

Alcohol consumption: segmentation series report 2

Lynn Deacon, Michela Morleo, Kerin L Hannon, Penny A Cook,
Karen Tocque, Clare Perkins, Mark A Bellis



Executive summary

Approximately a fifth of the population in England are thought to drink at hazardous levels of consumption, and a further 5% at harmful levels. Such levels of consumption are associated with a wide range of health, crime and economic harms. However, neither consumption nor harms are universally experienced, and in order to effectively target interventions, it is vital to understand which populations are most at risk. Segmentation tools are one way of doing this, allowing the grouping of populations by age, gender, lifestyle, attitude and motivation. To further understand population segmentation in alcohol misuse, the North West Public Health Observatory has published a series of four reports utilising segmentation tools to discuss alcohol consumption, attitudes and related admission. This is the second report in the series and focuses on alcohol consumption levels, quantities and types of drinks consumed. The first and third report discuss attitudes to alcohol and hospital admissions respectively whilst the fourth report in the series summarises the findings and presents them by classification in order to present an overview of the attitudes, consumption and harms experienced by each segmentation type..

It is important to bear in mind that the findings presented in this series represent only the starting point in understanding alcohol use and harm through segmentation techniques and that further research is required to fully comprehend the nuances that exist both between and within the segments.

Across the series, a number of datasets are used which represent the most robust intelligence available. However, this means that the reports use a range of national and regional data to present the findings. This report uses data for the North West of England. Data from three surveys were used to form the analysis for this report: North West regional lifestyle survey, the local boost lifestyle surveys and the Big Drink Debate. Together, they provided an overall weighted sample of 64,587 participants from the North West of England. Geodemographic classifications were added to the data based on participants'

lower super output areas. The segmentation systems used included: Index of Multiple Deprivation (IMD) 2007 quintile; IMD 2007 decile; People and Places (P²), Mosaic, Health ACORN and Office for National Statistics (ONS) Area. Data were analysed to reveal the relationship between alcohol consumption, gender, age and deprivation.

Key findings from this report show:

- Over a fifth of the sample population were classified as non-drinkers and half as moderate drinkers. Non consumption of alcohol was more prevalent amongst females, older populations and, for males, in more deprived areas. In comparison, moderate drinking was more prevalent amongst older males and, for both sexes, in more affluent groups.
- Approximately one sixth of the sampled population drank at hazardous levels and 5% at harmful levels. Higher proportions of both hazardous and harmful consumption were more likely to be found in males and younger groups. There was no or limited evidence of a relationship between these higher levels of consumption and deprivation.
- Overall in the North West, it was estimated that adults consume a mean of 5.8 units of beer, 4.0 units of wine and 1.4 units of other drinks per week. Beer was more commonly consumed by males and younger age groups, wine by females, middle-aged groups and more affluent groups, and other drinks by younger groups.

Findings such as these are vital in understanding consumption in different populations, and should be used (in conjunction with the other reports in this series and further research) to develop targeted interventions and campaigns. It is only through understanding the populations at risk that effective support, alternative activities and appropriate information can be supplied.

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1. Introduction

1.1 Alcohol misuse

In England, it is estimated that a fifth of the population drink at hazardous levels and a further 5% drink at harmful levels.^[1] Such levels of alcohol misuse have been associated with a wide range of health, crime and economic harms.^[1-3] However, alcohol consumption and related harms are not universally experienced across the country, with areas having different experiences depending on factors such as deprivation.^[1] In order to target interventions, it is vital to understand which populations are most at risk, together with their experiences and use of alcohol.

1.2 Social marketing and segmentation

Social marketing was endorsed through the Government White Paper *Choosing Health* as a health promotion framework to tackle lifestyle harms.^[4] It encourages the development of interventions that are built on deep consumer insight and strategies of effective and sustained engagement.^[5] It can use a wide range of intervention formats such as education, new media and legislation, although the most appropriate mix will depend on the individual group targeted.^[5]

Geodemographic segmentation can be used to maximise the evidence for social marketing interventions (Box 1).^[6-7] This is because it can provide an understanding of people who may have common motivations and lifestyle patterns, and because the technique goes beyond traditional methods of grouping people by age and gender to grouping populations by lifecycle, lifestyle, attitude and motivations.^[6] This method is particularly useful when local data are limited or do not exist.^[5]

There are a number of segmentation tools available, and the most appropriate tool to use depends on individual requirements. To date, the North West Public Health Observatory (NWPHO) has recommended the use of People and Places (P²)^[8] because it provides a greater level of discrimination by deprivation than the other systems available.^[7] Others such as Mosaic are also widely used.^[9] However, information is limited as to what extent analyses performed through the different segmentation tools reflect each other, and whether they show the same pattern. This report uses Health ACORN, Index of Multiple Deprivation (IMD) 2007 quintiles and deciles, Mosaic, Office for National Statistics (ONS) Area, and P² to investigate alcohol consumption.

Box 1: Segmentation techniques

Geodemographic segmentation aims to divide the population into groups, and make members of each group as similar as possible, while simultaneously differentiating between the groups as far as possible.^[5] The systems are derived from large numbers of variables (up to 400) that have been collected from an array of different sources, such as the national census and Health Survey for England.^[10] These provide information on factors such as demographics, socio-economic status, housing type and lifestyle. A cluster analysis is then performed to identify typologies. The systems may use different variables and/or algorithms in their development.^[5]

1.3 This series of alcohol reports

This report, published by the NWPHO, is part of a series of four reports utilising segmentation tools to discuss:

- Alcohol-related attitudes and motivations;^[11]
- Alcohol consumption (this report);
- Alcohol-attributable hospital admission;^[12] and

- Pen portraits (see Box 2) – a summary document, which brings all of the information presented in the series together to provide a final and more in-depth understanding for some of the groupings.^[13]

Together, the reports aim to synthesise the different data sources that identify at-risk groups as well as to provide an insight into

related motivations and attitudes. Finally, they aim to identify where research is needed in order to develop further insight for facilitating behaviour change strategies.

This report concentrates on consumption, highlighting which groups and types of groups are most likely to drink in certain patterns. Consumption is broken down by gender and into the following categories: patterns of consumption (non-drinkers, moderate, hazardous and harmful drinkers) and types of alcohol consumed (wine,

beer/lager/cider, wine and other alcoholic drinks). Definitions of these terms are provided in Section 2. Consumption data are particularly important to investigate because the North West region has some of the highest levels of binge drinking, hazardous drinking and harmful drinking in England.^[1, 14] Further, to date, little information around alcohol consumption has been published at a lower level, for example, through segmentation processes.^[14]

Box 2: Pen Portraits

The development of pen portraits is a technique used in social marketing to aide practitioners in defining their target audience. The pen portrait is a fictitious character to which a message or an intervention is targeted. Practitioners define who the pen portrait represents, their motivations, their likes and dislikes, their peer group, and even their name. The message or intervention developed must serve this character. The magazine 'Marie Claire' has created one such pen portrait as an example of their reader, who they see as having an average age of 33 years, and who enjoys spending money on clothes and toiletries.^[15]

2. Methodology

Data from three surveys carried out in the North West of England were included in the analysis: the North West Regional Health and Lifestyles survey, the Lifestyle Survey's local boosts^[16] and the North West Big Drink Debate^[17] (Table 1). Data were weighted by gender, age group and IMD 2007 quintile to reflect the North West population, providing an overall weighted

sample of 64,587. Together, the surveys cover topics such as lifestyle issues, drinking habits and opinions on the impacts of alcohol consumption. Common questions were combined to form one dataset. Only responses with completed age, gender and lower super output area (LSOA) were used.

Table 1: Alcohol consumption surveys.

Survey	Number of respondents (weighted)	Data collection period	Geography	Age	Topics investigated
North West Regional Health and Lifestyles Survey	5,448 (6,028)	Jun-Dec 2007	North West of England	16+	Lifestyle behaviours including drinking habits
North West Regional Lifestyle Survey local boosts	39,016 (37,338)	Jun-Dec 2007	Cumbria, Liverpool, North Lancashire, Oldham, Sefton, Wirral	16+	Lifestyle behaviours including drinking habits
The North West Big Drink Debate Survey	20,123 (21,222)	May-Oct 2008	North West of England	18+	Drinking habits, opinions of alcohol and its impact on individual lives and communities

2.1 Geodemographic analysis

Geodemographic classifications were added to the data based on LSOA and included IMD 2007 quintile, IMD 2007 decile, P², Mosaic, Health ACORN and ONS Area (Table 2). (For further details on the classification systems, see Dedman et al. 2006).^[7] Details of the number of survey participants included in each geodemographic segment by gender and segmentation system can be found in Appendices 1 and 2. Data were then analysed to reveal the relationship between alcohol consumption, gender, age and deprivation.

2.2 Variables investigated

The report presents data on the proportion of the sampled population in the North West estimated to be:

- Non-drinkers (those who reported never drinking alcohol);

- Moderate drinkers (those who drank under 15 units per week for females and under 22 units for males in the week prior to the survey– one unit is defined as 10ml or 8g of pure alcohol);
- Hazardous drinkers (those who drank 15 to 35 units per week for females and 22 to 50 units for males in the week prior to the survey);
- Harmful drinkers, or those identified as 'higher risk' under new terminology (drinking over 35 units per week for females and over 50 for males in the week prior to the survey).^[18]

The report also examines the mean number of units consumed by all participants for each type of drink: beer/lager/cider (hereafter referred to as beer), wine and other alcoholic drinks (alcopops, spirits and fortified wine).

Table 2: Classification systems

Classification system	Number of segments	Segmented according to...
Index of Multiple Deprivation (IMD) quintile	5	Multiple deprivation: income; employment; health and disability; education, skills and training; barriers to housing and services; crime and living environment.
Index of Multiple Deprivation (IMD) decile	10	Multiple deprivation: income; employment; health and disability; education, skills and training; barriers to housing and services; crime and living environment.
People and Places (P ²)	13*	Age, household composition, housing, employment, income, transport, leisure, spending patterns, general health, area stability.
Mosaic	11*	Demographics, socio-economics and consumption, financial measures, property characteristics, property value, location.
Health ACORN	23*	Indicators of existing health, lifestyle indicators, food consumption.
Office for National Statistics (ONS) Area	20	Demographics, household composition, housing, socio-economics.

*In total, five segments were not included in the analysis: Unclassified from each of P², Mosaic, and Health ACORN classification systems, and Older Couples and Disadvantaged Elderly from Health ACORN (the latter two being due to a lack of appropriate data).

2.3 Presenting the data

The geodemographic classifications are ranked according to average income levels or average income deprivation (that is, the proportion of the population living in households with an income of less than 60% of the median). Bivariate correlations were used to assess the relationship between rank of deprivation and: a) the proportion of people in each classification system reporting specific patterns of alcohol consumption (see Section 2.2); b) mean quantities of units consumed per person by drink type.

For each variable discussed (see Section 2.2.), charts have been provided for all six of the geodemographic segmentation systems, allowing the reader to visualise the pattern of consumption. Charts are presented on the same scale to enable comparison across the figures.

Data were analysed using SPSS version 17. Percentages are discussed as significantly different from the average where 95% confidence intervals (95% CIs) did not overlap. Although figures have been rounded to one decimal place, significance is taken from the unrounded figure. Tables detailing the values and the bivariate analysis are included in the appendices

(section 7.1 provides a guide to the appendices).

2.4 Data limitations

There are limitations to the data analysis:

- The data presented are for the North West of England, while a number of the other reports in this series publish data for England^[13] or Great Britain overall.^[11] (The alcohol-related attitudes report also publishes data for the North West.)^[11]
- Because of methodological differences, it is not possible to provide an overall compliance rate. However, the sample sizes are large and responses were weighted according to age, gender and deprivation.
- Surveys responses can be affected by, for example, social desirability, environmental influences and recall issues.^[14, 19, 20] Anonymity can help to tackle this, and participants were assured of this. Nevertheless, surveys consistently under-report levels of alcohol consumption.^[14, 21]
- The number of sampled participants within some of the segments is very small. Thus, caution must be applied for parts of analysis where small numbers are involved. Appendices 1 and 2

provide more details of this. Health ACORN and ONS Area are particularly at risk of having smaller numbers assigned to individual segments because they have a higher number of segments overall. However in contrast, this higher number may enable them to discriminate between populations more effectively.

- All area-based classifications are subject to ecological fallacy.^[5] Thus, not every individual, nor any individual in particular, will necessarily demonstrate

all of the characteristics of the area in which they live.

- Individuals may move between the segments over time and in different situations.^[22]

The classifications can only provide a statistically-based stereotype and should always be used in conjunction with other local knowledge. In this way, the analysis provides a starting point with which to compare likely differences between geographical areas, so that further insight can be gathered.

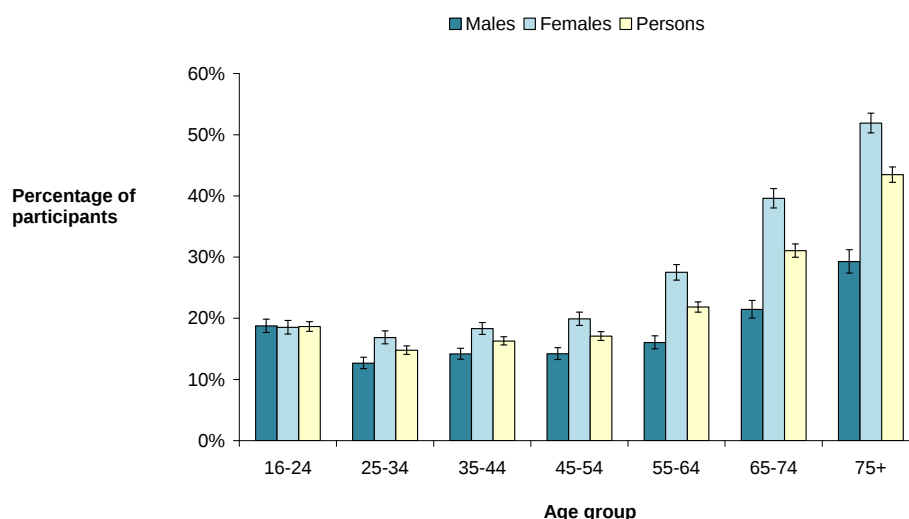
3. Findings

3.1 Non-drinkers

Overall, 21.5% of adults in the North West reported to be non-drinkers. Significantly more women (25.8%) than men (16.8%) reported non-consumption. The prevalence of non-drinking increased significantly with

age: adults aged 75 years and over were most likely to be non-drinkers (43.5%) and those aged 25-34 years were least likely to be (14.8%; Figure 1). (See appendices for figures and details of analysis.)

Figure 1: Percentage of North West participants classified as non-drinkers, by age and gender, 2007-08.



3.1.1 Males

The proportion of non-consumers according to classification for males in the North West ranged from 3.2% to 42.9% (Figure 2). The lowest proportions were in young, student or professional groups including Health ACORN Students and Young Professionals (3.2%) and P² Qualified Metropolitans (3.8%). For both of these, the proportion of non-drinkers was significantly lower than the male average (16.8%).

The highest proportions of non-drinkers were found in deprived communities with higher concentrations of multiple ethnicities: Health ACORN Multi-Ethnic (42.9%) and ONS Area Multicultural Urban (41.9%). Both of these were significantly higher than average.

The prevalence of non-consumption was significantly and negatively related to deprivation for all six of the classification systems, with more deprived segments showing higher proportions of non-drinkers.

3.1.2 Females

The proportion of non-consumers according to classification for females in the North West ranged from 6.8% to 50.6% (Figure 2). The lowest proportions were in Health ACORN Affluent Families (6.8%), followed by younger groups: Health ACORN Students and Young Professionals (8.2%) and P² Qualified Metropolitans (8.3%). For all three, this was significantly lower than the female average (25.8%).

The highest proportions of non-drinkers were found in deprived communities often with higher concentrations of multiple ethnicities: ONS Area Multicultural Urban (50.6%), Health ACORN Poor Single Parent Families (44.2%) and P² Multicultural Centres (44.2%). All of these were significantly higher than average.

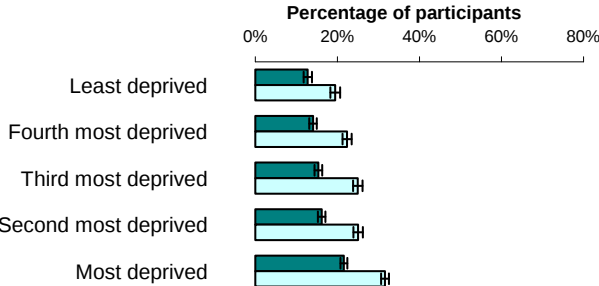
There is mixed evidence as to whether non-consumption was related to deprivation. In four of the six classification systems, those in deprived groups were significantly more likely to be non-drinkers than in affluent groups: IMD quintile, IMD decile, Health ACORN and P².

Figure 2: Proportion of North West participants classified as non-drinkers by gender and geodemographic classification, 2007-08.

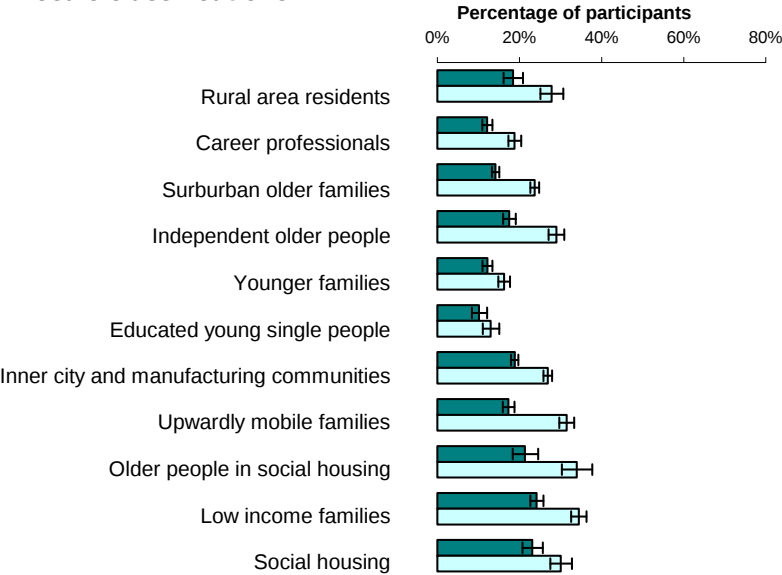
Classifications are arranged from least to most deprived group. Values for the figures, 95% confidence intervals (shown by the error bars) and significant difference are shown in the Appendices.

Males Females

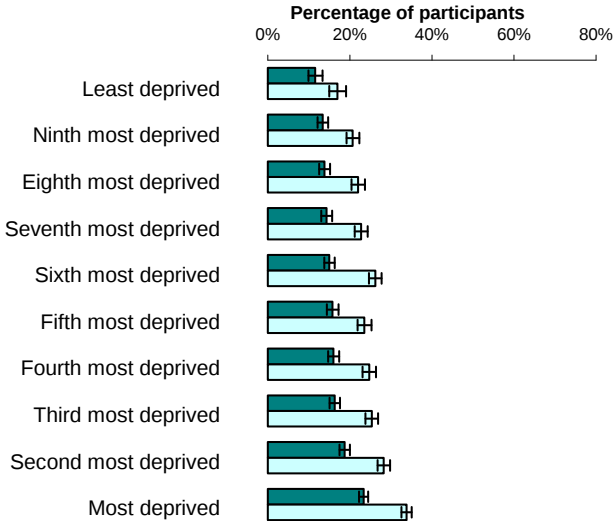
a) Index of Multiple Deprivation (IMD) 2007 quintiles



c) Mosaic classifications



b) Index of Multiple Deprivation (IMD) 2007 deciles



d) People and Places (P²) classifications

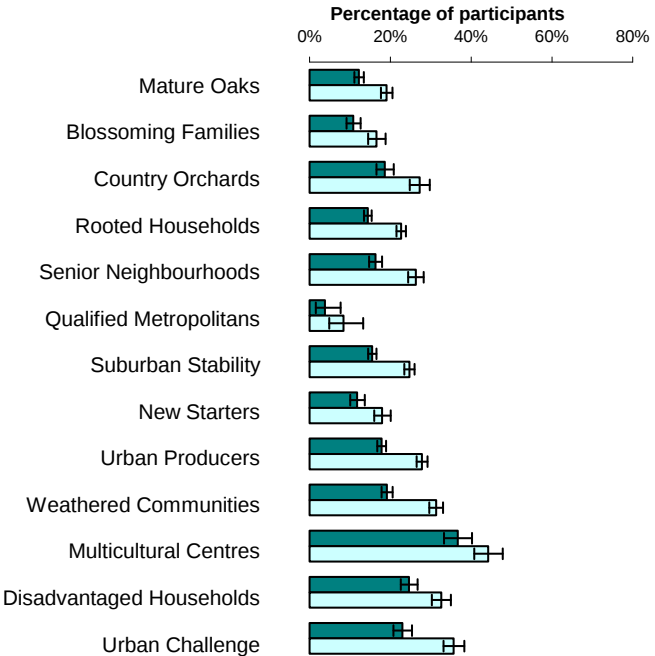
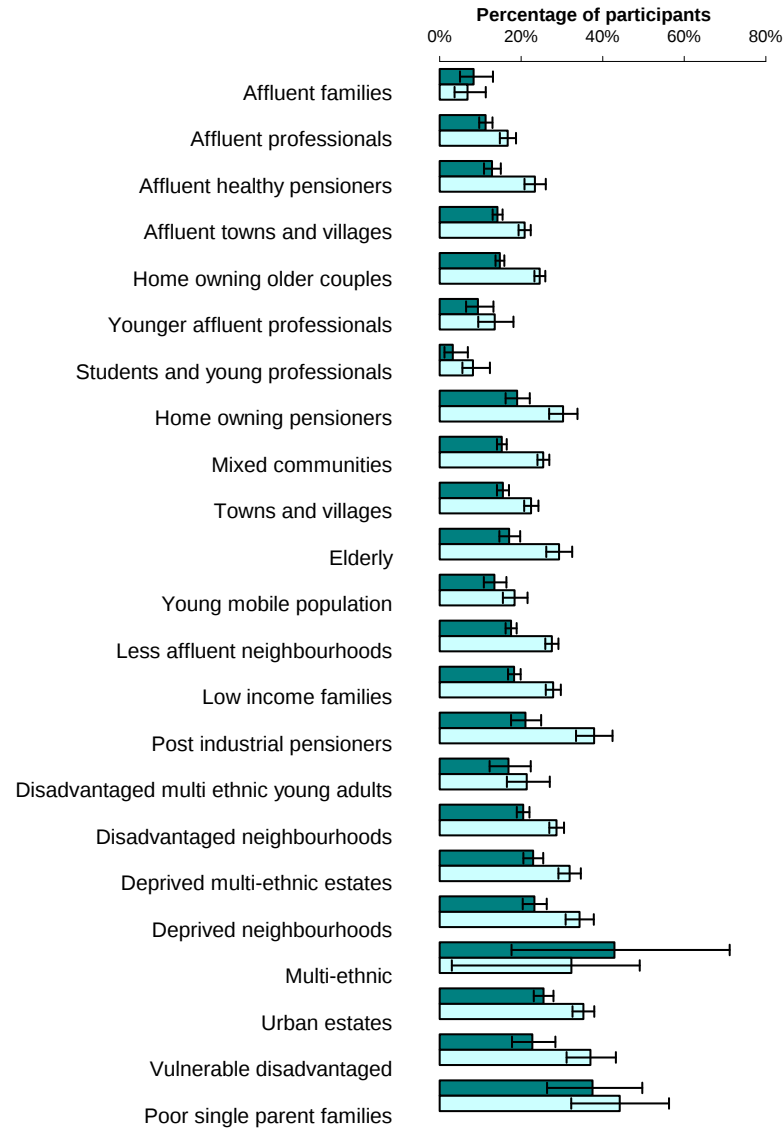
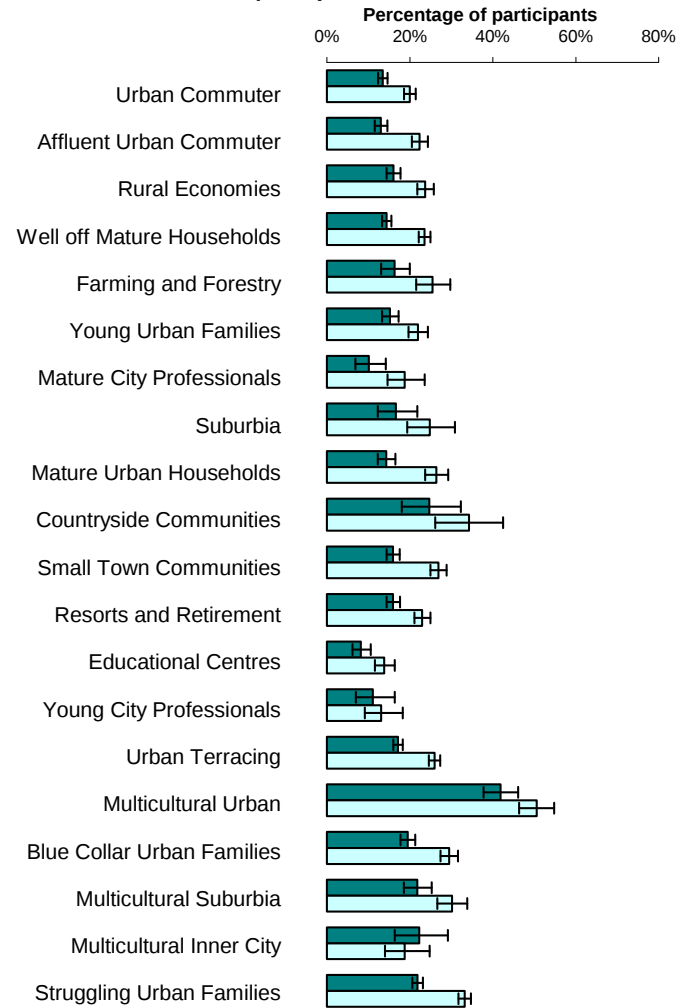


