PETERBOROUGH CITY COUNCIL

NHS
Cambridgeshire and Peterborough
Clinical Commissioning Group

Draft

Older People's Primary Prevention JSNA

2017

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Key to Abbreviations

PCC – Peterborough City Council

CCG – Clinical Commissioning Group

PCVS – Peterborough

PCH – Peterborough City Hospital

CPFT – Cambridgeshire and Peterborough Foundation Trust

EXECUTIVE SUMMARY

Ageing is a valuable, yet often challenging process, and older people make multiple vital contributions to local communities and society at large. To prevent ill health in later life and promote healthy ageing, sectors and communities need to believe that getting old should be celebrated, and that communities are far richer because of the value older people bring.

Many older people will experience significant losses, whether in their physical or cognitive health, or through the loss of family, friends and the roles they had earlier in life. Some of these losses can be avoided and efforts should be made to prevent them. But other losses will be inevitable. Local responses to ageing should not deny these challenges but look to foster resilience, recovery and adaptation.

This JSNA has focussed on the most powerful determinants or risk factors relevant to health in later life which include physical activity, diet, smoking, alcohol and surrounding environments. Each focus area has been explored across four themes: context, local data, recent evidence-base and local solutions and assets. The JSNA aims to present a foundation for work going forward in these areas to promote health for older people by establishing the current local picture, understanding what works regarding evidence and how we can make this happen locally in Peterborough.

There is much to be done going forward, but it is envisaged that using the information provided in this piece of work will ensure a common starting point for use and collaboration across all sectors.

1. INTRODUCTION

For the first time in history, the fastest growth in the UK's population is in the older age groups. By 2050, one in four people will be 65 years or older. A longer life brings great opportunities. Yet, evidence suggests that older people are not experiencing better health than previous generations, and that those who have experienced disadvantage across their lifetime have a higher risk of poor health. While Peterborough's older population is currently "younger" than the England average, anticipated changes will see the proportion of older people soon aligning with projections nationally.

Age increases the risk of many health disorders and these can have significant impacts on an older person's independence and ability to function day-to-day. As people age, they are more likely to experience multimorbidity – the presence of multiple long-term conditions at the same time. Multimorbidity has significant impacts in older age. As the number of chronic conditions increases, so does the risk of declines in capacity. However, the impact of multimorbidity on functioning in older age is determined not only by the number of concurrent health conditions but also by the particular diseases involved. Health and care responses have focussed on single conditions, without incorporating information on potential comorbidities and often conflicting with treatment or lifestyle changes for other conditions.

The greatest disease burden in older age is due to non-communicable diseases, therefore risk factors for these conditions are important targets for health promotion. In particular physical activity, nutrition, alcohol, smoking and environments and access, have strong links with health and wellbeing across the life course and in later life.

Strategies to reduce the burden of disability and mortality in older age by focussing on prevention and enabling healthy behaviours can therefore start early in life and should continue across the life course. Strategies to reduce their impact continue to be effective in older age, particularly for sustained physical activity, improving nutrition and stopping smoking. There is also growing evidence that engaging in healthy behaviours not only lowers the risk of developing long-term conditions, but also has powerful impacts on intrinsic capacity and resilience which are central strategies to reverse or delay declines in capacity, loss of independence and even conditions such as frailty.

Healthy Ageing is relevant for everybody. It is defined as the process of developing and maintaining the functional ability that enables wellbeing in older age. To achieve healthy ageing the prevention of poor health in later life for local communities, local sectors and partners are well placed to support and foster resilience at a number of levels.

2. PHYSICAL ACTIVITY

'If exercise were a pill, it would be one

of the most cost-effective drugs ever invented'[1]

Source: Make Sport Fun

2.1 KEY FINDINGS

Physical inactivity is the fourth leading risk factor for death worldwide; the positive impacts of physical activity and the negative impacts of physical inactivity on the health of older adults are well known.

'How active?' guidelines for older adults have been produced by Chief Medical Officer (CMO) which describe ideal levels of activity that are beneficial to health and wellbeing. In terms of how many older adults meet these guidelines, there is data for England available and an indication of participation for Peterborough. Older adults are not a homogenous group; an interpretation of the CMO guidelines for three groups of older adults ('actives', in 'transition' and 'frail') is available.

There is some evidence of what works; volume of activity is more important that engaging in specific types of activity. There is evidence of the cost effectiveness of interventions and indication of the cost of physical inactivity.

Peterborough is not a blank page; assets in the community exist. These may not be available to all, and sustained funding is not assured. The local assets include older adults who are trained volunteers.

[1] Community Links Early Action Task Force (2014). Looking forward to later life: taking an early action approach to our ageing society: http://www.community-links.org/earlyaction/looking-forward-to-later-life

2.2 CONTEXT: WHY IS BEING PHYSICALLY ACTIVE IN OLDER AGE IMPORTANT?

Physical activity is a broader concept than 'exercise' or 'sport' or other terms that may be used and can be defined as:

> '*any body movement produced by the skeletal muscles which results in a substantial increase over resting energy expenditure'.*[2]

In comparison, physical *inactivity* is described as *'doing no or very little physical activity at work, home, for transport or during discretionary time …. not reaching physical activity guidelines deemed necessary to benefit public health'.*[3]

Physical inactivity is the fourth leading risk factor for death worldwide.[4] Furthermore, prolonged periods of sedentary behaviour may be adversely associated with chronic disease morbidity, irrespective of whether physical activity guidelines are reached[5].

Physical activity has been shown to have a positive impact on the health of older adults (65+ years).[5] The evidence suggests that:

- Physical activity improves cardiovascular fitness, strength and physical function of older adults and reduces susceptibility to falls.[5,6]
- Physical activity can assist in reversing the decline of physical function even in later life.[5]
- Physical activity improves the psychological health of older adults such as self-esteem and mood.[5]
- Physical activity reduces aspects of cognitive decline[6] and is likely to prevent the development of vascular dementia.[7]
- Regular physical activity is associated with the maintenance of functional activities and independence in later life.[5]
- For older adults, the health benefits of activity far outweigh the risks.[8]
- Older adults who are physically active are healthier than older adults who are physically inactive.[9]

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2 British Heart Foundation National Centre (2012). Physical Activity and Older Adults (65+): evidence briefing. Loughborough University. See: http://www.bhfactive.org.uk/homepage-resources-and-publications-item/313/index.html

3 Quoted in British Heart Foundation National Centre (2012). Interpreting the UK physical activity guidelines for older adults (65+). Loughborough University.

4 World Health Organisation (2014). Physical Activity Fact Sheet.

5 British Heart Foundation National Centre (2012). Physical Activity and Older Adults (65+): evidence briefing. Loughborough University. See: http://www.bhfactive.org.uk/homepage-resources-and-publications-item/313/index.html.

6 Department of Health (2011). Start Active, Stay Active: Chief Medical Officers Guidelines on Physical Activity. London.

7 Aarsland, D et al. (2010). Is physical activity a potential preventive factor for Vascular Dementia? A systematic review. Ageing & Mental Health. Vol 14, No 4, 386-395.

8 Engaging in physical activity carries very low health and safety risks for most older adults. In contrast, the risk of poor health as a result of inactivity are very high. For more information see Department of Health (2011). Start Active, Stay Active: Chief Medical Officers Guidelines on Physical Activity. London

9 Hamer M., et al. (2014). 'Taking up Physical Activity in Later Life and Healthy Ageing: the English Longitudinal study of Ageing'. British Journal of Sports Medicine; London.

- Inactive older adults who take up physical activity in old age improve their chances of staying healthy compared with those who remain inactive.[10]

2.3 DATA: WHAT DO WE KNOW ABOUT PHYSICAL ACTIVITY LEVELS LOCALLY?

2.3.1. PHYSICAL ACTIVITY LEVELS: OLDER PEOPLE LIVING IN ENGLAND

Functional capacity declines with age; strength, endurance capacity, bone density and flexibility are lost at about 10% per decade and muscle power is lost even faster at around 30% a decade. Gradually this loss in physical function will impact upon an older person's ability to maintain an independent life.[11]

The latest Health Survey for England[12] conducted in 2012 indicated that the proportion of older adults nationally meeting physical activity recommendations was:

- 57% of men and 52% of women aged 65-74 years.
- 43% of men and 21% of women aged 75-84 years.
- 11% of men and 7% of women aged 85+ years.

Walking ability further declined with age as 36% of men and 56% of women aged 85+ noted walking difficulties. 14% of men and 25% of women aged 65+ had a walking speed of less than 0.5 metres per second, slower than the required speed of 1.2 metres per second to cross at traffic lights.

While participation in physical activity decreases throughout later life among both men and women, the British Heart Foundation National Research Centre 2012 report found that men still remain more active than women.[13]

2.3.2. PHYSICAL ACTIVITY LEVELS: OLDER PEOPLE LIVING IN PETERBOROUGH[14]

The level of physical activity in older people living in Peterborough is currently challenging to identify. The only regular survey of physical activity related participation is the Active People Survey.[14] This survey measures participation in sport and as active recreation and includes activities such as recreational and 'sport' walking as well as activities considered 'moderate intensity' for this age group such as cycling, bowls, archery, yoga, pilates, and croquet. The indicator does not include activity related to travel such as walking to work or physical activity while at work. Levels of

10 NICE (2014). Eyes on Evidence: Physical activity in older people and healthy ageing.

11 Skelton, D. A., Young, A., Walker, A. and Hoinville, E. (1999) Physical activity in later life: Further analysis of the Allied Dunbar National Fitness Survey and the Health Education Authority National Survey of Activity and Health. London: H.E.A.

12 British Heart Foundation National Centre (2014): Current levels of physical activity in older adults. Loughborough University.

13 British Heart Foundation National Centre (2012). Physical Activity and Older Adults (65+): evidence briefing. Loughborough University. See: http://www.bhfactive.org.uk/homepage-resources-and-publications-item/313/index.html.

14 Sport England (2016). Active People Interactive: Adult Participation in sport and active recreation (NI8): October 2014 – September 2016 (APS9 and 10). Available at: http://activepeople.sportengland.org/

participation in sport/recreation could be considered as 'indicative' of physical activity levels in Peterborough.

The Active People Survey[14] indicates that 11.9% of older Peterborough residents (aged 55+ years) report participating in sport/active recreation of at least moderate intensity for 30 minutes on at least 12 days out of the last four weeks (equivalent to 30 minutes on three or more days a week) (Figure 1). Of the 14 local authorities with a similar socio-economic profile, Peterborough has the 8th highest participation levels.

A comparison of local participation rates against national participation rates, analysed by age (55-64 year olds and 65+ years), shows Peterborough's participation rate for 55-64 year olds in 2009/10 was 35.0% and this is higher than any observed national participation rate over the period 2005/06 and 2015/16[14] (Figure 2). Peterborough also has above average participation rates for the 65+ age group for 2015/16 (26.5% participation rate in Peterborough compared to 18.3% in England in 2015/16) (Figure 2). It should be noted that these data are based on results from the Active People's Survey, which targets only a small proportion (approximately 500 people within the 55+ age group) of the total population and therefore caution should be exercised in applying these results to the wider population.

The Active People Survey also measures zero participation in any sessions of sport. The data shows that zero participation rates in Peterborough in the 65+ age band decreased between 2010/2011 and 2015/16 but an increase was observed in the same time period in the 55-64 age band[15] (Figure 3). Zero participation in any sessions of sport in Peterborough was lower than the England average in people aged 65+ in 2012/13 and 2015/16 and lower than the England average in people aged 55-64 in 2013/14.

