Aims and Objectives

- What is Obesity Atlas?
- What are it’s uses?
- What are the methods?
- What are the different types of analyses?
- How do I interpret the results?
- How do I use Obesity Atlas

Basic Site Navigation and Features

- Registration
- Menu and Quick Navigation
- Contact US
- Frequently Asked Questions
- Options
- Change Password
- Forgot Password
The (Standard) Data Upload Process

1. A user either a CSV or XML file
2. A user can then upload these files via FTP
3. Data is pre-processed and any issues are flagged
4. The upload is then observed and any issues are flagged

Data Pre-processing

1. Data is pre-processed by validating and ensuring coherence of datasets and demographics
2. Users can then remove any data that do not match the specified criteria
3. Any issues are flagged and can be reviewed by the user

Statistics

- Demographic Statistics
  - Ethnicity codes
- Child Obesity Statistics
  - Classifications of child obesity
  - Standard Deviation Scores (SDS)

Ethnicity Codes

- Department Children Schools & Families (DCSF)
  - Possible Codes = 99
  - Basic list = 8
    - White
    - Mixed Dual Background
    - Asian or Asian British
    - Black or Black British
    - Chinese
    - Any Other Ethnic Group
    - Refused
    - Information Not Yet Obtained
Classification of Child Obesity

- Department of Health
- Clinical
- International Obesity Taskforce
- World Health Organization
- Other

Standard Deviation Scores (SDS) 1

<table>
<thead>
<tr>
<th>Department of Health</th>
<th>Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>c ≤ 85th Centile</td>
</tr>
<tr>
<td>Obese</td>
<td>c &gt; 85th Centile &lt; 95th Centile</td>
</tr>
<tr>
<td>Overweight</td>
<td>c &gt; 95th Centile &lt; 98th Centile</td>
</tr>
<tr>
<td>Underweight</td>
<td>NONE AGREED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SDS</th>
<th>Normal deviation (z)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2σ</td>
<td>-2.05374891063182</td>
</tr>
<tr>
<td>3σ</td>
<td>-1.64485362695147</td>
</tr>
<tr>
<td>4σ</td>
<td>-1.03643338949379</td>
</tr>
<tr>
<td>5σ</td>
<td>0.00</td>
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</tbody>
</table>

Standard Deviation Scores (SDS) 2

Standard Deviation Scores (SDS) 3
Charts and Graphs

- Bar Chart - Number in each category
- Bar Chart – Proportion obese by deprivation
- Bar Chart – Proportion obese by ethnicity
- Scatter Plot – Individuals’ BMI SDS vs. IMD 2007
- Stacked Bar Chart – All categories by deprivation

Thematic Mapping

- Thematic Maps
  - Lower and Middle Super Output Areas (SOA)
  - Excludes areas outside the PCT boundaries
  - Provides obesity statistic for excluded data
- Interactive Mapping
  - Requires Microsoft Silverlight
  - Includes all areas within and outside of the PCT
  - Provides interactive area statistics when user hovers with mouse
  - In addition to Lower and Middle SOA, also does Ward

Creation of a Thematic Map

Step 1: Decide the demographic group from which the map should be created

Select the demographic group

Year R Females

Year R and Year 6
(All measured children)

This theoretical dataset contains 18 records of which 10 are Year R females

Creation of a Thematic Map

Step 2: Relate each individual’s postcode to a geographical area e.g. Lower SOA

Each PCT typically has approximately 150 Lower SOAs and 35 Middle SOAs
Creation of a Thematic Map

Step 3: Fill each area on the map with each individual that is linked to it

In a normal PCT each area on the map would have many individuals assigned to it

Creation of a Thematic Map

Step 4: Calculate the average (mean) BMI or BMI SDS in each area of the map

If an area contains no measured individuals then the area is excluded from the map

Creation of a Thematic Map

Step 5: Take all the mean values of each area and arrange them in ascending order

Step 6: Split all the mean values into quintiles and assign one of the five colours

Quintiles (5) are the norm however tertiles (3) and septiles (7) are also useful

Creation of a Thematic Map

Step 7: Finally colour each area of the map to the corresponding colour

Question: Why is it important to retain the numbers from which the map was created?
PCT Child Obesity Profiles

- Full detailed analysis of a NCMP dataset
- Equivalent to an annual PCT report on child obesity
  - Summary
  - Data Quality
  - Basic Statistics
  - Obesity, Overweight, Normal, and Underweight Prevalence
  - Relation of Gender to Overweight and Obese
  - Relation of Deprivation to Overweight and Obese
  - Charts and Graphs
  - Thematic Maps

THANKS FOR LISTENING!

QUESTIONS?