

Wolverhampton Healthy lifestyles survey: clustering summary

Methods

7,414 responses were used after removing incomplete and blank responses. These responses were categorised accordingly into the seven lifestyle behaviours as described below.

Area	Levels
Healthy eater	Yes/no (yes: 5 fruit and veg on average per day, cooked meal from scratch most days or more, ate takeaway or ready meals less than once or twice a week)
Vigorously active	Yes/no (yes: 5 times per week or more activity that gets you out of breath and sweaty lasting longer than 10 minutes)
Moderately active	Yes/no (yes: 5 times per week or more activity that gets you breathing harder lasting longer than 10 minutes)
Ever smoked	No, used to, currently
Alcohol	Abstain, low risk (Audit C 5 and less), high risk (Audit C score over 5)
BMI category	Underweight, healthy, overweight, obese
Wellbeing	Very low, below average, average, above average

Cluster 1 “Vigorously Active”: Contains people who are vigorously active and the majority from the overall vigorously active population (82%) appear in this cluster. Individuals in this cluster have higher wellbeing compared to the overall population. The majority of this cluster have never smoked, are more likely to be a healthy weight and less likely to be obese. Despite being more likely than the overall population to eat healthily a substantial number eat an unhealthy diet, this is a possible area of improvement in the lifestyles of this cluster. Finally people in this cluster are much less likely to be high risk drinkers.

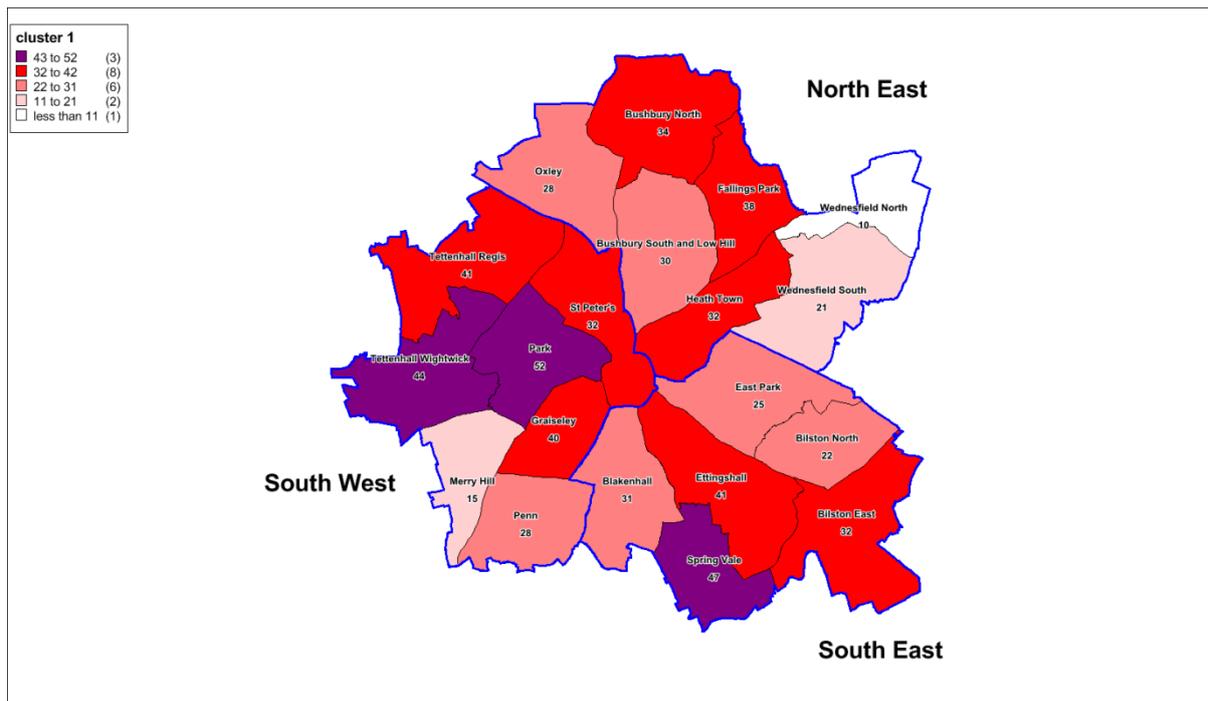
643, 8.7% of survey population

This cluster are mostly male (nearly 65%) and young, with over half aged under 39 and the largest group being those aged 20-24. Although most of this group are white, this is under-represented compared to the overall population. In contrast, those from an Asian ethnic background are largely over-represented. In terms of deprivation, the distribution is similar to the population overall, however, there is an overrepresentation of individuals who reside in the Park and Spring Vale wards (see map below). In terms of economic activity and qualifications, this cluster has much more people who are working full time and are more likely to have qualifications (and at a higher level) compared to the general population. There are also a higher proportion of students and those who are self-employed.

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As diet has been identified as an area of improvement for this group, it is encouraging that 63% would like to eat healthier, this is slightly higher than the population overall. Of those that want to eat more healthily, 37% stated that they can do this on their own without help, slightly more than the overall population and in fact the largest proportion out of all ten clusters. Other things that would help are cheaper healthy food and more time to prepare healthy food. Interestingly, this cluster has the lowest proportion who stated 'more healthy produce available in local shops'.

Number in cluster by ward of residence



Cluster 2 “Healthy Eaters”: This cluster contains people who are healthy eaters and 49% of the overall healthy eater active population appear in this cluster. This cluster is more likely to have higher wellbeing compared to the overall population. People in this cluster are less likely to be smokers and high risk drinkers than the overall population. They are substantially less likely to be obese and more likely to be a healthy weight, however slightly more in this cluster are overweight than compared to the overall average. The majority of people in this cluster are not vigorously active, suggesting that this is the most important aspect that this cluster could target to improve their lifestyles.