[15] Sport England (2016). Active People Interactive: Sports Participation: No Sport: October 2014 – September 2016 (APS9 and 10). Available at: http://activepeople.sportengland.org/

Figure 1: Participation in sport and active recreation

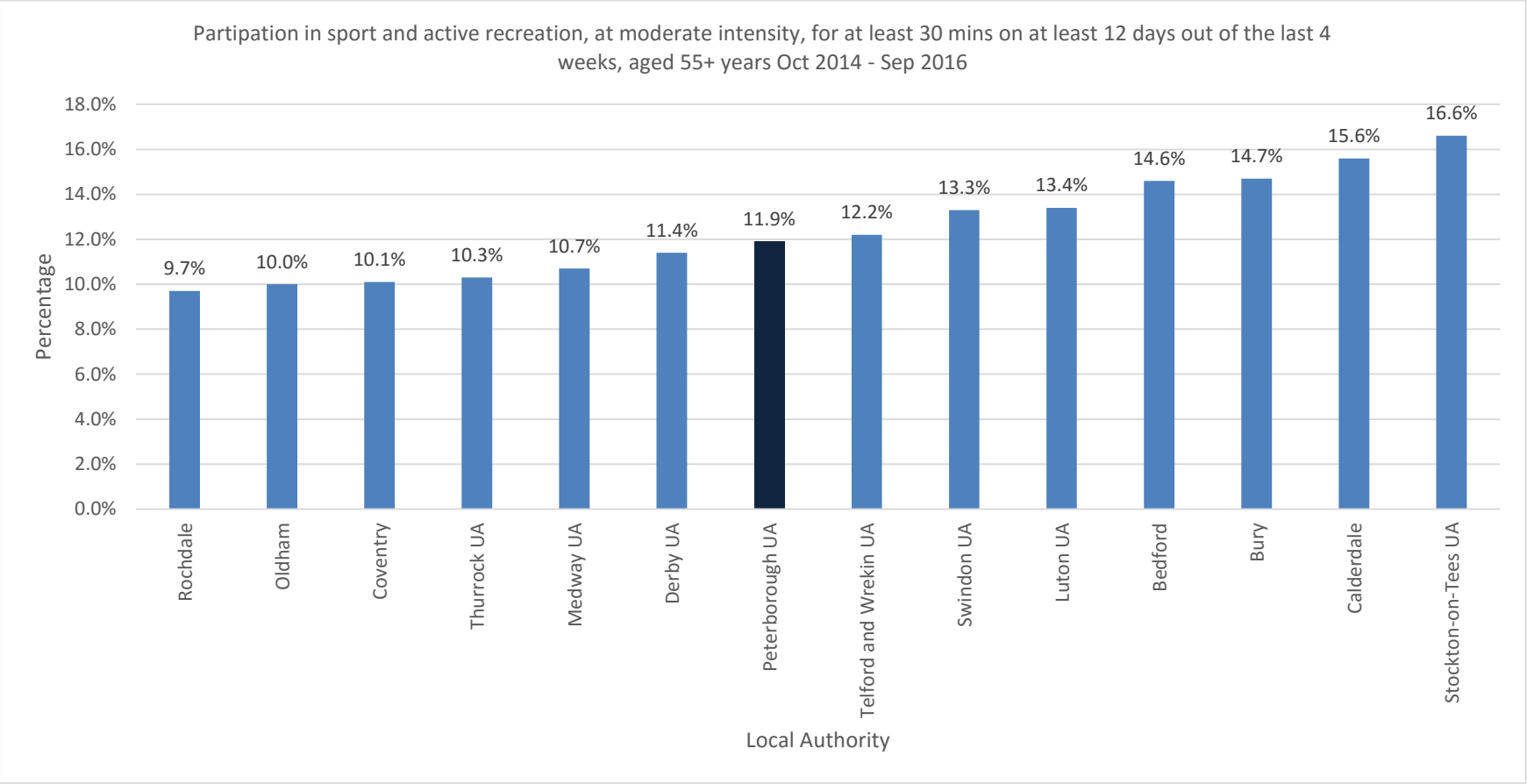

Figure 1 shows the percentage of Peterborough residents who self-report participating in sport/active recreation of at least moderate intensity for 30 minutes on at least 12 days out of the last 4 weeks when questioned between October 2014 and September 2016.

Source: Active People Survey, Sport England

Figure 2: Trends in participation in sport and active recreation

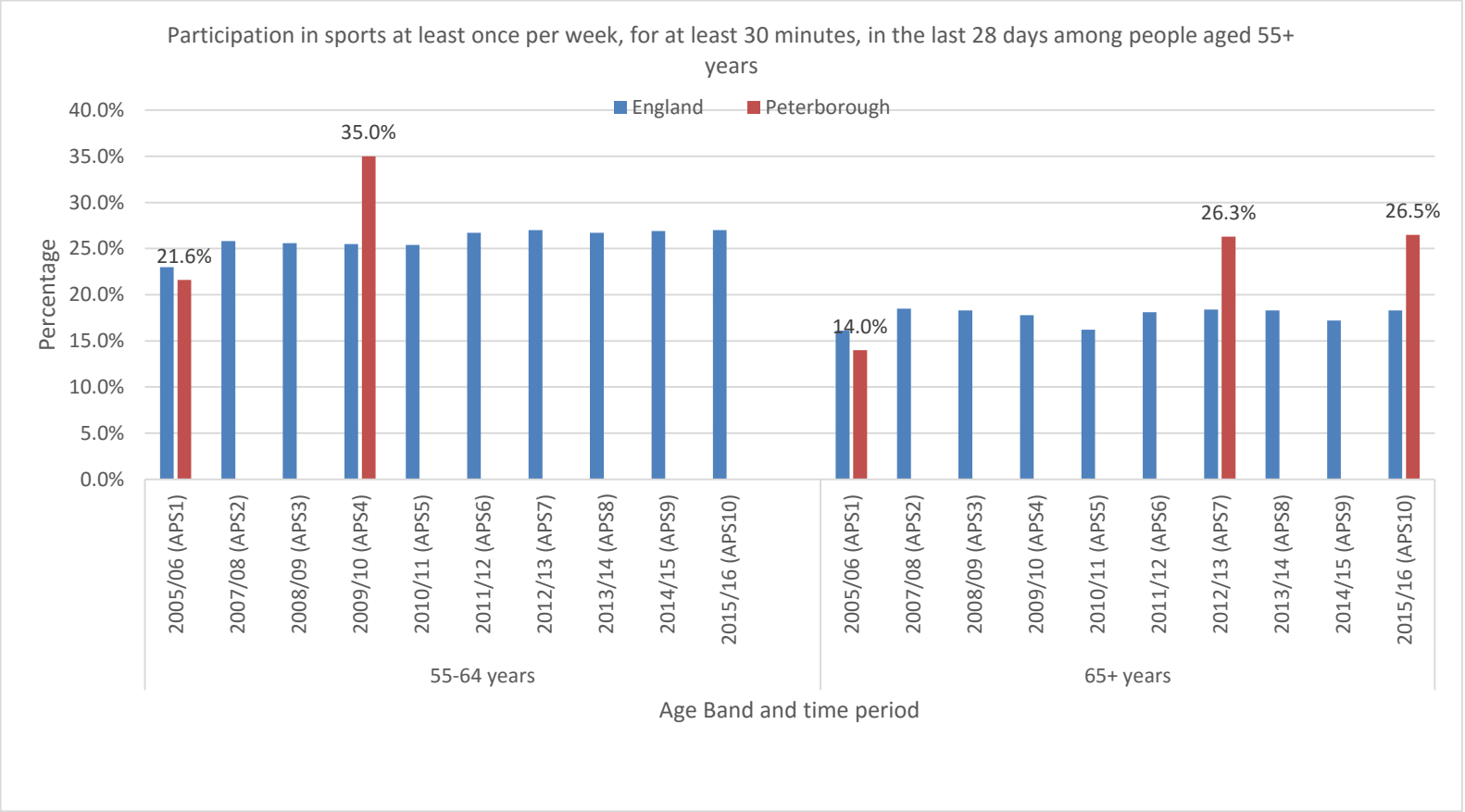

Figure 2 compares Peterborough to England in regards to participation in sports at least once per week, for at least 30 minutes, in the last 28 days from when the question was asked among people aged 55 years or older. Data are only available for Peterborough for 2005/06 and 2009/10 among 55-64 year olds, and available for 2005/06, 2012/13 and 2015/16 for 65+, due to an insufficient sample size being gathered in other years.

Source: Active People Survey, Sport England.

Figure 3: Zero participation in sport by age bands 55-64 years and 65+ years

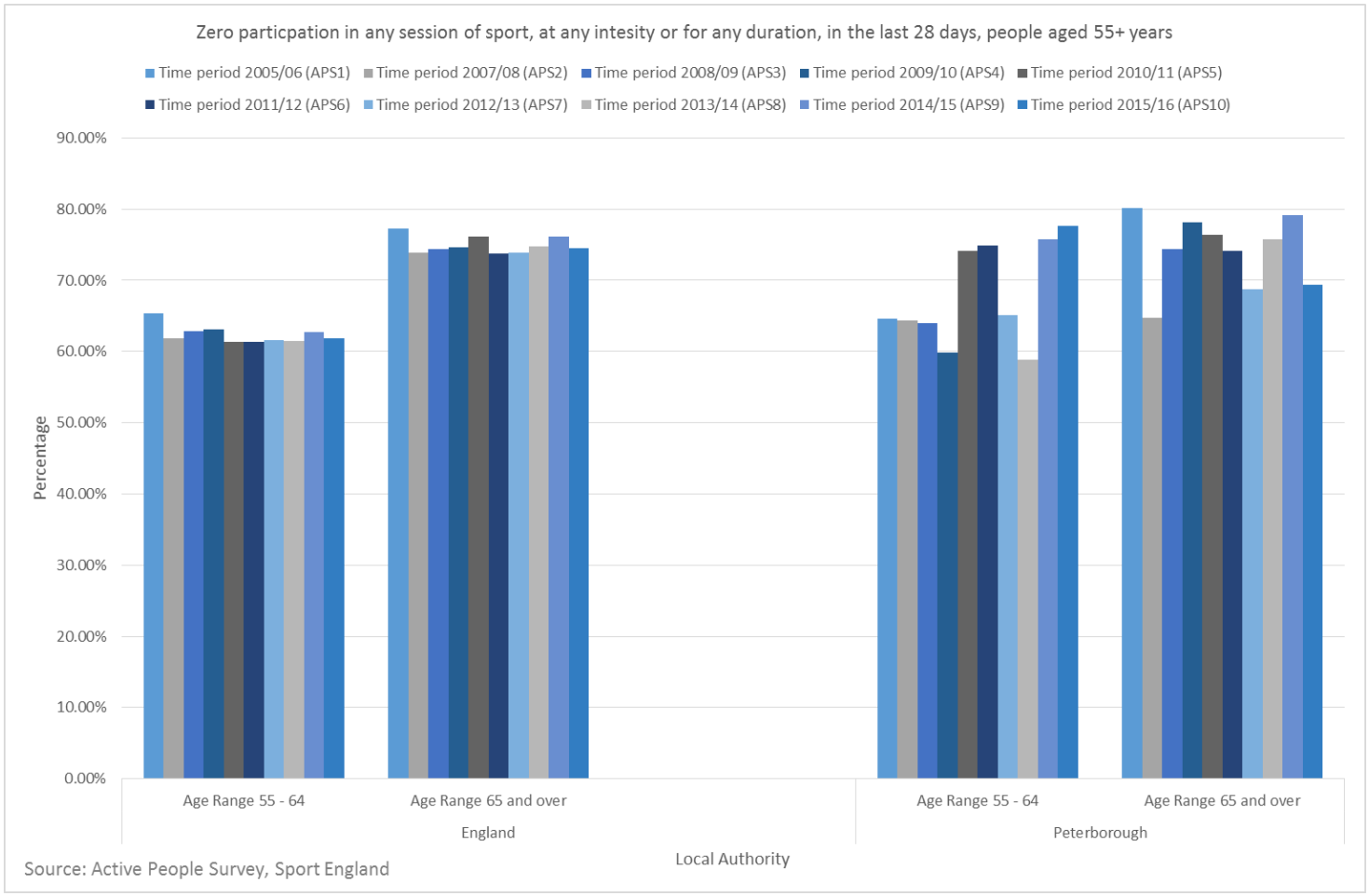

Figure 3 shows self-reported zero participation in any sessions of sport, at any intensity or for any duration, in the last 28 days for people 65+ years living in Peterborough and its Chartered Institute of Public Finance and Accountancy (CIPFA) nearest neighbours 2015-16).

Source: Active People Survey, Sport England

2.4 EVIDENCE BASE: WHAT WORKS? WHAT IS RECOMMENDED?

2.4.1 FACTORS INFLUENCING PHYSICAL ACTIVITY IN OLDER ADULTS:

Evidence summarised in British Heart Foundation briefing (2012)[16] notes that physical activity is a complex behaviour in older adults which is influenced by a wide range of factors. Older adults face a number of internal and environmental barriers to becoming and remaining active.

These factors operate at individual, social and environmental levels. Some may be modifiable, for example, social support or attitudes. Others are fixed, such as sex or ethnicity. Understanding these factors is important for considering local opportunities to enable older people to be more active including providing support, local networks and information and advice.

Biological and demographic factors:

- Men tend to be more active than women.
- As age increases physical activity participation decreases.
- The decline in physical activity participation with age is higher among:
  - minority ethnic groups;
  - those from lower socio-economic backgrounds;
  - those who have lower levels of educational attainment.
- People living alone are more likely to have lower physical activity levels than their married peers.

