ASSESSMENT OF THE IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH AND NUTRITION IN THE PHILIPPINES

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Background:
Its geographic location and economic situation makes the Philippines highly vulnerable to impacts of climate change and extreme weather events that cause considerable disruptions to food systems, affecting food security, nutrition and health especially of the most vulnerable groups.

Objectives:
This study assessed the effects of exposure to typhoons, floods and drought on the proportion of households meeting the recommended energy intake (REI), as well as the proportions of undernourished children under-five years old, the elderly, lactating mothers and pregnant women.

Materials and Methods:
This study utilized the 2013 National Nutrition Survey and the 2015 Updating of the Nutritional Status Survey, 2012 to 2016 data on exposure to typhoons and floods from the National Disaster Risk Reduction Management Council, data on drought from the Philippine Rice Information System of the International Rice Research Institute and palay production from Philippine Statistics Authority. Logistic regression models adjusted for selected exposures including typhoons, floods and drought were fitted for the targeted outcomes and population groups.

Results and Findings:
The socioeconomic status of households, household size, food security status, individual member’s sex, age, civil status and self reported indigenous group status, exposure to typhoons, floods and drought had significant associations with nutrition outcomes. In full logistic regression models, belonging to the poorest quintile, large household size and food insecure households increase the odds of stunting and wasting among children 0 to 59 months old, of chronic energy deficiency (CED) among the elderly adults and lactating mothers, and being nutritionally at-risk among pregnant women. Households that are engaged in agriculture were more likely to meet the REI. The effects of exposure to typhoons and floods on meeting the REI at the household level was positive at three months but was negative at six months. Among households in the Mindanao areas, exposure to drought in either the first quarter of 2015 or 2016, increased the likelihood of stunting among under five children and CED among elderly adults. However, the elderly adults who were exposed to drought for both the first quarters of 2015 and 2016 were less likely to become CED.

Conclusion and Recommendations:
The time of exposure to typhoons, floods or drought, appeared to affect the nutrition outcomes analyzed. A cohort study would be helpful to better understand the continuing effects of such exposures. These results provide vital inputs for more strategic responses to climate change adaptation programs of the government particularly among the vulnerable population groups.