924, 12.5% of total population

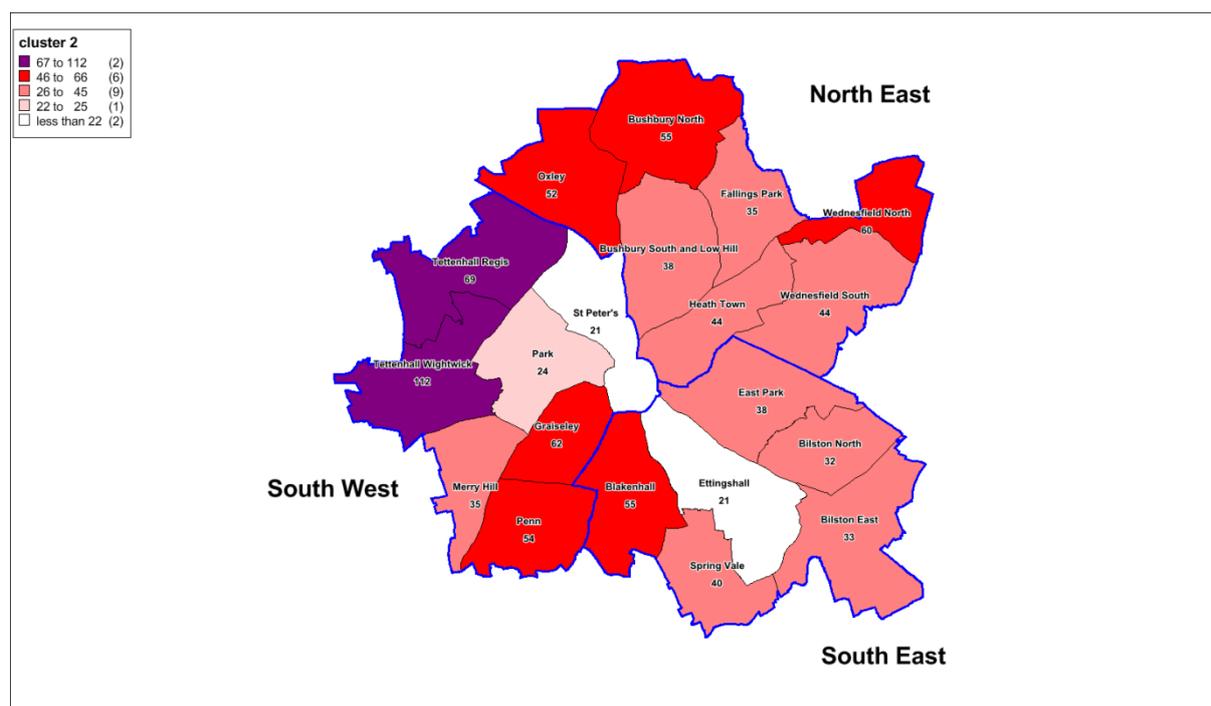
The people in this cluster are much more likely to be female (nearly 61%). The age distribution is fairly similar to that of the overall population, with a slightly higher proportion of the older population (over 65). The ethnic background distribution is similar to the overall population.

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In terms of deprivation, there is an under-representation of those from the most deprived deciles and more individuals from the more affluent areas compared to the overall population. This coincides with the distribution by ward as most from this cluster reside in the more affluent wards to the West of the City (see map below). In terms of economic activity and qualifications, this cluster has much more people who are working full time and are retired and this is over represented compared to the overall population. The level of qualifications are similar compared to the general population but with a slightly higher proportion that have a degree or higher.

Just under half of this cluster stated they wanted to be more active, a key area of improvement identified for this group and a lower proportion than in the population overall. Of those that want to be more active, 46% stated that they did not want help to be more active as they can do it on their own, much lower than the overall population. Having more time was the most popular response, however, key things to consider are; the reduction in prices or free membership to gym/leisure centres, availability of exercise/activities for people with medical conditions and supporting people to improve motivation.

Number in cluster by ward of residence



Cluster 3 “Used to Smoke”: Contains people who used to smoke and the majority from the overall population who use to smoke appear (83%) in this cluster. This cluster is more likely to have average wellbeing. Although the majority of this cluster is not vigorously active they are more likely to be moderately active. Healthy eating is not significantly different from the overall population level. This cluster is less likely to abstain from drinking alcohol compared to the overall population however they have similar levels of high risk drinking.

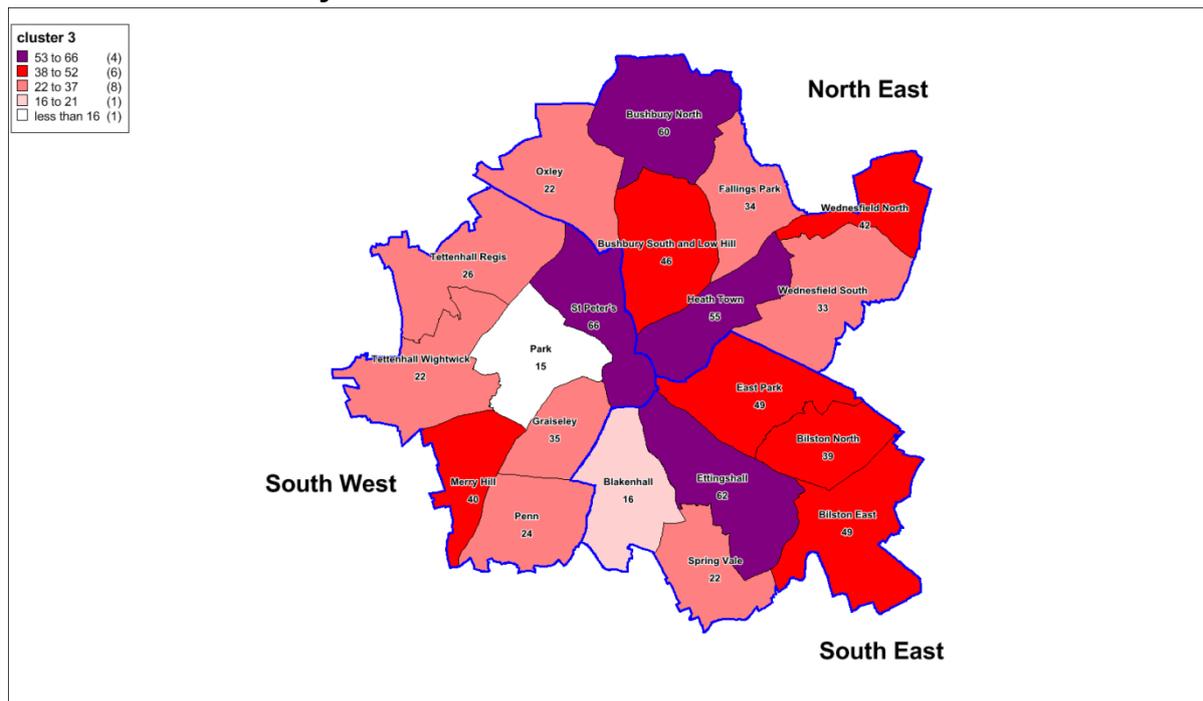
People from this cluster are more likely to be overweight and significantly more likely to be obese. Nothing on its own stands out as a single factor for this cluster to focus on they require improvement across all lifestyle areas.