Psychological factors:

- Physical activity participation is positively affected by an older adult's:
  - belief in their ability to be active;
  - confidence in their physical abilities;
  - perceptions of risk;
  - general beliefs, attitudes and values.

- Physical activity participation is negatively affected by:
  - fear of falling or over exertion;
  - concern for personal safety during the activity.

Social factors:

- Mutual trust, shared values and feelings of community among neighbours are linked to increased physical activity levels.
- Physical activity participation is influenced by 'significant others' such as health professionals, physical activity instructors, care givers, family and friends. Opinions and support given from these 'significant others' can have both a positive and negative affect on physical activity participation.

[16] British Heart Foundation (2012). Factors influencing physical activity in older adults. BHF National Centre, Loughborough University.

Environmental factors:

- Older adults are more likely than other age groups to not go out or participate in an activity, eg walking to the shops, for fear of crime.
- Pedestrians are most likely to be victims of a road traffic accident, and many older adults are unable to cross a road within the allotted a time of a traffic light controlled crossing.
- A lack of transport is frequently cited by older adults as a reason they are unable to take part in activities.
- Older adults have reported that having somewhere interesting to go motivates them to walk more.
- A lack of suitable opportunities and settings for physical activity is often reported by this age group.

2.4.2 OLDER ADULTS: HOW ACTIVE FOR HEALTH BENEFIT?

In 2011, the four Chief Medical Officers (CMO) of England, Scotland, Wales and Northern Ireland, drew on global evidence for the health benefits people can achieve by taking regular physical activity throughout their lives.[17]

For the first time, guidelines for older adults were included (Table 1) and drew upon an evidence base of prospective cohort studies and experimental research. These guidelines are still current.

Table 1: CMO Guidelines for Older Adults

Guideline
• Older adults who participate in any amount of physical activity gain some health benefits, including maintenance of good physical and cognitive function. Some physical activity is better than none, and more physical activity provides greater health benefits. • Older adults should aim to be active daily. Over a week, activity should add up to at least 150 minutes (2½ hours) of moderate intensity activity in bouts of 10 minutes or more – one way to approach this is to do 30 minutes on at least five days a week. • For those who are already regularly active at moderate intensity, comparable benefits can be achieved through 75 minutes of vigorous intensity activity spread across the week or a combination of moderate and vigorous activity. • Older adults should also undertake physical activity to improve muscle strength on at least two days a week. • Older adults at risk of falls should incorporate physical activity to improve balance and co-ordination on at least two days a week. • All older adults should minimise the amount of time spent being sedentary (sitting) for extended periods.

[17] Department of Health (2011). Start Active, Stay Active: Chief Medical Officers Guidelines on Physical Activity. London.

Although these guidelines relate to all older adults, older adults are not a homogeneous group. The age range is 40 years and chronological age may not always be helpful when describing differences in health, physical function and disease status. As the British Heart Foundation indicates,[18] many people in their late 80s do as well as those in their 60s; some in their early 70s have a functional status more expected of a 90 year old.

The British Heart Foundation has produced a series of guidance documents for professionals working with older adults who are:

- Active.
- In transition.
- Frail.

These guidance documents are listed below in Table 6 for those interested in understanding how the CMO guidelines can be applied to the three groups of older adults, each of which have differing functional status and physical activity need.

Table 2: Applying CMO guidelines for older adults

Group	British Heart Foundation guidance documents
The '**actives**' – those who are already active, either through daily walking, an active job and/or engaging in regular recreational or sporting activity.	Even though this group is described in the CMO report as being active, surveys indicate low levels of physical activity among older adults of all ages. Evidence suggests that even among active older adults, many may also be spending prolonged periods of time being sedentary. See BHF guidance for those who work with older adults described as *actives*[19]
Those in **transition** – those whose physical function is declining due to low levels of activity, too much sedentary time, who may have lost muscle strength and balance, and/or are overweight but otherwise remain reasonably healthy.	National data indicate that this makes up the largest proportion of older adults and that they have a great deal to gain in terms of reversing loss of function and preventing disease. See BHF Briefing for Older Adults in Transition[20]

[18] British Heart Foundation National Centre (2012). Older Adults in Transition. BHF National Centre, Loughborough University.

[19] British Heart Foundation National Centre (2012): Interpreting the UK physical activity guidelines for older adults (65+). Loughborough University. http://www.bhfactive.org.uk/older-adults-resources-and-publications-item/39/428/index.html

[20] British Heart Foundation National Centre (2012): Older Adults in Transition. Loughborough University. http://www.bhfactive.org.uk/older-adults-resources-and-publications-item/39/429/index.html

Frailer, older people – those who are frail or have very low physical or cognitive function, perhaps as a result of chronic disease such as arthritis, dementia or very older age.	This group may require a therapeutic approach eg falls prevention, and many will be in residential care. See BHF Briefing for Frailer, Older People[21]

Source: British Hearth Foundation, 2012

Source: Make Sport Fun

2.4.3 EVIDENCE OF EFFECTIVENESS – WHAT WORKS?

As indicated in the CMO guidelines, evidence suggests that it is the '**overall volume of activity that is key to the beneficial effects of physical activity rather than specific types of activity or combinations of intensity or frequency. Accordingly, older adults should aim to achieve the recommended amount of activity in a manner that is most convenient and comfortable for them'.**

Evidence-based action is required at a range of levels to increase physical activity and reduce prolonged periods of sedentary behaviour amongst older adults.[22] There is increasing evidence to demonstrate what is required from an intervention to successfully increase physical activity amongst older adults.

[21] British Heart Foundation National Centre (2012). Interpreting the UK physical activity guidelines for frailer, older people. Loughborough University. http://www.bhfactive.org.uk/older-adults-resources-and-publications-item/39/430/index.html

[22] British Heart Foundation National Centre (2012). Physical Activity and Older Adults (65+): evidence briefing. Loughborough University. See: http://www.bhfactive.org.uk/homepage-resources-and-publications-item/313/index.html

The National Institute of Health and Care Excellence (NICE) found evidence that:

- *A supportive built environment was important in encouraging activity across all age groups, including older people. Recommendations included involving the local community and experts in the development of policies and plans, the prioritisation of the need to be active for all (including those with impaired mobility) and access to safe, attractive and welcoming public open spaces on foot.*[23]
- *Relevant policies and plans being developed by agencies with an interest in health and wellbeing should consider the promotion of walking and cycling for a range of groups, including older adults.*[24]
- *A review of occupational therapy and physical activity interventions to promote the mental health and well-being of older people in primary and residential care was undertaken on behalf of NICE in 2008. Reviews of the evidence for this guideline in 2011 and 2015 confirmed that no new evidence had been identified that would change the recommendations. The guideline recommends that physical activity interventions should be encouraged and developed in collaboration with older people (and their carers); a range of moderate intensity activities, strength training and toning and stretching exercises should be included, reflecting the needs and preferences of the participants. This guidance emphasised the value of promoting physical activity and physical health for mental health outcomes.*[25]

In addition:

- Systematic review evidence[26] supports older people's physical activity programmes which are of a longer duration (18 months), either group/class or home-based activity, tailored to individual needs with choices which are accessible and include cognitive-behavioural strategies and goal setting along with telephone support and continued contact.
- A meta-analysis has corroborated previous research findings indicating that physical activity interventions in older people living in the community are effective.[27] The review provides further evidence on the elements of effective physical activity interventions for older people and these include: the design of interventions based on behaviour change theories; interventions using a combination of cognitive (eg education, counselling) and behaviour change strategies (self-monitoring, goal setting); the use of audio-visual materials such as discs of exercise instruction; and the use of mailed out materials such as newsletters with pictorial and descriptive examples of exercises. The study indicates interventions were similarly effective regardless of the type of person delivering the intervention or the intervention setting. Therefore, interventions delivered by lay people and diverse range of health professionals in a range of settings including at home, in the community or in the clinics, are all similarly effective.
- A study published in 2010 investigated the processes associated with participation and adherence to a 12-month physical activity programme for older people aged 70 years and over. Their findings suggest that a locally-run programme that provides individual tailoring, creates a sense of ownership, delivers meaningful benefits, and provides opportunities for

23 National Institute for Health and Care Excellence (2008). Promoting and creating built or natural environments that encourage and support physical activity. London

24 National Institute for Health and Care Excellence (2012). Promoting walking and cycling. London.

25 National Institute for Health and Care Excellence (2008). Occupational Therapy interventions and physical activity interventions to promote the mental wellbeing of older people in primary care and residential care. London

26 King et al (1998). Physical activity interventions targeting older adults. A critical review and recommendations. Am J Prevent Med, 15(4), 316-333.

27 Chase J.D. (2015). Interventions to increase physical activity among older adults: a meta-analysis. Gerontologist, 55 (4): 706-718. Available at: https://academic.oup.com/gerontologist/article/55/4/706/580670/Interventions- to-Increase-Physical-Activity-Among

inter-generational support and new social groups to form all facilitate engagement in physical activity in later life.[28]

- A further example, the Community Health and Mentoring Programme for Seniors (CHAMPS),[29] identified the following successful strategies to encourage people living in supported residential housing and those who use community centres aged 62-91 years of age to increase their activity levels: the use of other older adults as motivators and counsellors, accessible local activity classes for older adults generally and also for specific groups (eg those with arthritis) providing participants with educational materials with information, support and skills training to overcome barriers and increase their physical activity levels.
- Tailored specific activities that promote improved strength, coordination and balance are particularly beneficial for older people as they are effective in reducing the incidence of falls and for tasks of daily living such as walking or getting up from a chair. *(See JSNA: Older People and the Prevention of Ill-Health (2013): Falls).*[30]
- A recent cluster randomised controlled trial has reported that a group exercise programme was more effective at supporting older people 65+ living in the community to achieve 150 minutes of physical activity per week than a home exercise programme. The group exercise programme (Falls Management Exercise – FaME) comprised group exercise classes once a week run by trained postural stability instructors combined with exercises at home twice a week, in comparison with the home exercise programme (the Otago Exercise Programme) which comprised exercises at home at a frequency of three times a week combined with support from volunteer peer mentors.[31]

The British Heart Foundation acknowledges that more research is still necessary to identify interventions to increase physical activity, decrease morbidity and all-cause mortality in older adults. However, it is recommended that agencies work with both providers and older adults to offer tailored programmes which reflect the preferences of older adults. Common features found in successful physical activity interventions in older adults include.[32]

- Educational components where participants were given information and counselling by health professionals on physical activity and health and encouraged to engage in regular physical activity.
- A cyclical design which includes continuous reviews of participant progress towards goals throughout the intervention and provides on-going support and encouragement.
- Use of behaviour change model and intrinsic motivation.
- Cognitive behavioural strategies (including self-monitoring and goal setting).
- Assessment and negotiation of social and environmental barriers to physical activity.

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28 Stathi A, Mckenna J and Fox KR (2010) Processes associated with participation and adherence to a 12-month exercise programme for adults aged 70 and older. *Journal of Health Psychology*, 15(6), 838-847

29 Stewart et al (1994 onwards). A range of publications in relation to the USA Community Health and Mentoring Programme for Seniors (CHAMPS). University of California, San Francisco.

30 Cambridgeshire Insight (2013): Joint Strategic Needs Assessment – Older People and the Prevention of Ill-Health. Falls – see page 32: http://www.cambridgeshireinsight.org.uk/joint-strategic-needs-assessment/current-jsna-reports/prevention-ill-health-older-people-2013

31 NICE (2015). Eyes on the evidence: Improving physical activity among older people in the community. Available at: https://www.evidence.nhs.uk/ [Accessed 21st March 2017]

32 British Heart Foundation National Centre (2012). Physical Activity and Older Adults (65+): evidence briefing. Loughborough University. See: http://www.bhfactive.org.uk/homepage-resources-and-publications-item/313/index.html.

- The use of support strategies (including telephone, home visits and peer support).
- In the short, the (12 months) participation in group-based physical activity appears to be effective, although longer term adherence to physical activity programmes is superior in home-base programmes.

The 'Move More' report[33] produced by MacMillan Cancer Support provides the basis for advice and guidance on physical activity to those living with cancer.

Source: Make Sport Fun

2.4.4 COST EFFECTIVENESS AND THE COST OF PHYSICAL INACTIVITY

NICE[34] established that brief interventions for physical activity (when compared with no intervention) cost between £20 and £440 per quality adjusted life year (QALY). The Department of Health economic analysis of a physical activity related brief intervention[35] includes a projected lifetime QALY gain of between £91 and £288 depending on whether the brief intervention is delivered by a GP, practice nurse or health care assistant.