Figure 2 (continued): Proportion of North West participants classified as non-drinkers by gender and geodemographic classification, 2007-08.

e) Health ACORN classifications



f) Office for National Statistics (ONS) Area classifications

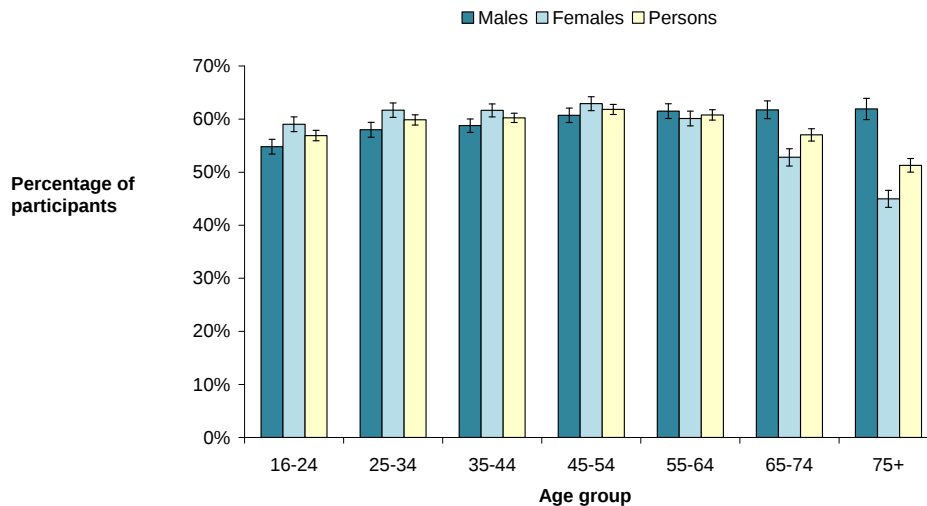


3.2 Moderate drinkers

In total, 58.8% of adults in the North West were moderate drinkers, with no significant gender difference. There was a significant linear correlation with age for males, with older males more likely to be moderate

drinkers. For females, proportions of moderate drinkers were similar across age, except for those aged 65 and over, where the proportion decreases. (See appendices for figures and details of analysis.)

Figure 3: Percentage of North West participants classified as moderate drinkers, by age and gender, 2007-08.



3.2.1 Males

The proportion of male moderate drinkers in the North West according to classification ranged from 30.6% to 66.2% (Figure 4). The lowest proportions were found in Health ACORN Poor Single Parent Families (30.6%), a deprived classification, and also in a number of the multicultural segments: ONS Area Multicultural Urban (39.9%), P² Multicultural Centres (42.8%) and Health ACORN Multi-Ethnic (42.9%). For all but one of these (Health ACORN Multi-Ethnic), the reported proportion was significantly lower than the male average (59.3%).

The highest proportion of moderate drinkers was in the ONS Area Farming and Forestry classification (66.0%), followed by some of the affluent groups: Health ACORN Affluent Families (66.2%) and Affluent Healthy Pensioners (64.9%), P² Blossoming Families (64.9%) and ONS Area Affluent Urban Commuters (64.3%). For all but one (Health ACORN Affluent Families), the proportion was significantly higher than average.

All six of the classification systems showed a significant negative relationship between the proportion of moderate drinkers and deprivation, with increases in deprivation

being associated with decreases in the proportion of moderate drinkers.

3.2.2 Females

The proportion of female moderate drinkers in the North West according to classification ranged from 36.9% to 67.6% (Figure 4). The lowest proportions were in multi-cultural segments, including ONS Area Multi-Cultural Urban (36.9%), and P² Multi-Cultural Centres (41.9%), as well as deprived areas such as Health ACORN Poor Single Parent Families (45.5%) and Urban Estates (51.9%). For all of these, the proportion was significantly lower than the female average (58.4%).

The highest proportions of moderate consumption were in affluent groups such as Health ACORN Affluent Families (67.6%) and Affluent Professionals (64.4%), as well as the least deprived IMD decile (64.9%). For all of these, the proportion was significantly higher than average.

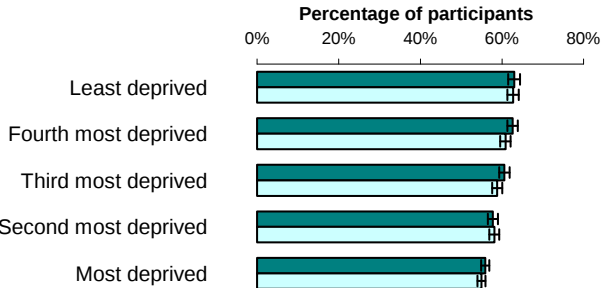
Five of the six classification systems (except ONS Area) showed a significant negative relationship between moderate alcohol consumption and deprivation, with increases in deprivation being associated with decreases in moderate drinkers.

Figure 4: Proportion of North West participants classified as moderate drinkers by gender and geodemographic classification, 2007-08.

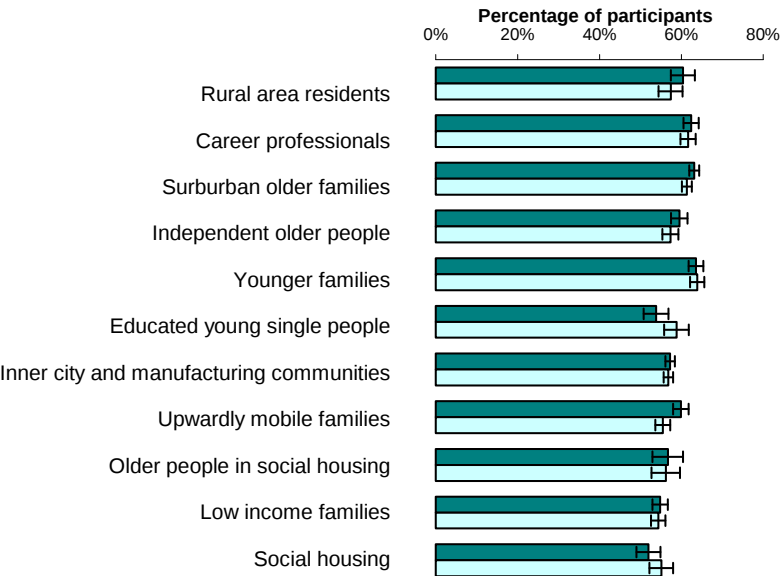
Classifications are arranged from least to most deprived group. Values for the figures, 95% confidence intervals (shown by the error bars) and significant difference are shown in the appendices.

Males Females

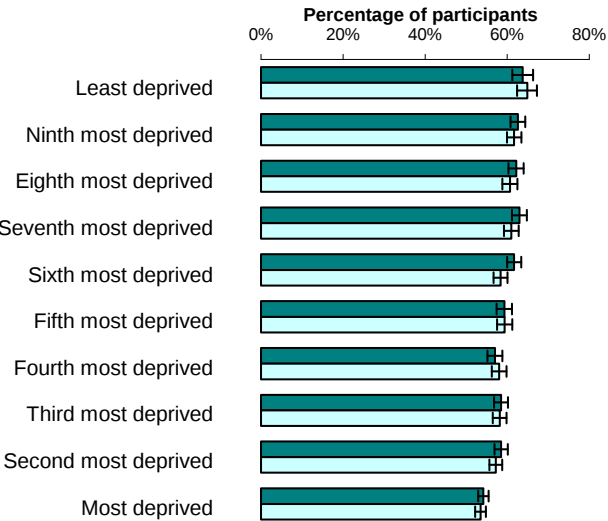
a) Index of Multiple Deprivation (IMD) 2007 quintiles



c) Mosaic classifications



b) Index of Multiple Deprivation (IMD) 2007 deciles



d) People and Places (P²) classifications

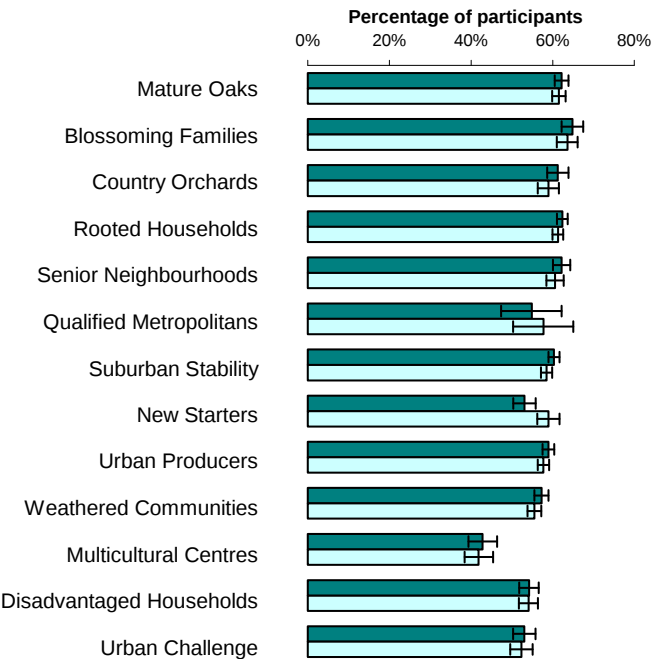
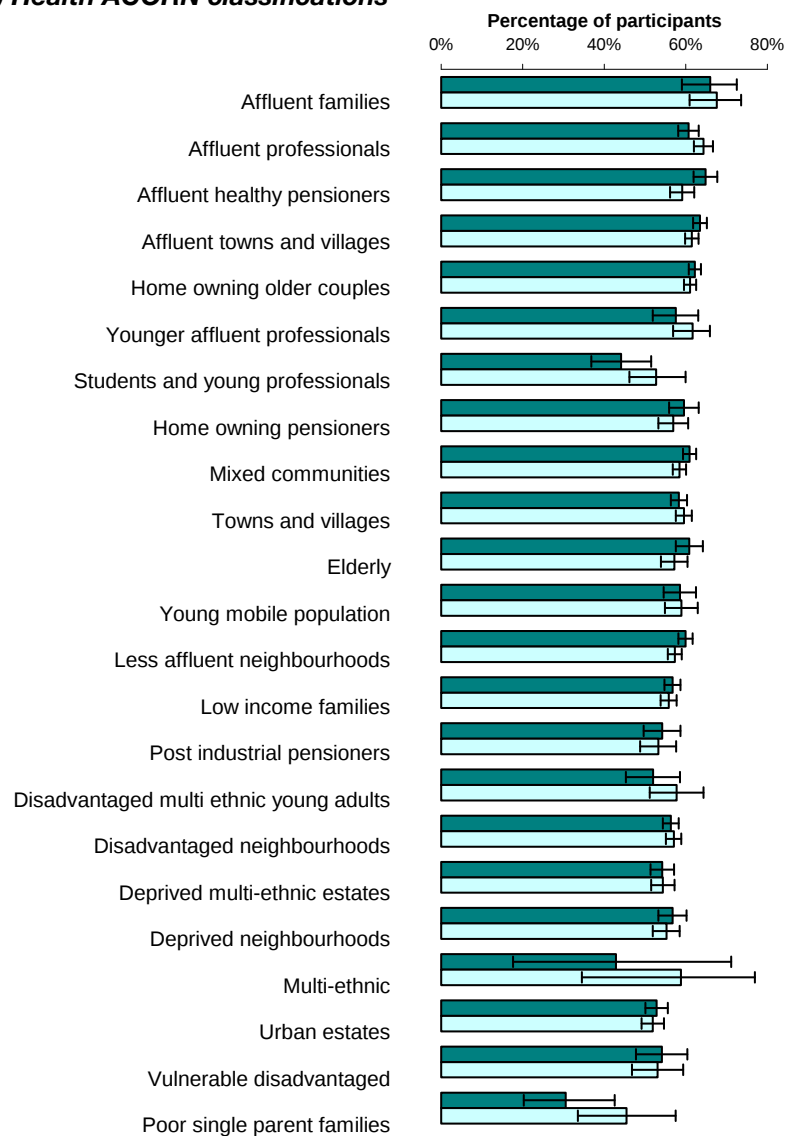
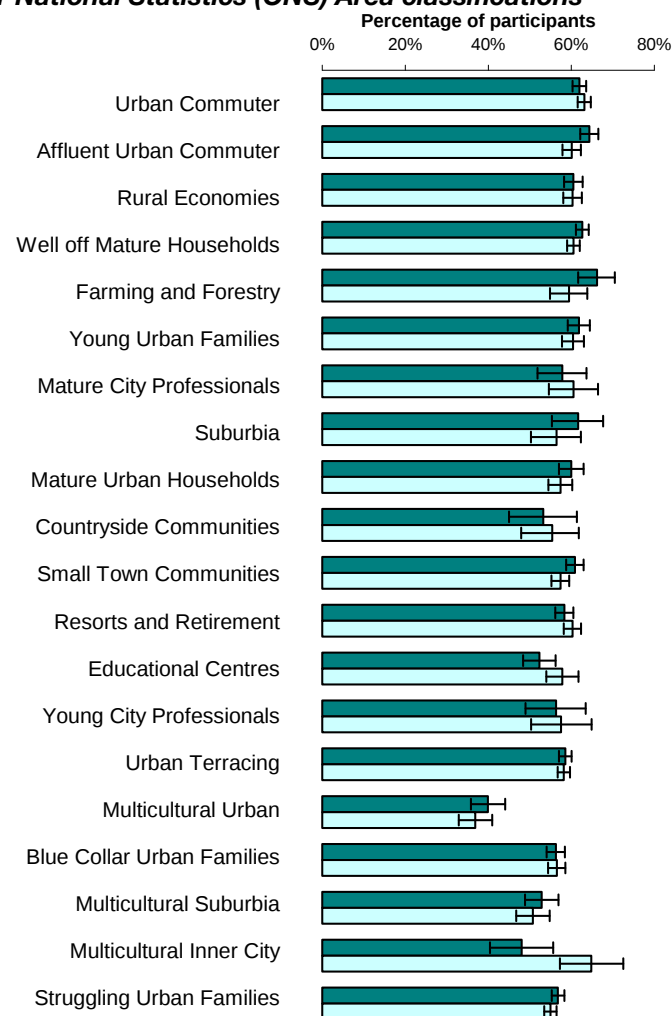


Figure 4 (continued): Proportion of North West participants classified as moderate drinkers by gender and geodemographic classification, 2007-08.

e) Health ACORN classifications



f) Office for National Statistics (ONS) Area classifications

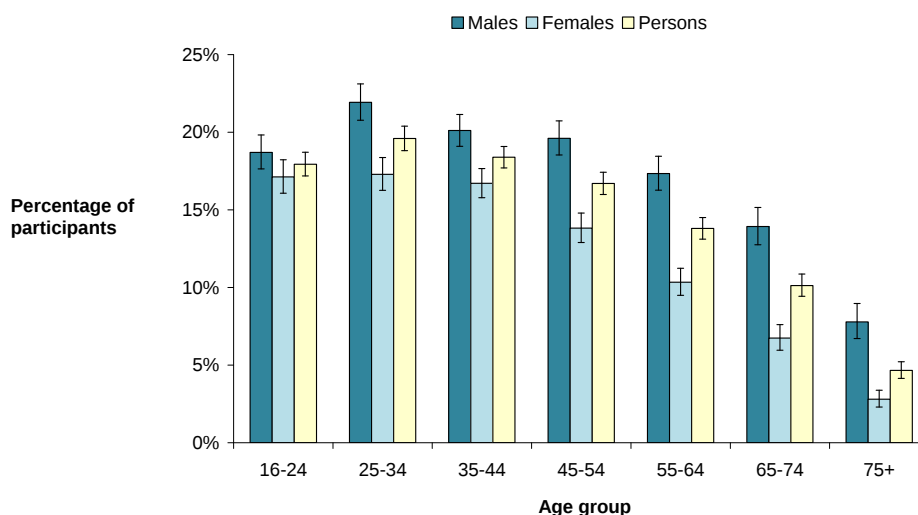


3.3 Hazardous drinkers

Overall, 15.4% of adults consumed alcohol at hazardous levels in the North West. Males were significantly more likely to report hazardous consumption than females (18.1% compared with 12.8%). While hazardous drinking was most prevalent among those aged 25-34 years (19.6%)

and 35-44 years (18.1%), there was a significant association between age and hazardous consumption, with the likelihood of hazardous drinking decreasing with age (Figure 5). (See appendices for figures and details of analysis.)

Figure 5: Percentage of North West participants classified as hazardous drinkers by age and gender, 2007-08.



3.3.1 Males

The proportion of male hazardous drinkers in the North West according to classification ranged from 12.7% to 37.6% (Figure 6). Low proportions were found in multi-cultural groups including ONS Area Multi-cultural Urban (12.7%), P² Multi-Cultural Centres (14.5%), as well as Health ACORN Vulnerable Disadvantaged (14.5%, although the number of individuals sampled was very small). For all groups apart from Health ACORN, the proportions of hazardous drinkers were significantly lower than the male average (18.1%). While one area (Health ACORN Multi-Ethnic) showed a particularly low estimated proportion of hazardous consumption (0.0%), the associated confidence intervals were very wide. Thus, this figure should be viewed with caution.

The highest proportions of hazardous drinkers were in the young, student or professional groups: Health ACORN Students and Young Professionals (37.6%), P² Qualified Metropolitan (33.5%), ONS Area Educational Centres (29.5%) and Mosaic Educated Young Single People

(27.0%). For all groups apart from P² Qualified Metropolitan, the proportions of hazardous drinkers were significantly higher than average.

Health ACORN showed a significant negative relationship between levels of deprivation and the proportion of hazardous drinkers, identifying that an increase in deprivation was associated with a decrease in hazardous drinkers. However, such a relationship was not identified in the other five classification systems.

3.3.2 Females

The proportion of female hazardous drinkers in the North West according to classification ranged from 5.8% to 30.9% (Figure 6). The lowest proportions were found among deprived groups including Health ACORN Vulnerable Disadvantaged (5.8%, although the number of individuals sampled was very small) and P² Urban Challenge (8.7%), as well as rural communities (ONS Area Countryside Communities: 8.0%) and older populations such as Health ACORN Post Industrial

Pensioners (6.5%) and Mosaic Older People in Social Housing (8.2%). A number of the multi-ethnic groups also showed low levels of hazardous consumption. For all these groups, the proportion of hazardous drinkers was significantly lower than the overall female average (12.8%).

The highest proportions of hazardous drinkers were found among young, student or professional groups including: Health ACORN Students and Young Professionals (30.9%), P² Qualified Metropolitans (30.0%), ONS Area Educational Centres (23.0%) and Mosaic Educated Young Single People

(22.7%). For all of these groups, the proportions of hazardous drinkers were significantly higher than average.

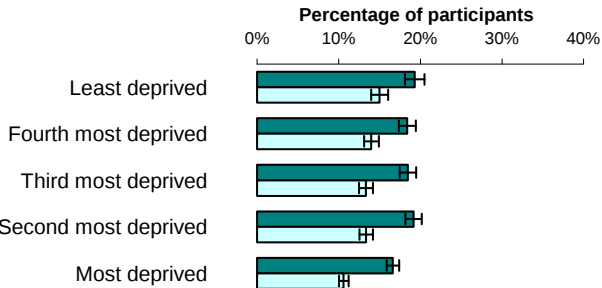
There was mixed evidence as to whether hazardous consumption among females was related to deprivation. IMD quintile, IMD decile and Health ACORN suggest that hazardous consumption is significantly and negatively related to deprivation, with increases in deprivation being associated with decreases in hazardous consumption. However, the other three segmentation systems show no such relationship.

Figure 6: Proportion of North West participants classified as hazardous drinkers by gender and geodemographic classification, 2007-08.

