Food insecurity among households with young children in rural Ghana

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Background
Routine rural services for Ghanaian communities exist in these sectors
- Child and maternal health clinics
- Agriculture extension
- Schools
- Micro-credit group meetings

Diverse sectors influence the well-being of vulnerable groups
- Health
  Preventive & curative services
- Agriculture
  Production of food for home consumption
  In-kind/market sales $\rightarrow$ diversify diet
  Risks (exposure, physical demand, time allocation)
- Education
  School feeding program
  School-based curriculum (direct [health], indirect [literacy])
- Finance
  Micro-credit (women’s self-efficacy, support, income, education)
ENAM intervention

Microcredit loans & savings

Weekly meeting

Entrepreneurship education

Nutrition education

Project results

- Reduction in food insecurity
- Improved use of ASF/diets
- Improved nutrition knowledge
- Improved child nutritional indicators
  - + 0.28 SD weight-for-age
  - + 0.19 SD height-for-age
  - + 0.36 SD BMI-for-age
NUTRITION LINKS

Collaborating researchers
Aboud FA, Aidam B, Aryeetey R Clark S, Colecraft EK, Gyorkos T, Macdonald C

Institutional partners

Canada/USA: McGill University, World Vision Canada, Nutrition Centre of Expertise/World Vision International
Nutrition Links project site

Upper Manya Krobo district, Eastern Region

- Rural, under-served district
- High prevalence child malnutrition
- High dropout of females ~ grade 4
Improve the economic, health/nutrition, and social well-being of the population in rural Upper Manya Krobo district, Ghana

Integrated training of district staff & communities

Longitudinal data system for better planning

Integrated interventions:
(i) young children
(ii) early adolescents

Nutrition Links activities
Baseline survey 2013-14: 1076 households with infants

Food security status among rural Ghanaian households with infants

Food security instrument: Food Insecurity Experience Scale (FIES)
Food insecurity is dispersed throughout the district but tends to occur less frequently and be less severe in the district capital town of Asesewa (p=0.06).

Density of color reflects prevalence of food insecurity
### Baseline survey 2013-14: 1076 households with infants

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Yes (%)</th>
<th>No (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land ownership</td>
<td>57</td>
<td>43</td>
</tr>
<tr>
<td>Bank account</td>
<td>39</td>
<td>61</td>
</tr>
<tr>
<td>Mobile phone</td>
<td>84</td>
<td>16</td>
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<tr>
<td>TV</td>
<td>31</td>
<td>69</td>
</tr>
<tr>
<td><strong>Caregiver</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>26</td>
<td>74</td>
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<tr>
<td>Education, none</td>
<td>21</td>
<td>79</td>
</tr>
<tr>
<td><strong>Child</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualified birth attendant</td>
<td>59</td>
<td>41</td>
</tr>
<tr>
<td>Use of nets</td>
<td>84</td>
<td>16</td>
</tr>
<tr>
<td>Diarrhea last 7 d</td>
<td>28</td>
<td>72</td>
</tr>
<tr>
<td>Fever last 7 d</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Cough last 7 d</td>
<td>24</td>
<td>76</td>
</tr>
<tr>
<td>Diet diversity met</td>
<td>12</td>
<td>88</td>
</tr>
<tr>
<td>Anemia</td>
<td>56</td>
<td>44</td>
</tr>
</tbody>
</table>
Household assets

Food insecure households reported fewer assets.

p=0.03

all p<0.001
Food insecurity was more common among households with unmarried caregivers and those with low/no education ($p=0.001$).
Caregivers’ self-assessment within their community
Food insecurity was associated with riskier health behaviors and poorer infant outcomes.

Child health indicators

- Unqualified birth attendant
- No mosquito nets
- Low diet diversity
- Fever
- Cough
- Diarrhea
- Anemia

Food insecure: all p<0.05
Next step ...

Improved and diversified incomes are needed to improve lives and households’ ability to withstand fluctuations in economic demands.

Improved conditions for women can help improve the household’s situation.

More formal education and delayed age of first pregnancy can help.

Improved rural health services are needed.

Expanded agriculture and financial services for rural women are needed.
Project activities: Harmonization of activities, training, and programs of stakeholders
Project objectives: Increase capacity in related areas among all stakeholders

- Communication skills
- Nutrition knowledge
- Evidence-based decision-making
- Agric. production & diversity
- Financial literacy
- Gender equity in access to services
- Entrepreneurship
- Infant feeding & health practices
- Data analysis
Project expected outcomes by 2018

- Better inter-sectorial linkages
- Harmonized messages
- Evidence-based decision-making
- Improved food security
- Improved nutrition & health
- Improved diets
- Improved gender equity
- Improved educational outcomes
- Improved educational outcomes
- Enhanced & diversified incomes
Improve the economic, health/nutrition, and social well-being of the population in rural Upper Manya Krobo district, Ghana
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