, trainings, and technical assistance from other departments of the local government unit have to be sought to ensure the serious implementation of the BNAP.

Perspective of mothers. When asked what they have done to respond to the problem of malnutrition, 56% of the mothers said that they willfully participated in the programs implemented by the city government to address

this problem. Other mothers (36.00%) did it by themselves but within their respective families such as providing their children the right kind of food. But when somebody in the family got sick, 48% of the mothers said that they usually asked medical help from the nurses or doctors of the health center or the hospital. Others sought advice from the local health and nutrition workers on what to do to keep their families away from diseases and malnutrition. There were some mothers (36.00%) who simply relied upon their own health practices while a few mothers did not provide answers to this question (16.00%).

The mothers were also asked what their participation was in both the implementation and the subsequent improvement of the BNAP. Their answers were categorized as they have either active or passive participation. Seventy-six percent (76%) of the mothers described themselves to have actively participated in the implementation of BNAP. They were not merely receivers of the services of the BNAP but were also partners in its delivery. Several mothers indicated that their involvement included cooking and serving the food to the children as part of the food assistance component or supplementary feeding of the BNAP. Only 12% of the mothers said that they were just recipients of the services and were not actively involved in any way. Involving the community illustrates the employment of the multisectoral approach wherein activities adopted from the national level must be fitting at the community level when implemented. In this approach, sound goals and policies related to nutrition improvement must be combined with basic services, mass mobilization, people empowerment, and actions in the community level (Tontisirin, 2006). It is urgent that actions must be at the community level to effectively implement the nutrition program, but this is difficult when community participation is not well established. Furthermore, the improvement in the nutritional status of children is also affected and influenced by the provision of technical and financial support to local nutrition programs (Tandingan, 2006). Since the mothers are the care providers of the infants and young children, they can significantly contribute to the improvement of their children's nutritional status provided that they have enough knowledge and skills. For example, a study shows that high knowledge and feeding scores of the mothers positively correlated to the weight-for-age z-scores of their infants and young children (Velasco, 2007). Program planners and implementers must adopt appropriate targeting priorities for educating mothers on complementary feeding. People's

participation in program development and implementation can have positive influence on the outcome of the programs (Seipel, 1999; RTP-FNP, 1999). As pointed out by Aguilar (2006), children suffering from malnutrition cannot be passive program recipients. If they are not the main players, the actions taken to reduce malnutrition are likely to be inappropriate or unsustainable. Only when communities have a sense of ownership in the programs targeted to them will nutrition programs become sustainable (Barba, 2006).

Recognizing that there were problems or deficiencies in the implementation of the BNAP, 56% of the mothers said, when asked how they could help in the success of the plan, that they could help by improving the quality of their own participation in the delivery of its services. Noteworthy also among their answers was their willingness to help in encouraging fellow mothers to participate in mother's classes and to actively take part in the implementation of the food assistance program. In contrast, 8% wanted to remain as purely recipients while 12% did not give an answer.

Extent of implementation. Based on the average overall score (69.00), the extent of the implementation of the seven nutrition intervention programs of Dumaguete City is considered very good. The micronutrient supplementation program has the highest average score (82.58) in its implementation. This is the program where children and mother beneficiaries were able to avail of vitamin A and iron supplementations from the health center. On the other hand, the program that has the lowest average score in the implementation is food assistance. This program includes the center-based complementary feeding for wasted and stunted young children with ages 6–72 months and for pregnant women with records of delivering low birth-weight infants. Food assistance also includes school feeding and milk feeding for underweight school children of grades 1 and 2.

Finally, the question whether or not the extent of the implementation of the BNAP has impact on the nutritional status of preschool children, the Spearman test was employed to determine if the two variables were significantly correlated. It is worth noting that, although the results of the correlational analysis showed that no significant relationships existed, these were suggestive of inverse relationships. This would mean that the higher the intervention score the lower would be the nutritional status of children in particular barangays. In other words, the interventions introduced would have positive impact on preschoolers as measured in the reduction of malnutrition prevalence in barangays.

Except for intervention E (Food Assistance), interventions A (Home, School, and Community Food Production) to G (Nutrition in Essential Maternal and Child Health Services) show that there is no correlation to the nutritional status. It is interesting to note that, for variable E (Food Assistance), there is a high positive correlation. Of the seven interventions, only intervention G (Nutritional in Essential Maternal and Child Health Services intervention) showed little indication but not significantly different, in relation to the percentage of malnourished children. This shows that, if intervention G (Nutrition in Essential Maternal and Child Health Services) is improved, it can significantly address malnutrition.

Table 2. Implementation scores and correlational analysis.

