

Food Expenditure of *Pantawid Pamilyang Pilipino* Program Beneficiary and Non-beneficiary Households in Selected Barangays in San Pablo City, Laguna, Philippines

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Abstract. The study aimed to analyze the food expenditure of *Pantawid Pamilyang Pilipino* Program (4Ps) of the 270 beneficiary and non-beneficiary households in selected barangays in San Pablo City, Laguna, Philippines. Focus group discussion (FGD) was done to investigate the practices of the beneficiary households in terms of cash transfer management. Food expenditure of the households through a survey was also determined. Based on the findings, the beneficiary households mainly allotted the cash transfers for school, health and nutrition of their children. On the other hand, survey results revealed that beneficiary households spent more on food (absolute value) compared to non-beneficiary households using T-test for independent samples. However, there was no significant difference in terms of food expenditure *per capita*. Furthermore, the results of the correlation analysis suggest that beneficiary households spend more on food with higher household size and income. Findings also imply that those who live in urban areas tend to have higher food expenditure compared to those who live in rural areas.

Keywords: food expenditure, CCT Program, financial management, poverty alleviation program.

1. Introduction

There has been a wide range of social protection programs implementation toward poverty reduction in the Philippines. Findings show that inadequate human capabilities and limited access to social services are the main culprits causing poverty as well as inequality in the country. In response, the National Government of the Philippines adopted the Conditional Cash Transfer (CCT) Program, which is now known as *Pantawid Pamilyang Pilipino* (Bridging Filipino Families Out of Poverty) Program. The *Pantawid Pamilyang Pilipino* Program, 4Ps for short, has the primary objective of providing social assistance and social development [1]. In this program, cash assistance is provided to the poor to alleviate their immediate need. The program also aims to break the intergenerational poverty cycle through investments in human capital, specifically education, health and nutrition [2].

CCTs can affect nutrition through several ways. The cash transfer itself can translate to increased food expenditures [3]. Thus, in this paper, the food expenditure of 4Ps beneficiary and non-beneficiary households in selected barangays in San Pablo City, Laguna, Philippines were compared. The factors associated with their food expenditure were also determined. Furthermore, the study described the financial management practices of the beneficiary households over cash transfers.

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2. Methodology

The study was conducted in selected barangays in San Pablo City, Laguna, Philippines. These barangays were chosen based on the number of beneficiary and non-beneficiary households. The 10 barangays with the most number of beneficiary and non-beneficiary households were chosen; five barangays were chosen from urban areas and five from rural areas.

Four (4) Focus Group Discussion (FGD) sessions, two for each group, were conducted. The FGD sessions were participated in by household representatives who handle the finances at home. With a set of open-ended questions, the knowledge and insights of the participants about the program were established. For the beneficiary mothers, their cash management practices, experience about the program and their perspective on what other ways can the program help were explored as well. In the selection of participants, 8-10 household representatives were invited to join each session. These household representatives were selected from the households to be surveyed. Content analysis was done to analyze the gathered data in FGD.

For the survey, the study employed stratified random sampling using equal allocation. The population consisted of 1262 households; 1041 of which were beneficiary household while 221 were non-beneficiary household of the program. Two hundred seventy (270) were selected of these 1262 households. From the sample size of 270, 135 respondents were selected from each group of households. The respondents were randomly selected from the list of households in each group.

The respondents were surveyed using the modified 2006 Family Income and Expenditure Survey (FIES). The FIES was employed to gather data on their food expenditures on various food groups namely: cereals and cereal preparation; roots and tubers; fruits and vegetables; meat and meat preparations; dairy products and eggs; fish and marine products; coffee, cocoa and tea; non-alcoholic beverages; and food not elsewhere classified (includes sugar, oil, condiments, ice and cooked foods) as well as food regularly consumed outside their home. Aside from food expenditures, FIES also covered the household expenses on other major expenditure groups such as education, medical care, etc. Data on household income, household head, financial manager and household size were also gathered using FIES.

