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### **Correlates of Hunger: Evidence from the Community Based Monitoring System (CBMS) Data of Pasay City**

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# POLICY BRIEF

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## CORRELATES OF HUNGER: EVIDENCE FROM THE COMMUNITY- BASED MONITORING SYSTEM (CBMS) DATA OF PASAY CITY

### INTRODUCTION

**Hunger is one of the major problems in several countries, and the objective to reduce it has become a global concern. A major initiative of the United Nations Millenium Development Goals (MDG) is the eradication of extreme poverty and hunger. However, the attempt to reduce the abovementioned issues, calls for proper identification as to who the impoverished and hungry are. There are several ways to identify the poor, but pinpointing who the hungry are, is another task.**

Despite economic growth and technological advancement, food insecurity continues to be a problem. This has received increased attention because of its potential consequence – hunger. Hunger, the consumption of a diet inadequate to sustain good health and normal activity, growth and development (Millman and DeRose, 1998), could be experienced temporarily by people who are food secure but more likely to be experienced by those who are not. Information is, thus, required about those who are hungry, and what their circumstances are. Who are they? Where do they live? What social and economic conditions do they face? How do they respond to programs and

projects intended for them? Hence, the need to establish hunger profiles. Design and implementation of programs geared towards eradicating hunger need to be maximized. Such information is vital for Local Government Units (LGUs) when they prepare comprehensive development plans that are geared towards the goal.

The study of Co, Arcilla and Ocampo (2012) determined correlates of hunger utilizing the Community-Based Monitoring System (CBMS) data of Pasay City for the 2005 census year. The study generated hunger profiles which provide information about the hungry households and their circumstances. Hunger models

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that help in identifying correlates of hunger were also obtained. The hunger profiles generated can aid LGUs in their program and policy development. Coupled with the identified correlates of hunger, targeting those households who are hungry will be enhanced, allowing the better utilization of their limited resources. This study was used to complement the poverty profiles earlier prepared for Pasay City (Arcilla, Co and Ocampo, 2008). In 2005, the City of Pasay had a total of 65,117 households in 201 barangays but with only 65,019 responding households in the database.

## HUNGER INDICATORS

An ideal indicator of hunger is one that focuses on whether people are getting enough to eat. The indicator officially used in generating hunger statistics for the country is based on this principle. It involves the comparison between the diet actually consumed and what is required. The National Statistical Coordination Board (NSCB) does this comparison in terms of monetary values. Thus, a household will be classified as hungry if its per capita income (PCI) is lower than the food threshold - the minimum cost of food items that will satisfy minimum nutritional requirement.

In this study, hunger status was based on two indicators, namely: (1) a household was classified as poor if its per capita income (PCI) necessary to meet basic food needs is below the Php 11,199 food threshold as set by the National Statistical Coordination Board for Pasay City in 2005; and (2) whether or not the household had experienced food shortage in the past three months. The first indicator is based on income while the latter is based on the

responses of household heads as to whether they have experienced food shortage in the past three months. Pasay City had a hunger incidence of 4.08% (2,650 out of 65,019 households) based on the PCI criterion while it had only a hunger incidence of 1.11% (722 out of 65,019 households) under the food shortage criterion. The McNemar Test for paired populations indicates a significant disagreement between the two hunger status criteria.

## HUNGER CORRELATES

Variables that are available from the CBMS data of Pasay City in 2005 were considered in identifying the correlates of hunger. Results from the contingency analyses showed that the following were significant indicators of increased hunger incidence in Pasay City in 2005 for both hunger indicators: Household heads with lower educational attainment; households with OFW, third sex member, handicapped member; households engaged in crop farming/gardening, community/social/personal services, and construction; households living in rent-free lots, commercial/other dwellings, houses with light/salvaged walls and roofs, households getting water from deep well/artesian well/dug and shallow wells and households using shared/open pit/no toilets; households that do not own consumer durables; and households that received programs on gender issues, peace and order, health, education, livelihood training, credit, and employment.

A stepwise multiple logistic regression analysis at the 5% significance level was then performed using the two hunger criteria and the significant correlates of hunger that were common to these two models are the following: Household size, highest

educational attainment of household head, engagement in crop farming/gardening and transportation/storage/communication, tenure status of house and lot, construction materials of walls and roof, type of water and toilet facilities, ownership of consumer durables such as VHS/VCD/DVD player, computer, refrigerator, telephone/cellphone, and availment of government/private organization programs on peace and order.

Additional correlates of hunger using the PCI criterion include: Households with OFWs, households engaged in jobs, fishing, wholesale/retail, food services, community/social/personal services, and construction, household's house type, and ownership of consumer durables such as electric iron and LPG/gas stove/range. On the other hand, the additional correlates of hunger from the final logistic regression model using food shortage criterion were: Households with a single-parent, third sex member, handicapped member, and boarder/bedspacer, households engaged in maintenance services, and availment of government or private organization programs on health, education, livelihood training, and employment.

## POLICY IMPLICATIONS

The results from the bivariate contingency and multiple logistic regression analyses showed that household size and households whose housing units/lots are not owned are positive correlates of hunger. Thus, there is an urgent need for the national government to aggressively and properly educate married couples, adults, and the citizenry in general, about reproductive health and on the merits of responsible parenthood.