757, 10.2% of total population

In this cluster there are a slightly higher proportion of males compared to the overall population, the age distribution is not too dissimilar from the overall population for those aged under 70, however, there is an over-representation of those aged over 70. In terms of ethnicity, there is a large over representation of those from a white ethnic background. Only 15% of this cluster is from a Black Minority Ethnic (BME) group. There is a slight over representation of those from the more deprived areas, in particular the St Peters ward, but in general, individuals in this cluster are spread across the city. There is an over-representation in this group of those who are retired, the rest of the group are mainly working full or part time. People in this cluster have similar qualifications to the overall population, however, they are less likely to have qualifications higher than GCSEs A-C or equivalent.

It was identified that this group need to improve in all areas, it is encouraging that 66% want to eat healthier and 60% want to be more active, both more than the overall population. Things that would help this group to eat more healthily are similar to the overall population; cheaper healthy food, more healthy produce available in local shops and more time to prepare healthy food. 60% of this cluster stated that they did not need any help to be more active. For those that do want help the most popular choices were; availability of local sports/leisure facilities close to home, having more time, reduced/free membership to gym or leisure facilities and someone to exercise with. It is worth noting that the response, 'having someone to exercise with' is over represented compared to the overall population. Furthermore, this cluster had the lowest response for 'More healthy options in takeaway/convenience foods'.

Number in cluster by ward of residence



Cluster 4 “Healthy Weight Poor Lifestyle”: Contains people who are a healthy weight, 50% of the healthy weight population appear in this cluster. People in this cluster are more likely to have average wellbeing. Despite being a healthy weight nearly all the people in this cluster eat unhealthily. Compared to the overall population people in this cluster are more likely to be smokers. People from this cluster mainly abstain from drinking and none are high risk drinkers. They are much less likely to engage in vigorous activity, although they have similar levels of moderate activity compared to the overall population. For this cluster despite being a healthy weight they are at risk of becoming overweight and obese given their lifestyle choices and the focus should be on improving diet and exercise levels as well as smoking cessation where appropriate.

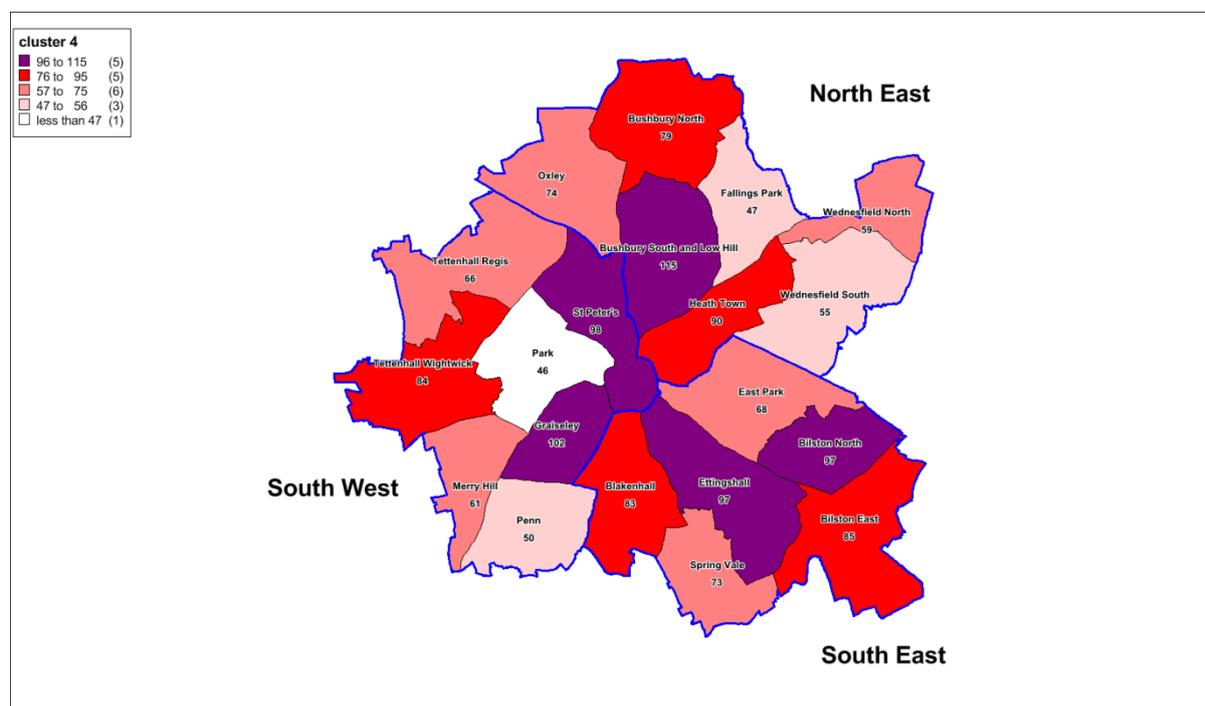
1529, 20.6% of total population

This cluster has a higher proportion of females (58%). The age distribution is fairly similar to that of the overall population, with a slightly higher proportion of the younger population (those aged under 29). The breakdown of ethnicity is fairly similar to the overall population, however, it is worth noting there is a slightly higher proportion of those from an Asian background. Deprivation and ward breakdowns are similar to the population overall. This is supported by the map of individuals who are spread across the city. Despite the majority of this cluster working or being retired, there is also an over represented proportion of those who are students. In terms of qualifications, there are no clear differences between this cluster and the overall population.