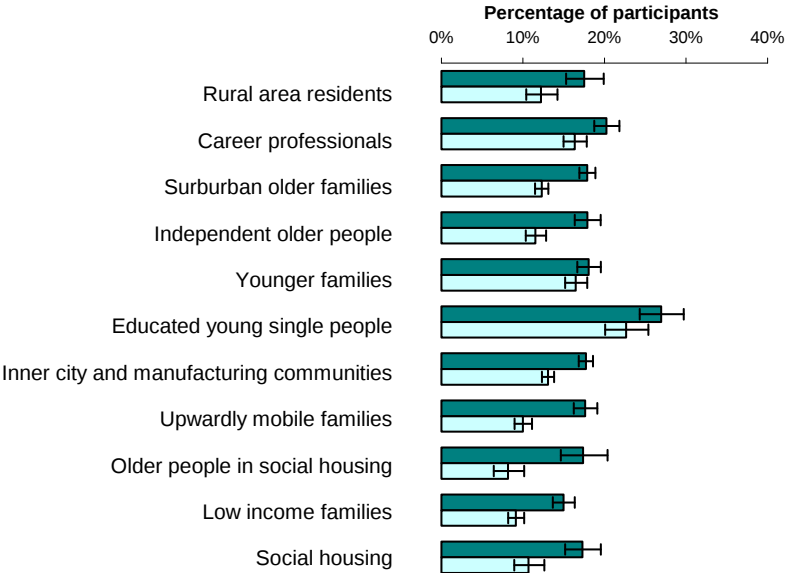
Classifications are arranged from least to most deprived group. Values for the figures, 95% confidence intervals (shown by the error bars) and significant difference are shown in the appendices. *Confidence intervals are too wide to be displayed in full.

■ Males
■ Females

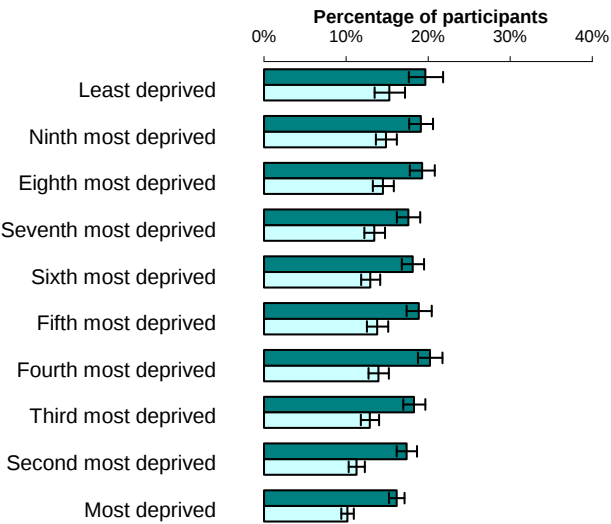
a) Index of Multiple Deprivation (IMD) 2007 quintiles



c) Mosaic classifications



b) Index of Multiple Deprivation (IMD) 2007 deciles



d) People and Places (P²) classifications

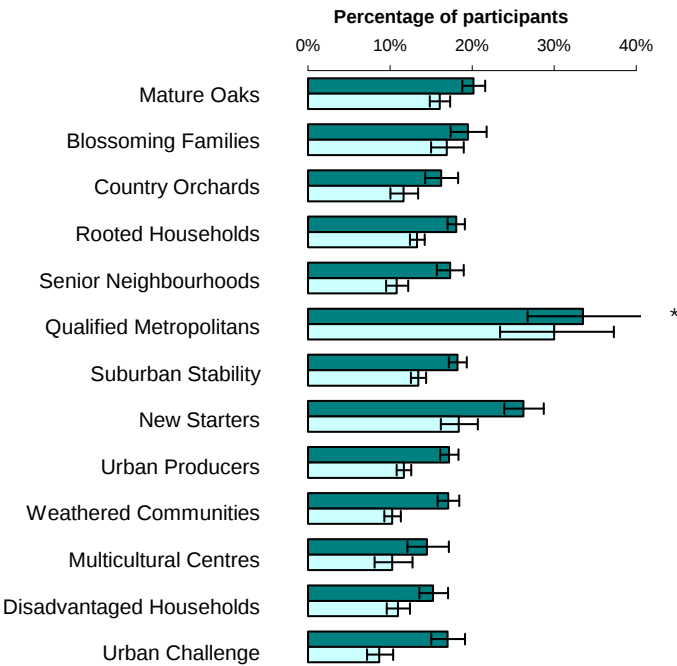
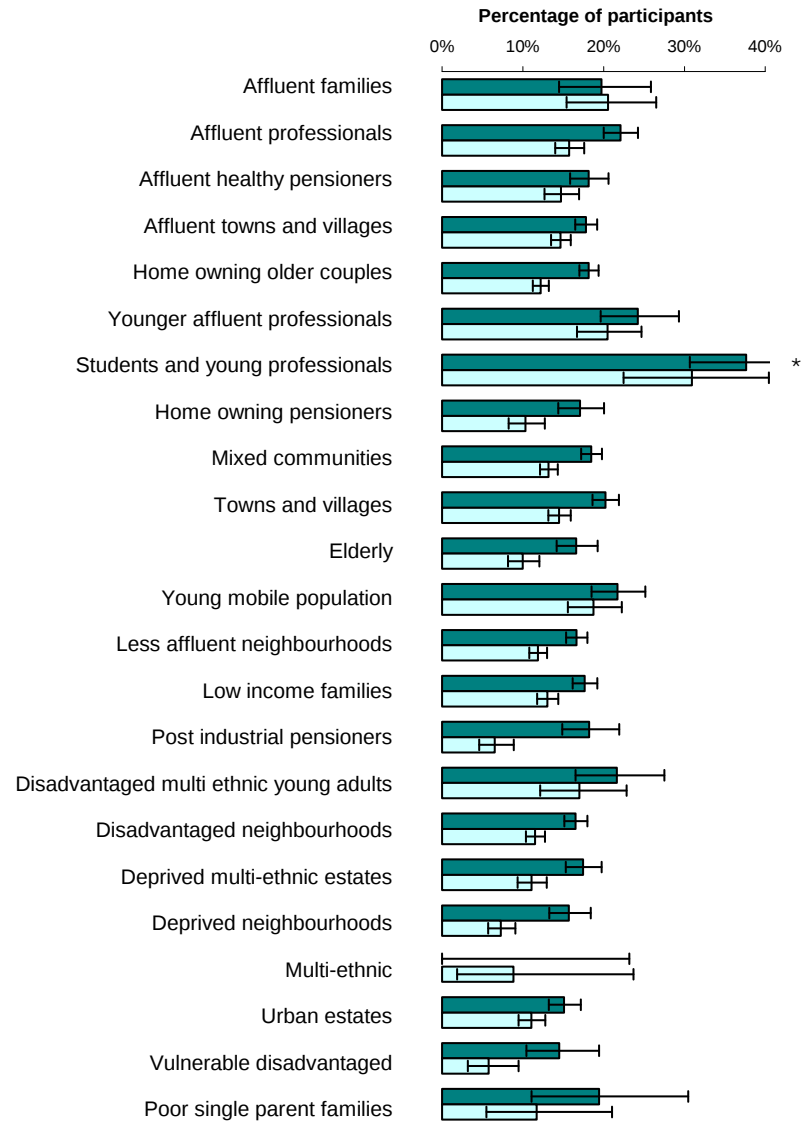
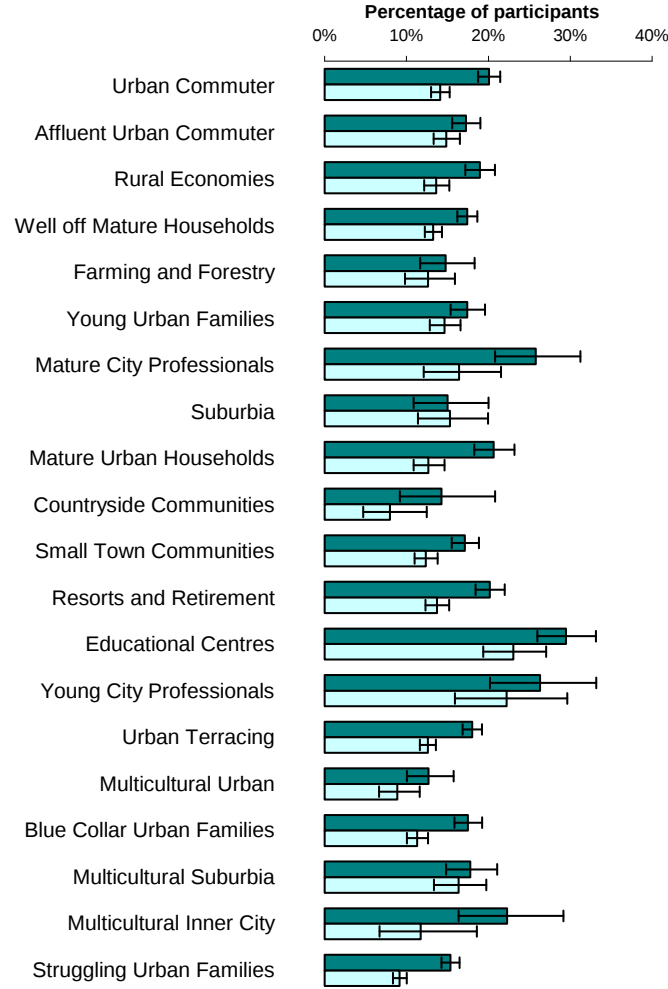


Figure 6 (continued): Proportion of North West participants classified as hazardous drinkers by gender and geodemographic classification, 2007-08.

e) Health ACORN classifications



f) Office for National Statistics (ONS) Area classifications

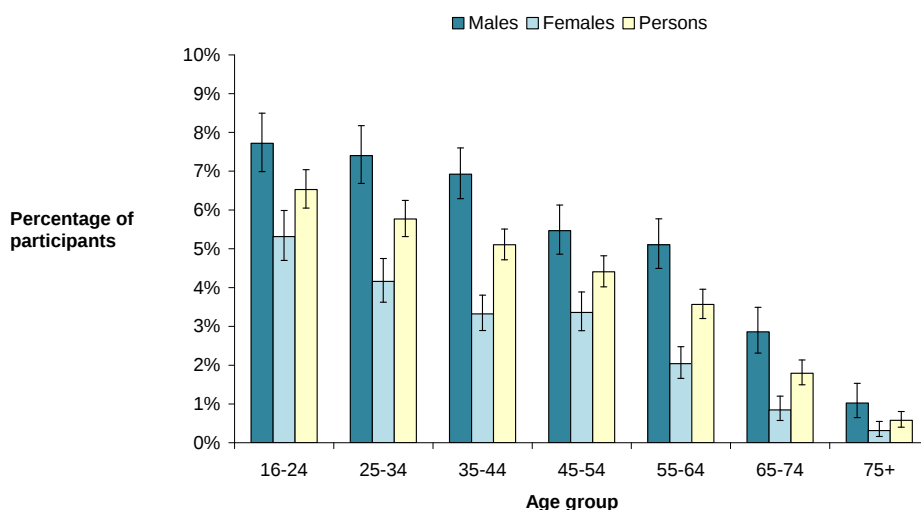


3.4 Harmful drinkers

Overall, 4.3% of adults were estimated as drinking at harmful levels in the North West, significantly more men (5.8%) did so than women (2.9%). Harmful drinking significantly decreased as age increased (Figure 7). Thus, adults aged 16-24 years were most

likely to drink at harmful levels (6.5%) and those aged 75+ years were least likely to do so (0.6%). More men aged 16-24 years (7.7%) drank at harmful levels than any other group. (See appendices for figures and details of analysis.)

Figure 7: Percentage of North West participants classified as harmful drinkers, by age and gender, 2007-08.



3.4.1 Males

The proportion of male harmful drinkers in the North West according to classification ranged from 2.8% to 15.1% (Figure 8). The lowest proportions were found among more rural classifications such as ONS Area Farming and Forestry (2.8%), Mosaic Rural Area Residents (3.6%) and P² Country Orchards (3.9%). A number of these are affluent segments. For all of these, the proportion of harmful drinkers was significantly lower than the male average (5.8%).

Those with higher proportions of harmful drinkers showed a range of different characteristics such as younger groups (Health ACORN Students and Young Professionals: 15.1%, ONS Area Educational Centres: 10.0%, Mosaic Educated Young Single People: 9.0%), as well as deprived and/or multi-ethnic groups (Health ACORN Multi-Ethnic: 14.3%, Poor Single Parent Families: 12.5% and Disadvantaged Multi-Ethnic Young Adults: 9.5%). For all segments apart from Health ACORN Multi-Ethnic and Poor Single Parent Families, the proportion of harmful

drinkers was significantly higher than average.

There was no identifiable relationship between deprivation and harmful drinking. This is because only two of the six classification systems (IMD decile and ONS Area) demonstrated a significant relationship whereby increases in deprivation were related to increases in harmful drinkers. The remaining four displayed no such relationship.

3.4.2 Females

The proportion of female harmful drinkers in the North West according to classification ranged from 0.0% to 8.2% (Figure 8). Those groups with the lowest proportions showed a range of different characteristics such as higher levels of deprivation (Health ACORN Poor Single Parent Families: 0.0%, Health ACORN Urban Estates: 1.8%, Mosaic Low Income Families: 2.0%) and older populations (Mosaic Older People in Social Housing: 1.5%, Mosaic Independent Older People: 2.1%, Health ACORN Post Industrial Pensioners: 2.2%). For all of these groups apart from Health ACORN Poor

Single Parent Families and Post Industrial Pensioners, the proportion of harmful drinkers was significantly lower than the female average (3.0%).

Those groups with higher levels of harmful consumption tended to be younger groups including Health ACORN Students and Young Professionals (8.2%), ONS Area Young City Professionals (6.5%) and

Educational Centres (5.1%) and Mosaic Educated Young Single People (5.5%). For all of these classifications, the proportion of harmful drinkers was significantly higher than average.

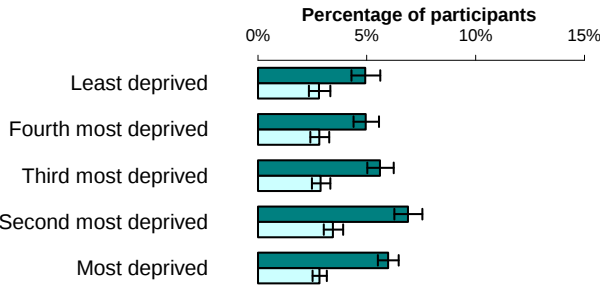
There was no relationship between the level of deprivation and the proportion of harmful drinkers in any of the six classification systems.

Figure 8: Proportion of North West participants classified as harmful drinkers by gender and geodemographic classification, 2007-08.

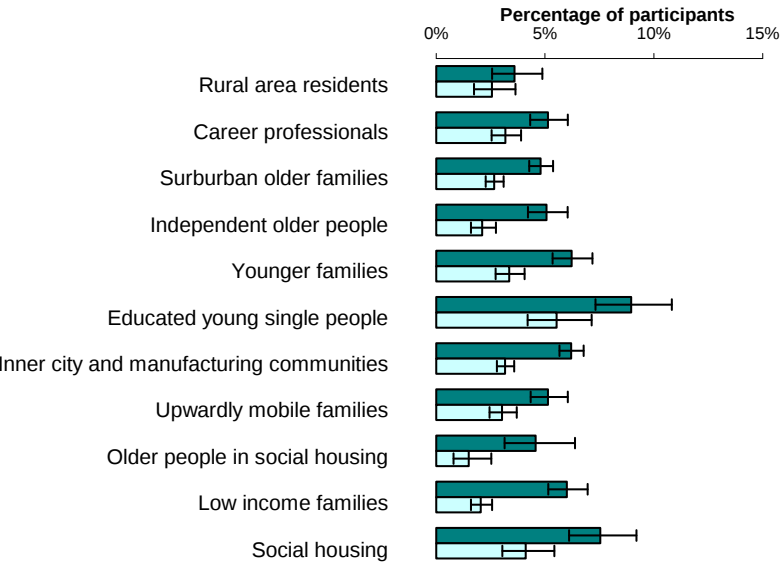
Classifications are arranged from least to most deprived group. Values for the figures, 95% confidence intervals (shown by the error bars) and significant difference are shown in the appendices. *Confidence intervals are too wide to be displayed in full.

 Males  Females

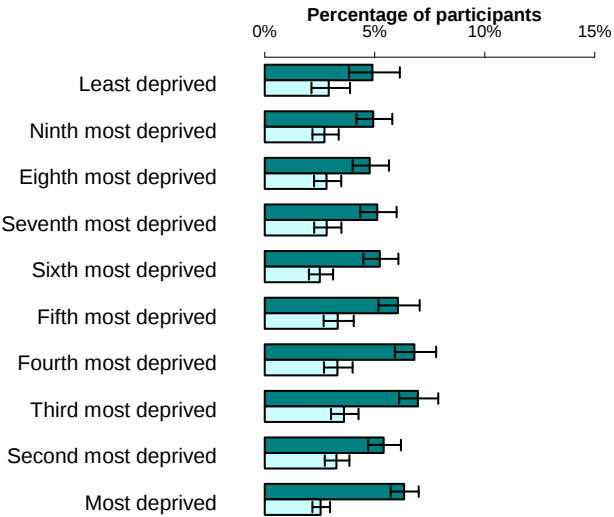
a) Index of Multiple Deprivation (IMD) 2007 quintiles



c) Mosaic classifications



b) Index of Multiple Deprivation (IMD) 2007 deciles



d) People and Places (P²) classifications

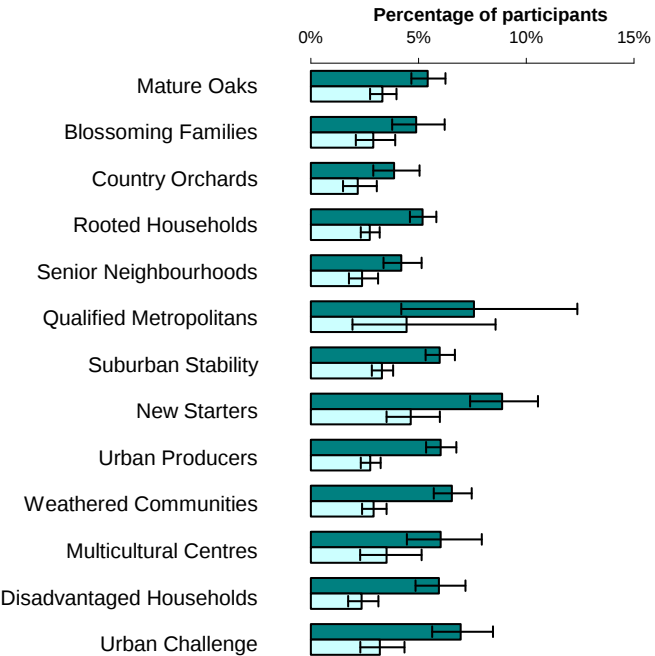
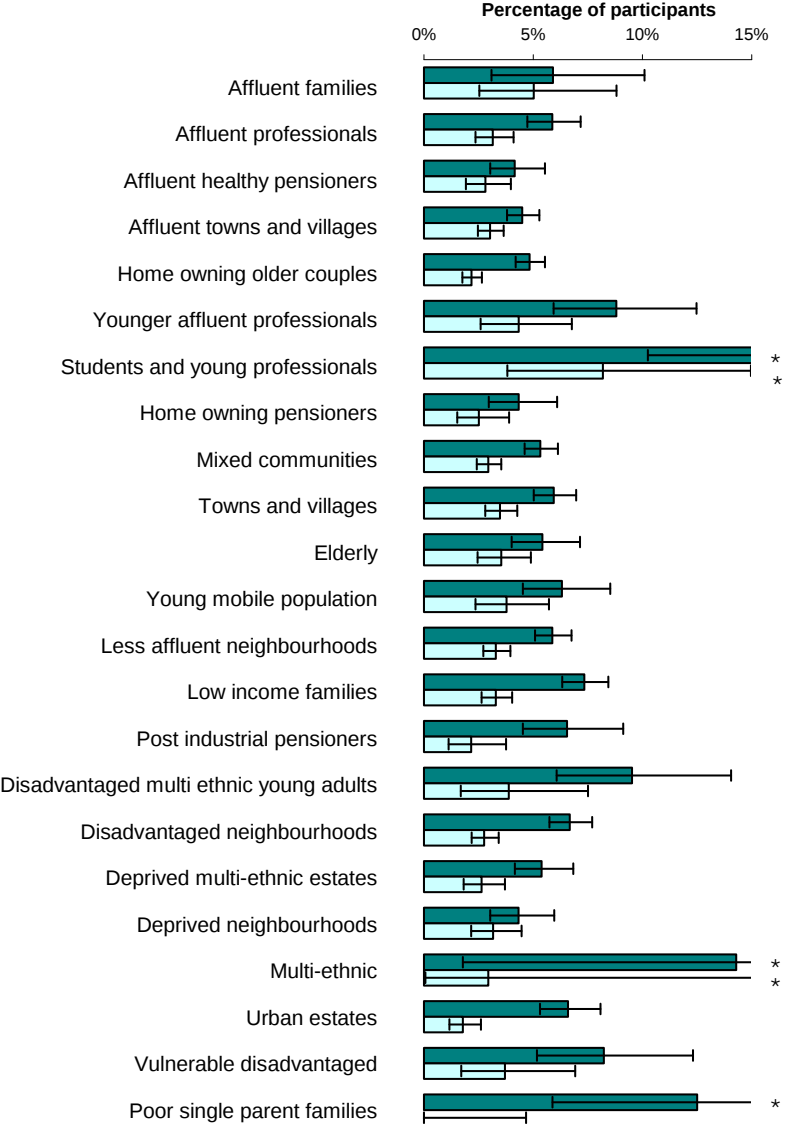
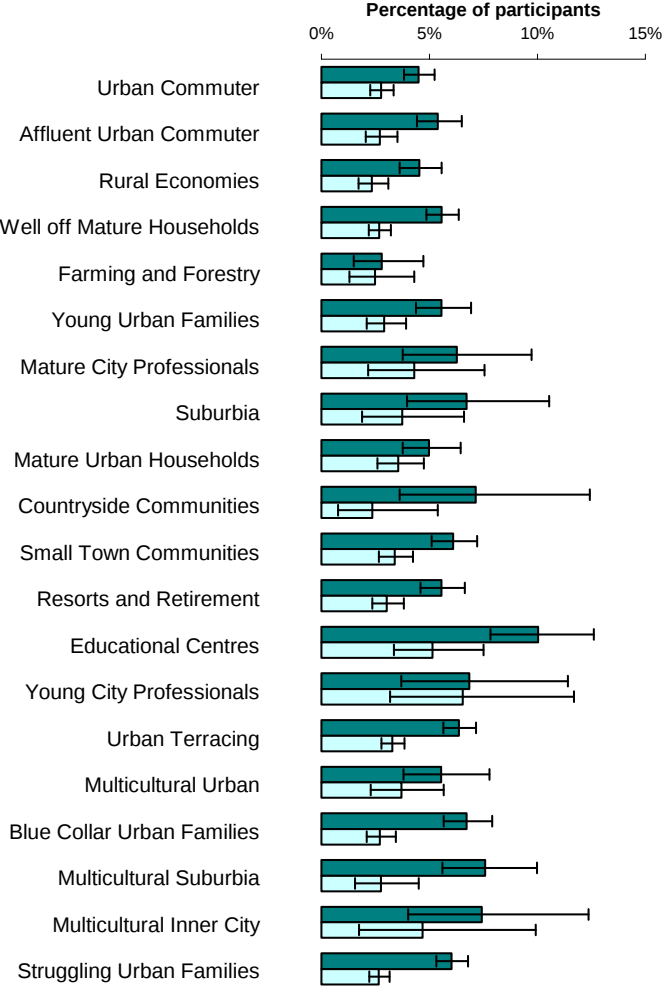


Figure 8 (continued): Proportion of North West participants classified as harmful drinkers by gender and geodemographic classification, 2007-08.

e) Health ACORN classifications



f) Office for National Statistics (ONS) Area classifications

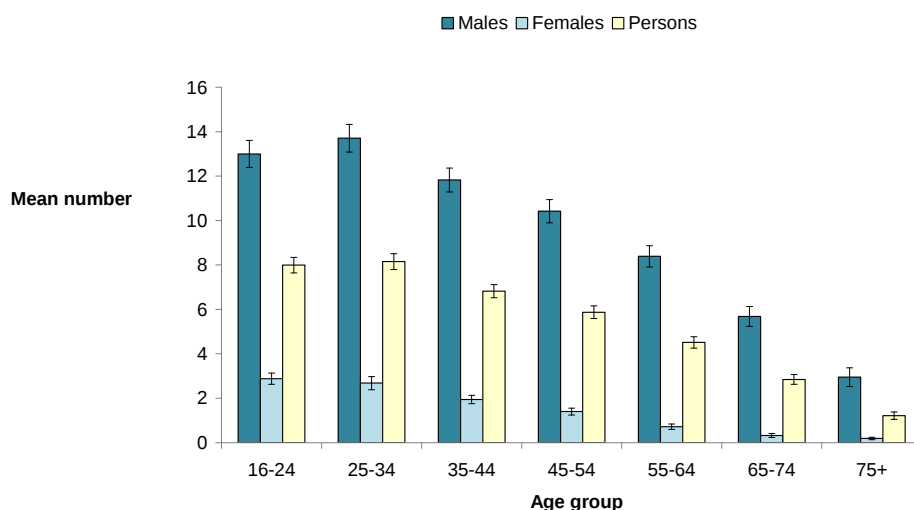


3.5 Beer/lager/cider consumption

Overall, it was estimated that survey participants consumed a mean of 5.8 units of beer/lager/cider (hereafter referred to as beer) per week in the North West, with males drinking significantly more than females (10.3 units compared with 1.6; one

unit was defined as 10ml or 8g of pure alcohol. Younger age was significantly associated with consumption of higher quantities of beer (Figure 9). (See appendices for figures and details of analysis.)

