

Healthy Weight, Healthy Lives: Market Segmentation and Mapping

August 2009

Introduction

The 'Healthy Weight Healthy Lives: Consumer Insight Summary', published in November 2008, describes market research into families' attitudes and behaviours relating to diet and physical activity and looks at how families can be grouped into six clusters. This work was commissioned in order to inform the development of the national Change4Life campaign.

Follow-on work was subsequently undertaken to produce a more detailed geographical mapping of the identified clusters. This briefing note aims to summarise the geodemographic¹ segmentation² approach and give guidance on the appropriate use of the cluster postcode directories and maps.

An introductory guide (also called the Plain English Guide) was distributed on CD by CACI³ along with the maps and postcode directories. Please refer to the guide alongside this briefing note and when using the maps and postcode directories.

Key points

- It is appropriate to use the cluster postcode directories and maps to obtain broad population profiles for marketing purposes.
- If targeting neighbourhoods and communities for marketing purposes, it is appropriate to use the cluster postcode directories and maps alongside data from other sources, such as the Indices of Deprivation and locally gathered knowledge and intelligence, as stated in the Plain English Guide.
- It is not appropriate to use the cluster postcode directories and maps to perform analyses with small area level datasets like the National Child Measurement Programme (NCMP).
- It is not appropriate to use the cluster postcode directories and maps on their own for local targeting of weight management interventions. However they may provide useful background information, alongside data from other sources and local knowledge of the area and communities, when thinking about how to develop and target initiatives.

The detail behind the advice from NOO is given below, alongside a description of the methods used to create the clusters and their mapping to postcode areas.

¹ The geodemographic approach classifies small areas and makes use of geography to draw general conclusions about the characteristics and behaviours of the people who live in those areas.

² Segmentation is a social marketing term to describe the process of looking at an audience or 'market' and seeking to identify distinct sub-groups (segments) that may have similar needs, attitudes or behaviours.

³ CACI and TNS are well known suppliers of data and strategic insight, providing a range of services to public and private sector organisations.

1) How were the clusters formed and how was the mapping to postcode areas undertaken?

Analysis of a small sample of households with children aged 2-11 years was carried out by TNS⁴ (approximately 700 individuals were sampled). This analysis was used to divide the population into 6 cluster groups according to their attitudes and behaviours relating to diet and physical activity. This work was then used to inform the development of the Change4life campaign at a national level and has been published as the 'Healthy Weight Healthy Lives: Consumer Insight Summary'.

The British Market Research Bureau (BMRB) was commissioned to base the cluster groups on a larger sample size. BMRB did not have access to the original TNS data, and used other data, creating a sample of 2,000 individuals, to find statements that would re-create the six cluster groups. Some trial and error was used until BMRB were satisfied that their measures adequately matched the TNS measures.

The work was then continued by CACI, who report that *'two hundred independent variables, including data from the 2001 Census, other government surveys and the 'Health Acorn' lifestyle and health database⁵ were appended to the BMRB research sample. These variables were then examined to determine which characteristics were typical to a particular cluster group. From the 200 variables, 5 to 7 were found to be statistically significant (at the 90% level) in models to predict segment membership.*

These models were then used to score up each output area⁶ with the proportion of people in each segment, and from this, each output area (and hence each postcode within it) was assigned a dominant cluster. It is this dominant cluster for each output area that is shown in the maps.' CACI also point out that the dominant cluster is *'the cluster that is most over-represented in that output area compared to the nationally representative sample.'* It is not necessarily the cluster in that local area in which the most people fit.

2) How accurately does this geodemographic segmentation describe the population at small area level?

The estimates were based on initial measures of 2000 individuals. The sample was defined by BMRB's sampling framework. The National Obesity Observatory (NOO) has no information on how the sampling framework was constructed.

This small sample then informed the segmentation and was modelled down to output area with each output area being allocated a dominant cluster. Several layers of statistical analysis were undertaken to enable assumptions to be made

⁴ Taylor Nelson Sofres (TNS), Family Food Panel includes 11,000 individuals within 4,200 households who record their food and drink consumption in diaries. It is the UK's largest database tracking food and drink consumption.

⁵ The HealthACORN classification has been developed by CACI and TNS.

⁶ An output area is a geographical region created for statistical purposes for use in the UK census. They are created to have populations very tightly distributed around a mean population of 125 households.

about communities living within small geographical areas, based on the likelihood of existing datasets being predictors of various behaviours.

CACI explain that 'the postcode directories are based on modelled data. They indicate the probability that families living in a particular postcode are in a particular cluster. Users should note that they are not based on actual data collected from families in that postcode, but on a statistical model and should use the data with appropriate caution.'

CACI 'are confident that the proportion of people predicted to be in each cluster in each output area and postcode is as accurate as is possible from models built on a sample of 2000 respondents.'

3) What were the limitations of the analysis?

CACI have reported that the variables used in the models show some colinearity; this can influence statistical significance testing. The significant variables used to determine clusters were also likely to be influenced by other factors that were not included, such as environmental measures.

4) How can this cluster segmentation be used?

This geodemographic social segmentation was commissioned to provide broad profiles of the population which could be used to inform social marketing and communication strategies for 'Healthy Weight Healthy Lives' and 'Change 4 Life'.

Local organisations may wish to use the information in this way. However, as stated in the Plain English Guide, if local organisations are targeting neighbourhoods and communities they should use this information alongside data from other sources, such as the Indices of Deprivation and locally gathered knowledge and intelligence.

The cluster postcode directories and accompanying maps were developed for marketing purposes. NOO advises against using them for purposes other than this such as for performing analyses with small area level datasets like the NCMP. This geodemographic segmentation work does not provide sufficiently robust data on its own for local targeting of weight management interventions. However the cluster postcode directories and accompanying maps may provide useful background information, alongside data from other sources and local knowledge of the area and communities, when thinking about how to develop and target initiatives.

For more information

The Association of Public Health Observatories (APHO) has published a technical briefing on [Geodemographic Segmentation](#) providing an overview of segmentation tools and their possible applications within the health sector.

Please contact NOO if you would like further information info@noo.org.uk