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62% want to eat more healthily and of these, 32% said they could do this by themselves (similar to the overall population). Things that would help are; cheaper healthy food, more healthy produce available in local shops and more time to prepare healthy food. It is also worth noting that this group are least likely to want 'advice from a GP / Nurse', with the lowest proportion out of all the clusters. 57% of this cluster wants to be more active, and half of these want help with this. Common responses were; having more time, availability of local sports/leisure facilities close to home, free/reduced price leisure and gym memberships and having someone to exercise with. Although not as popular, there is an indication that advice from a health care professional may be beneficial. Of those who smoke, only 36%, lower than the overall population, said they wanted to quit. Of those who want to quit, 41% said they could do this on their own. Other things that would help (in order of preference), are: e-cigarettes, NRT, support from a GP/nurse and using an NHS stop smoking service/Smoking Advisor.

Number in cluster by ward of residence



Cluster 5 “Overweight’s”: Contains people who are overweight, 45% of the overweight population appear in this cluster. People in this cluster are more likely to have average wellbeing. All of the people in this cluster eat unhealthily however they are less likely to smoke and none are high risk drinkers. This cluster is much less likely to engage in vigorous activity, although they have similar levels of moderate activity compared to the overall population. Individuals from this cluster should consider healthy eating and increasing their exercise levels to improve their lifestyles.

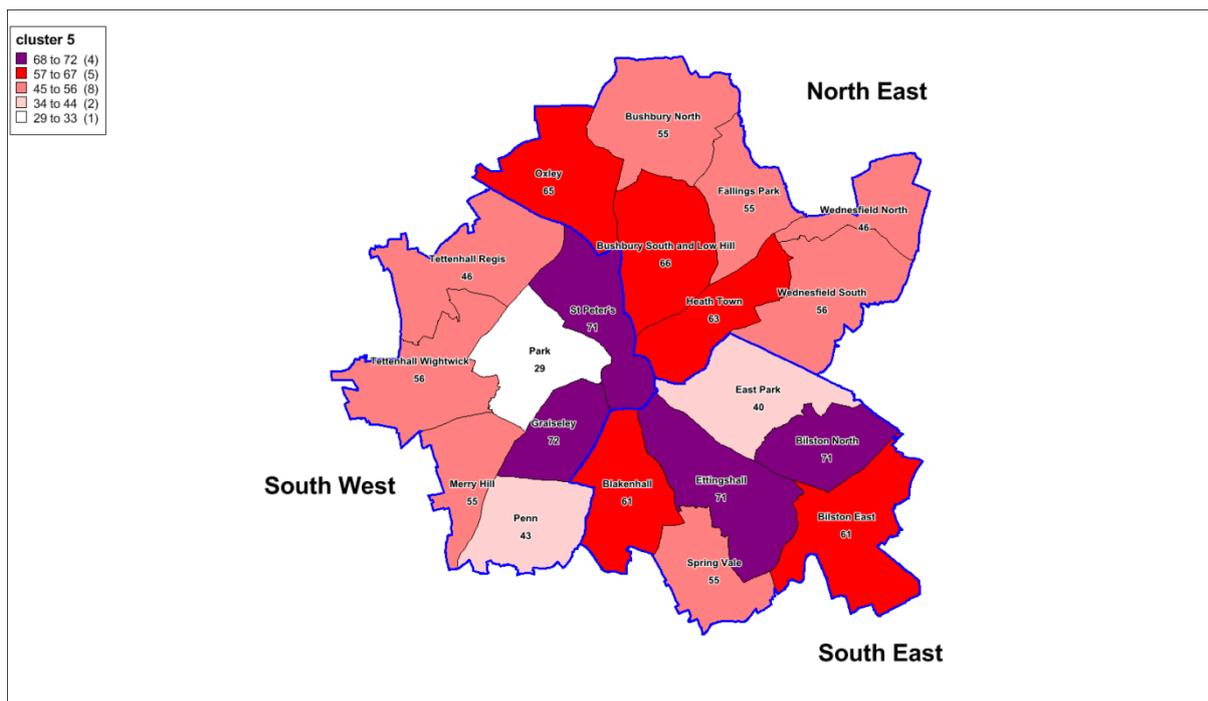
1137, 15.3% of total population

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This cluster has a fairly equal gender split like the overall population, but with slightly more males. Although fairly similar to the overall population, this cluster has a slight under-representation of the younger population (aged under 24). This cluster is similar to cluster 4 (healthy weight; poor lifestyle) but slightly older and is potentially where individuals from cluster 4 could end up. The ethnic breakdown is similar to cluster 4 but with a larger over representation of those from an Asian ethnic background. Deprivation and ward breakdowns are similar to the population overall. This is supported by the map of individuals who are spread across the city. It is logical that the retired population is over represented and there are less students in this cluster, compared to cluster 4 and the majority of the others work full or part time. Qualifications are similar to the overall population but there is a higher proportion of those who have none.

63% want to eat more healthily and of these, 32% said they could do this by themselves (similar to the overall population and cluster 4). Things that would help are; cheaper healthy food, more healthy produce available in local shops and more time to prepare healthy food. 56% of this cluster wants to be more active, and it is encouraging that over half of these want help with this. Common responses were; having more time, availability of local sports/leisure facilities close to home, free/reduced price leisure and gym memberships, improved personal motivation and having someone to exercise with. Interestingly, the proportion who responded 'reduced price leisure and gym memberships' is lower than the overall population, however, for 'free leisure and gym memberships' this cluster has the highest response out of all ten (43%). Although not as popular, there is an indication that advice from a health care professional may be beneficial.

Number in cluster by ward of residence



Cluster 6 “Drinkers and Smokers”: This cluster contains people who are all high risk drinkers making up 70% of the overall high risk drinking population. As well 45% of people in this cluster are current smokers. The majority of those in this cluster have average wellbeing. For this cluster people are more likely to be overweight and less likely to be obese compared with the overall population. For this cluster activity levels and healthy eating behaviour are also worse than the overall population. The focus for this cluster should be on reducing alcohol consumption as well as smoking cessation, although healthy eating and exercise levels could also do with improvement for this cluster.