Figure 9: Mean number of units consumed per week by North West participants via beer/lager/cider by age and gender, 2007-08.



3.5.1 Males

The mean number of weekly beer units consumed by North West male participants by classification ranged from 3.0 to 17.3 units (Figure 10). The lowest levels of consumption were found in a range of different groups including multi-ethnic groups (Health ACORN Multi-Ethnic: 3.0 units); rural groups (ONS Area Farming and Forestry: 6.9 units and Mosaic Rural Area Residents: 7.1 units) and affluent older groups (such as Health ACORN Affluent Healthy Pensioners: 6.9 units and P² Country Orchards: 7.3 units). For all of these groups, the quantities of beer consumed were significantly lower than the male average (10.3 units).

Higher levels of beer consumption were found among a range of different groups including young student and/or professional categories (such as Health ACORN Students and Young Professionals: 17.3 units and ONS Area Educational Centres: 13.5 units), deprived groups (such as Health ACORN Poor Single Parent Families: 16.9 units and ONS Area Multi-Cultural Inner City and Multi-Cultural Suburbia, both at 12.6 units). For all groups apart from

ONS Area Multicultural Inner City and Health ACORN Poor Single Parent Families, the mean quantity consumed was significantly higher than average.

There was mixed evidence as to whether quantities of beer consumed were related to level of deprivation. In four of the six classification systems (IMD quintile, IMD decile, ONS Area and Mosaic), those in the more deprived groups were significantly more likely to consume higher quantities of beer than those in affluent groups. However, the remaining two classification systems showed no such relationship.

3.5.2 Females

The mean number of weekly beer units consumed by North West female participants according to classification ranged from 0.6 to 6.1 units (Figure 10). The lowest levels of consumption were found in older groups such as Health ACORN Affluent Healthy Pensioners (0.6 units) and Home Owning Pensioners (0.8 units), Mosaic Independent Older People (0.9 units) and P² Senior Neighbourhoods (0.9 units). For all of these groups, the

quantity consumed was significantly lower than the female average (1.6 units).

Higher levels of beer consumption were found among young student and/or professional classifications including Health ACORN Students and Young Professionals (6.1 units) and ONS Area Young City Professionals (4.0 units), as well as deprived groups such as ONS Area Multi-Cultural Inner City (4.4 units). For all of these groups, the quantity consumed was significantly higher than average.

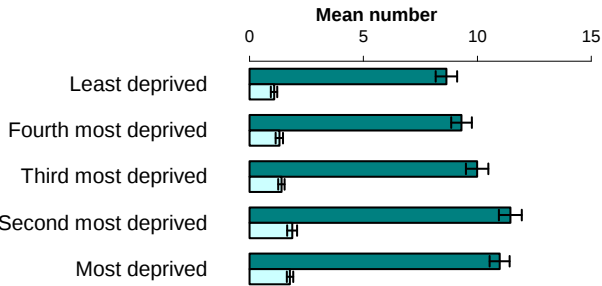
Evidence was mixed as to whether quantities of beer consumed were related to deprivation. Three of the six classification systems (IMD quintile, IMD decile and ONS Area) showed a significant relationship between level of deprivation and quantities of units consumed via beer, with deprived groups being significantly more likely to drink beer in higher quantities than those in the affluent groups. However, the remaining three did not show this relationship.

Figure 10: Mean number of units consumed per week by North West participants via beer/lager/cider by gender and geodemographic classification, 2007-08.

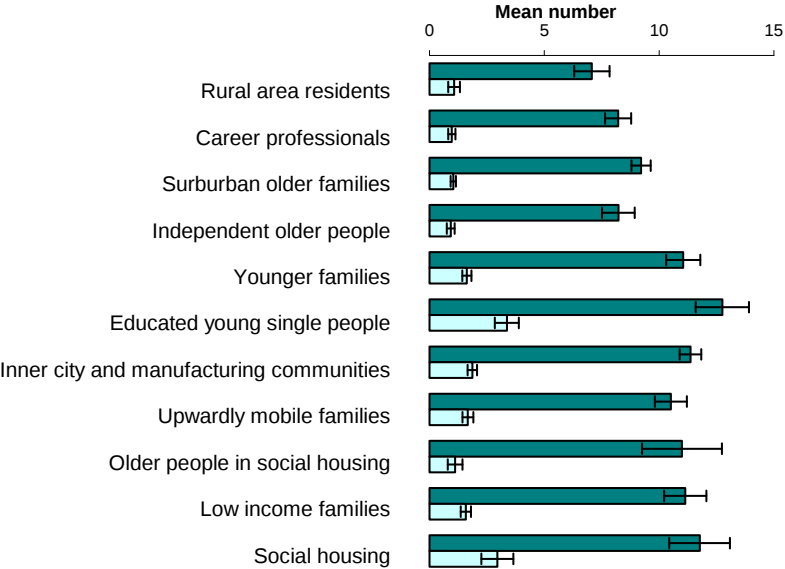
Classifications are arranged from least to most deprived group. Values for the figures, 95% confidence intervals (shown by the error bars) and significant difference are shown in the appendices. *Confidence intervals are too wide to be displayed in full.

Males Females

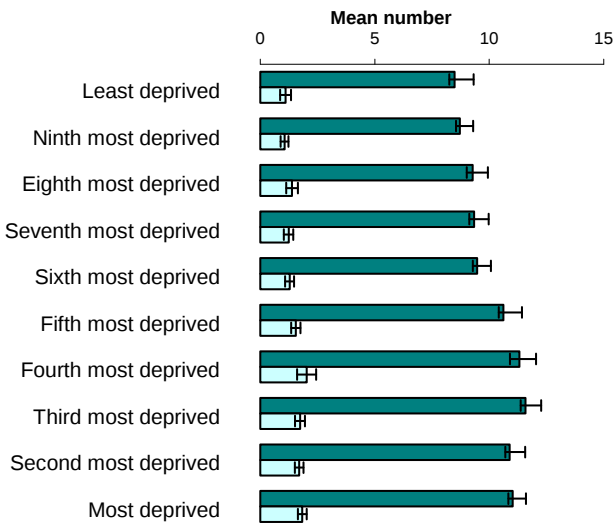
a) Index of Multiple Deprivation (IMD) 2007 quintiles



c) Mosaic classifications



b) Index of Multiple Deprivation (IMD) 2007 deciles



d) People and Places (P²) classifications

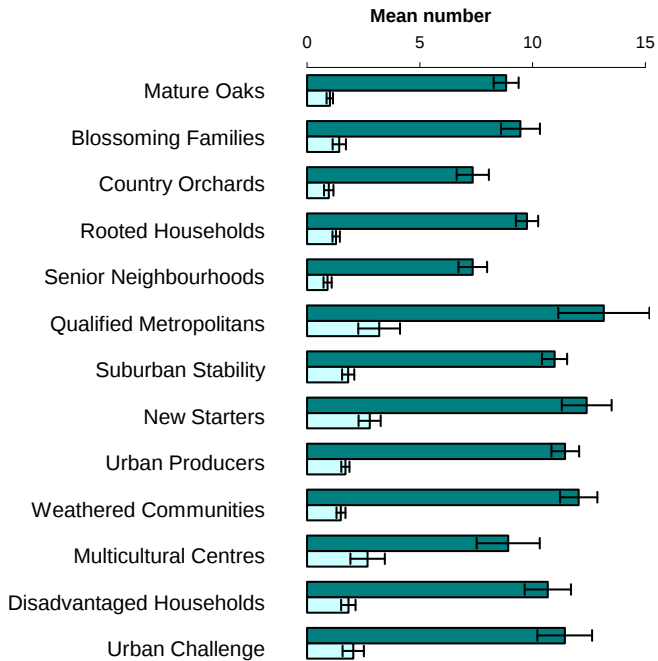
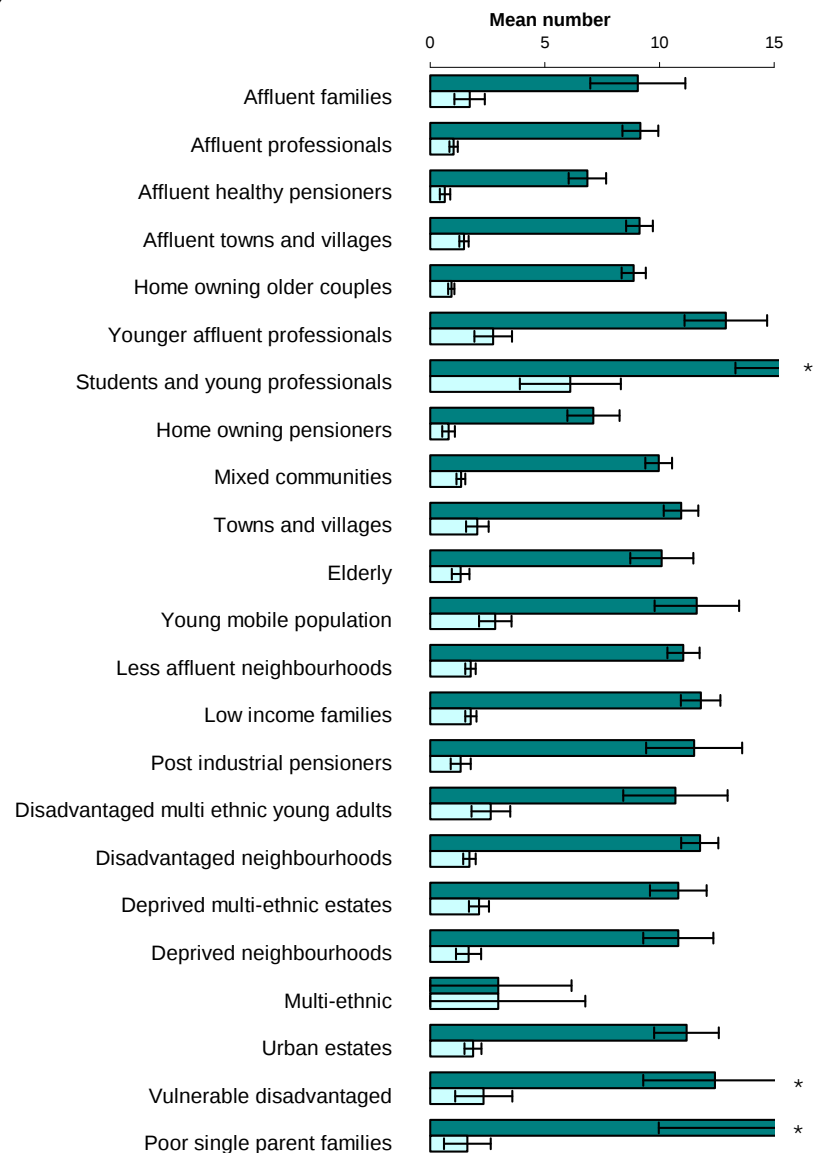
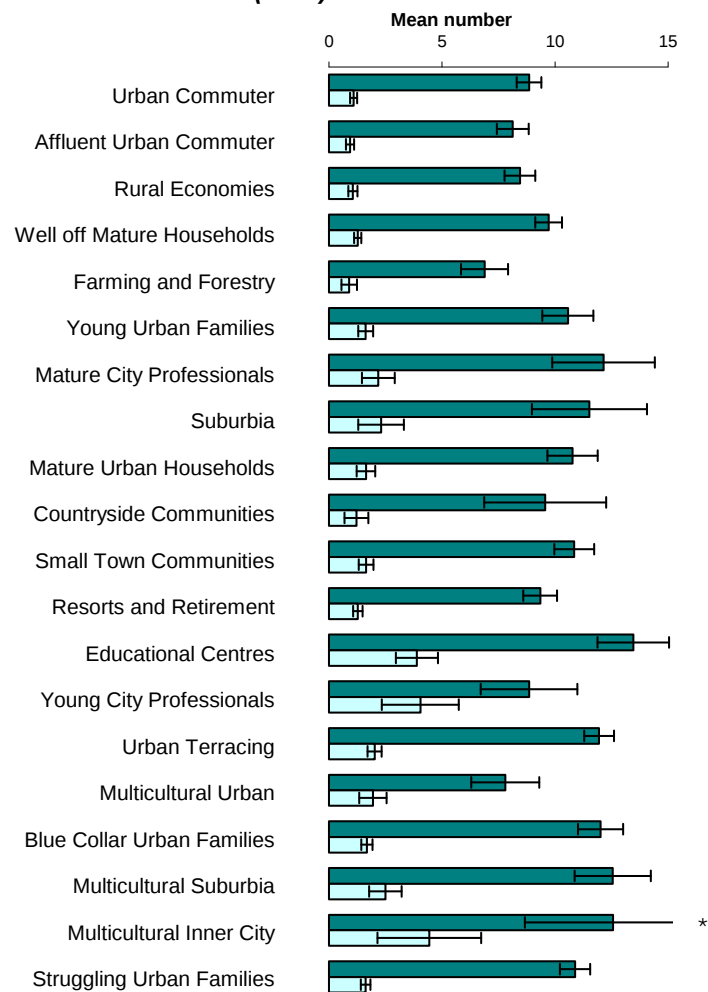


Figure 10 (continued): Mean number of units consumed per week by North West participants via beer/lager/cider by gender and geodemographic classification, 2007-08.

e) Health ACORN classifications



f) Office for National Statistics (ONS) Area classifications

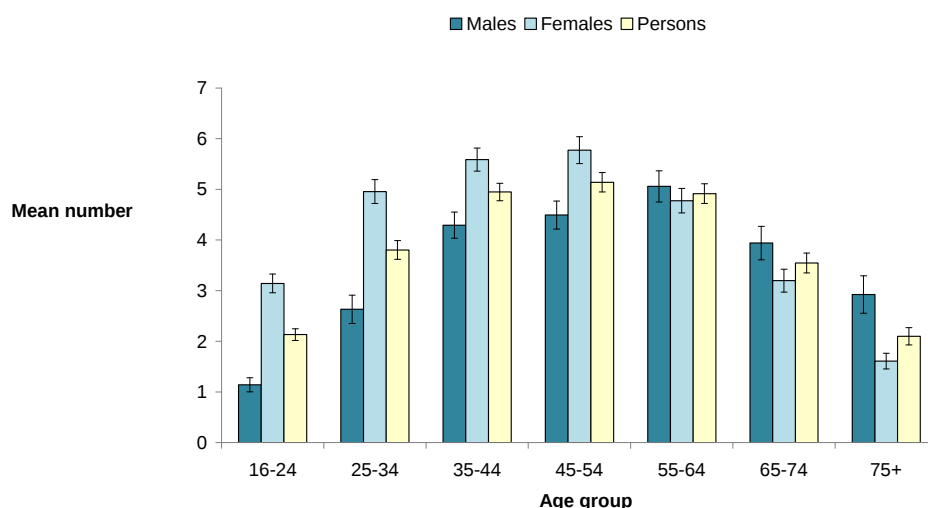


3.6 Wine consumption

It was estimated that North West participants consumed a mean of 4.0 units of wine per week, with females drinking significantly more than males (4.3 units compared with 3.5). There was no linear relationship with age. Those aged 45 to 54

years had the highest levels of wine consumption (5.1 units, significantly higher than the average; Figure 11). (See appendices for figures and details of analysis.)

Figure 11: Mean number of weekly units consumed by North West participants via wine by age and gender, 2007-08.



3.6.1 Males

The mean number of wine units consumed weekly by North West male participants by classification ranged from 1.4 to 6.6 units (Figure 12). The lowest mean wine units consumed were found among more deprived groups such as Mosaic Low Income Families (1.4 units), Health ACORN Deprived Neighbourhoods (1.5 units) and Vulnerable Disadvantaged (1.6 units, although the number of individuals sampled for this segment was small) and P² Disadvantaged Households (1.8 units). For all of these groups, the mean units consumed were significantly lower than the male average (3.5 units).

The highest mean units of wine consumed were found among young student or professional groups such as P² Qualified Metropolitans (6.6 units), Health ACORN Students and Young Professionals (6.5 units) and ONS Area Young City Professionals (6.2 units). In addition, more affluent and/or older groups also showed higher levels of wine consumption including Health ACORN Affluent Professionals (6.4 units) and Affluent Healthy Pensioners (6.2

units), Mosaic Career Professionals (6.3 units) and P² Mature Oaks (5.9 units). For all these groups, the quantity of wine consumed was significantly higher than average.

Quantities of wine consumed showed a strong relationship with deprivation across all classification systems, with those in affluent groups being significantly more likely to consume higher quantities of wine than those in deprived groups.

3.6.2 Females

The mean number of weekly wine units consumed by North West female participants according to classification ranged from 1.3 to 7.6 units (Figure 12). Those consuming lower quantities of wine were typically from more deprived groups including Health ACORN Vulnerable Disadvantaged (1.3 units, although the number sampled for this group was very small) and Poor Single Families (1.4 units). For both of these groups, the quantities of wine consumed were significantly lower than the female average (4.3 units).

Those groups with higher levels of wine consumption were typically young students or professionals, such as P² Qualified Metropolitans (7.6 units), ONS Area Young City Professionals (6.6 units) and Health ACORN Students and Young Professionals (5.9 units) or were from affluent groups including Health ACORN Affluent Families (7.3 units) and Mosaic Career Professionals (6.6 units). Older, affluent groups such as Health ACORN Affluent Healthy Pensioners (6.6 units) and P² Mature Oaks (6.5 units)

also showed high levels of wine consumption. For all these groups, the quantity of wine consumed was significantly higher than average.

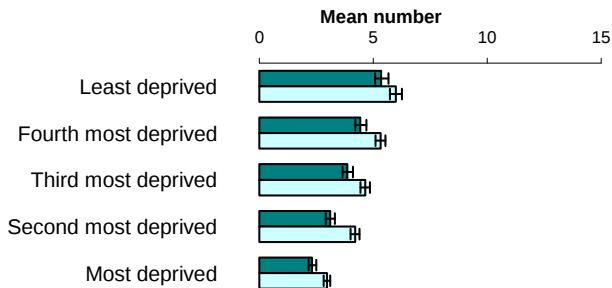
Quantities of wine consumed showed a strong relationship with deprivation across all classification systems with those in affluent groups significantly more likely to consume higher quantities of wine than those in deprived groups.

Figure 12: Mean weekly units consumed by North West participants via wine by gender and geodemographic classification, 2007-08.

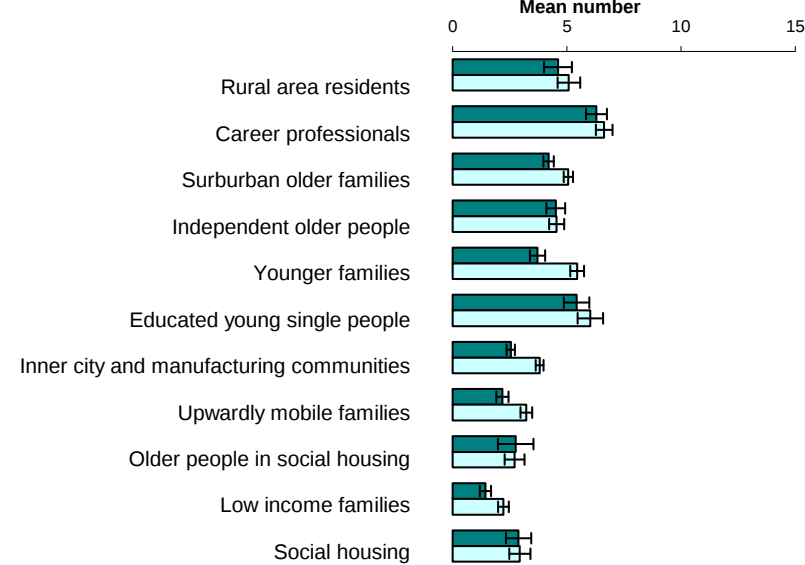
Classifications are arranged from least to most deprived group. Values for the figures, 95% confidence intervals (shown by the error bars) and significant difference are shown in the appendices.