There are two proposed Reproductive Health (RH) bills in the Philippines such as the House Bill Number 4244 (An Act Providing for a Comprehensive Policy on Responsible Parenthood, Reproductive Health, and Population and Development, and For Other Purposes) and Senate Bill Number 2378 (An Act Providing For a National Policy on Reproductive Health and Population and Development) which aim to disseminate information on birth control and maternal care. Although there is a general agreement on the provisions about information dissemination on maternal care and child health, there is also a divisive disagreement on the proposal that the government will fund and distribute birth control artificial devices such as condoms, birth control pills (BCPs) and intrauterine devices (IUDs). There is a need to review these proposed RH bills so as not to bring divisions and criticisms, but to aggressively educate the public about reproductive health and responsible parenthood.

Moreover, the results showed that informal settlers - households living in dwellings with light/salvaged wall and roofing materials, without adequate water and toilet facilities, tend to have higher hunger incidence. Hence, more government action on housing and livelihood programs are needed. The problem of informal settling requires not merely housing relocations but also livelihood and empowerment. Housing programs must be implemented hand-in-hand with livelihood and other related programs.

The household heads' highest educational attainment is a significant correlate of hunger incidence. Thus, those with lower educational level tend to have higher odds

of hunger incidence. This clearly points to the country's worsening state of education. The government should vigorously find ways and means to come up with a higher budget for education, rather than reducing it, to support its K to 12 program. The budget must be geared towards building more classrooms, purchasing textbooks, and implementing teacher-training programs in order to make quality education accessible to everyone, especially the poor. Education is one best way to improve the lives of the poor and those of the succeeding generations. It will allow them to obtain jobs and enable them to own consumer durables - another significant correlate of hunger among households.

NSCB should seriously revisit its per capita income PCI threshold and/or its food shortage indicator for hunger incidence inasmuch as there is a significant disagreement between the PCI threshold and the households' last three months' experience of food shortage as indicators of hunger incidence.

Availment of government/private organization programs was found to be more prevalent among poor households who experienced food shortage. Therefore, intensification and studies on project impact must be done to further enhance the effectiveness of such programs. Hunger alleviation, health, nutrition, livelihood, cleanliness, value formation, and other related programs must be improved and their effectiveness must be studied. Hunger alleviation programs must include food ration distribution complemented with health services, nutrition, education and counseling, community food production, livelihood, employment, and infrastructure

support. Further studies which will differentiate hunger alleviation programs for households in urban versus rural areas, or between NCR versus non-NCR municipalities must be developed.

## REFERENCES

- Albacea, Z. V. J. and A. Y. Pacificador, Jr. 2003. Targeting the Poor in the Philippines. Final Report, National Statistics Office.
- Albert, J. R. G. and Collado, P. M. 2004. Profile and Determinants of Poverty in the Philippines. Proceedings of the 9th National Convention on Statistics, Mandaluyong City, Philippines.
- Amon, A.D.C. and Albacea, Z.V. J., 2007. Modeling Municipal Food Poverty Incidence in the Philippines, 10th National Convention of Statistics (NCS).
- Arcilla, R. G., Co, F. F. and S. R. Ocampo. 2011. Correlates of Poverty: Evidence from the Community-Based Monitoring System (CBMS) Data. DLSU Business & Economics Review Vol. 20 No. 2, DLSU University Press, Manila City.
- Balisacan, A. M. 1997. In Search of Proxy Indicators for Poverty Targeting: Toward a Framework for a Poverty Indicator and Monitoring System. Paper prepared for the National Statistics Office's Component in the UNDP-Assisted Project: Strengthening Institutional Mechanisms for the Convergence of Poverty Alleviation Efforts.
- Martin, K. S., Rogers, B. L., Cook, J. T., and Joseph, H. M. 2004. Social Capital is Associated with Decreased Risk of Hunger. *Social Science & Medicine*, 58:2645-2654.
- Millman, S. R., and Derose, L. T. 1998. Measuring Hunger In Who's Hungry? And How Do We Know? Food Shortage, Poverty, and Deprivation, eds. DeRose, L., Messer, E., and Millman, S., United Nations University Press, pp. 20-52.
- Mina, C. D. 2008. Unearthing Poverty with MARS: Application of Multivariate Adaptive Regression Splines (MARS) in Identifying Household Poverty Correlates in the Philippines. Unpublished Graduate Thesis, UPSS, Diliman, Quezon City.
- NATIONAL STATISTICAL COORDINATION BOARD (NSCB). 2006. Glossary of Terms. Retrieved on January 19, 2006 from <http://www.nscb.gov.ph/glossary/inc.asp>.
- Reyes, C. M. 2003. The Poverty Fight: Has It Made an Impact? Perspective Paper Series No. 2. Makati City: Philippine Institute for Development Studies.
- Tabunda, A. M. L. 2000. Towards the Construction of a Classification Rule for Poverty Status. National Statistics Office and the United Nations Development Programme, Manila, Philippines.
- Weinreb, L., Wehler, C., Perloff, J., Scott, R., Hosmer, D., Sagor, L., and Gundersen, C. 2002. Hunger: Its Impact on Children's Health and Mental Health. *Pediatrics*, 110(4), e41.

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