685, 9.2% of total population

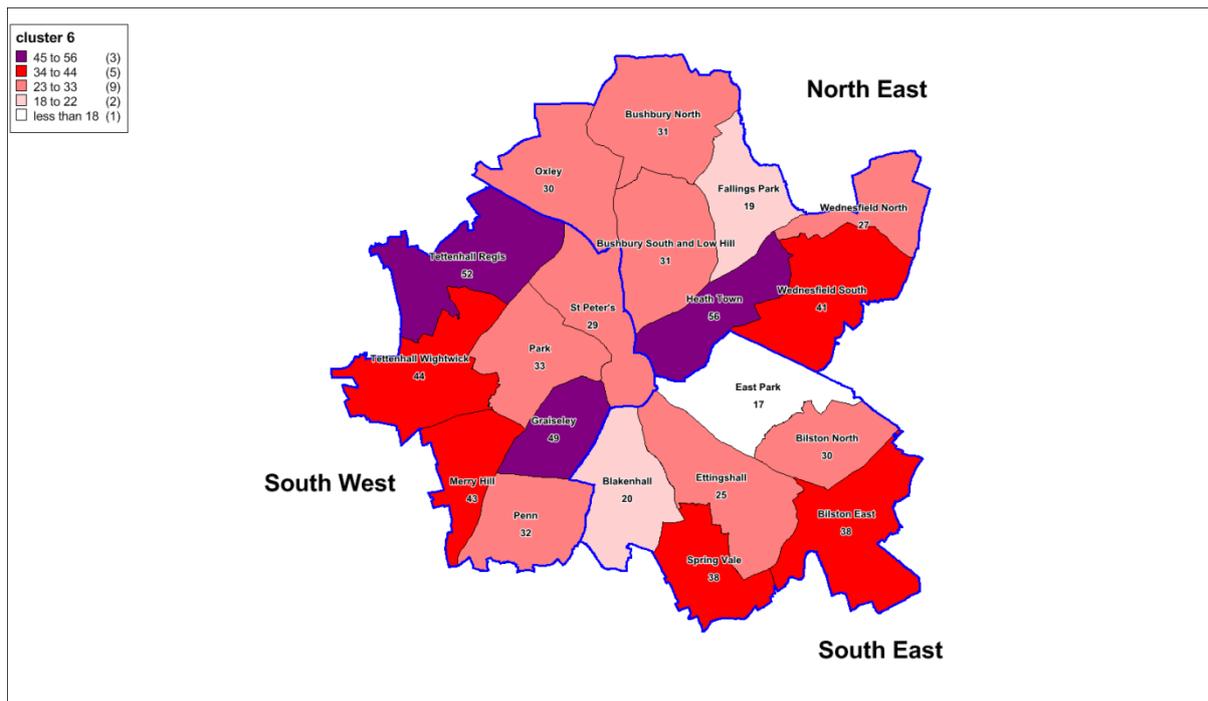
This cluster contains mainly males (70%), much more than the overall population, the age distribution is fairly similar to the overall population, however, there are more in this cluster that are aged between 25 and 49 and less aged over 60. This cluster have an over represented proportion of people who are white (83%). Interestingly, although people are spread across the city for this cluster there is a higher concentration of people from the south western wards of the city, this is also reflected in terms of deprivation whereby there is a slightly higher proportion in the least deprived compared to the overall population. This cluster has a much higher proportion compared to the overall population of those who work full time, there is also a higher proportion of those who are self-employed or unemployed. In terms of qualifications, noticeable differences to the overall population include; a lower proportion of those with no qualifications and more individuals that have A levels or equivalent.

Alcohol is the main issue to address for this cluster, unfortunately, it is not possible to identify whether individuals want to reduce alcohol consumption, however, a proxy indicator for this is that 11% of this group who made a “New Year’s” resolution, did so about alcohol. This is much higher than any other cluster. Only 39% of those who smoke want to stop. Of these, 38% said they could do this on their own, slightly less than the overall population. Of those that want to quit, 29% suggested that e-cigarettes would help, this is higher than the overall population and one of the highest responses for e-cigarettes overall. Other popular responses were; NRT, using a stop smoking service (slightly lower than the overall population) and support from a GP/nurse (much lower than the overall population and the lowest response out of all the clusters). 65% of this cluster wants to eat more healthily, one of the highest responses overall. Interestingly, only 26% said that they can do this on their own, this is much lower than the overall population and the second lowest response overall. Things that would help are; cheaper healthy food, more time to prepare healthy food and more healthy produce available in local shops. Interestingly, 33% stated more time to prepare healthy food, this is much higher than the overall population and any other cluster, coinciding with this, although not as popular as other options, this cluster have the highest proportion who stated ‘more healthy options in takeaway/convenience foods’. It is encouraging that 62% of this cluster

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stated that they wanted to be more active, the joint highest response and greater than the population overall. 49% stated that they could do this on their own. Of those that do want help, common responses were; reduced/free membership to gyms/leisure facilities, having more time, availability of local sports/leisure facilities close to home, improved motivation and someone to exercise with. It is worth noting that 24% responded 'improved motivation', the highest response out of all the clusters and much higher than the overall population.

Number in cluster by ward of residence



Cluster 7 “Obese and Average Wellbeing”: Contains people who are obese, 58% of the obese population appear in this cluster. The overwhelming majority of those in this cluster have average wellbeing. People in this cluster have similar healthy eating behaviour to the overall population and are less likely to be vigorously/moderately active. However most of this cluster do not smoke and are most likely to abstain or drink at low risk. The focus for lifestyle improvement for this cluster should be on healthy eating as well as increasing exercise levels.