Descriptive analysis – specifically measures of central tendency (mean and mode), measure of dispersion (range), and frequency statistics – as well as t-test for independent samples were used in describing the socio-economic and demographic profile of the beneficiary and non-beneficiary households. Food expenditure of the beneficiary and non-beneficiary households were compared using t-test for independent samples. It was also used in comparing the amount and percentage of expenditure of the two groups in different food groups. Moreover, the study used various statistical tests in the correlation analysis of food expenditure with the socio-economic and demographic characteristics of the two groups. Pearson correlation coefficient was employed for continuous and discrete quantitative variables, while Eta correlation coefficient (nominal) and Spearman correlation coefficient (ordinal) were used for qualitative variables.

3. Results and Discussion

3.1. Socio-economic and Demographic Profile

Table 1: Socioeconomic and demographic profile of the beneficiary and non-beneficiary households

Characteristics	Beneficiary households			Non-beneficiary households			p-value
	Range/Mode	%	Mean	Range/Mode	%	Mean	
Income (absolute value)	13,800 – 200,000		68,599.27	21,000 – 240,000		55,969.95	0.002*
Income <i>per capita</i>	3,428 – 46,600		12,997.87	2,775 – 56,000		11,800.70	0.199
Expenditure	11,862 – 182,001		63,963.79	19,426 – 327,922		54,783.23	0.030*
Household Size	2 – 10		5.74	2 - 13		5.36	0.058*
Location	Rural	69.3		Rural	70.9		
Financial Manager							
Educational Attainment	High school	47.1		Elementary	48.9		
Sex	Female	93.6		Female	90.1		

*at 10% level of significance

The socio-economic and demographic profile of the beneficiary and non-beneficiary households in the 10 selected barangays is summarized in Table 1. Results showed that the income (absolute value) of the beneficiary households were significantly higher than those of the non-beneficiary households. However, no significant difference was found in terms of income *per capita* between the two groups. This result implies that the cash transfer from the program is not enough to make the income *per capita* of the beneficiary households significantly higher compared to the non-beneficiary households.

On the other hand, the household expenditure and household size of the beneficiary households were significantly higher than the non-beneficiary households. Furthermore, majority of the respondents from the two groups resided in the rural areas and had a female financial manager. In terms of educational attainment of the financial manager, majority of the beneficiary households were more educated than their counterpart.

3.2. Cash Transfer Management Practices of Beneficiary Households

Before the beneficiary households were registered to the program, they were informed that the cash grant is intended for their children, specifically for their education. Thus, this led the parents to separate the cash grant from their income and solely spend the cash grant for the benefit of their children. They expressed that they are now able to provide for the needs of their children especially in terms of school, health and nutrition. Some said that they have more time and attention for their children now since they stopped engaging in card games or gambling, which is prohibited to those who are beneficiary of the 4Ps.

However, beneficiary households still differed in the way they spend the cash grant. Some of them spend the cash grant immediately upon receiving it. Since the cash grant is given every other month, some of these beneficiary households pay the loans they incurred two months after receiving their last cash grant. During the months between May and June when classes usually begin, some use the grant to buy uniforms and school supplies.

On the other hand, most of the beneficiary households do not immediately spend the cash grant. They budget the money and allot it mostly on school-related expenses (e.g. school projects, school snack, and supplies). Some of the parents even allot the entire grant for school-related expenses since they can afford to buy food for their family using their own income. Beneficiary households also purchase food for their children like bread, biscuits for school snack, fruits and milk, as well as vitamins. If there is still money left, they use it to buy new clothing, footwear, toys and sometimes even treat them in fast food chains.

Non-beneficiary household neighbors also observed these among beneficiary households. Unlike before, some of their beneficiary household neighbors are now able to feed their family three times a day. They also mentioned that their beneficiary household neighbors are now able to buy a variety of nutritious foods, especially when they receive their cash grant.

3.3. Food Expenditure

Table 2 presents the percent distribution of total household expenditure by major expenditure group of beneficiary and non-beneficiary households. Result showed that there was no significant difference in terms of food budget share ($p\text{-value}=0.492$) between beneficiary and non-beneficiary households. However, it was noted that beneficiary households even had slightly lower food budget share on food than non-beneficiary households.