[33] MacMillan Cancer Support. Move More – see: http://www.macmillan.org.uk/Cancerinformation/Livingwithandaftercancer/Physicalactivity/Physicalactivity.aspx

[34] National Institute for Health and Clinical Excellence (2006). Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community-based exercise programmes for walking and cycling. London.

[35] Department of Health (2009). Let's Get Moving: Commissioning Guidance: Annex 2. London.

In addition to these potential savings attributed to physical activity across all adults, cost savings ascribed specifically to older people include falls prevention, fracture prevention services and walking for health within which older people are one of the target participant groups.

The Walking for Health scheme has been shown to give a cost-benefit ratio (1: 7.18). Although limited by some unavailable data, more than £7 of life-cost (the amount the NHS saves by not having to treat illness) is averted against £1 invested. It has also been estimated that in England, if a group of 120 healthy individuals aged over 60 years started to walk two miles per day, then over 10 years there would be approximately seven less heart attacks, three less strokes, two less new diabetics, 13 less people with some disability from osteoarthritis of the knee and 20 less deaths; two lives are saved per year.

The evidence of cost effectiveness for falls prevention work is in the chapter on Falls within the Prevention of Ill-health in Older People JSNA (2013).[36]

Source: Forever Active, Cambridge and South Cambridgeshire

2.5 LOCAL ACTION: WHAT ARE OUR LOCAL ASSETS?

This list of assets offers some examples of the programmes and resources available in Peterborough to promote physical activity to older adults. These programmes may not be available to all older adults and because of competing demands on statutory budgets, sustained funding is not assured.

- Formal and informal group led walking programmes are available to older adults and these include the Walking for Health Programme delivered by Vivacity[37] as well as other walks delivered by the Ramblers,[38] University of the Third Age,[39] and Inspire.[40] Self-referrals are accepted.

[36] http://www.cambridgeshireinsight.org.uk/joint-strategic-needs-assessment/current-jsna-reports/prevention-ill-health-older-people-2013
[37] https://www.walkingforhealth.org.uk/walkfinder/peterborough-walking-for-health
[38] http://www.ramblers.org.uk/peterborough
[39] http://www.peterboroughu3a.org.uk/activities/category/4
[40] http://www.inspirepeterborough.com/walks-on-wednesdays/

- A few programmes dedicated to promoting physical activity in older people have been identified such as a walking football for men over 50,'Young at heart' fitness classes, short tennis, rowing and bowls. There may be additional activities. A mapping exercise is currently being undertaken by Living Sport and Cambridgeshire and Peterborough Public Health Directorate to identify physical activity/sports opportunities for adults and older people and a new initiative 'Let's Get Moving', to be coordinated by Living Sport from spring 2017, will contribute to the ongoing research/insight.

- It is recognised that there are a number of other programmes / classes in the area, which are open and accessible to all adult including older people, dependent upon their fitness levels eg jogging clubs.

- An evidence based exercise referral scheme delivered by Vivacity is available for adults of all ages with certain clinical conditions.[41] It is predominantly used by older people. Self-referrals are accepted.

- Condition specific rehabilitation programme for adults with clinical conditions are available from Vivacity. Again, these are predominantly used by older people. Self-referrals accepted.

- The Let's Get Moving health and wellbeing service is available for all adults 16-74 years old.[42] The behaviour change programme is designed to assist adults to become more active and is delivered through primary care. A referral is required.

- Peterborough NHS Health Checks are statistically significantly better than England for a number of indicators, including numbers of people invited for NHS health checks and the number of health checks delivered.

- The 'Healthy Peterborough' website provides information on healthy lifestyles including recommendations on physical activity for older people.[43]

- Local libraries deliver the 'Books on prescription' scheme for mild to moderate mental health conditions and physical activity is highlighted in a number of the self-help books as a technique for managing these conditions.

- Older people have volunteered to be trained to support the delivery of local physical activity programmes such as Health Walks, Exercise Referral Scheme and Stroke Rehabilitation Programmes. Cambridgeshire and Peterborough Sports Partnership, Living Sport,[44] provides information about volunteering opportunities related to physical activity.

- Commissioners and practitioners have access to a strengthening evidence base from a range of academic institutions; locally these include the Institute of Public Health (Ageing Well Programme) and the Centre for Diet and Activity Research.

41 https://www.vivacity-peterborough.com/sport/heath-and-wellbeing/health-referral-options/
42 http://letsgetmoving.org.uk/what-is-lgm/
43 http://www.healthypeterborough.org.uk/june-2016/physical-activity/physical-activity
44 Living Sport: http://www.livingsport.co.uk/

2.6 FUTURE OPPORTUNITIES

Opportunities to enhance the physical activity levels of older adults in Peterborough were explored with local stakeholders and their suggestions included:

- Utilising, supporting and improving initiatives, programmes and assets already established in Peterborough such as Healthy Peterborough campaigns, Vivacity; 'making every contact count'; maximising the use of the great outdoor spaces in Peterborough; and the use of communal rooms in organisations like Cross Keys to deliver information and/or exercise groups to older people.

- Improving the offer of physical activities for ethnic groups who may be unaware of local opportunities and do not feel they can engage.

- Exploring the implementation of good practice from other areas of the United Kingdom for example the free gym pass pilot in Birmingham which claimed a saving of £6 for every £1 invested.

- Identifying opportunities to provide more detailed instruction and advice on physical activity to older adults such as during health checks.

- Displaying information on public signage indicating the number of minutes and calories utilised by walking to specific destinations.

- Making the most of the opportunity to commission/amend/roll out physical activity related assets through the implementation of 'Solutions4Health' which has been commissioned to take over Peterborough's Public Health delivery from April 2017. Examples of this include consideration being given to the commissioning of specialist health trainers to advise older people, and 'wellness coaches' to deliver joined up help across pathways to avoid the need for an individual to see multiple lifestyle specialists.

- Development of a programme for older people/healthy ageing to replicate the Peterborough Public Health 'youth health champions'.

- A better falls prevention programme including the provision of strength and balance exercises classes in the community.

3. DIET

3.1 KEY FINDINGS

Dietary factors contribute significantly to the global burden of disease. Dietary improvements made in older age significantly reduce the risk of chronic diseases.

There is very limited information about the healthiness of the food consumed in Peterborough. Nationally, less than a third of older adults consume five portions of fruits and vegetables daily. In addition, older adults consume low levels of fibre, oily fish, and vitamin D relative to recommendations.

The evidence on primary prevention of cancer, cardiovascular disease, and diabetes draws from the all adult population; research for older adults focusses on bone health and preventing cognitive decline. Population approaches to improving nutritional status include taking opportunities at all ages to prevent the development of chronic disease, and supporting behaviour change for healthier diet and healthy ageing. Weight management interventions (12 weeks with $\geq$1kg lost and maintained for life) can be more cost effective for older adults because older people gain health benefits sooner.

Daily vitamin D supplementation is recommended by the Department of Health for all adults aged 65 years and over. It is not known how far this is practiced locally. NICE Public Health guidance (PH56) published in November 2014 provides guidance on approaches to increase Vitamin D supplement use in at-risk groups including older people.

Local assets include lifestyle support services accessed by older adults, and practical advice and support through social care and voluntary sector organisations. There may be opportunities to look at enhancing messaging about a healthy balanced diet for older adults through local services, stakeholders, health and social care professionals, and to consider the healthiness of the food offered in residential and social settings.

3.2 CONTEXT: WHY IS DIET IMPORTANT?

3.2.1 DIET AND NON-COMMUNICABLE DISEASE

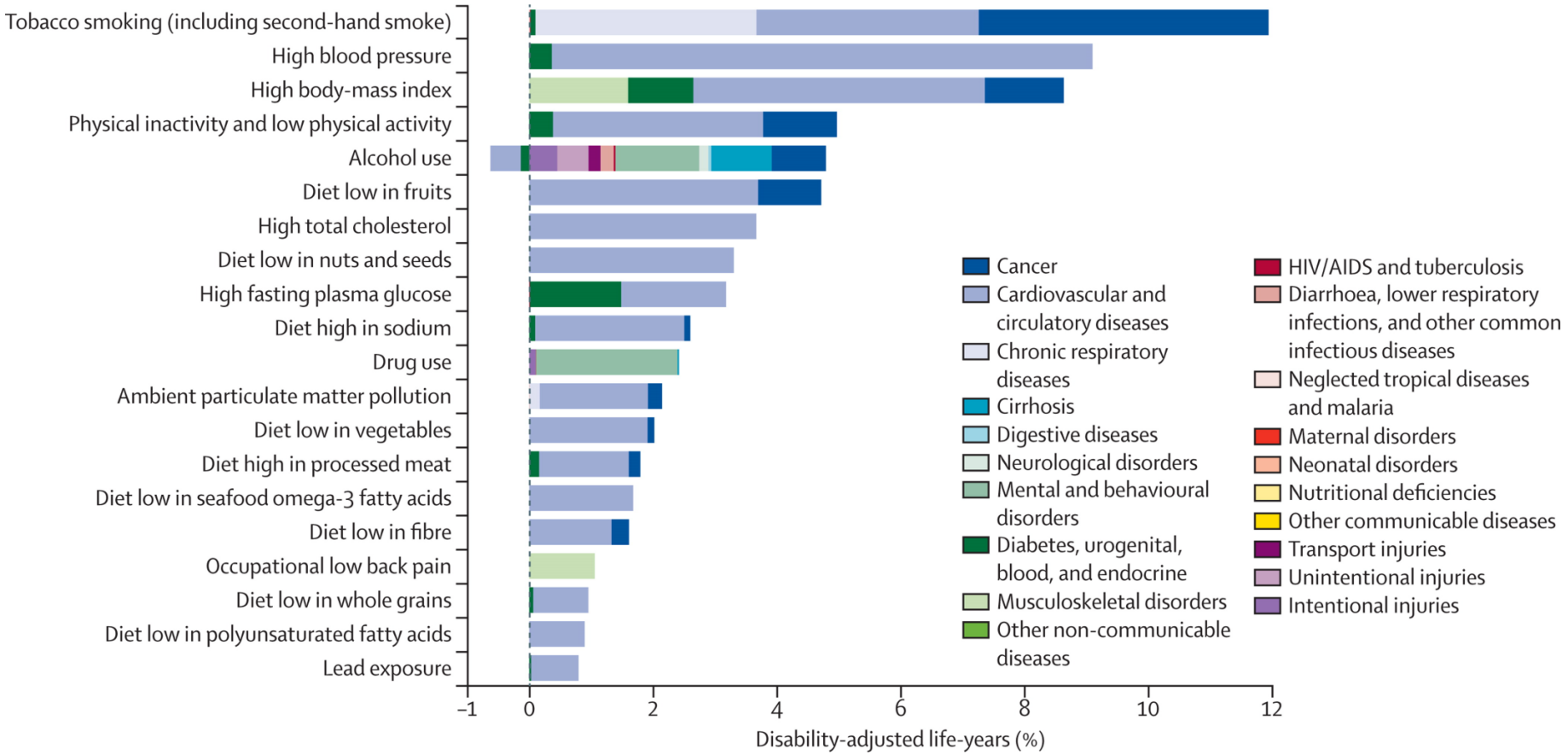
There is strong and well documented evidence for the association between dietary factors and non-communicable diseases. The Global Burden of Disease project identified the 20 leading risk factors for ill-health and measured the relative burden of each risk factor on disease using disability-adjusted life years (DALY) (Figure 4). Of the 20 leading risk factors for ill-health, nine are directly diet-related and many others have a dietary association eg high blood pressure, high body-mass index (ie overweight/obesity), high total cholesterol and high fasting plasma glucose.

The global burden of disease analysis is measured across all ages in the population. The higher incidence of chronic disease in individuals aged 65 and over, however, may be a reflection of accumulated risk where lifestyle behaviours throughout life have led to exposure and increased risk

which have manifest in poor health outcomes. A key message promoted by the WHO is that dietary changes in later life are still advantageous to health:

"Dietary changes seem to affect risk-factor levels throughout life and may have an even greater impact in older people. Relatively modest reductions in saturated fat and salt intake, which would reduce blood pressure and cholesterol concentrations, could have a substantial effect on reducing the burden of cardiovascular disease. Increasing consumption of fruit and vegetables by one to two servings daily could cut cardiovascular risk by 30%."