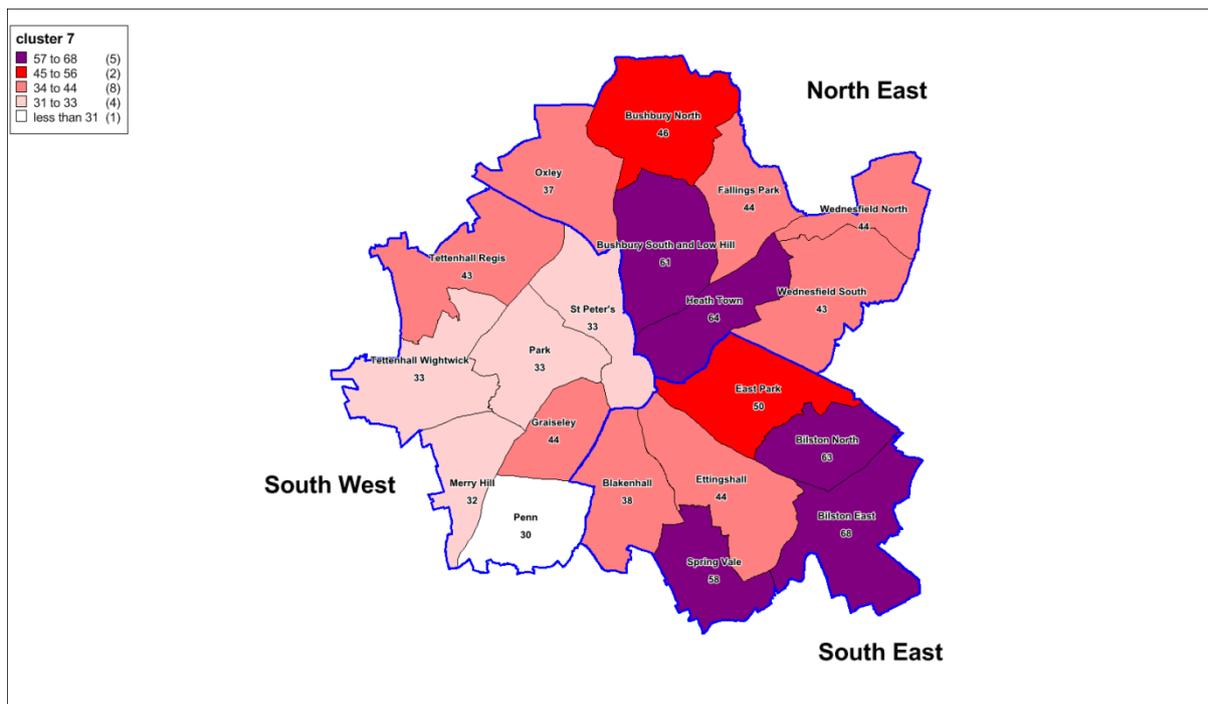
908, 12.2% of total population

This cluster contains more females than the population overall, the age distribution is an under representation of the younger population and contains more of those who are aged 50 and over. The ethnic distribution is similar to that over overall population, however, there is an over representation of those from a black ethnic group. The ward and deprivation distributions are fairly similar to that of the overall population but with a slightly higher distribution in the South East of the city, as can be seen in the map below. There is an over represented proportion of those who are retired and those who have no qualifications.

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67% of this cluster wants to eat more healthily, this is much more than the overall population and the highest response out of all the clusters. Only 26% of this cluster stated that they could do this on their own. Things that would help are; cheaper healthy food, more time to prepare healthy food and more healthy produce available in local shops. Although not as popular as the other options it is worth noting that 12% responded 'advice from a dietician/nutritionist', much higher than the overall population and one of the highest responses out of all the clusters. 65% of this group want to be more active, the highest response overall, of these, 60% suggest that they can do this by themselves. Of those that do want help, common responses were; reduced/free membership to gyms/leisure facilities (although this was lower than the overall population), having more time, availability of local sports/leisure facilities close to home, improved motivation and someone to exercise with. It is also worth noting that 12% suggested advice from a health care professional may help and 9% responded 'improved personal safety', the highest response out of all the clusters and much higher than the overall population.

Number in cluster by ward of residence



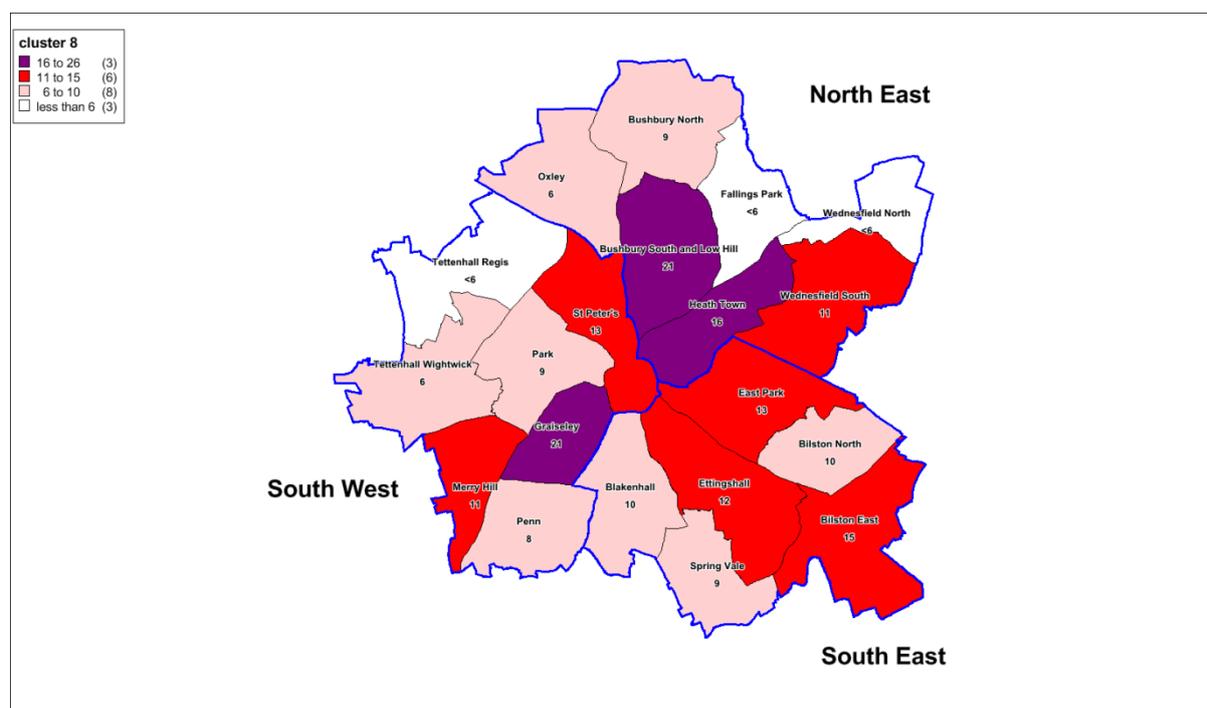
Cluster 8 “Underweight’s”: Contains people who are underweight, 97% of the underweight population appear in this cluster. The majority of this cluster eat unhealthily and are much more likely to be smokers. More of this cluster abstains from drinking however they are only slightly less likely to be high risk drinkers as well. This cluster has a similar profile for wellbeing as the overall population. Moderate activity levels for this cluster are just below the overall population average whilst vigorous activity appears to be just higher but neither are significantly different. The focus for this cluster should be improving healthy eating levels as well as smoking cessation.

