Food insecurity in the UK

Jean Adams
Centre for Diet & Activity Research, MRC Epidemiology Unit
FAO food insecurity: “A situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life.”
Diet & Socio-economic position

Mean intake (g/day)

Fruit & veg

Red & proc meat

NME sugars

Equivalised h'hold income pa

<£15k

£15-25k

£25-35k

£35-50k

>£50k

Healthier foods are more expensive in the UK

Mean price of foods by Eatwell food group, 2010-20

- Bread, rice, potatoes, pasta
- Food & drinks high in fat/sugar
- Fruit & veg
- Meat, fish, eggs, beans etc
- Milk & dairy

Analysis by Kate Ellis for The Food Foundation (2020)
Healthier diets are more expensive in the UK

Fig. 2 Mean diet cost (with 95% CI) for diets in relation to the number of UK dietary recommendations met adjusted for age, sex and occupational social class. Dietary data from 2045 adults participating in Years 1–4 of the UK National Diet and Nutrition Survey Rolling Programme, 2008–2012 (1 kcal=4.184 kJ)
A GIRL CALLED JACK
100 DELICIOUS BUDGET RECIPES

JACK MONROE

Ingredients:
- 10p carrots
- 15p onions
- 27p mushrooms
- 26p spring greens
- 1.5p soy sauce
- 2p oil
- 2p vinegar
- garlic
- 84p chicken mince
- 30p - 40p sausages
- 30p baked beans
- 30p kidney beans
- 32p passata
- 30p rice
- 32p chocolate
- 1.15p cinnamon
- 1.15p paprika
- 24p leeks
- 5p rice
Household food insecurity in the UK

In the past 12 months:

- You and other household members worried that food would run out before you got money to buy more
- The food that you and other household members bought just didn't last, and there wasn't any money to get more.
- You & other household members couldn't afford to eat balanced meals.

If often or sometimes true for any, continue to: In the last 12 months:

- did you or other adults in your household ever reduce the size of your meals or skip meals because there wasn't enough money for food?
- did you ever eat less than you felt you should because there wasn't enough money for food?
- did you lose weight because there wasn't enough money for food?

If yes to any, continue to: In the last 12 months:

- did you or other adults in your household ever not eat for a whole day because there wasn't enough money for food?
Food insecurity in the UK adults, aged 18-65y

- High food security (0): 72%
- Marginal food security (1-2): 9%
- Low food security (3-5): 4%
- Very low food security (6-10): 15%

# Food insecurity and excess body weight

<table>
<thead>
<tr>
<th>Category</th>
<th>Log odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>0.19 [0.13, 0.25]</td>
</tr>
<tr>
<td>Narrow subset</td>
<td>0.20 [0.14, 0.27]</td>
</tr>
<tr>
<td>Adjusted estimates</td>
<td>0.15 [0.10, 0.21]</td>
</tr>
<tr>
<td>Unadjusted estimates</td>
<td>0.22 [0.11, 0.33]</td>
</tr>
<tr>
<td>Cross-sectional designs</td>
<td>0.19 [0.13, 0.25]</td>
</tr>
<tr>
<td>Longitudinal designs</td>
<td>0.43 [0.03, 0.84]</td>
</tr>
<tr>
<td>Outcome: Obesity</td>
<td>0.25 [0.18, 0.32]</td>
</tr>
<tr>
<td>Outcome: Overweight</td>
<td>0.08 [0.01, 0.15]</td>
</tr>
<tr>
<td>Outcome: Continuous BMI</td>
<td>0.30 [0.07, 0.53]</td>
</tr>
<tr>
<td>Predictor: All FI versus FS</td>
<td>0.18 [0.11, 0.26]</td>
</tr>
<tr>
<td>Predictor: Marginal FI versus FS</td>
<td>0.11 [0.00, 0.23]</td>
</tr>
<tr>
<td>Predictor: Moderate FI versus FS</td>
<td>0.13 [0.04, 0.21]</td>
</tr>
<tr>
<td>Predictor: Severe FI versus FS</td>
<td>0.23 [0.06, 0.39]</td>
</tr>
<tr>
<td>Predictor: Continuous</td>
<td>0.31 [-0.10, 0.72]</td>
</tr>
<tr>
<td>Female adults</td>
<td>0.32 [0.22, 0.42]</td>
</tr>
<tr>
<td>Male adults</td>
<td>0.03 [-0.05, 0.10]</td>
</tr>
<tr>
<td>Mixed adults</td>
<td>0.26 [0.15, 0.37]</td>
</tr>
<tr>
<td>All adults</td>
<td>0.27 [0.20, 0.35]</td>
</tr>
<tr>
<td>All children</td>
<td>0.05 [-0.04, 0.14]</td>
</tr>
<tr>
<td>High income country</td>
<td>0.26 [0.19, 0.33]</td>
</tr>
<tr>
<td>Low or middle income country</td>
<td>0.01 [-0.11, 0.12]</td>
</tr>
</tbody>
</table>
Food insecurity is not a healthful experience

Odds ratio (95% CI) for adults who are food insecure

- Poor diet healthiness
- Poor general health
- Poor mental health
- High stress
- Overweight
Recent Covid-related developments

- 7-9 April 2020: 16% reported food insecurity in last 3 weeks
  - cf 8% in last 12 months from F&Y survey (assume ~4% in last month)

*Figure 1* Proportion of adults experiencing food insecurity arising from a lack of food in shops alone or for other reasons.
What should we do about FI in the UK?

• Emergency relief
  - Food banks and other food charity

• Increase lowest incomes
  - Abolish 5 week wait for Universal Credit
  - Increase minimum wage
  - National minimum income

• Reduce cost of food; and relative difference in cost of healthier vs less healthy food
  - Taxes and subsidies – targeted at consumers, retailers, producers