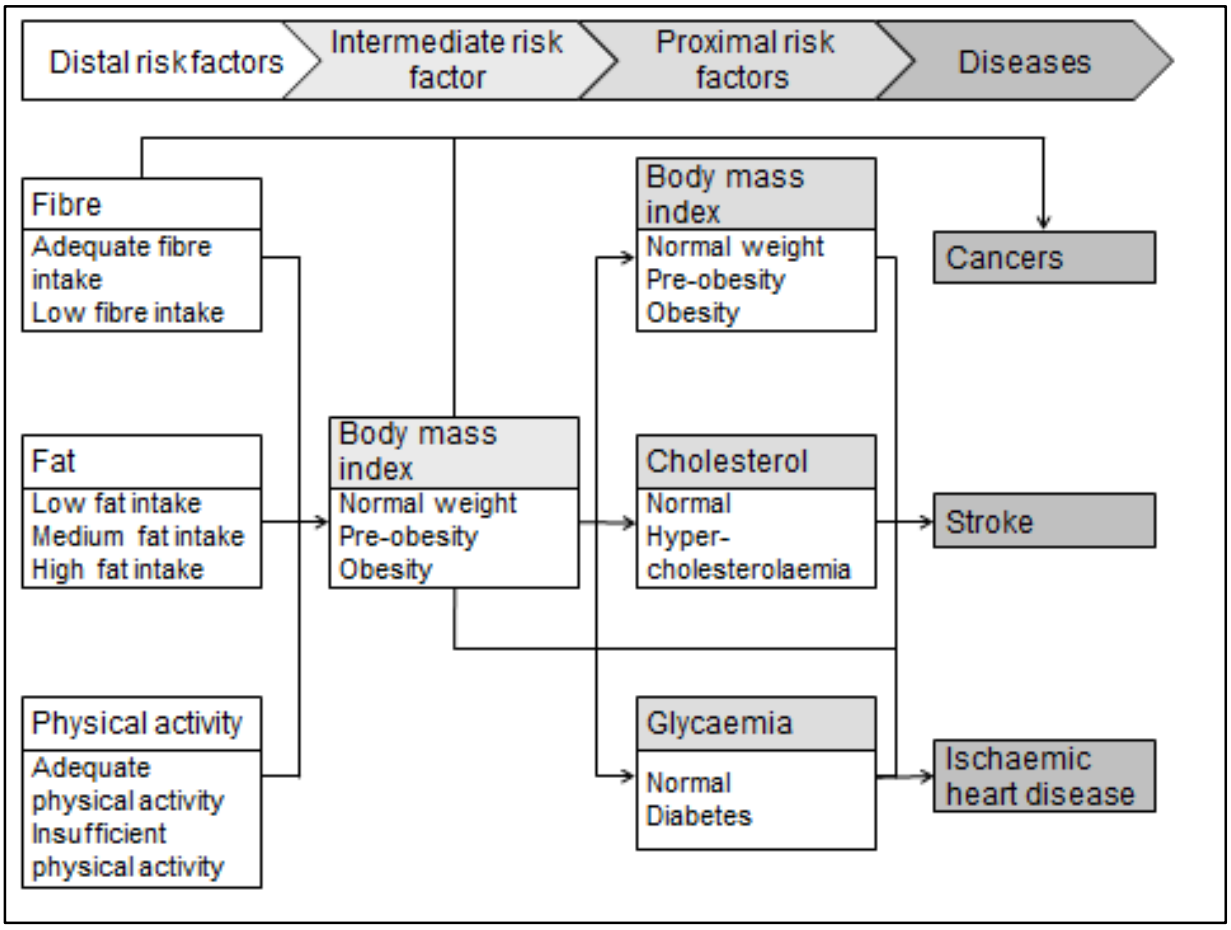
Figure 4: Burden of disease attributable to 20 leading risk factors for both sexes in 2010, as a percentage of UK Disability Adjusted Life Years



Source: Living Well for Longer 2014[45]

[45] Living Well for Longer: https://www.gov.uk/government/publications/helping-people-live-well-for-longer ; Figure in Living Well for Longer was reproduced from Murray et al (2013) "UK health performance: findings of the Global Burden of Disease Study 2010". The Lancet; 381:9871, 997-1020.

Figure 5: Causal web for risk factors and disease events implemented in the chronic disease prevention model



Source: Adapted from Cecchini et al 2010[46]

A further diet-affected degenerative disease is osteoporosis. Osteoporosis is particularly relevant as women make up a larger percentage of the older people population and are particularly at risk due to accelerated bone loss post-menopause: 80% of hip fractures occur in women.[47] As noted in NICE clinical guidance 146, 'as the longevity of the population increases, so will the incidence of osteoporosis and fragility fracture'.[48]

[46] Cecchini, M. et al. (2010) 'Tackling of unhealthy diets, physical inactivity, and obesity: health effects and cost-effectiveness' *The Lancet,* 376:1775-85

[47] World Health Organisation website content on 'Nutrition for older persons, Ageing and nutrition: a growing global challenge'. Available at: http://www.who.int/nutrition/topics/ageing/en/

[48] NICE (2012). Osteoporosis: Assessing the risk of fragility fracture. Available at: https://www.nice.org.uk/guidance/cg146

3.2.2 DIET AND OLDER PEOPLE

Good nutrition throughout the life course is essential for health and wellbeing. While there are specific changes and factors associated with the dietary intake of older people, many of the healthy or unhealthy habits that tend to continue through life are established in adolescence.[49]

There are particular dietary-related considerations for older adults: an on-going healthy diet to support active and healthy ageing; for the prevention of nutrition-related chronic disease; for the maintenance of functional capacity; and for the social and emotional benefits of meals consumed and shared.

At population level, older adults may present a double burden of nutrition-related concerns:

1) Undernutrition or malnutrition, associated with frailty.
2) Poor nutrition, overconsumption and being overweight which is associated with chronic diseases such as Type 2 diabetes.

A primary prevention approach requires recognition of both these risks, and offers opportunities for interventions at different stages in the life course to promote and support a healthy diet to ensure healthy ageing across the population. A detailed consideration of malnutrition in older people is included in the Malnutrition chapter.

3.2.3 DIETARY ADVICE FOR OLDER ADULTS

There is evidence to suggest that older adults have lower levels of knowledge about nutrition messages relative to the general adult population.[50] National guidance on nutrition requirements of the older adult has not been published, although a range of resources are available including the Caroline Walker Trust 2004 guide 'Eating Well for Older People',[51] and 2002 WHO guidance 'Keep Fit for Life: Meeting the Nutritional Needs of Older Persons'.[52]

By and large the nutritional requirements for older adults are the same as those for the rest of the adult population; energy requirements are generally lower while vitamin and mineral requirements remain similar, therefore the nutrient density of the diet is of high importance.

The NHS Livewell website highlights the following key issues for those 60 years and over:

- A healthy, balanced diet
- Plenty of foods rich in starch and fibre
- Iron-rich foods
- Calcium-rich foods
- Less salt
- Enough vitamin D

[49] Joint WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases (2002 : Geneva, Switzerland) WHO technical report series; 916

[50] Parmenter K, Waller J, Wardle J.(2000) 'Demographic variation in nutrition knowledge in England'. Health Educ. Res.;15 (2): 163-174.

[51] http://www.cwt.org.uk/pdfs/OlderPeople.pdf

[52] http://whqlibdoc.who.int/publications/9241562102.pdf

- Vitamin A
- Keeping healthy
- Stay a healthy weight
- Watch out for a lack of appetite
- Don't get thirsty

Further information for professionals and the public can be found on the British Nutrition Foundation website.

3.3 DATA: WHAT DO WE KNOW ABOUT LOCAL DIETARY INTAKE?

3.3.1 LEVELS OF FRUIT AND VEGETABLE INTAKE

Public Health guidance advocates eating 'five a day' across the life course. Local level data to indicate consumption levels of fruit and vegetables in older adults is not available. However, data is available to indicate consumption levels in *all adults* in Peterborough. Data shows Peterborough to have a statistically significantly low percentage of adults meeting the recommended '5 a day' consumption of fruit and vegetables on a 'usual' day (48.0% compared to 52.3% in England) and also a statistically significantly low average number of portions of vegetables consumed per day (2.13 compared to 2.27 in England)(Figure 6). With regards to average portions of fruit consumed per day, Peterborough is statistically similar to England.

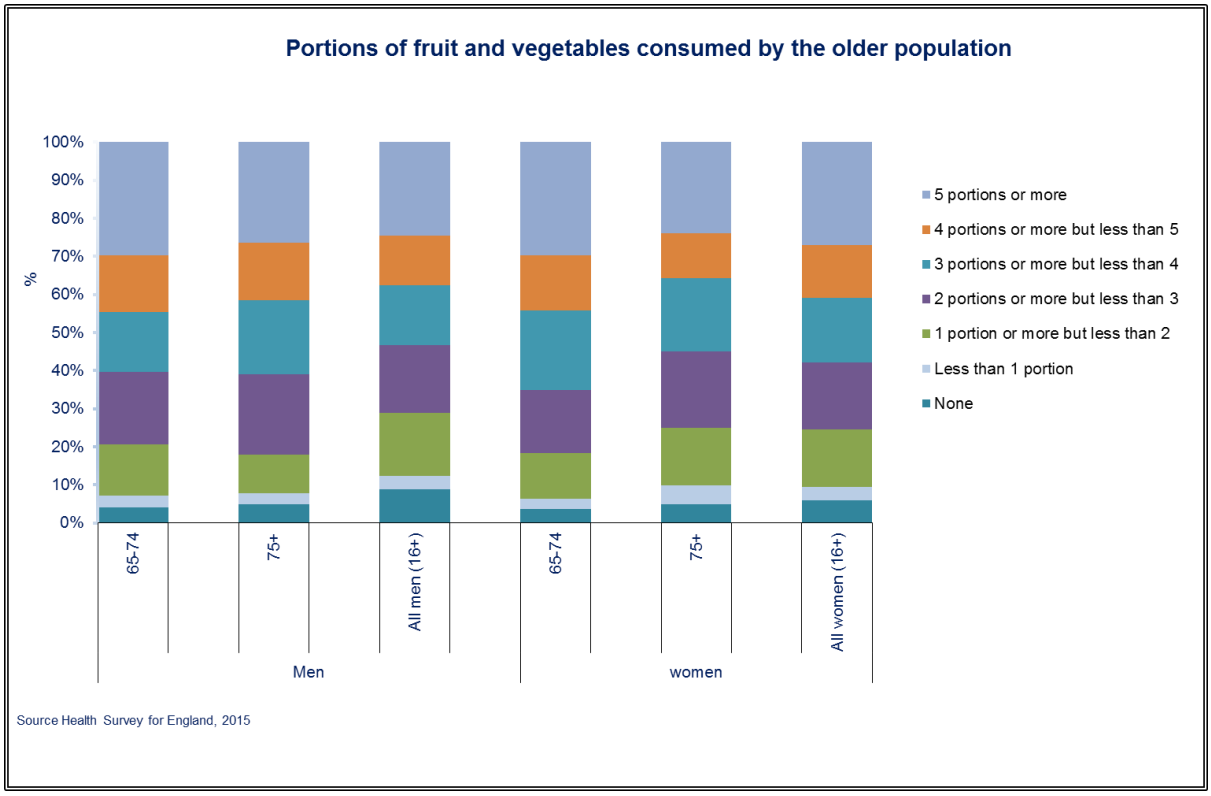
Figure 6: Peterborough & Nearest CIPFA Neighbours – Fruit & Vegetable Consumption

Indicator	Period	England	Peterborough	1 - Thurrock	2 - Swindon	3 - Milton Keynes	4 - Coventry	5 - Bolton
2.11i - Proportion of the population meeting the recommended '5-a-day' on a 'usual day' (adults)	2015	52.3	48.0	40.1	51.0	51.8	46.3	44.6
2.11ii - Average number of portions of fruit consumed daily (adults)	2015	2.51	2.44	2.13	2.44	2.48	2.34	2.43
2.11iii - Average number of portions of vegetables consumed daily (adults)	2015	2.27	2.13	1.91	2.33	2.36	2.07	2.06

Source: Public Health Outcomes Framework, http://www.phoutcomes.info/public-health-outcomes-framework#page/0/gid/1000042/pat/6/par/E12000006/ati/102/are/E06000031/nn/nn-1-E06000031