208, 2.8% of total population

This group is mainly female (63%) and predominantly young with 50% of this cluster being under 29 and nearly a quarter are aged 16-19. Although this cluster are predominantly white, there is an over representation of the Asian population, accounting for just over 20%. Individuals in this cluster are more likely to live in the more deprived areas of the City, particularly towards the centre. Although over 20% are working full time, this is under represented compared to the overall population and a similar proportion of individuals are in full time education or a student, there is also an over representation of those who are unemployed. Although like the overall population, the majority have no qualifications, there is an over representation of those who have GCSE's.

Only 56% of this cluster want to eat more healthily, one of the lowest responses overall. 28% suggested that they can do this on their own. 27% suggested that more healthy produce available in local shops would help, the highest response out of all the clusters. Interestingly, despite being the most popular response, this cluster had the lowest response for 'cheaper healthy food' at 34%. 'More time' would also help and this cluster had the highest response for 'cooking classes/lessons to learn how to cook/prepare healthy foods', however, small numbers require interpreting with caution. Despite small numbers, it is encouraging that 44% of this population want to quit smoking, higher than the overall population. Just over half of these suggest they can do it alone. Although small numbers, the others suggest that help from a GP/nurse may be beneficial.

Number in cluster by ward of residence



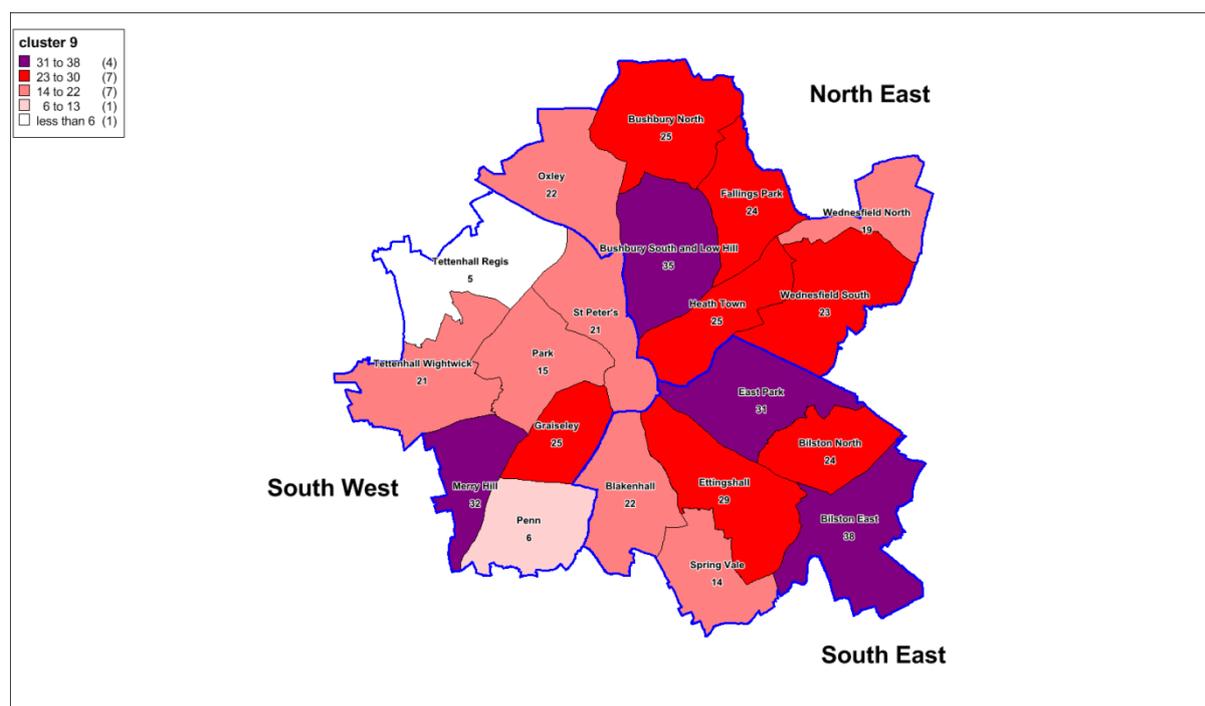
Cluster 9 “Below Average Wellbeing”: Contains people who have below average wellbeing, 97% of the below average wellbeing population appear in this cluster. People in this cluster are much more likely to be obese, smoke and not take part in vigorous/moderate activity. In addition they are much more likely to eat unhealthily. Rates of high risk drinking for this cluster are a little lower than in the levels within the overall population and they are slightly more likely to abstain from alcohol. For this cluster a multitude of factors are an issue therefore they will need to focus on lifestyle improvement across all factors.

456, 6.2% of total population

This cluster has slightly more women compared to the overall population, and the age distribution contains more of those aged over 40. There is a large over representation of the white population (80%). Individuals in this cluster are more likely to live in the more deprived areas of the City (70% of individuals), particularly in the South East, Bilston East ward. The majority of this group are retired, followed by long term sick/disabled, working full time and then unemployed, all except working full time are over represented compared to the overall population. 46% of this cluster have no qualifications, 14% more than the overall population.

