Assessing food security status among urban and rural vulnerable groups of Sri Lanka during COVID-19: Preliminary findings from a longitudinal study

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Introduction

Rationale
• Measures to contain the spread of the Covid-19 virus have important consequences for food security and livelihoods of populations in many countries.
• These measures have varied considerably by country, and understanding the landscape and consequences at a country level is important to shape responses, particularly for poor populations at greater risk. Yet, little evidence exists for evidence based response.

Objective
• To assess food insecurity among three of Sri Lanka’s most vulnerable population groups and better understand how these groups have been impacted by COVID-19

Methodology
• Longitudinal study design
• Purposive sampling was used to target three vulnerable sub-populations: urban poor, estate communities, and rural smallholder farming households

Data collection
• Telephone surveys across 12 districts

<table>
<thead>
<tr>
<th>Baseline</th>
<th>1st Follow-up</th>
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<tbody>
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<td>• September through October 2020</td>
<td>• March through April 2021</td>
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<td>• N=1,020 household surveys</td>
<td>• N=711 household surveys</td>
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Questionnaire modules included:
• Sociodemographic characteristics
• Perceived impacts of COVID-19
• Food insecurity Experience Scale (FIES)
• To assess changes since COVID-19, retrospective questions were used with time frames aligning with the severity of the pandemic and the implementation of mitigation initiatives

Results

Income losses during COVID-19
• The majority (64%) reported income loss, among whom many experienced a complete cessation.

Changes in household food behaviors
• Food sources also changed, with increased acquisitions from home gardens (3%) and mobile vendors (5%).

Coping strategies during COVID-19
• Coping strategies were employed, including defaulting on loans (>99%) and selling assets (>20%). Households employing these strategies had higher prevalence of FIS.

Changes in the food environment
• Since COVID-19, stockouts and reduced selection were reported by <23% of respondents.

Longitudinal Analysis

Prevalence of moderate and severe food insecurity
• Analyzed using the Food Insecurity Experience Scale
• Across sub-populations, nearly one-third of the sample was food insecure at baseline and was highest among the urban poor and estate households
• Food insecurity remained relatively stable from baseline to follow-up
• Moderate food insecurity remained ~25%, while severe decreased from 4 to 2% Transitions into or out of food insecurity from baseline to follow-up
• Of those food insecure at baseline (n = 157), 51% stayed food insecure at follow-up; 49% transitioned out of food insecurity
• Of those food secure at baseline (n = 521), 88% remained food secure; 12% transitioned into food insecurity

Key preliminary findings from logistic regression models, using generalized estimating equations (GEE) to estimate the odds of being food insecure at baseline and follow-up

Compared to those with no income change, households with:
• complete stoppage in their income had 7.16 times higher odds of food insecurity (OR 7.16, CI: 4.57 - 11.2)
• large decreases in their income had 5 times higher odds of food insecurity (OR 5.01, CI: 3.12 - 8.08)
• small decreases in their income had 1.72 times higher odds of food insecurity (OR 1.72, CI: 1.00 - 2.96)
• Female respondents, younger individuals, and heads of household with lower levels of education were significantly more likely to experience food insecurity

Limitations
• Sample size was smaller than desired – overall non-response was 34%, with higher rates in urban and rural sectors
• Selection bias is possible (people responding to the SMS may be more likely to have experienced food insecurity)
• Duration of baseline data collection longer than planned
• Delays in attaining phone numbers may lead to recall bias as the time since the initial outbreak and lockdown increased
• Drop out in follow-up (~30%)

Conclusions
• The COVID-19 pandemic, including its mitigation measures, are adversely affecting food availability and access
• Sustained high prevalence of food insecurity among these populations requires timely and effective intervention
• Reduction in income and subsequent coping mechanisms employed have the potential to amplify the pre-existing nutrition and health challenges in Sri Lanka
• Findings can inform policy and program interventions to protect food security and address existing inequities within food systems to better support high-quality diets and nutrition
• Phone surveys were an effective method for collection of food security information, despite some challenges

Acknowledgements

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Urban poor
Rural smallholders
Estate households

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