 Males  Females

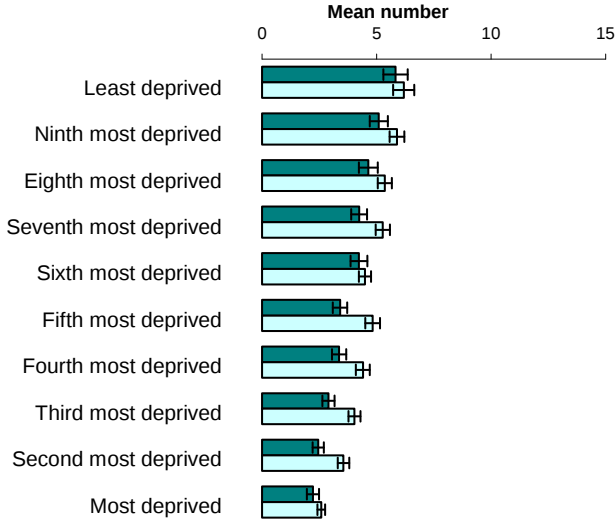
a) Index of Multiple Deprivation (IMD) 2007 quintiles



c) Mosaic classifications



b) Index of Multiple Deprivation (IMD) 2007 deciles



d) People and Places (P²) classifications

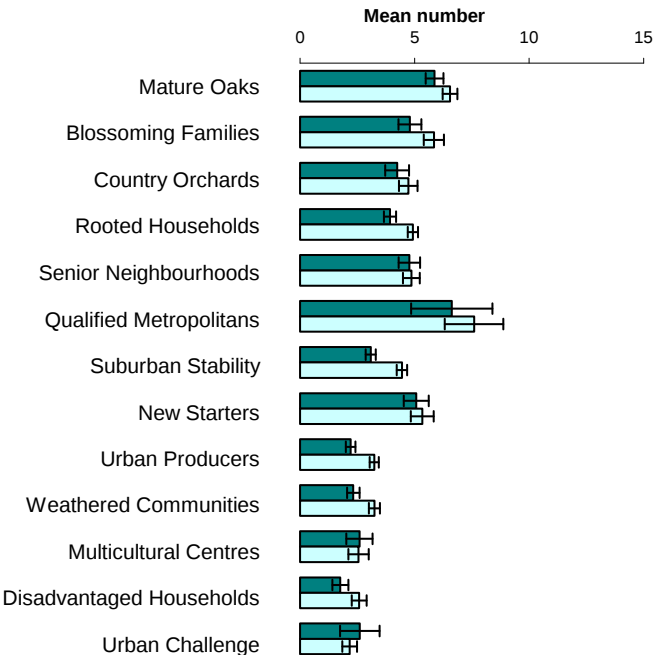
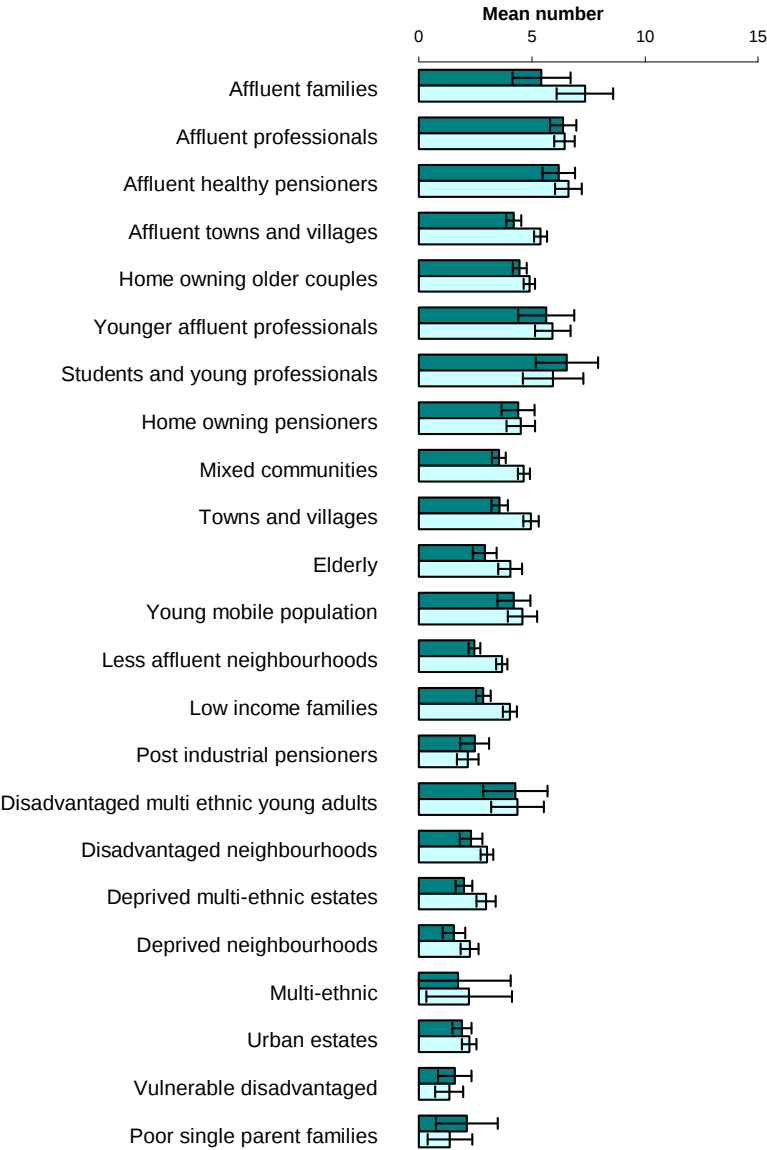
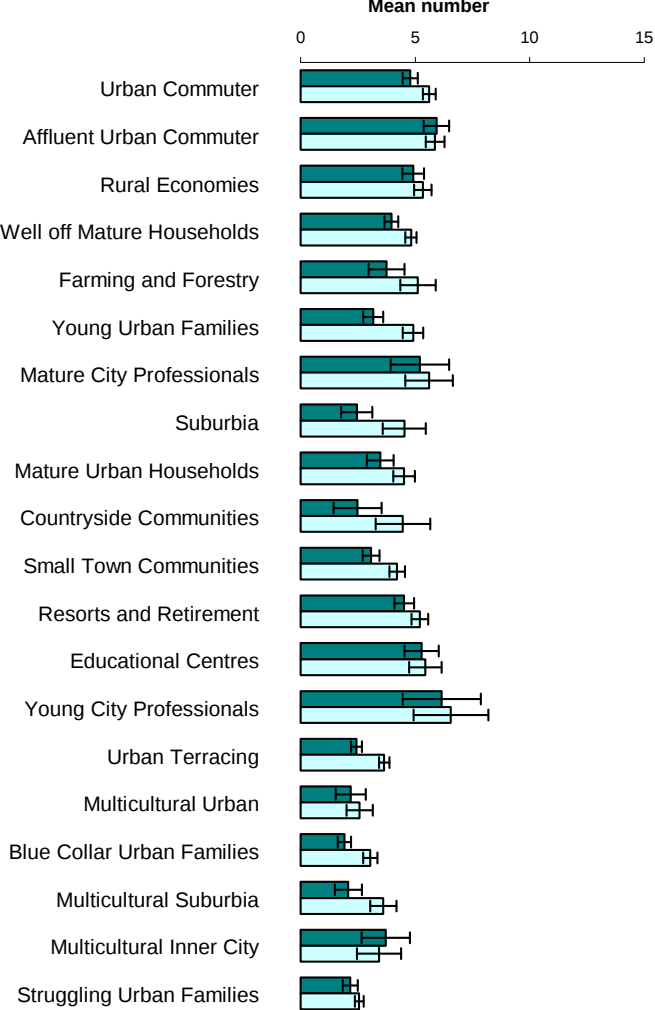


Figure 12 (continued): Mean weekly units consumed by North West participants via wine by gender and geodemographic classification, 2007-08.

e) Health ACORN classifications



f) Office for National Statistics (ONS) Area classifications

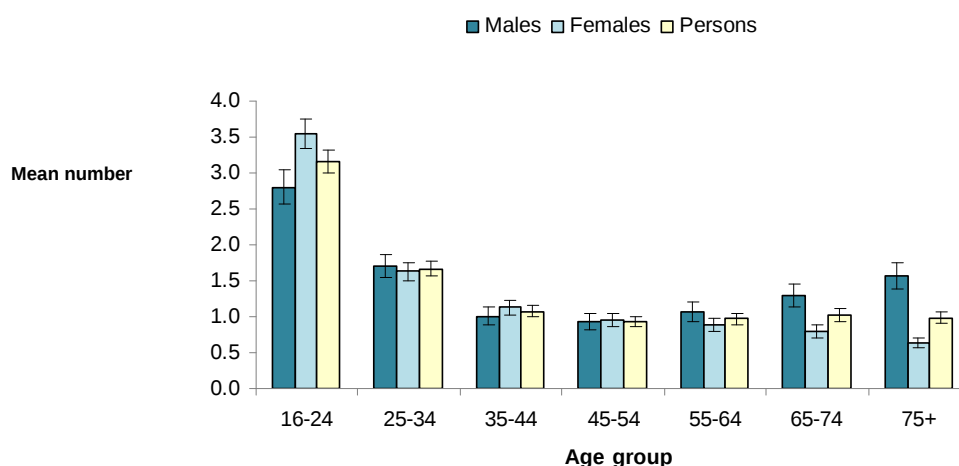


3.7 Other drinks consumption

Overall, it was estimated that North West participants consumed a mean of 1.4 units via other drinks (that is, alcopops, spirits and fortified wine) per week, with similar levels of consumption by both genders. Those in the youngest group (16-24 years) drank double (3.2 units) the average. There

was a significant linear association between age and quantities of other drinks consumed for females with quantities of other drinks consumed decreasing with age (but not for males; Figure 13). (See appendices for figures and details of analysis.)

Figure 13: Mean number of weekly units consumed by North West participants via other drinks by age and gender, 2007-08.



3.7.1 Males

The mean number of weekly units of other drinks consumed by North West male participants by classification ranged from 0.7 to 6.8 units (Figure 14). Low levels of consumption were found among rural groups including ONS Area Countryside Communities (0.7 units) and Farming and Forestry (0.8 units), and P² Country Orchards (0.8 units). For these groups, the amount consumed was significantly lower than the male average (1.5 units).

In comparison, higher levels of consumption of other drinks were found in young student and/or professional groups including Health ACORN Students and Young Professionals (6.8 units), ONS Area Educational Centres (3.7 units) and Young City Professionals (3.0 units), and P² New Starters (2.9 units). High levels were also found among more deprived multi-ethnic groups including Health ACORN Multi-Ethnic (6.5 units) and Disadvantaged Multi-Ethnic Young Adults (2.6 units), as well as ONS Area Multi-Cultural Inner City (2.3 units). For all of these groups except Health ACORN Multi-Ethnic and ONS Area Multi-Cultural Inner City, the

mean quantity consumed was significantly higher than average.

There was mixed evidence as to whether quantities of other drinks consumed were related to deprivation. Three of the six classification systems (IMD quintile, IMD decile and Mosaic) showed a significant relationship, with more deprived groups being significantly more likely to drink higher quantities of other drinks. However, the remaining three classification systems did not show such a relationship.

3.7.2 Females

The mean number of weekly units consumed by North West female participants through other drinks according to classification ranged from 0.7 to 2.2 units (Figure 14). Lower levels of consumption were found in rural groups including ONS Area Countryside Communities (0.7 units) and Farming and Forestry (0.9 units) as well as some affluent and/or older groups including Health ACORN Affluent Healthy Pensioners (0.8 units), and the least deprived IMD quintile (1.0 units). For all of

these groups, the quantity of other drinks consumed was significantly lower than the female average (1.4 units).

Higher levels of consumption were found among young students and/or professionals including Health ACORN Students and Young Professionals, ONS Area Educational Centres and Mosaic Educated Young Single People (all 2.2 units) and P² Qualified Metropolitans (2.1 units). The quantity consumed for ONS Area Educational Centres and Mosaic Educated Young

Single People was significantly higher than the overall mean.

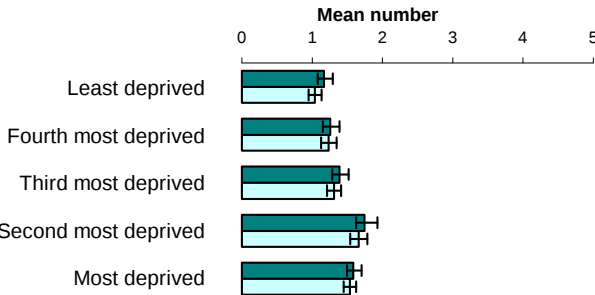
Evidence was mixed as to whether quantities of other drinks consumed were related to level of deprivation. In four of the six classification systems (IMD quintile, IMD decile, ONS area and P²) those in more deprived groups were significantly more likely to consume higher quantities of other drinks. However, the remaining two showed no such relationship.

Figure 14: Mean weekly units consumed by North West participants via other drinks by gender and geodemographic classification, 2007-08.

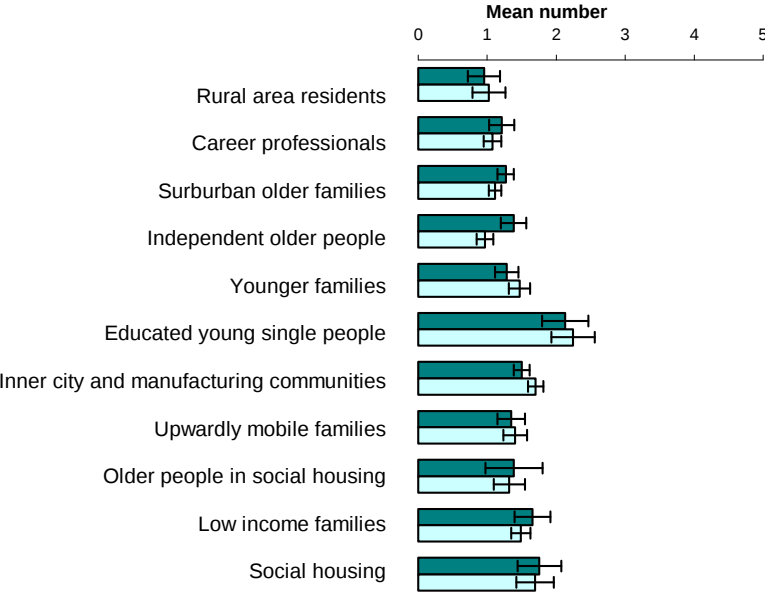
Classifications are arranged from least to most deprived group. Values for the figures, 95% confidence intervals (shown by the error bars) and significant difference are shown in the appendices. *Confidence intervals are too wide to be displayed in full.

■ Males ■ Females

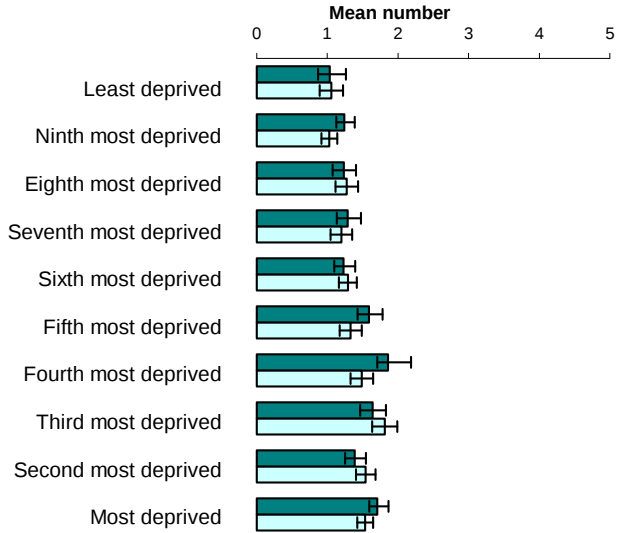
a) Index of Multiple Deprivation (IMD) 2007 quintiles



c) Mosaic classifications



b) Index of Multiple Deprivation (IMD) 2007 deciles



d) People and Places (P²) classifications

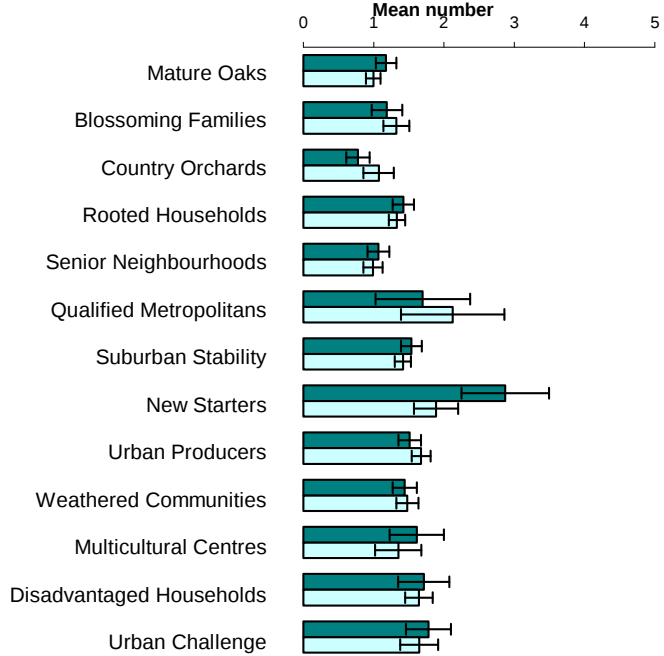
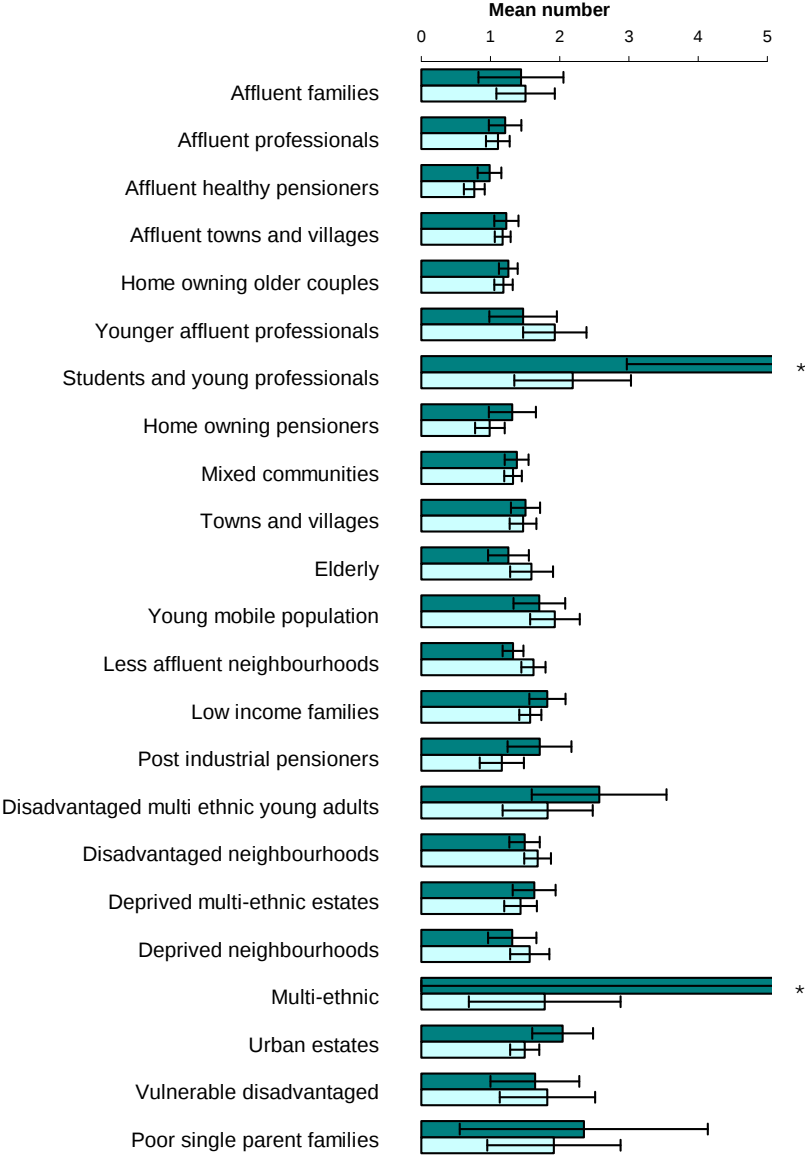
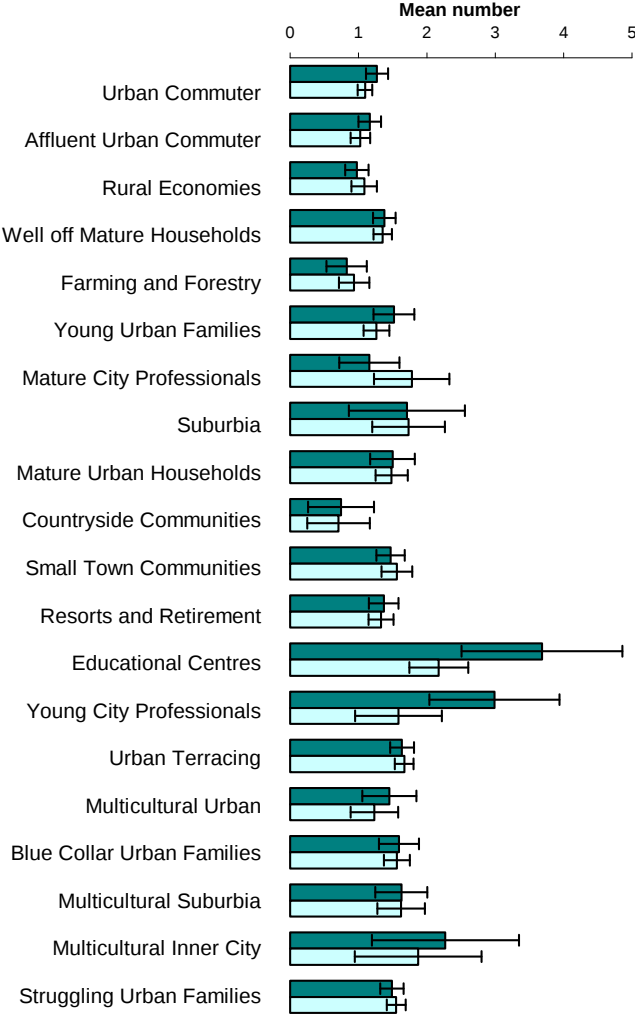


Figure 14 (continued): Mean weekly units consumed by North West participants via other drinks by gender and geodemographic classification, 2007-08.

e) Health ACORN classifications



f) Office for National Statistics (ONS) Area classifications



4. Discussion

Here, we provide a discussion of the key findings from the consumption analysis for the North West of England. For information on how attitudes towards alcohol and alcohol-attributable hospital episodes interact with the geodemographic classifications and accompanying discussions, see segmentation reports 1 and 3 respectively.^[11, 12] Segmentation report 4 brings together all of the information presented in this series to provide pen portraits of the segments for Mosaic and P² classification systems.^[13]

While there are several data and analysis limitations that must be considered (see Section 2.4), the surveys and subsequent analyses highlight a number of valuable findings. In general, while there were individual variations evident between the different classification systems, when used together they showed many commonalities. For those seeking information about which classification system to use, it is important to bear in mind the differences identified throughout this report but also to remember that overall, they provide a common pattern in terms of deprivation, gender and age.

The subsequent discussion focuses on where types of consumption are typically more or less prevalent. It looks specifically at drinking classifications (non-drinkers, moderate drinkers, hazardous drinkers and harmful drinkers) and types of alcohol consumed (beer/lager/cider – hereafter referred to as beer, wine and other drinks). The analysis provides a valuable starting point with which to compare likely differences between geographical areas, so that further insight can be gathered.

4.1 Drinking classification

4.1.1 Non-drinkers

Over a fifth of the North West population were estimated to be non-drinkers and prevalence was highest among females and older populations. This is considerably higher than UK estimates of 11% for males and 17% for women,^[21] but lower than the North West proportion estimated by the recent Mental Wellbeing Survey (36%).^[23] It may be likely that the North West has higher levels of non-consumption than nationally

because of the association between non-consumption and deprivation, as shown by research in the United States of America (USA)^[24] (the North West of England is one of the more deprived regions in the country).^[25] Among both males and females non-consumption was less likely to be found among young and professional groups, and more likely to be found among those in the poorer, multi-ethnic groups. The latter potentially having links with religious beliefs where alcohol may be prohibited. For males, non-consumption was strongly related to deprivation with those in deprived segments being more likely to be non-drinkers. However, this was not necessarily the case for females.

