NWeH
North West e-Health

Obesity Atlas

A Public Health Intelligence Tool for the Analysis of Child Obesity in Greater Manchester

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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

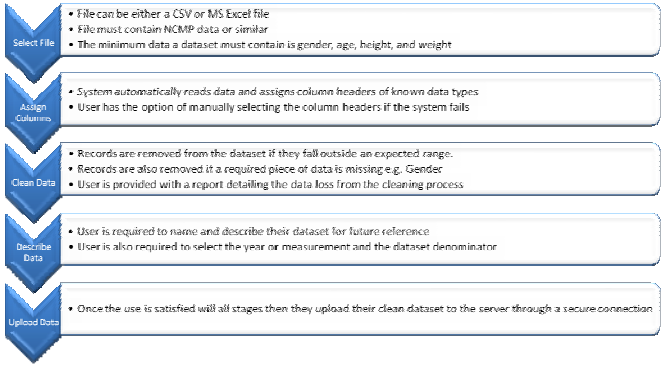
Order of Presentation

- Basic Site Navigation and Features
- The Data Upload Process
- Data Pre-processing
- Statistics
- Charts and Graphs
- Thematic Mapping
- PCT Child Obesity Profiles
- Conclusion and Questions

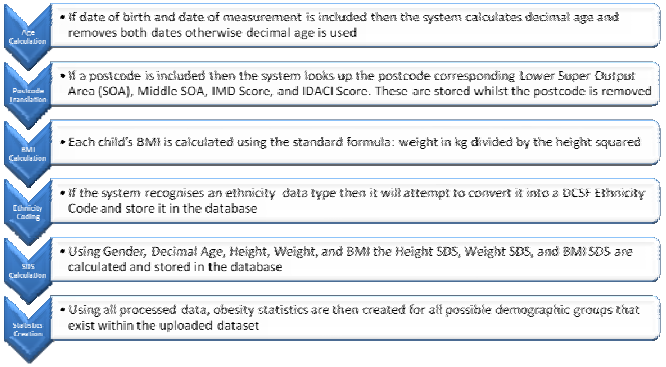
Basic Site Navigation and Features

- Registration
- Menu and Quick Navigation
- Contact US
- Frequently Asked Questions
- Options
- Change Password
- Forgot Password

The (Standard) Data Upload Process



Data Pre-processing



Statistics

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

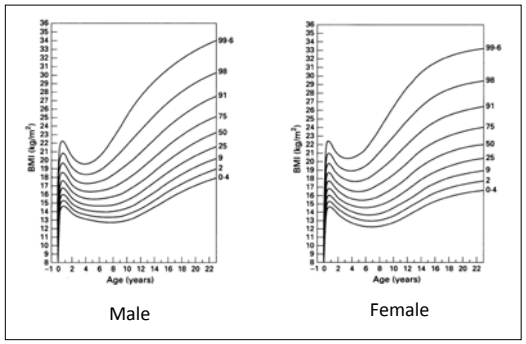
Ethnicity Codes

- 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

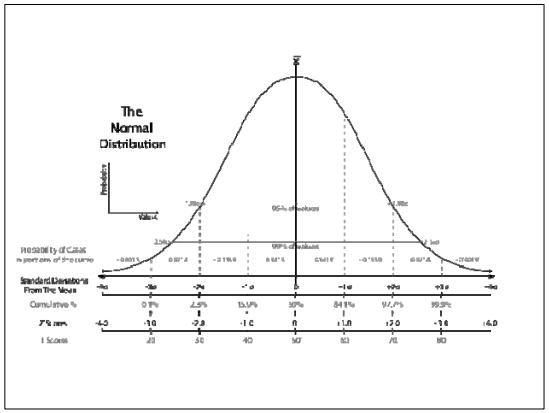
- Department of Health
- Clinical
- International Obesity Taskforce
- World Health Organization
- Other