Food expenditure (absolute value) and food expenditure *per capita* of the beneficiary and non-beneficiary households were also compared using T-test for independent samples (Table 3). Findings revealed that even though the beneficiary households had lower percentage of food expenditure on household expenditure than the non-beneficiary households, the beneficiary households had significantly higher food expenditure (absolute value) than non-beneficiary households. However, there was no significant difference in terms of food expenditure *per capita*.

Results of the t-test for independent samples revealed that the beneficiary households had higher food expenditure (absolute value) than the non-beneficiary households. This may be attributed to the added income from the 4Ps, which significantly increased the income of the beneficiary households. Cash transfers directly increase income which can be spent on increasing the quantity of food consumed [4]. Similar results were observed in a CCT program in Mexico, where beneficiary households had higher food expenditure than

for comparable control households [5]. Also, based on the FGD, the beneficiary household parents reported that they are now able to buy more food not only for their children but also for their family and feed them three times a day.

Table 2: Percent distribution of total household expenditure by major expenditure group of the beneficiary and non-beneficiary households for six months

Expenditure	Beneficiary (%)	Non-beneficiary (%)
Food	75.09	75.72
Alcoholic Beverages	1.28	1.07
Tobacco	1.42	1.61
Fuel, Light and Water	6.43	5.93
Transportation and Communication	3.95	3.32
Household Operations	1.52	1.49
Personal Care and Effects	3.86	3.93
Clothing, Footwear and Other Wear	2.15	1.62
Education	0.53	0.66
Recreation	0.10	0.11
Medical Care	0.70	0.75
Non-Durable Furnishings	0.11	0.16
Durable Furniture and Equipment	0.20	0.11
Rental	0.34	1.38
House Maintenance and Minor Repairs	0.34	0.17
Taxes Paid	0.06	0.01
Miscellaneous Expenditures	1.10	0.97
Other Expenditures	0.69	0.79
Total	100.00	100.00

Table 3: T-test analysis of food expenditure (absolute value) and food expenditure *per capita* of the beneficiary and non-beneficiary households for six months

Characteristics	Beneficiary household	Non-beneficiary household	p-value
Food Expenditure (absolute value)	47,050.26	40,606.48	0.000*
Food Expenditure <i>per capita</i>	8620.40	8305.21	0.589

*at 10% level of significance

However, in terms of food expenditure *per capita* of the two groups, there was no significant difference. This implies that the cash transfer from the program is not enough to make the food expenditure *per capita* of the beneficiary households significantly higher compared to the non-beneficiary households. Also, percentage statistics showed that the beneficiary households had slightly lower food budget share on household expenditure than the non-beneficiary households even if they had significantly higher food expenditure and income.

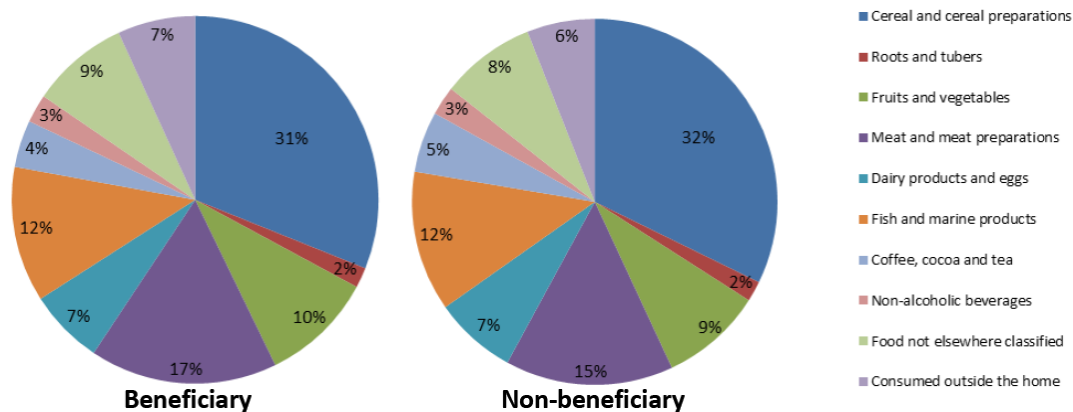


Fig. 1: Percentage of expenditure on different food groups of the beneficiary and non-beneficiary households for six months.