Interventions may be required to aide non-drinkers. This is because non-drinkers may be more likely to hold alcohol-related concerns compared with other categories of drinkers. For example, findings from the North West Big Drink Debate showed that they may be more likely to believe that action is needed in their area to combat alcohol, to believe that litter and crime are a problem, and to avoid town centres at night because of the drunken behaviour of others.^[17] Research in Norway shows that non-drinkers may also suffer from higher levels of anxiety and depression compared with low-level drinkers, even when accounting for those who abstain due to illness.^[26] In addition, some research suggests that non-drinkers may be at higher risk of cardiovascular diseases than low-level alcohol drinkers.^[27, 28] It is not known as to what extent deprivation or concerns around others' drinking may act together to affect this.

4.1.2 Moderate drinkers

Over half of the North West population were estimated to be moderate drinkers with no significant differences identified between genders. However, older males were most likely to be moderate drinkers compared with younger age groups. Among both males and females, moderate consumption was less likely to be found in multicultural groups as well as some of the deprived groups, while higher levels of moderate drinking were found among the affluent

groups. Thus, for both sexes, levels of moderate consumption were strongly related to deprivation with increases in levels of affluence being associated with rises in moderate drinking. The category for moderate consumption does not provide an understanding of heavy sessional or episodic drinking, known as binge drinking. Thus, it is not known what proportion of these 'moderate' drinkers disperse their consumption across the week compared with those who concentrate their consumption in one or two episodes. This is important because binge drinking even once or twice per week is associated with increased risk of harm compared with non-consumption.^[29] Nevertheless, low level and moderate consumption has been associated with cardiovascular benefits compared with higher level drinking.^[27, 28] However, the role of alcohol is not straightforward and understandings of its precise effects are debated.^[30]

4.1.3 Hazardous drinkers

One sixth of the population in the North West were estimated to drink dangerously and such drinking patterns were more prevalent in males and in younger age groups (as in the North West Health and Lifestyles Survey).^[16] For males, lower proportions of hazardous consumption were found among multi-ethnic groups, while for females, the characteristics of those with lower proportions varied and included groups with higher levels of deprivation and/or older groups. Across both genders, groups with higher proportions of hazardous consumption included young professional and student groups.

There was no evidence of a significant relationship between deprivation and hazardous consumption. However, findings from the North West Big Drink Debate show that those drinking dangerously were more likely to be in affluent areas compared with other areas.^[17]

Results from the North West Big Drink Debate also show that hazardous drinkers generally may be particularly concerned about the impacts of alcohol on their weight.^[17] Such concerns could be used to target health campaigns, particularly in

outlets such as supermarkets – the most common purchasing outlet for hazardous drinkers in the Big Drink Debate.^[17]

4.1.4 Harmful drinkers

Less than 5% of the North West population were estimated to drink harmfully. Prevalence was highest among males and younger age groups (as in the North West Health and Lifestyles Survey).^[16] For males, lower proportions of harmful consumption were found among affluent and/or rural segments, while for females the characteristics of those with lower proportions varied and included groups with higher levels of deprivation and older populations. For both males and females, higher proportions of harmful consumption were found among student and young professional groups and for males, deprived and/or multi-ethnic groups.

As with hazardous drinkers, findings from the North West Big Drink Debate show that harmful drinkers generally may be particularly concerned about the impacts of alcohol on their weight.^[17] Again, such concerns could be used to target health campaigns, particularly in outlets such as supermarkets – the most common purchasing outlet for harmful drinkers in the Big Drink Debate. This could be particularly important for harmful drinkers because of all the drinker types, they were the most likely to believe that they did not know enough about the health risks.

Further messages for harmful drinkers could focus on finding alternative methods of coping: harmful drinkers in the North West Big Drink Debate were six times more likely to say that alcohol relieves boredom and/or that it helps them to forget their problems compared with moderate drinkers.^[17] Strategies to reduce harmful consumption need to account for this. However, pricing strategies may also be particularly effective with harmful drinkers, as research shows that they pay 40% less per litre of pure alcohol than moderate consumers (for example, through choosing cheaper products) and spend ten times more on alcohol per year.^[31] A minimum price of 40p per unit is estimated to reduce the proportion of harmful drinkers by 10%.^[31]

4.2 Mean number of weekly units

4.2.1 Beer/cider/lager

Beer/lager/cider (hereafter referred to as beer) was the most popular drink in terms of units consumed by North West participants. Overall, it was estimated that adults consumed a mean of 5.8 units of beer per week, with males and younger age groups being more likely to drink it in higher quantities. For both males and females, lower levels of consumption were found in older groups (including some affluent segments). However, for males lower levels of consumption were also found among rural groups and multi-ethnic groups.

Higher levels of beer consumption were found among young student and/or professional groups for both genders (and for males, in deprived groups). There was mixed evidence as to whether quantities of beer consumed were related to deprivation. Similar findings are apparent in Great Britain more widely, as highlighted in report 1 in this series.^[11]

4.2.2 Wine

Overall mean weekly consumption of wine was estimated at 4.0 units for North West participants, with significantly higher quantities being consumed by females and middle-aged groups. For both genders, consumption was lower in more deprived groups and higher among more affluent, younger and/or older categories. Research in the USA supports this, for example finding higher levels of wine consumption among women and more affluent socio-economic groups.^[24, 32] Similar findings are apparent in Great Britain, as shown in report 1 in this series.^[11] As well as being more affluent, USA research shows that wine drinkers are typically more likely to eat more healthily and to exercise compared

with non-drinkers and other consumers.^[24, 33]

4.2.3 Other drinks

Overall, it was estimated that adults consume 1.4 units of other drinks per week in the North West. Younger age groups (16-24 years) are significantly more likely to consume higher quantities of other drinks (3.2 units compared with an average of 1.4). Thus, higher levels of consumption of other drinks were found in younger groups such as students or young professionals for both genders.

Levels of consumption were similar across genders, although consumption of other drinks was higher in younger females compared with other age groups. For both males and females, lower levels of consumption of other drinks were found among groups that are more rurally based (with lower levels of female consumption also being apparent in affluent/older groups). For both males and females, there was mixed evidence of a link with deprivation. Report 1 in this series has further details on the consumption of other drinks in Great Britain.^[11]

5. Conclusion

This report has outlined the consumption patterns of alcohol that are present in different population groups in order to develop understanding in relation to alcohol misuse. The findings should be used (in conjunction with the other reports in this series and further research) to develop targeted interventions and campaigns. After all, it is only through understanding the populations at risk that effective support, alternative activities and appropriate information can be supplied.

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7. Appendices

7.1 Guide to appendices

Appendices 1 and 2 show the number of participants living within specific geodemographic segments by gender for each of the six geodemographic systems used in this report.

Appendix 3 shows the percentages of individuals that are estimated to be non-drinkers; moderate drinkers (less than 15 units per week for females and less than 22 units per week for males); hazardous drinkers (15-35 units per week for females and 22-50 units per week for males); and harmful drinkers (more than 35 units per week for females and more than 50 units per week for males) by age and gender.

Appendices 4-9 show the percentages of individuals who are estimated to be non-drinkers; moderate drinkers (less than 15 units per week for females and less than 22 units per week for males); hazardous drinkers (15-35 units per week for females and 22-50 units per week for males); and harmful drinkers (more than 35 units per week for females and more than 50 units per week for males) by gender and geodemographic segmentation system.

Appendix 10 shows the estimated mean unit consumption of individuals by type of alcohol consumed, age and gender.

Appendices 11-14 show the mean estimated mean unit consumption of individuals by type of alcohol consumed, gender and geodemographic segmentation system.

The percentages are displayed with their 95% confidence intervals (95% CIs). Where cells are highlighted, this indicates that the associated figure is significantly different from the mean for gender. Cells shaded in dark green are significantly higher than the average, and cells shaded in light green are significantly lower than the average (see key below). Figures have been rounded to one decimal place but significance is taken from the unrounded figure. The tables are divided into gender and by classification system. In each of the tables with classification system data, the categories are ordered from the least to the most deprived.

Key:

Dark green cell	Significantly <i>higher</i> than average
Light green cell	Significantly <i>lower</i> than average
95% CI	95% confidence interval

Appendix 1: Number of survey participants living within specific geodemographic segmentation segments by gender in the North West for Index of Multiple Deprivation (IMD) 2007 quintile, IMD 2007 decile and Mosaic (2007-08).

IMD 2007 quintile	Number		IMD 2007 decile	Number		Mosaic	Number	
Segment	Males	Females	Segment	Males	Females	Segment	Males	Females
Least deprived	4,267	4,535	Least deprived	1,429	1,514	Rural Area Resident	1,085	1,171
Fourth most deprived	5,513	5,858	Ninth most deprived	2,838	3,020	Career Professionals	2,650	2,713
Third most deprived	5,730	6,084	Eighth most deprived	2,681	2,917	Suburban Older Families	6,107	6,384
Second most deprived	6,126	6,586	Seventh most deprived	2,832	2,940	Independent Older People	2,329	2,600
Most deprived	9,510	10,343	Sixth most deprived	3,153	3,305	Younger Families	2,783	2,960
			Fifth most deprived	2,577	2,778	Educated Young Single People	1,072	993
			Fourth most deprived	2,850	3,029	Inner City and Manufacturing Communities	7,371	7,774
			Third most deprived	3,277	3,558	Upwardly Mobile Families	2,704	3,039
			Second most deprived	3,661	4,089	Older People in Social Housing	702	871
			Most deprived	5,850	6,254	Low Income Families	2,764	3,429
						Social Housing	1,180	1,143
						Unclassified	237	158
TOTAL	31,146	33,406	Total	31,148	33,404	Total	30,984	33,235

Appendix 2: Number of survey participants living within specific geodemographic segmentation segments by gender in the North West for People and Places (P²), Health ACORN and Office for National Statistics (ONS) Area (2007-08).

P ²	Number		Health ACORN	Number		ONS Area	Number	
Segment	Males	Females	Segment	Males	Females	Segment	Males	Females
Mature Oaks	3,264	3,492	Affluent Families	203	219	Urban Commuter	3,429	3,728
Blossoming Families	1,288	1,413	Affluent Professionals	1,500	1,653	Affluent Urban Commuter	1,912	1,992
Country Orchards	1,344	1,469	Affluent Healthy Pensioners	1,059	1,101	Rural Economies	1,879	1,973
Rooted Households	5,209	5,529	Affluent Towns and Villages	3,156	3,377	Well off Mature Households	3,771	4,015
Senior Neighbourhoods	2,098	2,101	Home Owning Older Couples	4,116	4,280	Farming and Forestry	467	483
Qualified Metropolitans	185	180	Younger Affluent Professionals	318	415	Young Urban Families	1,315	1,412
Suburban Stability	4,852	5,276	Students and Young Professionals	186	110	Mature City Professionals	287	256
New Starters	1,318	1,187	Home Owning Pensioners	715	757	Suburbia	253	294
Urban Producers	4,565	5,153	Mixed Communities	3,509	3,742	Mature Urban Households	1,085	1,239
Weathered Communities	3,179	3,610	Towns and Villages	2,373	2,556	Countryside Communities	154	213
Multi-Cultural Centres	780	712	Elderly	867	963	Small Town Communities	2,067	2,156
Disadvantaged Households	1,666	1,946	Young Mobile Population	618	555	Resorts and Retirement	2,018	2,251
Urban Challenge	1,323	1,245	Less Affluent Neighbourhoods	3,132	3,400	Educational Centres	648	486
Unclassified	78	94	Post Industrial Pensioners	2,441	2,647	Young City Professionals	190	153
			Disadvantaged Multi-Ethnic Young Adults	489	554	Urban Terracing	4,179	4,423
			Disadvantaged Neighbourhoods	231	206	Multicultural Urban	559	540
			Deprived Multi-Ethnic Estates	2,609	2,866	Blue Collar Urban Families	1,994	2,398
			Multi-Ethnic	1,169	1,211	Multi-Cultural Suburbia	607	544
			Urban Estates	809	979	Multi-Cultural Inner City	175	128
			Vulnerable Disadvantaged	14	34	Struggling Urban Families	4,154	4,719
			Poor Single Parent Families	1,304	1,458			
Total	31,149	33,407	Total	31,145	33,403	Total	31,143	33,403

Appendix 3: Drinking pattern by age and gender in the North West, 2007-08.

Age group	Non-drinkers		Moderate drinkers		Hazardous drinkers		Harmful drinkers	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MALES								
16-24	18.8	17.7-19.9	54.8	53.4-56.2	18.7	17.6-19.8	7.7	7.0-8.5
25-34	12.7	11.7-13.6	58.0	56.6-59.4	21.9	20.8-23.1	7.4	6.7-8.2
35-44	14.2	13.3-15.1	58.8	57.5-60.0	20.1	19.1-21.1	6.9	6.3-7.6
45-54	14.2	13.3-15.2	60.7	59.4-62.1	19.6	18.5-20.7	5.5	4.9-6.1
55-64	16.0	15.0-17.1	61.5	60.1-62.9	17.3	16.3-18.5	5.1	4.5-5.8
65-74	21.5	20.1-22.9	61.8	60.1-63.4	13.9	12.8-15.2	2.9	2.3-3.5
75+	29.3	27.4-31.2	61.9	59.9-63.9	7.8	6.7-9.0	1.0	0.6-1.5
North West overall	16.8	16.4-17.2	59.3	58.7-59.8	18.1	17.7-18.6	5.8	5.5-6.0
Pearson's Rho (P)	0.836 (P<0.05)		0.931 (P<0.01)		-0.907 (P<0.01)		-0.982 (P<0.001)	
FEMALES								
16-24	18.5	17.4-19.6	59.0	57.6-60.4	17.1	16.1-18.2	5.3	4.7-6.0
25-34	16.9	15.8-17.9	61.7	60.3-63.0	17.3	16.3-18.4	4.2	3.6-4.8
35-44	18.3	17.4-19.3	61.6	60.4-62.9	16.7	15.8-17.7	3.3	2.9-3.8
45-54	19.9	18.8-21.0	62.9	61.6-64.2	13.8	12.9-14.8	3.4	2.9-3.9
55-64	27.5	26.2-28.8	60.1	58.7-61.5	10.3	9.5-11.2	2.0	1.7-2.5
65-74	39.6	38.0-41.2	52.8	51.2-54.4	6.8	6.0-7.6	0.8	0.6-1.2
75+	51.9	50.3-53.5	45.0	43.4-46.6	2.8	2.3-3.4	0.3	0.2-0.6
North West overall	25.8	25.4-26.3	58.4	57.9-58.9	12.8	12.5-13.2	2.9	2.8-3.1
Pearson's Rho (P)	0.891 (P=0.007)		-0.731 (P=0.062)		-0.830 (P<0.05)		-0.960 (P<0.01)	
PERSONS								
16-24	18.6	17.9-19.4	56.9	55.9-57.9	17.9	17.2-18.7	6.5	6.1-7.0
25-34	14.8	14.1-15.5	59.9	58.9-60.8	19.6	18.8-20.4	5.8	5.3-6.2
35-44	16.3	15.6-17.0	60.2	59.3-61.1	18.4	17.7-19.1	5.1	4.7-5.5
45-54	17.1	16.4-17.8	61.8	60.9-62.8	16.7	16.0-17.4	4.4	4.0-4.8
55-64	21.8	21.0-22.7	60.8	59.8-61.8	13.8	13.1-14.5	3.6	3.2-4.0
65-74	31.1	30.0-32.2	57.0	55.8-58.2	10.1	9.4-10.9	1.8	1.5-2.1
75+	43.5	42.2-44.7	51.3	50.0-52.6	4.7	4.1-5.2	0.6	0.4-0.8
North West overall	21.5	21.1-21.8	58.8	58.4-59.2	15.4	15.1-15.7	4.3	4.2-4.5
Pearson's Rho (P)	0.834 (P<0.05)		-0.473 (P=0.284)		-0.954 (P<0.01)		-0.984 (P<0.001)	

Appendix 4: Drinking pattern by gender and Index of Multiple Deprivation (IMD) 2007 quintile in the North West, 2007-08.

Classification	Non-drinkers		Moderate drinkers		Hazardous drinkers		Harmful drinkers	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MALES								
Least deprived	12.7	11.8-13.8	63.0	61.5-64.5	19.3	18.1-20.5	4.9	4.3-5.6
Fourth most deprived	14.0	13.1-15.0	62.6	61.3-63.9	18.4	17.4-19.4	5.0	4.4-5.6
Third most deprived	15.3	14.4-16.3	60.6	59.3-61.9	18.4	17.5-19.5	5.6	5.0-6.2
Second most deprived	16.1	15.2-17.1	57.8	56.6-59.0	19.2	18.2-20.2	6.9	6.3-7.6
Most deprived	21.5	20.7-22.4	55.9	54.9-56.9	16.6	15.9-17.4	6.0	5.5-6.5
North West overall	16.8	16.4-17.2	59.3	58.8-59.8	18.1	17.7-18.6	5.8	5.5-6.0
Pearson's Rho (P)	0.922 (P<0.05)		-0.978 (P<0.01)		-0.672 (P=0.214)		0.794 (P=0.109)	
FEMALES								
Least deprived	19.4	18.2-20.7	62.7	61.3-64.1	15.0	14.0-16.1	2.8	2.3-3.3
Fourth most deprived	22.3	21.2-23.5	60.9	59.6-62.1	14.0	13.1-14.9	2.8	2.4-3.3
Third most deprived	25.0	23.8-26.1	58.8	57.6-60.1	13.3	12.5-14.2	2.9	2.5-3.3
Second most deprived	25.0	23.9-26.2	58.1	56.9-59.3	13.4	12.5-14.2	3.4	3.0-3.9
Most deprived	31.6	30.6-32.6	55.0	54.0-56.0	10.6	10.0-11.2	2.8	2.5-3.2
North West overall	25.8	25.3-26.3	58.4	57.8-58.9	12.8	12.5-13.2	3.0	2.8-3.1
Pearson's Rho (P)	0.949 (P<0.05)		-0.986 (P<0.01)		-0.910 (P<0.05)		0.364 (P=0.547)	

Appendix 5: Drinking pattern by gender and Index of Multiple Deprivation (IMD) 2007 decile in the North West, 2007-08.

	Non-drinkers		Moderate drinkers		Hazardous drinkers		Harmful drinkers	
Classification	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MALES								
Least deprived	11.5	9.9-13.3	63.8	61.2-66.3	19.7	17.6-21.8	4.9	3.8-6.1
Ninth most deprived	13.4	12.1-14.7	62.6	60.8-64.4	19.1	17.7-20.6	4.9	4.2-5.8
Eighth most deprived	13.8	12.5-15.2	62.2	60.3-64.0	19.2	17.8-20.8	4.8	4.0-5.7
Seventh most deprived	14.3	13.0-15.6	63.0	61.2-64.8	17.6	16.2-19.0	5.1	4.3-6.0
Sixth most deprived	15.0	13.7-16.3	61.7	60.0-63.4	18.1	16.8-19.5	5.2	4.5-6.1
Fifth most deprived	15.8	14.4-17.2	59.3	57.4-61.2	18.9	17.4-20.4	6.1	5.2-7.0
Fourth most deprived	16.0	14.7-17.4	57.0	55.2-58.8	20.2	18.7-21.7	6.8	5.9-7.8
Third most deprived	16.3	15.0-17.6	58.5	56.8-60.2	18.3	17.0-19.6	7.0	6.1-7.9
Second most deprived	18.7	17.4-20.0	58.5	56.9-60.1	17.4	16.2-18.6	5.4	4.7-6.2
Most deprived	23.3	22.3-24.4	54.2	52.9-55.5	16.2	15.2-17.1	6.3	5.7-7.0
North West overall	16.8	16.4-17.2	59.3	58.8-59.8	18.1	17.7-18.6	5.8	5.5-6.0
Pearson's Rho (P)	0.908 (P<0.001)		-0.917 (P<0.001)		0.604 (P=0.065)		0.733 (P<0.05)	
FEMALES								
Least deprived	17.0	15.0-19.1	64.9	62.4-67.3	15.3	13.5-17.2	2.9	2.1-3.9
Ninth most deprived	20.7	19.2-22.3	61.7	59.9-63.4	14.9	13.6-16.2	2.7	2.2-3.4
Eighth most deprived	22.0	20.4-23.6	60.7	58.9-62.5	14.5	13.2-15.8	2.8	2.2-3.5
Seventh most deprived	22.7	21.2-24.3	61.0	59.2-62.8	13.4	12.2-14.7	2.8	2.3-3.5
Sixth most deprived	26.2	24.6-27.8	58.4	56.6-60.1	13.0	11.8-14.1	2.5	2.0-3.1
Fifth most deprived	23.5	21.8-25.2	59.4	57.5-61.3	13.8	12.5-15.1	3.3	2.7-4.0
Fourth most deprived	24.7	23.1-26.4	58.0	56.2-59.8	13.9	12.7-15.2	3.3	2.7-4.0
Third most deprived	25.3	23.8-26.9	58.2	56.5-59.8	12.9	11.8-14.0	3.6	3.0-4.3
Second most deprived	28.2	26.7-29.8	57.2	55.6-58.8	11.3	10.3-12.3	3.3	2.7-3.8
Most deprived	33.8	32.6-35.0	53.5	52.2-54.8	10.2	9.4-10.9	2.5	2.2-3.0
North West overall	25.8	25.3-26.3	58.4	57.8-58.9	12.8	12.5-13.2	3.0	2.8-3.1
Pearson's Rho (P)	0.905 (P<0.001)		-0.930 (P<0.001)		-0.892 (P<0.01)		0.333 (P=0.347)	

Appendix 6: Drinking pattern by gender and Mosaic classification in the North West, 2007-08.

