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EXPLORING THE FOOD ENVIRONMENT OF POST-PRIMARY SCHOOLS IN IRELAND

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OVERVIEW

- Study aims
- Background
- Food Environment
- Results
- Future work
STUDY AIMS

- To characterise the food environment in and around post-primary schools that took part in the 2010 HBSC survey in Ireland

- To link this information with student dietary habits and geographic information
BACKGROUND

- Increasing trend in obesity in children in Ireland -
  1 in 4 - overweight
  1 in 14 – obese  GUI, 2009

- effects of the built environment on food choice

- School food environment
  - children - time in this setting
  - External & Internal
PHASE 1: External Food Environment
~ November 2011 – March 2012

PHASE 2: Internal Food Environment
1. EXTERNAL FOOD ENVIRONMENT

- around the school setting
  - Fast food

- School locations

- HBSC data, Geodirectory – GIS

- 119 post-primary schools

- 9,290 post-primary students – 2010
MAPPING THE EXTERNAL FOOD ENVIRONMENT

- Geo-coded HBSC post primary schools (n=119)

- 1km and 2kms circular buffers created around each of the schools

- All well known fast food restaurant chains were mapped – BK, McDonalds, Supermacs
RESULTS

- 46.2% had 1+ fast food restaurants located within 1km
- 56.3% had 1+ fast food restaurants located within 2km
- Access to fast food restaurant chains was found to be greater for urban schools
- No difference between DEIS/non DEIS
- Fast food restaurant chains + relationship with deprivation
PHASE 1: External Food Environment
November 2011 – March 2012

PHASE 2: Internal Food Environment
~ March 2012 – June 2013
2: INTERNAL FOOD ENVIRONMENT

- Questionnaire developed based on international HBSC school level questionnaire - piloted with 4 post-primary schools (3 urban, 1 rural)

- 5 themes, 25 questions
  - School characteristics, Nutrition, Physical Activity, Violence/bullying and Neighbourhood

- 119 schools - Initial email contact, followed up with phone call
  - RR 56.1% (n=64)

- Participate online using SurveyMonkey or by post
FOOD ACCESS IN SCHOOLS

- Canteen: 57% schools (n= 36)
- Tuck Shop: 49% schools (n= 31)
- Vending machines: 35% schools (n=22)
FOOD ACCESS OUTSIDE SCHOOLS

- Permitted to leave school at lunch time
  - First year: 19.0% (n=12)
  - Second year: 30.6% (n=19)
  - Third year: 31.1% (n=19)
  - Transition year: 38.7% (n=24)
  - Pre-leaving certificate year: 51.6% (n=32)
  - Leaving certificate year: 67.2% (n=43)
### RESULTS: DAILY CONSUMPTION

<table>
<thead>
<tr>
<th></th>
<th>Soft drinks</th>
<th>Vegetables</th>
<th>Fruit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy to increase healthy eating (f&amp;v)</td>
<td>-0.305*</td>
<td>0.207</td>
<td>0.139</td>
</tr>
<tr>
<td>Leave at lunch – 1\textsuperscript{st} Year</td>
<td>0.379**</td>
<td>-0.231</td>
<td>-0.306*</td>
</tr>
<tr>
<td>Leave at lunch – 2\textsuperscript{nd} Year</td>
<td>0.508**</td>
<td>-0.281*</td>
<td>-0.405**</td>
</tr>
<tr>
<td>Leave at lunch – 3\textsuperscript{rd} Year</td>
<td>0.469**</td>
<td>-0.369**</td>
<td>-0.39**</td>
</tr>
<tr>
<td>Leave at lunch – Transition Year</td>
<td>0.474**</td>
<td>-0.197</td>
<td>-0.422**</td>
</tr>
<tr>
<td>Leave at lunch – Pre leaving Cert Year</td>
<td>0.459**</td>
<td>-0.233</td>
<td>-0.377**</td>
</tr>
<tr>
<td>Leave at lunch – Leaving Cert Year</td>
<td>0.358**</td>
<td>-0.149</td>
<td>-0.199</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01
SUMMARY

- Over 50% of post-primary schools had 1+ fast food restaurants within 2 km
- More fast food restaurants located in deprived areas
- Provision of food in schools varies by school (canteen, tuck shop, vending machine)
- Access to external food environment varies - increased access for older children
- School policies related to student dietary habits
FUTURE WORK

- First time that geographic and school level data has been explored by HBSC Ireland

- On-going work – link the school level data to HBSC student level data

- Will inform future data collection at the school level by HBSC Ireland
ACKNOWLEDGEMENTS

- Schools and students that took part in data collection
- HBSC network of researchers
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- Professor Oddrun Samdal, Data Bank Manager, University of Bergen
Thank you

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