The percentage and absolute amount of expenditure per food group of the beneficiary and non-beneficiary households were also analyzed using T-test for independent samples. Results showed no significant differences between the two groups in terms of percentage of expenditure on different food groups (Fig. 1).

On the other hand, in terms of the absolute amount of expenditure per food group (Fig. 2), beneficiary households spent significantly higher than non-beneficiary households on the following food groups: cereals (p-value=0.059); roots and tubers (p-value=0.013); fruits and vegetables (p-value=0.000); meat and meat preparations (p-value=0.000); fish and seafoods (p-value=0.007); foods consumed outside home (p-value=0.017), and; foods not specified elsewhere (p-value=0.010).

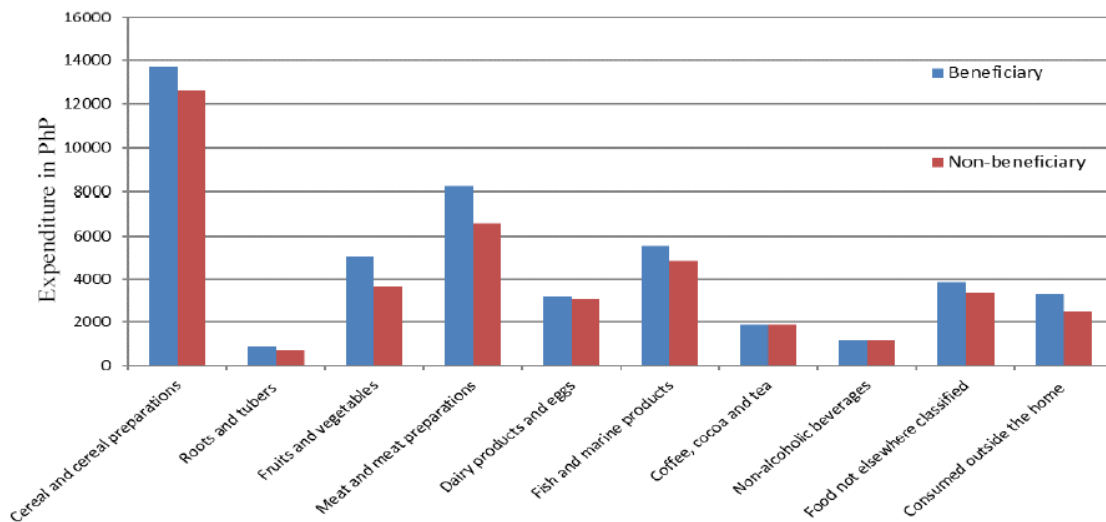


Fig. 2: Amount of expenditure on different food groups of the beneficiary and non-beneficiary household for six months.

Beneficiary households spent more on food groups like cereals, roots and tubers, fruits and vegetables, meat and meat preparations, fish and seafoods, food consumed outside home, and on food not specified elsewhere. These findings also suggest that beneficiary household are able to spend more on nutrient dense food such as protein-rich food (meat and fish) and on fruits and vegetables than their counterpart. This observation is consistent with the statement of the mothers during the FGD that they used the cash grant to purchase protein-rich food, fruits and vegetables, as well as treat their children to fast food restaurants. It seems that having added income through the CCT program at their disposal, beneficiary households can now avail of more diverse food. Similar results were observed in a CCT Program in Colombia, where beneficiary households had an increased expenditure on nutrient rich foods such as milk, meat, and eggs [6].