Classification	Non-drinkers		Moderate drinkers		Hazardous drinkers		Harmful drinkers	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MALES								
Rural Area Residents	18.4	16.2-20.9	60.4	57.4-63.3	17.5	15.3-19.9	3.6	2.6-4.9
Career Professionals	12.2	10.9-13.5	62.4	60.5-64.2	20.3	18.7-21.8	5.1	4.3-6.0
Suburban Older Families	14.2	13.3-15.1	63.1	61.9-64.4	17.9	16.9-18.9	4.8	4.3-5.4
Independent Older People	17.5	16.0-19.1	59.5	57.5-61.5	17.9	16.4-19.5	5.1	4.2-6.0
Younger Families	12.2	11.0-13.5	63.6	61.7-65.4	18.1	16.7-19.6	6.2	5.3-7.2
Educated Young Single People	10.2	8.4-12.1	53.8	50.8-56.8	27.0	24.3-29.7	9.0	7.3-10.8
Inner City and Manufacturing Communities	18.8	18.0-19.8	57.2	56.1-58.4	17.7	16.9-18.6	6.2	5.7-6.8
Upwardly Mobile Families	17.3	15.9-18.8	59.9	58.0-61.7	17.6	16.2-19.1	5.1	4.3-6.0
Older People in Social Housing	21.4	18.4-24.6	56.7	52.9-60.4	17.4	14.6-20.4	4.6	3.1-6.4
Low Income Families	24.2	22.6-25.8	54.8	52.9-56.7	15.0	13.7-16.4	6.0	5.1-7.0
Social Housing	23.1	20.8-25.7	51.9	49.1-54.8	17.3	15.2-19.6	7.5	6.1-9.2
North West overall	16.8	16.4-17.2	59.3	58.8-59.8	18.1	17.7-18.6	5.8	5.5-6.0
Pearson's Rho (P)	0.648 (P<0.05)		-0.753 (P<0.01)		-0.243 (P=0.471)		0.455 (P=0.159)	
FEMALES								
Rural Area Residents	27.8	25.1-30.7	57.4	54.4-60.3	12.2	10.4-14.2	2.6	1.7-3.6
Career Professionals	18.8	17.3-20.4	61.6	59.8-63.5	16.4	15.0-17.8	3.2	2.5-3.9
Suburban Older Families	23.7	22.6-24.8	61.3	60.1-62.5	12.3	11.5-13.1	2.7	2.3-3.1
Independent Older People	29.0	27.1-30.9	57.3	55.4-59.3	11.5	10.3-12.8	2.1	1.6-2.7
Younger Families	16.3	14.9-17.7	63.9	62.1-65.6	16.5	15.2-17.9	3.3	2.7-4.1
Educated Young Single People	13.0	11.1-15.1	58.8	55.8-61.8	22.7	20.1-25.4	5.5	4.2-7.1
Inner City and Manufacturing Communities	26.9	25.9-28.0	56.8	55.7-57.9	13.1	12.3-13.8	3.2	2.8-3.6
Upwardly Mobile Families	31.5	29.7-33.3	55.5	53.6-57.3	10.0	9.0-11.1	3.0	2.4-3.7
Older People in Social Housing	34.0	30.3-37.7	56.3	52.7-59.6	8.2	6.4-10.2	1.5	0.8-2.5
Low Income Families	34.5	32.6-36.3	54.4	52.6-56.1	9.1	8.2-10.1	2.0	1.6-2.6
Social Housing	30.1	27.5-32.8	55.1	52.2-58.0	10.7	8.9-12.6	4.1	3.0-5.4
North West overall	25.8	25.3-26.3	58.4	57.8-58.9	12.8	12.5-13.2	3.0	2.8-3.1
Pearson's Rho (P)	0.507 (P=0.112)		-0.656 (P<0.05)		-0.401 (P=0.222)		0.022 (P=0.949)	

Appendix 7: Drinking pattern by gender and People and Places (P²) classification in the North West, 2007-08.

Classification	Non-drinkers		Moderate drinkers		Hazardous drinkers		Harmful drinkers	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MALES								
Mature Oaks	12.2	11.1-13.4	62.2	60.5-63.9	20.2	18.8-21.6	5.4	4.7-6.3
Blossoming Families	10.8	9.2-12.6	64.9	62.2-67.5	19.5	17.4-21.8	4.9	3.8-6.2
Country Orchards	18.6	16.6-20.8	61.3	58.6-63.9	16.2	14.3-18.3	3.9	2.9-5.0
Rooted Households	14.4	13.4-15.4	62.4	61.1-63.7	18.0	17.0-19.1	5.2	4.6-5.8
Senior Neighbourhoods	16.3	14.7-18.0	62.2	60.1-64.3	17.3	15.7-19.0	4.2	3.4-5.1
Qualified Metropolitans	3.8	1.5-7.7	54.9	47.4-62.2	33.5	26.8-40.8	7.6	4.2-12.4
Suburban Stability	15.5	14.5-16.5	60.3	58.9-61.7	18.2	17.1-19.3	6.0	5.3-6.7
New Starters	11.8	10.1-13.6	53.1	50.4-55.8	26.3	23.9-28.7	8.9	7.4-10.5
Urban Producers	17.8	16.7-19.0	59.0	57.5-60.4	17.2	16.1-18.3	6.0	5.4-6.8
Weathered Communities	19.1	17.8-20.5	57.3	55.5-59.0	17.1	15.8-18.4	6.5	5.7-7.5
Multicultural Centres	36.7	33.3-40.2	42.8	39.3-46.4	14.5	12.1-17.2	6.0	4.5-7.9
Disadvantaged Households	24.6	22.6-26.8	54.2	51.8-56.6	15.2	13.6-17.1	5.9	4.9-7.2
Urban Challenge	23.0	20.7-25.3	53.1	50.3-55.8	17.0	15.0-19.1	7.0	5.6-8.5
North West overall	16.8	16.4-17.2	59.3	58.7-59.8	18.1	17.7-18.6	5.8	5.5-6.0
Pearson's Rho (P)	0.622 (P<0.05)		-0.744 (P<0.01)		-0.238 (P=0.434)		0.502 (P=0.081)	
FEMALES								
Mature Oaks	19.1	17.7-20.5	61.5	59.9-63.2	16.0	14.8-17.3	3.3	2.8-4.0
Blossoming Families	16.6	14.5-18.8	63.6	61.0-66.1	16.9	15.0-19.0	2.9	2.1-3.9
Country Orchards	27.2	24.8-29.8	59.0	56.3-61.5	11.6	10.0-13.4	2.2	1.5-3.1
Rooted Households	22.7	21.5-23.8	61.3	60.0-62.6	13.3	12.4-14.2	2.7	2.3-3.2
Senior Neighbourhoods	26.3	24.4-28.2	60.6	58.5-62.7	10.8	9.5-12.2	2.4	1.8-3.1
Qualified Metropolitans	8.3	4.8-13.3	57.8	50.3-65.1	30.0	23.4-37.3	4.4	1.9-8.6
Suburban Stability	24.7	23.5-26.0	58.5	57.1-59.9	13.4	12.5-14.4	3.3	2.8-3.8
New Starters	17.9	16.0-20.0	59.0	56.2-61.7	18.4	16.2-20.7	4.6	3.5-6.0
Urban Producers	27.8	26.5-29.2	57.7	56.3-59.1	11.7	10.8-12.6	2.8	2.3-3.2
Weathered Communities	31.3	29.6-33.0	55.5	53.8-57.2	10.2	9.3-11.3	2.9	2.4-3.5
Multicultural Centres	44.2	40.8-47.8	41.9	38.4-45.4	10.3	8.1-12.7	3.5	2.3-5.1
Disadvantaged Households	32.6	30.2-35.0	54.1	51.7-56.4	10.9	9.6-12.4	2.4	1.7-3.1
Urban Challenge	35.7	33.1-38.3	52.4	49.6-55.1	8.7	7.2-10.4	3.2	2.3-4.3
North West overall	25.8	25.3-26.3	58.4	57.8-58.9	12.8	12.5-13.2	3.0	2.8-3.1
Pearson's Rho (P)	0.661 (P<0.05)		-0.746 (P<0.01)		-0.375 (P=0.207)		0.109 (P=0.722)	

Appendix 8: Drinking pattern by gender and Health ACORN classification in the North West, 2007-08.

	Non-drinkers		Moderate drinkers		Hazardous drinkers		Harmful drinkers	
Classification	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MALES								
Affluent Families	8.4	5.0-13.1	66.0	59.0-72.5	19.7	14.5-25.9	5.9	3.1-10.1
Affluent Professionals	11.3	9.7-13.0	60.7	58.1-63.1	22.1	20.0-24.3	5.9	4.7-7.2
Affluent Healthy Pensioners	12.8	10.9-15.0	64.9	61.9-67.8	18.1	15.9-20.6	4.2	3.0-5.5
Affluent Towns and Villages	14.2	13.0-15.5	63.5	61.8-65.2	17.8	16.5-19.2	4.5	3.8-5.3
Home Owning Older Couples	14.8	13.7-15.9	62.2	60.7-63.7	18.1	17.0-19.4	4.8	4.2-5.5
Younger Affluent Professionals	9.4	6.5-13.2	57.5	51.9-63.0	24.2	19.6-29.3	8.8	5.9-12.5
Students and Young professionals	3.2	1.2-6.9	44.1	36.8-51.5	37.6	30.7-45.0	15.1	10.2-21.0
Home Owning Pensioners	19.0	16.2-22.1	59.6	55.9-63.2	17.1	14.4-20.0	4.3	3.0-6.1
Mixed Communities	15.2	14.1-16.5	61.0	59.3-62.6	18.5	17.2-19.8	5.3	4.6-6.1
Towns and Villages	15.5	14.1-17.0	58.3	56.3-60.3	20.2	18.6-21.9	5.9	5.0-7.0
Elderly	17.1	14.6-19.7	60.9	57.6-64.2	16.6	14.2-19.3	5.4	4.0-7.1
Young Mobile Population	13.4	10.8-16.4	58.6	54.6-62.5	21.7	18.5-25.1	6.3	4.5-8.5
Less Affluent Neighbourhoods	17.5	16.2-18.9	60.0	58.2-61.7	16.6	15.3-18.0	5.9	5.1-6.8
Low Income Families	18.3	16.8-19.9	56.7	54.7-58.7	17.7	16.2-19.2	7.3	6.3-8.4
Post Industrial Pensioners	21.1	17.5-24.9	54.2	49.7-58.7	18.2	14.9-21.9	6.5	4.5-9.1
Disadvantaged Multi-Ethnic Young Adults	16.9	12.3-22.3	51.9	45.3-58.5	21.6	16.5-27.5	9.5	6.1-14.1
Disadvantaged Neighbourhoods	20.5	18.9-22.1	56.3	54.4-58.3	16.5	15.1-18.0	6.7	5.7-7.7
Deprived Multi-Ethnic Estates	22.9	20.5-25.4	54.2	51.3-57.1	17.5	15.3-19.8	5.4	4.2-6.8
Deprived Neighbourhoods	23.2	20.4-26.3	56.7	53.2-60.2	15.7	13.3-18.4	4.3	3.0-6.0
Multi-Ethnic	42.9	17.7-71.1	42.9	17.7-71.1	0.0	0.0-23.2	14.3	1.8-42.8
Urban Estates	25.5	23.1-27.9	52.8	50.1-55.6	15.1	13.2-17.2	6.6	5.3-8.1
Vulnerable Disadvantaged	22.7	17.7-28.4	54.1	47.8-60.4	14.5	10.4-19.4	8.2	5.2-12.3
Poor Single Parent Families	37.5	26.4-49.7	30.6	20.2-42.5	19.4	11.1-30.5	12.5	5.9-22.4
North West Overall	16.8	16.4-17.2	59.3	58.7-59.8	18.1	17.7-18.6	5.8	5.5-6.0
Pearson's Rho (P)	0.786 (P<0.001)		-0.660 (P<0.01)		-0.436 (P<0.05)		0.344 (P=0.108)	
FEMALES								
Affluent Families	6.8	3.7-11.4	67.6	60.9-73.6	20.5	15.4-26.5	5.0	2.5-8.8
Affluent Professionals	16.7	14.8-18.8	64.4	62.0-66.7	15.7	14.0-17.6	3.1	2.4-4.1
Affluent Healthy Pensioners	23.3	20.8-26.0	59.1	56.1-62.1	14.7	12.7-16.9	2.8	1.9-4.0
Affluent Towns and Villages	20.8	19.4-22.3	61.5	59.8-63.1	14.7	13.5-15.9	3.0	2.5-3.7
Home Owning Older Couples	24.6	23.2-25.9	61.1	59.6-62.5	12.2	11.2-13.2	2.2	1.8-2.7
Younger Affluent Professionals	13.5	9.5-18.1	61.7	56.9-65.9	20.5	16.7-24.7	4.3	2.6-6.8
Students and Young professionals	8.2	5.6-12.3	52.7	46.2-59.9	30.9	22.4-40.4	8.2	3.8-15.0
Home Owning Pensioners	30.3	26.8-33.8	56.9	53.2-60.5	10.3	8.2-12.7	2.5	1.5-3.9
Mixed Communities	25.4	24.0-26.9	58.5	56.8-60.1	13.2	12.1-14.3	2.9	2.4-3.5
Towns and Villages	22.5	20.7-24.2	59.5	57.6-61.5	14.5	13.1-15.9	3.5	2.8-4.3
Elderly	29.3	26.2-32.5	57.2	53.9-60.4	10.0	8.1-12.0	3.5	2.5-4.9
Young Mobile Population	18.4	15.5-21.5	58.9	54.9-62.9	18.7	15.6-22.2	3.8	2.4-5.7
Less Affluent Neighbourhoods	27.5	25.9-29.2	57.3	55.6-59.0	11.9	10.8-13.0	3.3	2.7-4.0
Low Income Families	27.8	26.0-29.7	55.8	53.8-57.7	13.0	11.8-14.4	3.3	2.6-4.0
Post Industrial Pensioners	37.9	33.5-42.4	53.2	48.8-57.6	6.5	4.6-8.9	2.2	1.1-3.8
Disadvantaged Multi-Ethnic Young Adults	21.4	16.5-27.0	57.8	51.1-64.4	17.0	12.1-22.8	3.9	1.7-7.5
Disadvantaged Neighbourhoods	28.7	26.9-30.5	57.0	55.2-58.9	11.5	10.4-12.7	2.8	2.2-3.4
Deprived Multi-Ethnic Estates	31.9	29.2-34.7	54.4	51.5-57.3	11.1	9.4-13.0	2.6	1.8-3.7
Deprived Neighbourhoods	34.3	30.9-37.8	55.3	51.9-58.5	7.3	5.7-9.1	3.2	2.2-4.5
Multi-Ethnic	32.4	3.0-49.1	58.8	34.5-76.9	8.8	1.9-23.7	2.9	0.1-15.3
Urban Estates	35.3	32.6-38.0	51.9	49.2-54.6	11.0	9.5-12.8	1.8	1.2-2.6
Vulnerable Disadvantaged	37.0	31.2-43.3	53.1	46.8-59.4	5.8	3.2-9.5	3.7	1.7-6.9
Poor Single Parent Families	44.2	32.3-56.3	45.5	33.5-57.5	11.7	5.5-21.0	0.0	0.0-4.7
North West Overall	25.8	25.3-26.3	58.4	57.8-58.9	12.8	12.5-13.2	3.0	2.8-3.1
Pearson's Rho (P)	0.793 (P<0.001)		-0.768 (P<0.001)		-0.556 (P<0.01)		-0.398 (P=0.060)	

Appendix 9: Drinking pattern by gender and Office for National Statistics (ONS) Area classification in the North West, 2007-08.

	Non-drinkers		Moderate drinkers		Hazardous drinkers		Harmful drinkers	
Classification	%	95% CI	%	95% CI	%	95% CI	%	95% CI
MALES								
Urban Commuter	13.4	12.3-14.6	62.0	60.3-63.6	20.1	18.7-21.4	4.5	3.8-5.2
Affluent Urban Commuter	13.0	11.5-14.6	64.3	62.1-66.5	17.3	15.6-19.0	5.4	4.4-6.5
Rural Economies	16.0	14.4-17.8	60.5	58.3-62.7	18.9	17.2-20.8	4.5	3.6-5.6
Well Off Mature Households	14.4	13.3-15.6	62.6	61.1-64.2	17.4	16.2-18.6	5.6	4.9-6.3
Farming and Forestry	16.3	13.0-19.9	66.2	61.7-70.5	14.8	11.7-18.3	2.8	1.5-4.7
Young Urban Families	15.2	13.3-17.3	61.8	59.1-64.5	17.4	15.4-19.6	5.6	4.4-6.9
Mature City Professionals	10.1	6.9-14.2	57.8	51.9-63.6	25.8	20.8-31.3	6.3	3.8-9.7
Suburbia	16.6	12.2-21.8	61.7	55.4-67.7	15.0	10.9-20.0	6.7	4.0-10.5
Mature Urban Households	14.3	12.3-16.5	60.0	57.0-62.9	20.6	18.3-23.2	5.0	3.8-6.4
Countryside Communities	24.7	18.1-32.3	53.2	45.0-61.3	14.3	9.2-20.8	7.1	3.6-12.4
Small Town Communities	15.9	14.4-17.6	60.9	58.7-63.0	17.1	15.5-18.8	6.1	5.1-7.2
Resorts and Retirement	16.0	14.4-17.6	58.3	56.1-60.5	20.2	18.4-22.0	5.6	4.6-6.6
Educational Centres	8.2	6.2-10.6	52.3	48.4-56.2	29.5	26.0-33.2	10.0	7.8-12.6
Young City Professionals	11.1	7.0-16.4	56.3	49.0-63.5	26.3	20.2-33.2	6.8	3.7-11.4
Urban Terracing	17.1	16.0-18.3	58.5	57.0-60.0	18.0	16.9-19.2	6.4	5.6-7.1
Multi-Cultural Urban	41.9	37.7-46.1	39.9	35.8-44.1	12.7	10.1-15.7	5.5	3.8-7.8
Blue Collar Urban Families	19.5	17.7-21.3	56.3	54.1-58.5	17.5	15.9-19.2	6.7	5.7-7.9
Multi-Cultural Suburbia	21.7	18.5-25.2	52.9	48.8-56.9	17.8	14.8-21.1	7.6	5.6-10.0
Multi-Cultural Inner City	22.3	16.4-29.2	48.0	40.4-55.7	22.3	16.4-29.2	7.4	4.0-12.4
Struggling Urban Families	21.8	20.6-23.1	56.8	55.3-58.3	15.4	14.3-16.5	6.0	5.3-6.8
North West Overall	16.8	16.4-17.2	59.3	58.7-59.8	18.1	17.7-18.6	5.8	5.5-6.0
Pearson's Rho (P)	0.456 (P<0.05)		-0.692 (P<0.01)		0.042 (P=0.861)		0.553 (P<0.05)	
FEMALES								
Urban Commuter	20.0	18.6-21.4	63.1	61.6-64.7	14.1	13.0-15.3	2.8	2.3-3.3
Affluent Urban Commuter	22.3	20.5-24.3	60.1	57.9-62.3	14.9	13.3-16.5	2.7	2.0-3.5
Rural Economies	23.7	21.8-25.7	60.3	58.1-62.5	13.6	12.1-15.2	2.3	1.7-3.1
Well Off Mature Households	23.5	22.2-25.0	60.5	59.0-62.1	13.3	12.2-14.3	2.7	2.2-3.2
Farming and Forestry	25.5	21.5-29.7	59.4	54.8-63.9	12.6	9.8-15.9	2.5	1.3-4.3
Young Urban Families	22.0	19.7-24.3	60.4	57.8-63.0	14.7	12.9-16.6	2.9	2.1-3.9
Mature City Professionals	18.8	14.6-23.6	60.5	54.6-66.4	15.3	11.4-19.9	4.3	2.2-7.6
Suburbia	24.8	19.3-30.8	56.5	50.3-62.3	16.4	12.1-21.5	3.7	1.9-6.6
Mature Urban Households	26.4	23.7-29.2	57.4	54.5-60.2	12.7	10.9-14.7	3.6	2.6-4.7
Countryside Communities	34.3	26.1-42.5	55.4	47.9-61.8	8.0	4.7-12.5	2.3	0.8-5.4
Small Town Communities	26.9	25.0-28.9	57.4	55.2-59.5	12.3	11.0-13.8	3.4	2.7-4.2
Resorts and Retirement	23.0	21.1-24.9	60.3	58.2-62.3	13.7	12.3-15.2	3.0	2.4-3.8
Educational Centres	13.8	11.5-16.4	57.8	54.0-61.7	23.0	19.4-27.1	5.1	3.4-7.5
Young City Professionals	13.1	9.1-18.3	57.5	50.3-64.9	22.2	15.9-29.6	6.5	3.2-11.7
Urban Terracing	25.9	24.6-27.3	58.2	56.7-59.7	12.6	11.6-13.6	3.3	2.8-3.8
Multi-Cultural Urban	50.6	46.3-54.8	36.9	32.9-41.0	8.9	6.6-11.6	3.7	2.3-5.7
Blue Collar Urban Families	29.5	27.4-31.6	56.5	54.4-58.6	11.3	10.1-12.6	2.7	2.1-3.4
Multi-Cultural Suburbia	30.1	26.7-33.9	50.7	46.7-54.8	16.4	13.3-19.7	2.8	1.6-4.5
Multi-Cultural Inner City	18.8	14.0-24.8	64.8	57.3-72.5	11.7	6.7-18.6	4.7	1.7-9.9
Struggling Urban Families	33.2	31.8-34.7	54.9	53.5-56.4	9.2	8.3-10.0	2.6	2.2-3.1
North West overall	25.8	25.3-26.3	58.4	57.8-58.9	12.8	12.5-13.2	3.0	2.8-3.1
Pearson's Rho (P)	0.298 (P=0.202)		-0.405 (P<0.076)		-0.127 (P=0.593)		0.350 (P=0.130)	

Appendix 10: Mean number of weekly units consumed by age, gender and drink type in the North West, 2007-08.

	Beer/lager/cider		Wine		Other drinks	
Age group	Mean no.	Mean no.	Mean no.	95% CI	Mean no.	95% CI
MALES						
16-24	13.0	12.4-13.6	1.1	1.0-1.3	2.8	2.6-3.0
25-34	13.7	13.1-14.3	2.6	2.3-2.9	1.7	1.5-1.9
35-44	11.8	11.3-12.4	4.3	4.0-4.6	1.0	0.9-1.1
45-54	10.4	9.9-10.9	4.5	4.2-4.8	0.9	0.8-1.0
55-64	8.4	7.9-8.9	5.1	4.7-5.4	1.1	0.9-1.2
65-74	5.7	5.2-6.1	3.9	3.6-4.3	1.3	1.1-1.4
75+	2.9	2.5-3.4	2.9	2.6-3.3	1.6	1.4-1.8
North West overall	10.3	10.1-10.5	3.5	3.4-3.6	1.5	1.4-1.5
Pearson's Rho (P)	-0.963 (P<0.001)		0.495 (P=0.259)		-0.814 (P<0.05)	
FEMALES						
16-24	2.9	2.6-3.1	3.1	3.0-3.3	3.5	3.3-3.7
25-34	2.7	2.4-3.0	5.0	4.7-5.2	1.6	1.5-1.7
35-44	1.9	1.8-2.1	5.6	5.4-5.8	1.1	1.0-1.2
45-54	1.4	1.2-1.6	5.8	5.5-6.0	1.0	0.9-1.0
55-64	0.7	0.6-0.8	4.8	4.5-5.0	0.9	0.8-1.0
65-74	0.3	0.2-0.4	3.2	3.0-3.4	0.8	0.7-0.9
75+	0.2	0.1-0.2	1.6	1.5-1.8	0.6	0.6-0.7
North West overall	1.6	1.5-1.6	4.3	4.2-4.4	1.4	1.4-1.4
Pearson's Rho (P)	-0.985 (P<0.001)		-0.442 (P=0.321)		-0.509 (P=0.243)	
PERSONS						
16-24	8.0	7.6-8.3	2.1	2.0-2.2	3.2	3.0-3.3
25-34	8.2	7.8-8.5	3.8	3.6-4.0	1.7	1.6-1.8
35-44	6.8	6.5-7.1	4.9	4.8-5.1	1.1	1.0-1.1
45-54	5.9	5.6-6.2	5.1	4.9-5.3	0.9	0.9-1.0
55-64	4.5	4.3-4.8	4.9	4.7-5.1	1.0	0.9-1.1
65-74	2.8	2.6-3.1	3.5	3.3-3.7	1.0	0.9-1.1
75+	1.2	1.1-1.4	2.1	1.9-2.3	1.0	0.9-1.1
North West overall	5.8	5.6-5.9	4.0	3.9-4.0	1.4	1.4-1.5
Pearson's Rho (P)	-0.977 (P<0.001)		-0.036 (P=0.939)		-0.752 (P=0.051)	

Appendix 11: Mean number of weekly units consumed by drink type, gender and Index of Multiple Deprivation 2007 (IMD) quintile in the North West, 2007-08.

