Changes in food poverty over time in the Republic of Ireland

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Developing a food poverty indicator
Spending measures

The food and non-food spending indicators developed by IPH are based on a household’s food spending:

A household has *inadequate food spending* if its per person food spending is less than 60% of the national median value

\[
ppFS = \frac{\text{Household’s Food Spending}}{\text{Household size}}
\]

A household has *inadequate non-food spending* if its per person non-food spending is less than 60% of the national median value

\[
ppNFS = \frac{\text{Household’s Non-food Spending}}{\text{Household size}}
\]
## Food and non-food spending

<table>
<thead>
<tr>
<th>Food spending</th>
<th>Non-food spending</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inadequate food spending</strong></td>
<td><strong>Inadequate non-food spending</strong></td>
<td>Food spending and non-food spending both relatively low</td>
</tr>
<tr>
<td><strong>Adequate non-food spending</strong></td>
<td><strong>Inadequate non-food spending</strong></td>
<td>Food spending relatively low but non-food spending acceptable</td>
</tr>
<tr>
<td><strong>Adequate food spending</strong></td>
<td><strong>Inadequate non-food spending</strong></td>
<td>Food spending acceptable but non-food spending relatively low</td>
</tr>
<tr>
<td><strong>Adequate non-food spending</strong></td>
<td><strong>Adequate non-food spending</strong></td>
<td>Both food spending and non-food spending acceptable</td>
</tr>
</tbody>
</table>
Findings from Republic of Ireland using Central Statistics Office (CSO) Household Budget Survey 2004/05 and 2009/10
Methods I

• Household socio-demographic variables:
  – Gross household income
  – Household tenure
  – Household composition
  – Principal Economic Status (HoH)
  – Social Class (HoH)
  – Being at risk of poverty
  – Urban/rural classification
Methods II

Binomial logistic regression models:

- Changes in prevalence of *inadequate food spending*
- Changes in prevalence of *inadequate non-food spending*
- Changes in prevalence of *inadequate non-food spending* in households with *inadequate food spending*
- Changes in prevalence of *inadequate non-food spending* in households with *adequate food spending*
## Initial unadjusted findings RoI

<table>
<thead>
<tr>
<th>Measure</th>
<th>2004/05</th>
<th>2009/10</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of <em>inadequate food spending</em></td>
<td>13.7% (95% CI: 12.8% to 14.5%)</td>
<td>16.3% (95% CI: 15.3% to 17.4%)</td>
<td>Significantly increased by 19%</td>
</tr>
<tr>
<td>Prevalence of <em>inadequate non-food spending</em></td>
<td>26.4% (95% CI: 25.1% to 27.6%)</td>
<td>23.2% (95% CI: 22.0% to 24.5%)</td>
<td>Significantly decreased by 12%</td>
</tr>
</tbody>
</table>
Modelling inadequate food spending

• Five of the seven household characteristics were found to be significant independent predictors

• After adjustment
  – no significant change in the prevalence of *inadequate food spending* over time

• However
  – Evidence that change in prevalence of *inadequate food spending* over time varied with Area
Changes in adjusted prevalence of *inadequate food spending* by *Area* between 2004/05 and 2009/10

- **Urban**
  - Predicted probability 2009/10: 16.5%
  - Predicted probability 2004/05: 15.5%

- **Rural**
  - Predicted probability 2009/10: 17.0%
  - Predicted probability 2004/05: 11.5%
Modelling inadequate non-food spending

• Six of the seven household characteristics were found to be significant independent predictors

• After adjustment
  – no significant change in the prevalence of *inadequate non-food spending* over time

• However
  – evidence that change in prevalence of *inadequate non-food spending* over time varied with *household composition, income, PES, tenure*
Changes in adjusted prevalence of *inadequate non-food spending* by Gross Household Income between 2004/05 and 2009/10

- Quintile 5 (highest)
- Quintile 4
- Quintile 3
- Quintile 2
- Quintile 1 (lowest)

![Graph showing changes in adjusted prevalence of inadequate non-food spending by Gross Household Income between 2004/05 and 2009/10.](attachment:chart.jpg)
Importance of non-food spending

• predictors for *inadequate non-food spending*

  more complex

• If food spending alone was used
  – underestimate the financial burden on many households with *inadequate food spending*
  – financial burden of some households with *adequate food spending* would have been ignored
Limitations

• Cross-sectional nature of HBS – less scope to suggest true cause-and-effect relationships

• Change observed over time may not truly reflect impact of recession (HBS 2015/16 better inform)

• Other issues at play
  • Cannot consider quality of diet
  • Cannot look at social impacts (as with food deprivation indices)

• Small sample size in NI
Conclusions & Recommendations

• affordability of food better understood when you consider entire household budget (food and non-food spending)

• developing a food poverty indicator – important to look at entire household budget

• Future surveys:
  • Having complete household budget survey data fundamental
  • Combining food deprivation (food experiences) and affordability (financial risk of food poverty) in the same survey
...when you can measure what you are speaking about, and express it in numbers, you know something about it...

**Lord Kelvin (1824-1907)**

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