Table 4: Association of food expenditure and the different characteristics of the beneficiary and non-beneficiary households

Characteristics	Beneficiary household		Non-beneficiary household	
	Coefficient	p-value	Coefficient	p-value
Household Size ¹	0.266	0.000*	0.316	0.000*
Income ¹	0.830	0.000*	0.804	0.000*
Location ²	0.440	0.000*	-0.067	0.352
Financial Manager				
Sex ²	0.022	0.400	-0.011	-0.996
Educ. Attainment ³	-0.003	0.921	0.080	0.180

1 Pearson correlation coefficient
2 Eta correlation coefficient
3 Spearman's correlation coefficient
*at 10% level of significance

Different socio-economic and demographic characteristics of the respondents were also used to identify the factors associated with the food expenditure (absolute value) of the two groups using correlation analysis.

For the beneficiary households, results showed that food expenditure was significantly associated with household size, income and location (all had p -value=0.000). However, household size, income and location had different degrees of association with food expenditure. Household size had weak association with food expenditure (coefficient=0.266), whereas income (0.830) and location (0.440) had very strong and moderate association with food expenditure, respectively (Table 4).

Household size and income and location had positive correlation with food expenditure indicating a direct relationship. The beneficiary households who live in urban areas spent on the average PhP 62,009.23 on food for six months, while the average food expenditure in six months of those who live in rural areas was PhP 40,418.97. This implies that those beneficiary households who live in urban areas tend to have higher food expenditure than those who live in rural areas.

On the other hand, food expenditure (absolute value) of the non-beneficiary households was only found to be significantly and positively associated with household size (p -value=0.000) and income (p -value=0.000), which also suggests a direct association. However, the association of food expenditure with household size was weak (coefficient=0.316); whereas for income, the association was strong (coefficient=0.804).

Results of the correlation analysis showed that there was a positive association between income and food expenditure (absolute value) of beneficiary and non-beneficiary households in this study. According to FAO, the ability of the household to access to the food supply can be considered in terms of their income [7]. The result implies that those households with higher income have higher economic ability to acquire food, and thus, have higher food expenditure.

Another socio-economic and demographic characteristic that was positively associated to food expenditure (absolute value) of the beneficiary and non-beneficiary households was household size. Sekhampu explained that larger household sizes require increased food expenditure [8]. Also, the cost of providing a meal for six is little more than the cost for four [9].

Food expenditure (absolute value) was also associated with the location of the beneficiary households only. Beneficiary households who live in urban areas tend to have higher food expenditure than those who live in rural areas. In the paper of Stage et al., those who live in urban areas tend to spend higher on food purchased commercially at market prices, rather than own-produced food. Whereas in rural areas, almost half of their food are own produced rather than purchased [10]. In the case of the beneficiary households, even though they are given seeds for backyard gardening, those living in urban areas have limited land for gardening. Meanwhile, in rural areas, there is sufficient land for backyard gardening. This enables them to produce their own food.

Another reason cited by Stage et al. is that urban dwellers tend to have higher income that can be used to acquire food than those in rural areas [10]. As mentioned earlier, households with higher income tend to have higher food expenditure. When the income of the beneficiary households living in urban (PhP 88,933.14) and rural (PhP 60,151.63) areas were compared using t-test for independent samples, results showed that beneficiary households who live in urban had significantly higher income (p -value=0.001) than those who live in rural areas. This may also be the reason why the food expenditure of the non-beneficiary households is not associated with their location. There was no significant difference (p -value=0.917) between the income of the non-beneficiary households who live in urban (PhP 55153.63) and rural areas (PhP 55774.73).

4. Conclusion

A large percentage of the beneficiary households indicated that they allot the cash transfers they receive for school, health and nutrition of their children. Meanwhile, some households used the cash transfer mainly for school-related needs of their children since they can afford expenses on health and nutrition of their household. They also claimed that they see to it that the cash transfer is solely spent for the needs of their children.

In terms of food expenditure, beneficiary households had higher food expenditure (absolute value) compared to the non-beneficiary households. However, there was no significant difference in terms of food expenditure *per capita*. The food expenditure (absolute value) of the two groups was associated with

household size and income, as well as location of the beneficiary households. This implies that those who live in urban areas tend to have higher food expenditure than those who live in rural areas.

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