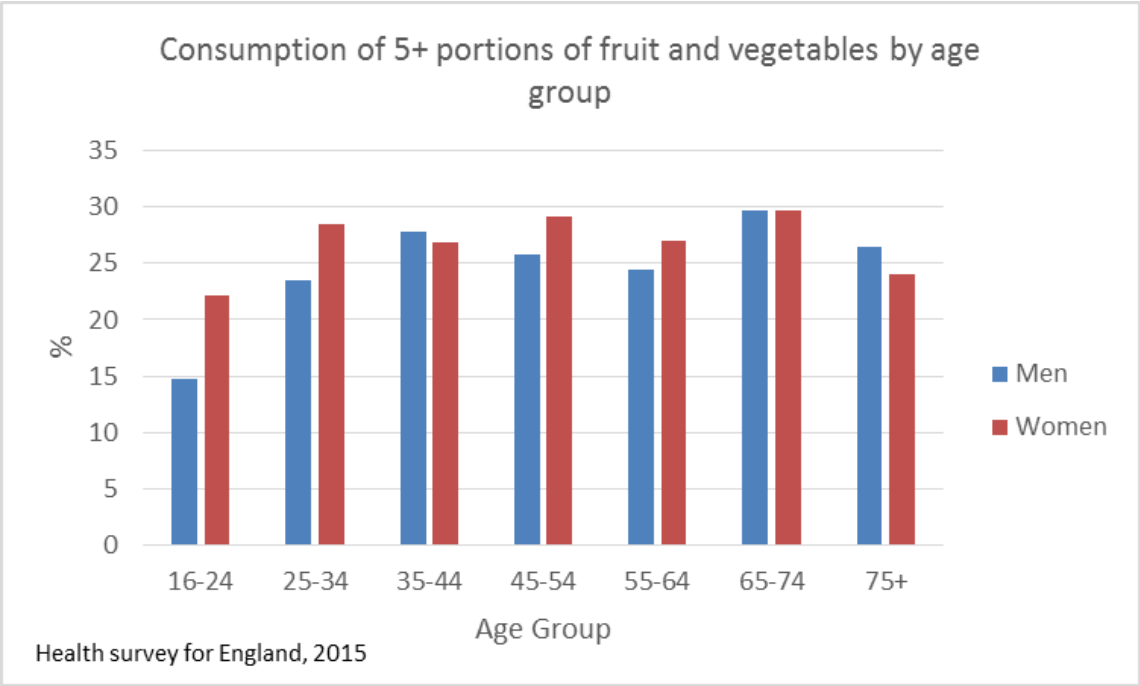
Data capturing fruit and vegetable consumption in *older adults* is available at a *national* level from the 2015 Health Survey for England (Figure 7). The data shows that a majority of older adults 65+ years in England consume three portions or more of fruit and vegetables daily (Figure 8) and only a very small proportion of older adults do not consume any portions. Amongst the population aged 65 to 74 years, 30% of men and 30% of women report consuming five or more portions of fruit and vegetables daily (Figure 8). This decreases slightly to 26% of men and 24% of women in the population aged 75+ years.

Figure 7: Portions of fruit and vegetables consumed by the older population



Source: Health Survey for England, 2015

Figure 8: Consumption of 5+ portions of fruit and vegetables by age group



Source: Health Survey for England, 2015

3.3.2 OTHER FOOD CONSUMPTION PATTERNS

The most recent data from the UK National Data and Nutrition Survey published in 2016 provides insight into the eating patterns of those aged 65 years and over, combined across all four UK countries (the data is not Peterborough specific).[53] The main findings from 2012/13-2013/14 (two years of data combined) were:

1. Low intake of oily fish

Mean consumption of oily fish was below the recommended one portion (140g) per week at 87.5g per week (91g for men and 84g for women). There is no evidence in change of consumption over time.

2. Low intake of dietary fibre

The Dietary Reference Value for intake of non-starch polysaccharide (NSP) is at least 18g per day. Mean intake was 13.4g per day, mainly from 'cereals and cereal products' and 'vegetables and potatoes'.

[53] Public Health England (2016). National Diet and Nutrition Survey. Available at: https://www.gov.uk/government/collections/national-diet-and-nutrition-survey

3. Low vitamin D status

Mean daily intake of vitamin D from food sources alone was well below the Reference Nutrient Intake (RNI) for older adults aged 65+ years. The survey showed that the average daily intake for older adults 65+ was 33% of the RNI level set for this age group.

3.3.3 OVERWEIGHT AND OBESITY

The body mass index (BMI) is a widely used metric for identifying levels of overweight and obesity throughout the population. There are caveats in its use with older people as the thresholds of risk may differ. The relationship between BMI and mortality is U-shaped in older people, with a higher risk of mortality at lower BMIs in the Malnutrition chapter and at higher BMIs. A recent meta-analysis found that being overweight was not associated with an increased risk of all-cause mortality in populations aged 65 years and older, although the risk of mortality increased at BMIs of 33 and above.[54] Other data has indicated that women with high body mass index are protected from osteoporosis, although there are conflicting results, and increasing evidence suggests obesity may interfere with bone health.[55] Nonetheless, the risks associated between a much higher BMI and occurrence of diabetes, some forms of cancer, and cardiovascular diseases remain in older adults. Obesity is also associated with functional limitations in older people[56] and it remains an important public health metric.

The Health Survey for England (HSE) 2015 data on the interviewer-measured prevalence of overweight and obesity is shown in Table 3. The prevalence of *overweight* in men and women 65-74 years old is similar to that of men and women aged 45-54 years of age. However, the prevalence increases as old age advances, peaking in the oldest old age group of 85+ years.

The prevalence of *obesity* in men and women 65-74 years of age is comparable to that of men and women aged 45-54 years. However, in contrast to overweight, the prevalence of obesity declines as old age advances, occurring at the lowest levels in men and women 85+ years old.

Table 3: Interviewer-measured body mass index (BMI), overweight and obesity prevalence, by age

BMI (kg/m2), BMI status (%)	16-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	16+
Men									
% Overweight	23	36	45	47	44	44	51	60	41
% Obese, excluding morbidly obese	14	18	24	29	34	30	25	13	25
Women									
% Overweight	21	24	33	34	35	35	39	40	31
% Obese, excluding morbidly obese	13	22	24	23	28	26	28	20	23

Source: Health Survey for England 2015, NHS Digital

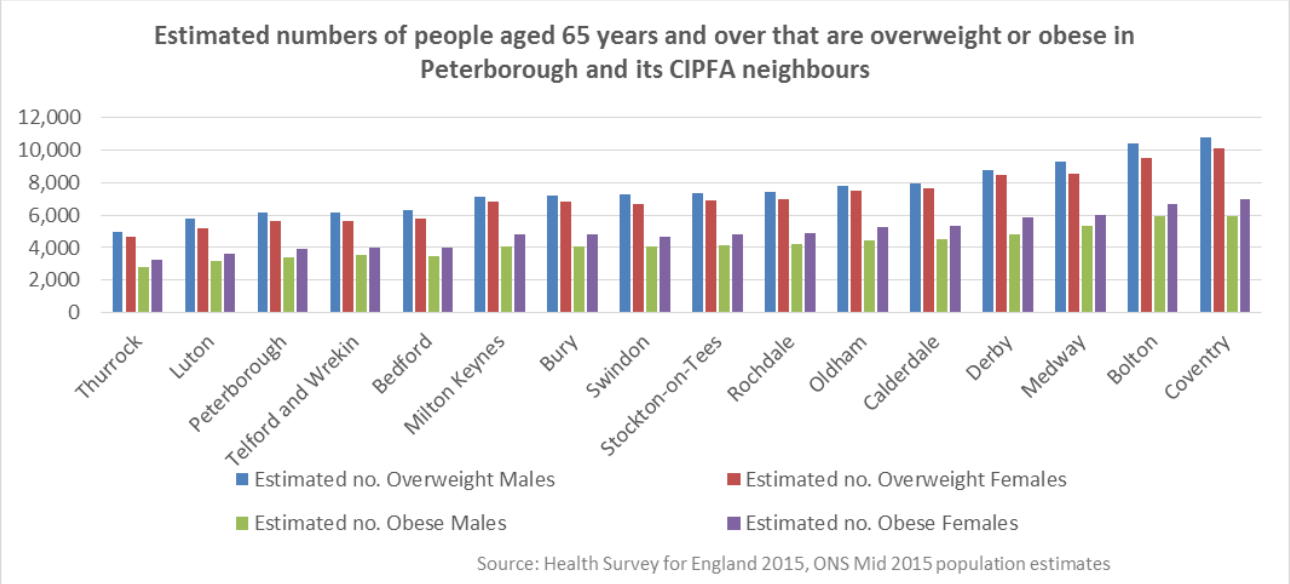
[54] Winter JE. et al. (2014) ' BMI and all-cause mortality in older adults: a meta-analysis' Am J Clin Nutr, 99(4):875-90

[55] Migliaccio S et al. (2011) 'Is obesity in women protective against osteoporosis?' Diabetes Metab Syndr Obes, 4: 273–282.

[56] Vincent HK, Vincent KR & Lamb KM (2010) Obesity and mobility disability in the older adult. Obes Rev, 11: 568–579.

Figure 9 estimates the numbers of people aged 65 years and over in Peterborough who are likely to be classified as overweight or obese on the basis of their BMI (HSE prevalence figures for older people have been applied to the local population).

Figure 9: Estimated numbers of people aged 65 years and over that are overweight or obese in Peterborough, 2015



Source: Health Survey for England; ONS mid-2015 population estimates

3.4 EVIDENCE BASE: WHAT WORKS? WHAT IS RECOMMENDED?

This section highlights the evidence base underpinning: the factors influencing diet and nutrition; primary prevention measures; weight loss and diabetes prevention programmes; supplementation; whole population approaches; National Standards – Care Quality Commission; and cost effectiveness of dietary interventions.

3.4.1 FACTORS INFLUENCING DIET AND NUTRITION IN OLDER ADULTS

There are a range of factors specific to later life that contribute to the nutritional status of older adults, on the foods and drinks consumed, and on the absorption and utilisation of nutrients in the foods and drinks. An evidence review on dietary intake completed in Scotland (Table 4) highlights some of the overarching factors affecting consumption patterns in older people and the implications for intake and health. In addition, there is some evidence that economic factors may be of particular importance in later life and that retirement has divergent effects on food intake.[57]

[57] Conkin AL, Maguire ER, Monsivais P (2013) 'Economic determinants of diet in older adults: a systematic review'. J Epidemiol Commun H, 67:721-727.

Dentition and oral health has a bearing on eating patterns and intake throughout the life course. A study of oral and dental health in older people in Cambridgeshire is available on the Cambridgeshire Insight website.[58] It highlights that more of the population of older people are keeping their own teeth in later life, although there needs to be means of ensuring ongoing dental care, and promoting measures for the prevention of oral diseases.

Table 4: Summary of factors influencing dietary intake in older people

Poverty and economic uncertainty	Poverty can affect food choice and dietary diversity. Foods that are integral to a healthy diet (eg fruit, vegetables and fish) may be perceived as a luxury. Healthier alternatives to everyday foods can carry a price premium (eg wholemeal bread, spreads low in saturates). Food preparation facilities and skills may be limited in poorer households.
Mobility	Immobility may lead to difficulties with shopping, preparing, cooking and eating foods.
Mental health and wellbeing	Depression can lead to loss of interest in food. Dementia can impact on appetite and food intake.
Social support	Social isolation or emotional trauma can result in disinterest in food. Social interaction may encourage eating.
Other health problems	Illness and medications can result in reduced appetite and difficulties with shopping, preparing and eating food. Malabsorption conditions (ie gastritis and pernicious anaemia) reduce ability to absorb B_{12} from food. Problems with incontinence may stop individuals eating and drinking normally. Some medication can contribute to constipation.

Source: Scottish evidence review drawn from Denny, 2008; Schenker, 2003[59]

[58] Available at: http://www.cambridgeshireinsight.org.uk/joint-strategic-needs-assessment/current-jsna-reports/prevention-ill-health-older-people-2013

[59] Scottish Government, (2009) Older People Living in the Community - Nutritional Needs, Barriers and Interventions: a Literature Review. Available at: http://www.scotland.gov.uk/Publications/2009/12/07102032/9

3.4.2. EVIDENCE BASE FOR PRIMARY PREVENTATIVE MEASURES

One systematic review, published April 2014, considered the effectiveness of dietary interventions for adults of 'retirement transition age', defined by the authors as age 54-70 years, and as a life event with a key opportunity for behaviour change.[60] 24 studies were identified; the meta-analysis found that interventions increased fruit and vegetable intake, with a slightly higher increase in fruit than in vegetables. The increase in consumption by a mean of 87.5g, while modest, equates to an increase of 0.77 portions per day; this could be classified as medium increase relative to other studies in adults. Interventions were also associated with significant increases in fish intake and decreases in meat intake. In terms of study design, there were no significantly different effects on dietary change in healthy participants compared with studies where participants had risk factors, which does not support an argument that the presence of known risk factors will enhance participants' responses to dietary interventions. Indirectly delivered interventions eg by telephone were only slightly less effective than those face-to-face. However, the increase in fruit and vegetable consumption was positively associated with the number of contacts with participants during the interventions.