Barangay	NS	Implementation Scores of Individual Programs							OIS
		A	B	C	D	E	F	G	
A	3.29	100.00	100.00	100.00	72.73	33.33	88.57	100.00	84.95
B	3.09	54.44	61.00	80.00	61.82	30.00	47.14	60.00	56.34
C	3.54	68.89	80.00	80.00	87.27	93.33	80.00	92.00	83.07
D	3.92	80.00	86.00	96.67	93.64	85.56	92.86	84.00	88.39
E	1.34	35.56	54.00	93.33	58.18	31.11	42.86	88.00	57.58
F	2.98	88.89	92.00	95.00	76.36	60.00	62.86	94.00	81.30
G	2.77	37.78	72.00	76.67	50.91	15.56	20.00	68.00	48.70
H	6.26	90.00	89.00	88.33	82.73	93.33	90.00	100.00	90.48
I	9.12	57.04	72.67	76.67	76.36	71.11	65.71	78.67	71.18
J	5.19	68.89	60.00	66.67	70.91	64.44	54.29	80.00	66.46
K	3.86	72.22	63.00	68.33	53.64	68.89	54.29	80.00	65.77
L	5.86	73.33	58.00	96.67	85.45	100.00	100.00	100.00	87.64
M	1.98	74.81	78.00	91.11	68.79	55.19	69.52	73.33	72.97
N	4.54	86.67	80.00	96.67	90.00	85.56	84.29	86.00	87.02
O	4.88	61.11	86.00	86.67	78.18	76.67	85.71	80.00	79.19
P	6.20	66.67	72.00	73.33	71.82	72.22	68.57	42.00	66.66
Q	5.52	68.89	80.00	96.67	63.64	71.11	62.86	72.00	73.59
R	3.55	90.00	88.00	98.33	94.55	93.33	98.57	70.00	90.40
S	2.41	17.78	14.00	76.67	29.09	37.78	48.57	80.00	43.41
T	4.08	40.74	57.33	82.22	53.94	60.74	66.67	77.33	62.71
U	9.06	44.44	75.00	86.67	74.55	63.33	52.86	44.00	62.98
V	3.17	20.00	36.00	50.00	45.45	17.78	25.71	52.00	35.28
W	3.06	42.96	52.00	67.78	58.79	34.81	54.29	64.00	53.52

X	4.24	66.67	71.00	70.00	62.73	68.89	67.14	68.00	67.78
Y	4.19	45.71	13.00	70.00	55.45	28.89	54.29	66.00	47.62
Average	4.32	62.14	67.60	82.58	68.68	60.52	65.50	75.97	69.00
Correlation		0.137	0.204	0.003	0.361	0.467	0.241	-0.190	0.246
		p = .515	p = .328	p = .990	p = .076	p = .019	p = .246	p = .364	p = .237

Legend:
NS - Nutritional Status
OIS - Overall Implementation Score
Program A - Home, School, and Community Food Production
Program B - Food Fortification
Program C - Micronutrient Supplementation
Program D - Nutrition Information, Communication, and Education
Program E - Food Assistance
Program F - Livelihood Assistance
Program G - Nutrition in Essential Maternal and Child Health Services

While the overall rating of the implementation of the MTPPAN was "very good", it would appear that this did not influence significantly the reduction of the malnutrition rate in Dumaguete City. This result was not expected. Be that as it may, it is a phenomenon that is not uncommon. In fact, Florencio (2004) observed the same findings when she reviewed the implementation of the MTPPAN programs in the country. Her observations indicated that, despite the conclusions made by the NNC that the performance of its impact programs was satisfactory to very satisfactory, the problems of undernutrition and micronutrient deficiencies in the country worsened.

Using Florencio's (2004) argument where the standard passing grade in school which is 75% were to be used as the minimum acceptable level of performance, then only two of the seven interventions in this study (Micronutrient Supplementation and Nutrition in Essential Maternal and Child Health Services) made the passing grade.

It is also worth mentioning that Food Assistance, the most common nutrition intervention used by many LGUs and other implementing agencies because of its direct bearing on the nutritional status of preschool children, had the lowest overall implementation score. To state the obvious, lesser significant interventions have offset the more significant ones.

CONCLUSIONS

The nutritional status of the preschool children after a year of implementation

of the nutrition program interventions in 2011–2012 scored an overall average of 4.32 that could be described as LOW but still higher than the cutoff score 4.10 for Dumaguete City.

The study revealed that, although the overall extent of implementation and nutritional status of the preschool children did not yield significant results, majority of the program components were not fully implemented or it could mean that the significant interventions were overshadowed by the less significant ones. Notable also in the study's findings was the fact that some barangays scored high in the overall implementation score of the interventions yet scored also high in the prevalence of the underweight preschool children. High implementation scores should have correlated to a low prevalence score of undernourished preschoolers. This could mean that some of the less significant interventions were implemented very well which could have affected the overall implementation score. It would be interesting to focus on the effect of the significant interventions such as food assistance and micronutrient supplementation and the nutritional status of the preschool children.

RECOMMENDATIONS

In light of the findings of the study, the following are strongly recommended:

All members of the Barangay Nutrition Committee, especially the barangay captain serving as the chairperson and the BNW acting as the committee's secretariat, should be involved in the development of the Barangay Nutrition Action Plan including the formulation of the plan's implementing guidelines and more importantly, adopt a participatory approach to program planning and implementation of needs-based nutrition interventions to improve program participation. In order for the members of the BNC to fully carry out their duties and responsibilities, all members should be equipped with basic knowledge in Nutrition Program Management by intensifying attendance to trainings and seminars.

To improve the delivery of nutrition services, the BNC should develop partnerships with NGOs and the private sector, provide strong political leadership, generate more funds to improve budget allocations for

nutrition interventions, and monitor and evaluate work of BNWs.

To better improve the nutrition situation of the city, the CNC (City Nutrition Council) should harmonize its City Nutrition Action Plan with other nutrition action plans of the Barangay Nutrition Committees, the Provincial Nutrition Council of Negros Oriental, and the Regional Nutrition Council of Region VII. Majority of plan's programs require significant amounts of financial resources. To augment the financial requirements of the plan, the CNC should expand its collaboration with NGOs and the private sector in providing more funds and other technical assistance in the delivery of nutrition programs. The CNC, through the City Nutrition Office, should also organize trainings, seminars, and workshops on Nutrition Program Management and other relevant topics in nutrition and nutrition interventions among policy makers and implementers especially among the members of the BNCs of Dumaguete City to improve delivery of nutrition services.

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