Classification	Beer/lager/cider		Wine		Other	
	Mean no.	95% CI	Mean no.	95% CI	Mean no.	95% CI
MALES						
Least deprived	8.6	8.2-9.1	5.3	5.0-5.7	1.2	1.0-1.3
Fourth most deprived	9.3	8.8-9.8	4.4	4.2-4.7	1.3	1.1-1.4
Third most deprived	10.0	9.5-10.5	3.9	3.6-4.1	1.4	1.3-1.5
Second most deprived	11.5	11.0-12.0	3.1	2.9-3.3	1.7	1.6-1.9
Most deprived	11.0	10.5-11.4	2.3	2.1-2.5	1.6	1.5-1.7
North West overall	10.3	10.1-10.5	3.5	3.4-3.6	1.5	1.4-1.5
Pearson's Rho (P)	0.917 (P<0.001)		-0.997 (P<0.001)		0.915 (P<0.05)	
FEMALES						
Least deprived	1.1	0.9-1.2	6.0	5.7-6.3	1.0	0.9-1.1
Fourth most deprived	1.3	1.1-1.5	5.3	5.1-5.5	1.2	1.1-1.3
Third most deprived	1.4	1.3-1.5	4.6	4.4-4.9	1.3	1.2-1.4
Second most deprived	1.9	1.6-2.1	4.2	4.0-4.4	1.7	1.5-1.8
Most deprived	1.8	1.6-1.9	3.0	2.8-3.1	1.5	1.4-1.6
North West overall	1.6	1.5-1.6	4.3	4.2-4.4	1.4	1.4-1.4
Pearson's Rho (P)	0.933 (P<0.05)		-0.988 (P<0.01)		0.878 (P<0.01)	

Appendix 12: Mean number of weekly units consumed by drink type, gender and Index of Multiple Deprivation (IMD) 2007 decile in the North West, 2007-08.

	Beer/lager/cider		Wine		Other	
Classification	Mean no.	95% CI	Mean no.	95% CI	Mean no.	95% CI
MALES						
Least deprived	8.5	7.7-9.3	5.8	5.3-6.4	1.0	0.8-1.3
Ninth most deprived	8.7	8.1-9.3	5.1	4.7-5.5	1.2	1.1-1.4
Eighth most deprived	9.3	8.6-9.9	4.6	4.2-5.0	1.2	1.1-1.4
Seventh most deprived	9.3	8.7-10.0	4.2	3.9-4.6	1.3	1.1-1.5
Sixth most deprived	9.5	8.9-10.1	4.2	3.9-4.6	1.2	1.1-1.4
Fifth most deprived	10.6	9.8-11.4	3.4	3.1-3.7	1.6	1.4-1.8
Fourth most deprived	11.3	10.6-12.0	3.4	3.0-3.7	1.9	1.5-2.2
Third most deprived	11.6	10.9-12.3	2.9	2.6-3.2	1.6	1.5-1.8
Second most deprived	10.9	10.2-11.6	2.5	2.2-2.7	1.4	1.2-1.5
Most deprived	11.0	10.5-11.6	2.2	2.0-2.5	1.7	1.5-1.9
North West overall	10.3	10.1-10.5	3.5	3.4-3.6	1.5	1.4-1.5
Pearson's Rho (P)	0.917 (P<0.001)		-0.989 (P<0.001)		0.781 (P<0.01)	
FEMALES						
Least deprived	1.1	0.9-1.3	6.2	5.7-6.7	1.1	0.9-1.2
Ninth most deprived	1.1	0.9-1.2	5.9	5.6-6.2	1.0	0.9-1.1
Eighth most deprived	1.4	1.1-1.6	5.4	5.1-5.7	1.3	1.1-1.4
Seventh most deprived	1.2	1.0-1.4	5.3	5.0-5.6	1.2	1.0-1.4
Sixth most deprived	1.3	1.1-1.5	4.5	4.2-4.8	1.3	1.2-1.4
Fifth most deprived	1.5	1.3-1.7	4.8	4.5-5.1	1.3	1.2-1.5
Fourth most deprived	2.0	1.6-2.4	4.4	4.1-4.7	1.5	1.3-1.6
Third most deprived	1.7	1.5-1.9	4.0	3.8-4.3	1.8	1.6-2.0
Second most deprived	1.7	1.5-1.6	3.6	3.3-3.8	1.5	1.4-1.7
Most deprived	1.8	1.6-2.0	2.6	2.4-2.7	1.5	1.4-1.6
North West overall	1.6	1.5-1.6	4.3	4.2-4.4	1.4	1.4-1.4
Pearson's Rho (P)	0.864 (P<0.001)		-0.971 (P<0.001)		0.873 (P<0.01)	

Appendix 13: Mean number of weekly units consumed by drink type, gender and Mosaic classification in the North West, 2007-08.

Classification	Beer/lager/cider		Wine		Other	
	Mean no.	95% CI	Mean no.	95% CI	Mean no.	95% CI
MALES						
Rural Area Residents	7.1	6.3-7.8	4.6	4.0-5.2	1.0	0.7-1.2
Career Professionals	8.2	7.6-8.8	6.3	5.8-6.8	1.2	1.0-1.4
Suburban Older Families	9.2	8.8-9.6	4.2	4.0-4.4	1.3	1.1-1.4
Independent Older People	8.2	7.5-8.9	4.5	4.1-4.9	1.4	1.2-1.6
Younger Families	11.1	10.3-11.8	3.7	3.4-4.0	1.3	1.1-1.5
Educated Young Single People	12.8	11.6-13.9	5.4	4.9-6.0	2.1	1.8-2.5
Inner City and Manufacturing Communities	11.4	10.9-11.8	2.5	2.4-2.7	1.5	1.4-1.6
Upwardly Mobile Families	10.5	9.8-11.2	2.2	1.9-2.5	1.4	1.1-1.6
Older People in Social Housing	11.0	9.3-12.7	2.8	2.0-3.5	1.4	1.0-1.8
Low Income Families	11.1	10.2-12.1	1.4	1.2-1.7	1.7	1.4-1.9
Social Housing	11.8	10.4-13.1	2.9	2.3-3.4	1.8	1.4-2.1
North West overall	10.3	10.1-10.5	3.5	3.4-3.6	1.5	1.4-1.5
Pearson's Rho (P)	0.769 (P<0.01)		-0.778 (P<0.01)		0.644 (P<0.05)	
FEMALES						
Rural Area Residents	1.1	0.8-1.3	5.1	4.6-5.6	1.0	0.8-1.3
Career Professionals	1.0	0.8-1.1	6.6	6.3-7.0	1.1	0.9-1.2
Suburban Older Families	1.0	0.9-1.1	5.1	4.9-5.3	1.1	1.0-1.2
Independent Older People	0.9	0.8-1.1	4.6	4.2-4.9	1.0	0.8-1.1
Younger Families	1.6	1.4-1.8	5.5	5.1-5.8	1.5	1.3-1.6
Educated Young Single People	3.4	2.8-3.9	6.0	5.5-6.6	2.2	1.9-2.6
Inner City and Manufacturing Communities	1.9	1.7-2.1	3.8	3.6-4.0	1.7	1.6-1.8
Upwardly Mobile Families	1.7	1.4-1.9	3.2	3.0-3.5	1.4	1.2-1.6
Older People in Social Housing	1.1	0.8-1.4	2.7	2.3-3.1	1.3	1.1-1.5
Low Income Families	1.6	1.4-1.8	2.2	2.0-2.5	1.5	1.3-1.6
Social Housing	3.0	2.3-3.6	2.9	2.5-3.4	1.7	1.4-2.0
North West overall	1.6	1.5-1.6	4.3	4.2-4.4	1.4	1.4-1.4
Pearson's Rho (P)	0.509 (P=0.109)		-0.831 (P<0.01)		0.524 (P=0.066)	

Appendix 14: Mean number of weekly units consumed by drink type, gender and People and Places (P²) classification in the North West, 2007-08.

Classification	Beer/lager/cider		Wine		Other	
	Mean no.	95% CI	Mean no.	95% CI	Mean no.	95% CI
Mature Oaks	8.8	8.3-9.4	5.9	5.5-6.3	1.2	1.0-1.3
Blossoming Families	9.5	8.6-10.3	4.8	4.3-5.3	1.2	1.0-1.4
Country Orchards	7.3	6.6-8.1	4.2	3.7-4.8	0.8	0.6-0.9
Rooted Households	9.8	9.3-10.3	3.9	3.7-4.2	1.4	1.3-1.6
Senior Neighbourhoods	7.3	6.7-8.0	4.8	4.3-5.2	1.1	0.9-1.2
Qualified Metropolitans	13.2	11.1-15.2	6.6	4.9-8.4	1.7	1.0-2.4
Suburban Stability	11.0	10.4-11.5	3.1	2.9-3.3	1.5	1.4-1.7
New Starters	12.4	11.3-13.5	5.1	4.5-5.6	2.9	2.2-3.5
Urban Producers	11.4	10.8-12.1	2.2	2.0-2.4	1.5	1.4-1.7
Weathered Communities	12.0	11.2-12.9	2.3	2.1-2.6	1.4	1.3-1.6
Multicultural Centres	8.9	7.5-10.3	2.6	2.0-3.2	1.6	1.2-2.0
Disadvantaged Households	10.7	9.7-11.7	1.8	1.4-2.1	1.7	1.3-2.1
Urban Challenge	11.4	10.2-12.6	2.6	1.7-3.5	1.8	1.5-2.1
North West Overall	10.3	10.1-10.5	3.5	3.4-3.6	1.5	1.4-1.5
Pearson's Rho (P)	0.481 (P=0.096)		-0.735 (P<0.01)		0.485 (P=0.093)	
Mature Oaks	1.0	0.9-1.2	6.5	6.2-6.9	1.0	0.9-1.1
Blossoming Families	1.4	1.1-1.7	5.8	5.4-6.3	1.3	1.1-1.5
Country Orchards	1.0	0.8-1.2	4.7	4.3-5.1	1.1	0.9-1.3
Rooted Households	1.3	1.1-1.5	4.9	4.7-5.1	1.3	1.2-1.4
Senior Neighbourhoods	0.9	0.7-1.1	4.9	4.5-5.2	1.0	0.9-1.1
Qualified Metropolitans	3.2	2.3-4.1	7.6	6.3-8.9	2.1	1.4-2.9
Suburban Stability	1.8	1.6-2.1	4.4	4.2-4.7	1.4	1.3-1.5
New Starters	2.8	2.3-3.3	5.3	4.8-5.8	1.9	1.6-2.2
Urban Producers	1.7	1.5-1.9	3.2	3.0-3.4	1.7	1.5-1.8
Weathered Communities	1.5	1.3-1.7	3.2	3.0-3.5	1.5	1.3-1.6
Multicultural Centres	2.7	1.9-3.4	2.6	2.1-3.0	1.4	1.0-1.7
Disadvantaged Households	1.8	1.5-2.2	2.6	2.2-2.9	1.6	1.4-1.8
Urban Challenge	2.0	1.6-2.5	2.2	1.8-2.5	1.6	1.4-1.9
North West overall	1.6	1.5-1.6	4.3	4.2-4.4	1.4	1.4-1.4
Pearson's Rho (P)	0.486 (P=0.092)		-0.797 (P<0.01)		0.529 (P<0.05)	

Appendix 15: Mean number of weekly units consumed by drink type, gender and Health ACORN classification in the North West, 2007-08.

Classification	Beer/lager/cider		Wine		Other	
	Mean no.	95% CI	Mean no.	95% CI	Mean no.	95% CI
MALES						
Affluent Families	9.1	7.0-11.1	5.4	4.1-6.7	1.4	0.8-2.1
Affluent Professionals	9.2	8.4-9.9	6.4	5.8-6.9	1.2	1.0-1.4
Affluent Healthy Pensioners	6.9	6.0-7.7	6.2	5.5-6.9	1.0	0.8-1.2
Affluent Towns and Villages	9.1	8.6-9.7	4.2	3.9-4.5	1.2	1.1-1.4
Home Owning Older Couples	8.9	8.3-9.4	4.5	4.1-4.8	1.3	1.1-1.4
Younger Affluent Professionals	12.9	11.1-14.7	5.6	4.4-6.9	1.5	1.0-2.0
Students and Young professionals	17.3	13.3-21.2	6.5	5.2-7.9	6.8	2.9-10.6
Home Owning Pensioners	7.1	6.0-8.3	4.4	3.7-5.1	1.3	1.0-1.7
Mixed Communities	10.0	9.4-10.6	3.5	3.2-3.8	1.4	1.2-1.6
Towns and Villages	10.9	10.2-11.7	3.6	3.2-3.9	1.5	1.3-1.7
Elderly	10.1	8.7-11.5	2.9	2.4-3.4	1.3	1.0-1.6
Young Mobile Population	11.6	9.8-13.5	4.2	3.5-4.9	1.7	1.3-2.1
Less Affluent Neighbourhoods	11.0	10.3-11.7	2.4	2.2-2.7	1.3	1.2-1.5
Low Income Families	11.8	10.9-12.7	2.8	2.5-3.2	1.8	1.6-2.1
Post Industrial Pensioners	11.5	9.4-13.6	2.5	1.8-3.1	1.7	1.2-2.2
Disadvantaged Multi-Ethnic Young Adults	10.7	8.4-13.0	4.3	2.8-5.7	2.6	1.6-3.6
Disadvantaged Neighbourhoods	11.8	11.0-12.6	2.3	1.8-2.8	1.5	1.3-1.7
Deprived Multi-Ethnic Estates	10.8	9.6-12.1	2.0	1.6-2.4	1.6	1.3-1.9
Deprived Neighbourhoods	10.8	9.3-12.3	1.5	1.1-2.0	1.3	1.0-1.7
Multi-Ethnic	3.0	0.0-6.5	1.7	0.0-4.3	6.5	0.0-16.1
Urban Estates	11.2	9.8-12.6	1.9	1.5-2.3	2.0	1.6-2.5
Vulnerable Disadvantaged	12.4	9.3-15.6	1.6	0.8-2.3	1.6	1.0-2.3
Poor Single Parent Families	16.9	9.8-23.9	2.1	0.7-3.5	2.3	0.5-4.2
North West overall	10.3	10.1-10.5	3.5	3.4-3.6	1.5	1.4-1.5
Pearson's Rho (P)	0.232 (P=0.286)		-0.875 (P<0.001)		0.204 (P=0.351)	
FEMALES						
Affluent Families	1.7	1.0-2.4	7.3	6.1-8.6	1.5	1.1-1.9
Affluent Professionals	1.0	0.8-1.2	6.4	6.0-6.9	1.1	0.9-1.3
Affluent Healthy Pensioners	0.6	0.4-0.9	6.6	6.0-7.2	0.8	0.6-0.9
Affluent Towns and Villages	1.5	1.3-1.7	5.4	5.1-5.7	1.2	1.1-1.3
Home Owning Older Couples	0.9	0.8-1.1	4.9	4.6-5.1	1.2	1.1-1.3
Younger Affluent Professionals	2.7	1.9-3.6	5.9	5.1-6.7	1.9	1.5-2.4
Students and Young professionals	6.1	3.9-8.3	5.9	4.6-7.3	2.2	1.3-3.0
Home Owning Pensioners	0.8	0.5-1.1	4.5	3.9-5.1	1.0	0.8-1.2
Mixed Communities	1.3	1.2-1.5	4.6	4.4-4.9	1.3	1.2-1.5
Towns and Villages	2.0	1.6-2.5	4.9	4.6-5.3	1.5	1.3-1.7
Elderly	1.3	1.0-1.7	4.0	3.5-4.6	1.6	1.3-1.9
Young Mobile Population	2.8	2.1-3.5	4.6	3.9-5.2	1.9	1.6-2.3
Less Affluent Neighbourhoods	1.8	1.5-2.0	3.7	3.4-3.9	1.6	1.4-1.8
Low Income Families	1.8	1.5-2.0	4.0	3.7-4.3	1.6	1.4-1.7
Post Industrial Pensioners	1.3	0.9-1.8	2.2	1.7-2.6	1.2	0.8-1.5
Disadvantaged Multi-Ethnic Young Adults	2.6	1.8-3.5	4.4	3.2-5.5	1.8	1.2-2.5
Disadvantaged Neighbourhoods	1.7	1.4-2.0	3.0	2.7-3.3	1.7	1.5-1.9
Deprived Multi-Ethnic Estates	2.1	1.7-2.6	3.0	2.5-3.4	1.4	1.2-1.7
Deprived Neighbourhoods	1.7	1.1-2.2	2.2	1.9-2.6	1.6	1.3-1.8
Multi-Ethnic	3.0	0.0-6.9	2.2	0.3-4.2	1.8	0.6-2.9
Urban Estates	1.9	1.5-2.2	2.2	1.9-2.6	1.5	1.3-1.7
Vulnerable Disadvantaged	2.3	1.1-3.6	1.3	0.7-2.0	1.8	1.1-2.5
Poor Single Parent Families	1.6	0.6-2.7	1.4	0.4-2.4	1.9	0.9-2.9
North West overall	1.6	1.5-1.6	4.3	4.2-4.4	1.4	1.4-1.4
Pearson's Rho (P)	0.138 (P=0.530)		-0.948 (P<0.001)		0.878 (P=0.05)	

Appendix 16: Mean number of weekly units consumed by drink type, gender and Office for National Statistics Area (ONS) classification in the North West, 2007-08.

Classification	Beer/lager/cider		Wine		Other	
	Mean no.	95% CI	Mean no.	95% CI	Mean no.	95% CI
MALES						
Urban Commuters	8.9	8.3-9.4	4.8	4.5-5.1	1.3	1.1-1.4
Affluent Urban Commuter	8.1	7.4-8.8	5.9	5.4-6.5	1.2	1.0-1.3
Rural Economies	8.4	7.8-9.1	4.9	4.4-5.4	1.0	0.8-1.1
Well Off Mature Households	9.7	9.1-10.3	4.0	3.7-4.3	1.4	1.2-1.5
Farming and Forestry	6.9	5.8-7.9	3.7	3.0-4.5	0.8	0.5-1.1
Young Urban Families	10.6	9.4-11.7	3.2	2.7-3.6	1.5	1.2-1.8
Mature City Professionals	12.1	9.9-14.4	5.2	3.9-6.5	1.2	0.7-1.6
Suburbia	11.5	9.0-14.1	2.5	1.8-3.1	1.7	0.9-2.6
Mature Urban Households	10.8	9.7-11.9	3.5	2.9-4.1	1.5	1.2-1.8
Countryside Communities	9.6	6.9-12.3	2.5	1.4-3.5	0.7	0.3-1.2
Small Town Communities	10.8	10.0-11.7	3.1	2.7-3.4	1.5	1.3-1.7
Resorts and Retirement	9.3	8.6-10.1	4.5	4.1-4.9	1.4	1.2-1.6
Educational Centres	13.5	11.9-15.0	5.3	4.5-6.0	3.7	2.5-4.9
Young City Professionals	8.9	6.7-11.0	6.2	4.5-7.9	3.0	2.0-3.9
Urban Terracing	11.9	11.3-12.6	2.4	2.2-2.7	1.6	1.5-1.8
Multi-Cultural Urban	7.8	6.3-9.3	2.2	1.5-2.8	1.5	1.1-1.8
Blue Collar Urban Families	12.0	11.0-13.0	1.9	1.6-2.2	1.6	1.3-1.9
Multi-Cultural Suburbia	12.6	10.9-14.2	2.1	1.5-2.7	1.6	1.2-2.0
Multi-Cultural Inner City	12.6	8.7-16.5	3.7	2.7-4.8	2.3	1.2-3.3
Struggling Urban Families	10.9	10.2-11.5	2.2	1.8-2.5	1.5	1.3-1.7
North West Overall	10.3	10.1-10.5	3.5	3.4-3.6	1.5	1.4-1.5
Pearson's Rho (P)	0.517 (P<0.05)		-0.510 (P<0.05)		0.420 (P=0.065)	
FEMALES						
Urban Commuter	1.1	0.9-1.2	5.6	5.3-5.9	1.1	1.0-1.2
Affluent Urban Commuter	0.9	0.7-1.1	5.9	5.5-6.3	1.0	0.9-1.2
Rural Economies	1.1	0.9-1.3	5.3	5.0-5.7	1.1	0.9-1.3
Well Off Mature Households	1.3	1.1-1.4	4.8	4.6-5.1	1.4	1.2-1.5
Farming and Forestry	0.9	0.5-1.2	5.1	4.4-5.9	0.9	0.7-1.2
Young Urban Families	1.6	1.3-2.0	4.9	4.5-5.3	1.3	1.1-1.5
Suburbia	2.2	1.5-2.9	5.6	4.6-6.6	1.8	1.2-2.3
Mature City Professionals	2.3	1.3-3.3	4.5	3.6-5.5	1.7	1.2-2.3
Mature Urban Households	1.6	1.2-2.0	4.5	4.0-5.0	1.5	1.2-1.7
Countryside Communities	1.2	0.7-1.7	4.5	3.3-5.7	0.7	0.3-1.2
Small Town Communities	1.6	1.3-2.0	4.2	3.9-4.5	1.6	1.3-1.8
Resorts and Retirement	1.3	1.1-1.5	5.2	4.8-5.6	1.3	1.1-1.5
Educational Centres	3.9	3.0-4.8	5.4	4.7-6.2	2.2	1.7-2.6
Young City Professionals	4.0	2.3-5.7	6.6	4.9-8.2	1.6	0.9-2.2
Urban Terracing	2.0	1.7-2.3	3.6	3.4-3.9	1.7	1.5-1.8
Multi-Cultural Urban	1.9	1.3-2.5	2.6	2.0-3.2	1.2	0.9-1.6
Blue Collar Urban Families	1.7	1.4-1.9	3.0	2.7-3.4	1.6	1.4-1.7
Multi-Cultural Suburbia	2.5	1.8-3.2	3.6	3.0-4.2	1.6	1.3-2.0
Multi-Cultural Inner City	4.4	2.1-6.7	3.4	2.5-4.4	1.9	0.9-2.8
Struggling Urban Families	1.6	1.4-1.8	2.6	2.4-2.7	1.6	1.4-1.7
North West overall	1.6	1.5-1.6	4.3	4.2-4.4	1.4	1.4-1.4
Pearson's Rho (P)	0.562 (P<0.01)		-0.694 (P<0.01)		0.524 (P=0.066)	

North West Public Health Observatory

Centre for Public Health

Research Directorate

Faculty of Health and Applied Social Sciences

Liverpool John Moores University

5th Floor Kingsway House

Hatton Garden

Liverpool

L3 2AJ

t: +44(0)151 231 8128

f: +44(0)151 231 8020

e: nwpho-contact@ljmu.ac.uk

www.nwpho.org.uk

www.cph.org.uk

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