The vast majority of systematic reviews on dietary exposures consider the all adult population; these may bear relevance for the diets of older people. Studies on food intake include the Dietary Approaches to Stop Hypertension (DASH) dietary pattern which has shown benefits for a range of cardiovascular health markers, including improvements in insulin sensitivity.[61] A review of 73 studies, for the US Preventative Services Task Force found that counselling individuals to improve their diet or increase their physical activity changed their health behaviours and was associated with small improvements in adiposity, blood pressure and lipid levels.[62] The beneficial outcomes were found for interventions involving medium- and high-intensity counselling. However, only 11 trials followed outcomes beyond 12 months, and it is not clear how far the term 'counselling' aligns with advisory interventions in the UK.

Similarly, Cochrane reviews focussed on older people to date have not addressed primary prevention topics other than physical activity, preventing falls, and cognitive decline. The findings of relevant all age adult reviews include that:

- Giving advice to increase fruit and vegetable consumption has favourable effects on cardiovascular disease risk factors, though analyses were based on only two trials. Interventions which actually provided participants with fruit and vegetables showed no strong evidence for cardiovascular risk benefits, although, these studies were short term, and the majority only provided one fruit or vegetable.[63]

[60] Lara J, Hobbs N, Moynihan P et al. (2014) Effectiveness of dietary interventions among adults of retirement age: a systematic review and meta-analysis of randomized controlled trials. BMC Medicine 12:60

[61] Shirani F, Salehi-Abargouei A, Azadbakht L. (2013). 'Effects of Dietary Approaches to Stop Hypertension (DASH) diet on some risk for developing type 2 diabetes: a systematic review and meta-analysis on controlled clinical trials.' Nutrition; 29(7-8):939-47.

[62] Lin JS et al (2010) Behavioral Counseling to Promote Physical Activity and a Healthful Diet to Prevent Cardiovascular Disease in Adults: A Systematic Review for the U.S. Preventive Services Task Force, false Annals of Internal Medicine 153.11: 736-750.

[63] Hartley L, Igbinedion E, Holmes J, et al. (2013) 'Increased consumption of fruit and vegetables for the primary prevention of cardiovascular diseases'. Cochrane Database of Systematic Reviews 2013, Issue 6.

- Dietary advice appears to be effective in leading to modest beneficial changes in diet and cardiovascular risk factors over approximately 12 months. Longer-term benefits are not known.[64]
- A modest reduction in salt intake for four or more weeks causes significant decreases in blood pressure.[65]
- There is some limited evidence that a Mediterranean dietary pattern may have favourable effects on cardiovascular risk factors. Authors noted that more comprehensive interventions, incorporating more elements of a Mediterranean diet, may produce more beneficial results than trials with fewer dietary components.[66]

There are several cohort studies in progress which should contribute further to the evidence base including the European Prospective Investigation into Cancer and Nutrition (EPIC) study, designed to investigate the relationships between diet, nutritional status, lifestyle and environmental factors and the incidence of cancer and other chronic diseases.[67] 'Effects of the Mediterranean diet on the primary prevention of cardiovascular diseases' is a smaller-scale coordinated project, known as 'PREDIMED', to conduct a large randomized clinical trial in high risk individuals.[68] The World Cancer Research Fund Expert Report on cancer prevention, published in 2007 reviewed the strength of the association between all the investigated dietary aspects and cancer – there is a programme of bringing continuous updates to this and maintaining the accumulated evidence related to food, nutrition, physical activity and cancer.[69]

3.4.3. EVIDENCE BASE FOR WEIGHT LOSS AND DIABETES PREVENTION PROGRAMMES

Interventions to mediate weight loss may contribute to preventative action for chronic disease by reducing levels of abdominal adiposity and obesity.

There have been ongoing concerns about weight loss in older adults and inadvertent risks for bone health and muscle strength.[70] The 2005 joint position statement by the US technical obesity groups confirmed their opinion that the benefits of weight loss outweigh the risks, although the emphasis should be on loss of fat mass:

> *The current data show that weight-loss therapy improves physical function, quality of life, and the medical complications associated with obesity in older persons. Therefore, weight-loss therapy*

64 Rees K, Dyakova M, Wilson N, et al. (2013) 'Dietary advice for reducing cardiovascular risk'. Cochrane Database of Systematic Reviews 2013, Issue 12.
65 He FJ, Li J, MacGregor GA. (2013) 'Effect of longer-term modest salt reduction on blood pressure'. Cochrane Database of Systematic Reviews 2013, Issue 4.
66 Rees K, Hartley L, Flowers N, et al. (2013). 'Mediterranean' dietary pattern for the primary prevention of cardiovascular disease. Cochrane Database of Systematic Reviews 2013, Issue 8
67 Further information on EPIC is available at: http://epic.iarc.fr/
68 Further information on the PREDIMED research programme is available at: http://predimed.onmedic.net/eng/Home/tabid/357/Default.aspx
69 The WRCF report and further details are available at: http://www.dietandcancerreport.org/expert_report/index.php
70 DeCaria JE, Sharp C, Petrella RJ (2012). 'Scoping review report: obesity in older adults' Int J Obesity, 36: 1141-50

that minimizes muscle and bone losses is recommended for older persons who are obese and who have functional impairments or medical complications that can benefit from weight loss.[71]

The technical guidance highlights evidence for the role of regular physical activity in minimising the loss of muscle and bone mass, specifically the inclusion of endurance or resistance exercise training, alongside dietary modification.[72]

A recent study assessed longer term effects of physical activity and weight loss on body composition in overweight or obese older adults and found significant reductions in fat mass in the weight loss group. This loss of fat mass was primarily responsible for detected improvements in cardiometabolic risk factors. Reduction in body weight was associated with favourable changes in mobility.[73] There is also primary evidence to suggest that clinically important weight loss can be maintained by frail, older adults in the community; in one small trial weight loss was maintained at 30 months following the start of the intervention, through the maintenance of a low-calorie diet.[74]

Two major diabetes prevention studies – the Finnish Diabetes Prevention Study, and Diabetes Prevention Programme in the US, with intensive lifestyle modification support, delivered modest weight loss, and in older adults were shown to reduce healthcare costs arising from diabetes.[75] Targeted approaches for people with pre-clinical indicators may also have a positive impact: a recent meta-analysis considered lifestyle interventions that lasted at least three months, including exercise, diet and at least one other component for high risk patients and found that they effectively decreased the incidence of Type 2 diabetes.[76]

3.4.4 EVIDENCE BASE FOR SUPPLEMENTATION

The Department of Health recommends that people aged 65 years and over should take a daily supplement containing 10 micrograms (0.01mg) of vitamin D to protect musculoskeletal health[77]. NICE clinical guidance entitled 'Vitamin D: increasing supplement use in at-risk groups was published in November 2014[77] and provides guidance on approaches for improving awareness and levels of supplementation to better meet recommendations and address vitamin D inadequacy in at-risk groups including older people.

71 Villareal DT, Apovian CM, Kushner RF, Klein S (2005). 'Obesity in older adults: technical review and position statement of the American Society for Nutrition and NAASO, The Obesity Society'. Am J Clin Nutr; 82:5, 923-934

72 ibid

73 Beavers KM, Beavers DP, Beverly AN, et al. (2014) 'Effect of an 18-month physical activity and weight loss intervention on body composition in overweight and obese older adults'. ; 22:2; 325–331.

74 Waters DL, Vawter R, Qualls C et al. (2013). 'Long-term maintenance of weight loss after lifestyle intervention in frail, obese older adults'. The Journal of Nutrition, Health & Ageing; 17:1.

75 Foresight. (2007) Tackling obesities: future choices—project report. London: The Stationery Office. https://www.gov.uk/government/publications/reducing-obesity-future-choices

76 Schellenberg ES et al. (2013) 'Lifestyle Interventions for Patients With and at Risk for Type 2 Diabetes: A Systematic Review and Meta-analysis' Annals of Internal Medicine, 159:8:543-551.

77 https://www.nice.org.uk/guidance/ph56?unlid=784147948201412153424 9?print=true?print=true

Calcium supplements may be prescribed for high risk individuals; the majority of the population of older adults are projected to meet their calcium requirements within their food intakes. Further preventative measures for bone health, including the role of physical activity is described in previous JSNA work addressing falls.[78]

There is additional research activity to explore the potential health benefits and risks of supplementation with antioxidants,[79] selenium,[80] potassium,[81] and omega 3[82] for a range of cardiovascular disease targets, and in the prevention of cognitive decline. However, the evidence base is not sufficiently strong to translate into policy or guidance. For example, the Scientific Advisory Committee on Nutrition (SACN) considered selenium and issued a position statement, May 2013 concluding '*Overall, there is currently insufficient evidence of a public health issue or rationale to justify undertaking a more detailed full risk assessment on selenium and health'.*[83]

3.4.5 EVIDENCE BASE FOR WHOLE POPULATION APPROACHES

NICE public health guidance issued for several chronic diseases,[84] states the value of taking a pan-population approach rather than solely targeting high risk individuals – and emphasises that these approaches are complementary. This is explained in detail in PH25[85] which focusses on the prevention of cardiovascular disease (CVD):

3.11 CVD risk factors can be reduced in a number of ways. Two different (and frequently, complementary) approaches are often described as 'individual-' and 'population-based'. The former involves interventions which tend to give people direct encouragement to change their behaviour. It may involve providing information about the health risks of their current behaviour, advice (such as to be more active) or prescribing a treatment. Alternatively, it may involve altering the way the NHS and other organisations deliver prevention or healthcare services. Population-based interventions, on the other hand, aim to change the risks from the social, economic, material and environmental factors that affect an entire population. This can be achieved through regulation, legislation, subsidy and taxation or rearranging the physical layout of communities. The PDG [Programme Development Group – editor comment] focused on population-based approaches.

3.14 Previously in the UK, interventions focused on individuals have tended to dominate CVD prevention activities and it is important to identify and treat those who are at higher risk. However, a much larger overall benefit could be achieved by making changes (albeit small ones) among any

78 Available at:http://www.cambridgeshireinsight.org.uk/joint-strategic-needs-assessment/current-jsna-reports/prevention-ill-health-older-people-2013

79 Bjelakovic G, Nikolova D, Gluud LL, et al. (2012). 'Antioxidant supplements for prevention of mortality in healthy participants and patients with various diseases'. Cochrane Database of Systematic Reviews 2012, Issue 3.

80 Rees K, Hartley L, Day C, et al. (2013). 'Selenium supplementation for the primary prevention of cardiovascular disease'. Cochrane Database of Systematic Reviews 2013, Issue 1.

81 Aburto NJ, Hanson S, Gutierrez H et al. (2013). 'Effect of increased potassium intake on cardiovascular risk factors and disease: systematic review and meta-analyses'. BMJ; 346.

82 Delgado-Lista et al., (2012) 'Long chain omega-3 fatty acids and cardiovascular disease: A systematic review.' British Journal of Nutrition; 107:201-213.

83 Scientific Advisory Committee on Nutrition. (2013). 'SACN Position Statement on Selenium and Health'. Available at: http://www.sacn.gov.uk/reports_position_statements/position_statements/sacn_position_statement_on_selenium_and_health_-_may_2013.html

84 For example, NICE guidance PH25 on cardiovascular disease and PH35 on type 2 diabetes. NICE guidance is available at: http://guidance.nice.org.uk/

85 Available at: http://publications.nice.org.uk/prevention-of-cardiovascular-disease-ph25

given population as a whole. As indicated by the Rose hypothesis, a small reduction in risk among a large number of people may prevent many more cases, rather than treating a small number at higher risk. A whole-population approach explicitly focuses on changing everyone's exposure to risk (Rose 2008).

3.15 There is growing evidence in support of the Rose hypothesis (see point above). For instance, data were recently pooled from six general population cohort studies involving 109,954 European participants. These data were analysed to compare different CVD strategies. The analysis found that a 10%, population-wide reduction in blood cholesterol, blood pressure and smoking prevalence would save approximately 9,120 lives per million population over 10 years. In contrast, treating 40% of high-risk individuals with a 'polypill' (containing a statin, three half-dose anti-hypertensives and aspirin) would save about 3,720 lives per million, even assuming complete, long-term adherence (Cooney et al. 2009).

Primary preventative approaches include any social and environmental changes that will have a positive bearing on the prevalence of risk factors in the community and reducing the levels of associated diseases. These social and environmental changes were particularly explored for obesity in detail in the 2007 Foresight report 'Reducing obesity: future choices'.[86] Whilst much of the evidence on improving dietary intake is related to children, young people and families, structural changes that benefit public health nutrition may be experienced across the population, and contribute to the health and wellbeing of older adults.