Standard Deviation Scores (SDS) 1



Male Female

Standard Deviation Scores (SDS) 2



Standard Deviation Scores (SDS) 3

	Department of Health	Clinical
Normal	< 85th Centile	< 91st Centile
Overweight	> 85th Centile AND < 95th Centile	> 91st Centile AND < 98th Centile
Obese	> 95th Centile	> 98th Centile
Underweight	NONE AGREED	NONE AGREED

Centile	Normal deviate (z)
2nd	-2.05374891063182
85th	1.03643338949379
91st	1.34075503369022
95th	1.64485362695147
98th	2.05374891063182

Charts and Graphs

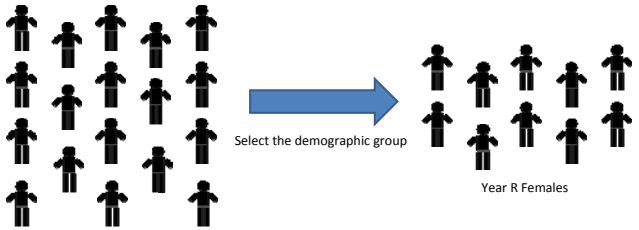
- Bar Chart - Number in each category
- Bar Chart – Proportion obese by deprivation
- Bar Chart – Proportion obese by ethnicity
- Scatter Plot – Individuals' BMI SDS vs. IMD 2007
- Stacked Bar Chart – All categories by deprivation

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

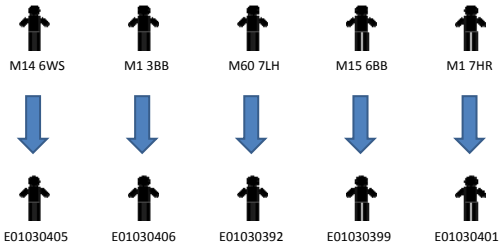
Step 1: Decide the demographic group from which the map should be created



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

Creation of a Thematic Map

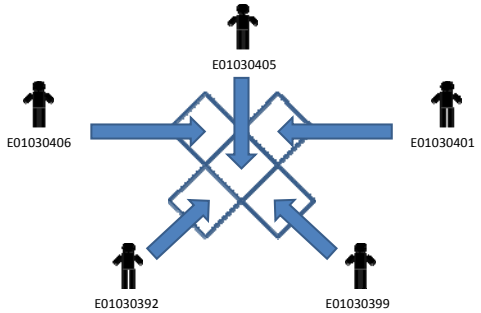
Step 2: Relate each individual's postcode to a geographical area e.g. Lower SOA



Each PCT typically has approximately 150 Lower SOAs and 35 Middle SOAs

Creation of a Thematic Map

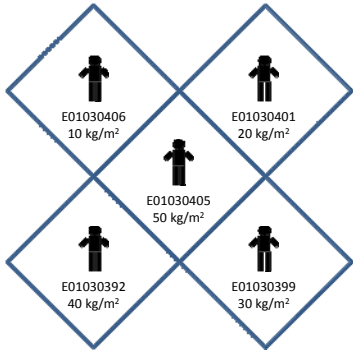
Step 3: Fill each area on the map with each individual that is linked to it



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



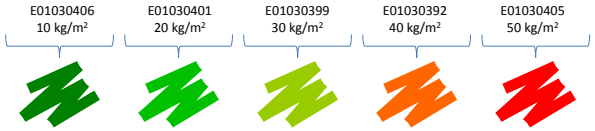
If an area contains no measured individuals then the area is excluded from the map

Creation of a Thematic Map

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

E01030406	E01030401	E01030399	E01030392	E01030405
10 kg/m²	20 kg/m²	30 kg/m²	40 kg/m²	50 kg/m²

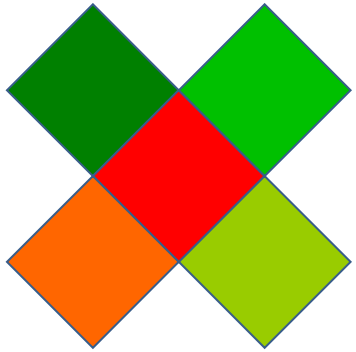
Step 6: Spilt all the mean values into quintiles and assign one of the five colours



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?