

A summary of how the ASH Web Application was developed

Data

ASH provided data on smoking prevalence levels by ward (see below). A ward history database was used to identify the ward list as 2003 Standard Table (ST) Wards. From the Office of the Deputy Prime Minister, we obtained Index of Mass Deprivation (IMD) 2004 data by Lower layer Super Output Area (LSOA). Each ST Ward area comprises a whole number of LSOAs, so an accurate IMD score could be calculated for each ST ward. Similarly, a GIS shape file of ST Wards could be made from a dataset of LSOA polygons, obtained from the Office of National Statistics. The result was a set of ST Ward areas attributed with smoking prevalence & IMD scores.

Estimates of percentage smoking prevalence by ward: males, females, all person (16+)

It must be noted that the estimates of current smoking are what we would expect in each ward given the age, sex and marital status composition of the resident population. The estimates also take account of characteristics of the local area and regional effects. These figures are not based on local survey information. Instead they have been generated via a combination of statistical modelling techniques and synthetic estimation. For more information on the methodology used to generate these estimates, please refer to the Twigg, Moon and Walker (2004) publication, produced by the HDA which is available at http://www.hda-online.org.uk/Documents/smoking_epidemic.pdf.

At all times, these figures must be regarded as estimates. Users might suspect that the prevalence has been over-estimated for their local area and indeed this might be the case, particularly if local smoking cessation campaigns have been successful. Unfortunately, we are unable to take into account such 'extenuating circumstances' when generating our models.

Twigg L., Moon G and Walker S (2004) *The Smoking Epidemic in England*. Health Development Agency: London

The Application

Macromedia Flash was used to design and develop the ASH web application on the knowledge that approximately 97% of computers have the flash media player installed. All data seen in the application is stored in a series of XML tables which were generated from the GIS shape files. Using XML allows the data to be easily updated using a text editor instead of requiring additional software.

Mapping

The maps seen in the application have been derived from the LSOA polygons. The regional and district maps are stored within the application, however the ward maps are generated on request by querying an XML table which contains the co-ordinates for the wards of the selected district.