Household Food Security Status and Its Implication to Meeting the Dietary Diversity Scores (DDS) of Filipino Mothers and Children 6-36 Months Old

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INTRODUCTION

Household food insecurity can lead to a poor diet and malnutrition. It is therefore assumed that as food security diminishes within a household, the quality of the diet is compromised (Na M et al, 2016).

Dietary diversity score (DDS) reflects the economic capability of a household to access a variety of food, and is considered an important indicator of food security.

Dietary diversity among mothers and children is primarily important as they require additional energy and nutrients for their physiological needs.

This cross sectional study using data from the 2015 Updating of the Nutritional Status of Filipino Children and Other Population Groups aimed to determine the association of household food security status and meeting the DDS of mother and child pair within the household. It also identified socio-demographic variables that are associated with meeting the DDS.

MATERIALS AND METHODS

Sampling Design
Cross-sectional study using data from the survey 2015 Updating of the Nutritional Status of Filipino Children and Other Population Groups which used multi-stage stratified sampling design

Subjects
6,692 mother & child pair

Statistical Analysis
Descriptive statistics to present the general profile of mothers and children
Bivariate and multivariate analyses to determine association between household food security and DDS and socio-demographic factors

Data analysis using Stata version 12.0

Data collection
Face-to-face interview using electronic Data Collection System (e-DCS)

Cut-off number of food groups to be categorized as meeting the DDS
Mother: At least 5 out of the 10 food groups based from her one day 24-hour food recall
Child: At least 4 out of the 7 food groups based from his/her 24-hour food recall
RESULTS

Meeting the Dietary Diversity Score

<table>
<thead>
<tr>
<th>Food Insecure Household</th>
<th>Food Secure Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 in every 10 food insecure mother and child pair did not meet the DDS</td>
<td>8 in every 10 food secure mother and child pair did not meet the DDS</td>
</tr>
</tbody>
</table>

- Meeting the DDS of mother and child pair was associated with their household food security status.
- Mother and child pair from food secure households were 1.55x more likely to meet their dietary diversity score than those from food insecure households.

Determinants of meeting the DDS of both mother and child 6-36 months old within the household

<table>
<thead>
<tr>
<th>Determinant</th>
<th>Food Insecure Households</th>
<th>Food Secure Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education of mother</td>
<td>4.60x more likely to meet DDS</td>
<td>7.42x DDS</td>
</tr>
<tr>
<td>Employment status of</td>
<td>5.99x more likely to meet DDS</td>
<td>9.13x DDS</td>
</tr>
<tr>
<td>Tertiary</td>
<td>7.42x DDS</td>
<td>9.13x DDS</td>
</tr>
<tr>
<td>Age of child</td>
<td>1.36x more likely to meet DDS</td>
<td>1.36x DDS</td>
</tr>
<tr>
<td>Breastfeeding status of child</td>
<td>5.26x more likely to meet DDS</td>
<td>5.26x DDS</td>
</tr>
<tr>
<td>Household Wealth Quintile</td>
<td>0.81 less likely to meet DDS</td>
<td>0.81 DDS</td>
</tr>
</tbody>
</table>

CONCLUSIONS & RECOMMENDATIONS

- The socio-demographic determinants associated with meeting the dietary diversity score of both mother and child pair were mother’s education and employment status, child’s age and breastfeeding status and household wealth index.
- The study indicated an association between household food security status and meeting the dietary diversity score of Filipino mothers and children.
- Findings of the study underscore the importance of food access of every Filipino households for a healthy and nutritious diet.
- The study supports the identification of high risk groups of mothers and children as targets for safety net interventions such as 4Ps, food production and income generating programs to improve the quality of diet of these vulnerable groups.