Only 56% of this cluster wants to eat more healthily and 25% said they can do this on their own. Things that would help are; cheaper healthy food, more healthy produce available in local shops and there are indications that advice from a GP/nurse or dietician/nutritionist may also be beneficial. 58% want to be more active and 66% want help to be more active. Of those that do want help suggested that reduced price/free gym/leisure facilities membership may help and availability of specialised exercise/activities for people with medical conditions. It is also worth noting that this cluster had the highest response (17%) for advice from a health care professional. It is encouraging that 46% of those who smoke want to stop and only 33% said they could do this on their own. Interestingly, 30%, (the highest overall) suggested that e-cigarettes would help, the next most popular were support from GP/nurse, stop smoking services and NRT. Areas that were suggested that would help improve well-being were; more money, being able to get out and do more, more time to themselves, help from a GP/nurse, counselling and someone to talk to.

Number in cluster by ward of residence



Cluster 10 “Very Low Wellbeing”: This cluster contains all of those with the lowest level of wellbeing in the overall population. People in this cluster are much more likely to eat unhealthily, not take part in moderate/vigorous activity, smoke and be obese. However they are more likely to abstain from drinking alcohol but have higher risk drinking rates similar to the overall population level. For this cluster a multitude of factors are an issue therefore they will also need to focus on lifestyle improvement across all factors.

167, 2.3% of total population

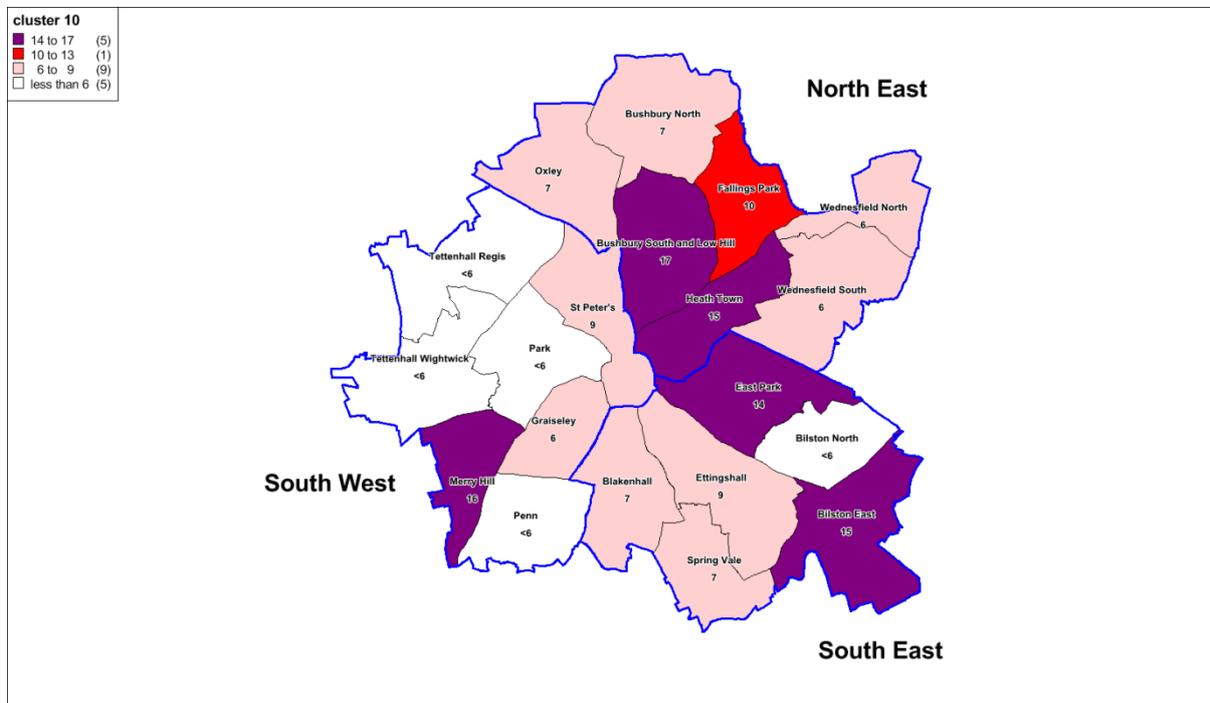
This cluster is similar to cluster 9 (below average wellbeing) and has slightly more women compared to the overall population, and the age distribution contains more of those aged 45 to 64. There is a large over representation of the white population (84%). Also like cluster 9, individuals in this cluster are even more likely to live in the more deprived areas of the City (75% of individuals), particularly in the East. The majority of this group are retired, followed by unemployed and long term sick/disabled which is largely over represented compared to the overall population. 47% of this cluster have no qualifications and there is an over represented proportion of those who have lower level GCSE's or equivalent.

66% of this cluster want to eat more healthily and only 21% (the lowest response overall) said they can do this on their own. Other things that would help are; cheaper healthy food (54% said this, the highest overall), more healthy produce available in local shops and there are indications that advice from a GP/nurse or dietician/nutritionist may also be beneficial, with the highest responses overall. 62% want to be more active and 84% want help to be more active.

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Of those that do want help suggested that free gym/leisure facilities membership may help, availability of specialised exercise/activities for people with medical conditions, availability of local sports/leisure facilities close to home, someone to exercise with and if they could exercise at home. It is also worth noting that this cluster had the highest response for exercise on referral and personalised exercise advice and sessions. It is encouraging that 42% of those who smoke want to stop and only 27%, the lowest of all responses, said they could do this on their own. Interestingly, 40%, the highest overall, suggested that support from their GP/nurse would help, the next popular was stop smoking services, NRT and e-cigarettes. Areas that were suggested that would help improve well-being were; more money and advice about money, being able to get out and do more, more time to themselves, help from a GP/nurse, counselling and someone to talk to.

Number in cluster by ward of residence



Clusters by main behaviour type

Looking at cluster centres (figure below), it can be further established which clusters may be similar and dissimilar.

Each cluster is labelled by their most prominent feature. The most similar clusters are 4 and 5, the “Overweight’s” and “Healthy Weight Poor Lifestyle” clusters. This is unsurprising as these individuals have similar demographics, unhealthy behaviours; they do not eat healthy, and tend not to be physically active. In addition both groups tend to have average wellbeing scores and are less likely to be high risk drinkers. It appears the main difference between these clusters is caused by the higher smoking rates in the “Healthy Weight Poor Lifestyle” cluster. The clusters that are polar opposites in terms of similarity are the “Drinkers and Smokers” compared to the “Healthy Eaters”; and those who are “Vigorously Active” compared to those with “Very Low Wellbeing”.