3.4.6 NATIONAL STANDARDS – CARE QUALITY COMMISSION

The Care Quality Commission Standards include Outcome 5: Meeting nutritional needs. Therefore registrants to the CQC have a duty to ensure the quality of food provision and nutrition support for their clients and service users. Further detail on the meaning of this outcome is provided in the CQC 'Provider Compliance Assessment' tool:[87]

"What should people who use services experience?

People who use services:

- *Are supported to have adequate nutrition and hydration.*

This is because providers who comply with the regulations will:

- *Reduce the risk of poor nutrition and dehydration by encouraging and supporting people to receive adequate nutrition and hydration.*
- *Provide choices of food and drink for people to meet their diverse needs making sure the food and drink they provide is nutritionally balanced and supports their health."*

A specific inspection programme on nutrition and dignity has been implemented for care homes and hospitals. The emphasis of both this quality standard and the nutrition and dignity programme is supporting the food choice and independence of individuals, and the sufficiency of food for

[86] Foresight. (2007) Tackling obesities: future choices—project report. London: The Stationery Office. https://www.gov.uk/government/publications/reducing-obesity-future-choices

[87] CQC compliance assessment tool available at: http://www.cqc.org.uk/content/provider-compliance-assessment-tool

preventing malnutrition. The role of food and drink consumption for preventative health is not captured explicitly.

3.4.7 COST EFFECTIVENESS OF DIETARY INTERVENTIONS

There is limited evidence with regards to the cost effectiveness of dietary approaches for the primary prevention of ill-health in older adults. This may particularly reflect the fact that the majority of evidence around diet and nutrition is drawn from the all-adult population, rather than focussing specifically on those in later life.

The NICE guidance on weight management services PH53 issued in May 2014,[88] notes the cost effectiveness of weight management interventions modelling the benefits of a 12-week programme costing £100 or less (or 24-weeks at £200 or less) with at least 1kg of weight lost and where this weight difference is maintained for life and that this may be more cost effective in older adults:

In relation to age, the model implies that the recommendations will generate better value for money for people older than 50 – even if they only maintain a lower weight trajectory for three to 10 years. This is because older people will gain the health benefits sooner (not because older people lose more weight than younger people). Trials suggest average weight loss is similar for all ages and BMI groups. For people aged 20–39, weight loss may need to be maintained for up to 40 years before the intervention is worth undertaking.[89]

3.5 LOCAL ACTION: WHAT ARE OUR LOCAL ASSETS?

This list of assets offers some examples of the resources available in Peterborough to promote eating well to older adults.

- Tier 2 and tier 3 weight management services are in place. Tier 1 weight management services are focussed on engaging individuals in group B (Figure 10), as per the NICE categorisation, and correlate with primary prevention approaches. They will usually offer a lifestyle-focussed intervention in a community setting.

[88] Available at: http://publications.nice.org.uk/managing-overweight-and-obesity-in-adults-lifestyle-weight-management-services-ph53

[89] Excerpt taken from paragraph 4.20 within NICE PH53, available at: http://publications.nice.org.uk/managing-overweight-and-obesity-in-adults-lifestyle-weight-management-services-ph53

Figure 10: NICE recommendations for levels of intervention for overweight and obesity

Group	BMI	Waist circumference*	Co-morbidities	Level of Intervention
A	25-29.9kg/m^2	Low	None	Offer general advice on weight and lifestyle issues
B	25-29.9kg/m^2	High	None	Offer specific advice on diet and physical activity
	25-29.9kg/m^2	Very high	None	
	30-34.9kg/m^2	Any measurement	None	
C	25-29.9kg/m^2	Any measurement	Yes	Offer specific advice on diet and physical activity and consider use of drugs
	30-34.9kg/m^2	Any measurement	Yes	
	35-39.9kg/m^2	Any measurement	None	
D	35-39.9kg/m^2	Any measurement	Yes	Offer specific advice on diet and physical activity and consider drugs or surgery as appropriate
	≥40kg/m^2	Any measurement	+/-	
	≥40kg/m^2	Any measurement	Yes	

* Waist circumference should be measured, in addition to BMI, in people with BMI <35 kg/m^2

Source: NICE[90]

- A community healthy lifestyles service, Solutions4health, is in place and lifestyle clinics are held across a vast array of community assets such as community centres, GP surgeries etc. Health Trainers are trained in motivational interviewing and provide one-to-one consultations to support individuals in identifying unhealthy behaviours and creating personal health plans with goals for lifestyle improvement.

- Primary health care services, including local pharmacies, are a key means of identifying and supporting individuals with changes in behaviour for improvements in their health and wellbeing. These services may be particularly accessed by older adults. There may be further opportunities to enhance behaviour changes, through the annual programme of awareness raising health campaigns of conditions such as Type 2 Diabetes and through routine provision.

- The 'Healthy Peterborough' website provides information about diet, healthy eating and public health.

- AskSARA:[91] is a self-help guide hosted by the Disabled Living Foundation to enable people to identify items of equipment that may help them in their daily lives. Information is available on equipment to support individuals in shopping, preparing and cooking meals, eating and drinking, and clearing and washing dishes.

- As detailed in the chapter on malnutrition, there is a raft of interventions provided by statutory services and voluntary sector organisations to meet needs, support older people with independent living, and provide social opportunities such as luncheon clubs, which may have a positive impact on nutritional status, and support individuals in achieving a healthy and balanced diet. These represent very significant assets for Peterborough. There may be

[90] Figure has been adapted from the information in point 1.2.2. 11, page 37 within NICE Clinical Guidance CG43 (2006) 'Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children, available at: http://guidance.nice.org.uk/CG43

[91] Available at: http://asksara.dlf.org.uk/

opportunities to enhance the dietary information and primary preventative messages within these services.

- The Super Kitchen programme http://www.citycollegepeterborough.ac.uk/news-and-events/super-kitchen-success-ccp/ focuses on providing well balanced, nutritious meals at low cost to people who may be affected by food poverty.

3.6 LOCAL VIEWS AND FUTURE OPPORTUNITIES

The stakeholder event did not illicit local views and future opportunities specifically focussed on diet and nutrition.

4. MALNUTRITION

4.1 KEY FINDINGS

Malnutrition is measured as a Body Mass Index (BMI) lower than 18.5kg/m^2 or unintentional 10% weight loss. NICE identified malnutrition as the sixth largest source for potential NHS savings. The annual health care costs associated with malnutrition are primarily due to more frequent and expensive hospital in-patient spells, more primary care consultations and the greater long-term care needs of malnourished individuals.

About two thirds of cases of malnutrition are not recognised; the impacts are increased burden of disease and treatment costs. It is estimated that 3,000 to 4,000 older residents in Peterborough are malnourished, many more are at risk. Social networks have a preventive role, as interest groups and shopping clubs support motivation and the means for good nutrition.

Regular screening for malnutrition is recommended by NICE; early intervention screening and appropriate treatment is cost-effective. Those at risk should have a 'food first' approach, including dietary advice to optimise their intake, and support with practicalities. NICE estimates that the overall resource impact of increased screening, early intervention and appropriate treatment could lead to a saving of £71,800 per 100,000 people.

Awareness of malnutrition needs to be improved by both healthcare workers and the wider public. Efforts to prevent malnutrition should be integrated with other care to prevent ill-health, and between healthcare workers, carers, social workers, and the voluntary sector. A clear pathway for post-discharge support for those at risk, particularly for older adults who live independently could help to prevent or reduce malnutrition. Community dietitians could provide training for care home staff to screen residents for malnutrition; care homes should use a validated screening tool and should audit to ensure CQC compliance.

The majority of individuals at risk of malnutrition live in the community; preventative resources include home help schemes, lunch clubs, day care centres, shopping services and the support offered by voluntary organisations. Lack of awareness of malnutrition and services or support available can hinder engagement and access to support. This might be improved by raising awareness amongst older adults, their families and GPs about the services available in the community.

4.2 CONTEXT: WHY IS MALNUTRITION IMPORTANT?

Malnutrition is a state in which a deficiency, excess or imbalance of energy, protein and other nutrients causes measurable adverse effects on tissue/body form (body shape, size and composition), function or clinical outcome.[92] For the purposes of this JSNA, malnutrition refers to a state of undernutrition.

[92] Elia M, (Ed). Screening for malnutrition: a multidisciplinary responsibility. Development and use of the 'Malnutrition Universal Screening Tool' ('MUST') for adults. MAG, a Standing Committee of BAPEN. Redditch: BAPEN, 2003.

NICE defines malnutrition as:

- Body mass index (BMI) of less than 18.5 kg/m^2
- Unintentional weight loss greater than 10% within the last 3–6 months.
- BMI of less than 20 kg/m^2 *and* unintentional weight loss greater than 5%, within the last three to six months.[93]

The risk of malnutrition increases with age. People over 75 are at highest risk of malnutrition and this population is projected to double in the next 30 years.[94] This higher risk is due to a combination of physiological changes and also due to an increased burden of disease in older people.

There are many medical, lifestyle and psychological factors which can increase the risk of malnutrition in the community, and which are more common in older people. Additionally, there are risk factors which can occur specifically in hospital settings and further increase the likelihood of malnutrition. The risk factors listed in Table 10 can act in isolation or can interplay to increase overall risk of malnutrition.

Table 5: Risk Factors for Malnutrition

Medical	Lifestyle	Psychological	Additional In Hospital
Poor appetite	Lack of knowledge about food, cooking	Confusion	Food service – limited choice, poor presentation.
Poor dentition	Isolation	Dementia	Slow eating and limited time for meals.
Dysphagia	Loneliness	Depression	Missing dentures.
Loss of taste/smell	Inability to shop	Bereavement	Need for feeding/supervision.
Intestinal disease eg malabsorption	Inability to prepare food	Anxiety	Inability to reach food, use cutlery, open packages.
Endocrine disease eg diabetes	Poverty		Unpleasant sights, sounds, smells.
Neurological disease eg stroke, Parkinson's			Increased nutrient requirements (because on infections, wound healing etc).
Infections eg urinary tract infections, chest infections			Limited provision for religious/cultural dietary needs
Respiratory disease eg COPD			Nil by mouth or missing meals while having tests
Cardiac disease eg heart failure			

[93] Nutrition Support in Adults (CG32). Oral nutrition support, enteral tube feeding and parenteral nutrition. NICE, 2006.
[94] National Population Projections, 2010 Based Projections, Office for National Statistics, 2011.

Physical disability eg arthritis, poor mobility			
Drug interactions			
Other disease eg cancer			

Source: Modified from Hickson[95]

Malnutrition increases the risk of disease for individuals, as well as poor psycho-social function. The clinical effects of malnutrition are summarised in Table 11. In-hospital mortality has been found to rise with increasing risk of malnutrition, and mortality is higher among discharged patients with medium or high risk of malnutrition. Malnutrition increases burden of disease, and is associated with more hospital admissions, higher readmission rates, longer length of stay in hospital, higher treatment costs and greater healthcare needs in the community.[96,97] When compared with well-nourished people, malnourished individuals in the community saw their GP twice as often, had three times the number of hospital admissions and stayed in hospital more than three days longer.[98]

Table 6: Clinical Effects of Malnutrition

Effect of Malnutrition	Consequence
Impaired immune response	Impaired ability to fight infection, increased need for antibiotics
Reduced muscle strength and fatigue	Reduced ability to work, shop, cook, self-care. Increased risk of falls and chest infections
Inactivity	Pressure ulcers, deep vein thrombosis (and emboli)
Loss of temperature regulation	Hypothermia
Impaired wound healing	Wound infections, longer recovery time from surgery
Impaired ability to regulate electrolytes/ salt and fluid	Increased risk of dehydration or over-hydration
Specific nutrient deficiencies	Anaemia, osteoporosis
Impaired psycho-social function	Depression, apathy, self-neglect

Source: Modified from Malnutrition Matters[99]

95 Hickson M. (2006) 'Malnutrition and ageing'. Postgrad Med J.; 82(963): 2–8.

96 Stratton RJ, King CL, Stroud MA et al. (2006) 'Malnutrition Universal Screening Tool' predicts mortality and length of hospital stay in acutely ill elderly. Br J Nutr.;95(2):325-30.

97 Managing Adult Malnutrition in the Community including a pathway for the appropriate use of oral nutritional supplements (ONS). Available from http://www.malnutritionpathway.co.uk/

98 J. F. Guest et al. Health economic impact of managing patients following a community-based diagnosis of malnutrition in the UK. Clin Nutr. 2011 Aug;30(4):422-9

99 Brotherton A, Simmonds N & Stroud M. Malnutrition Matters. Meeting Quality Standards in Nutritional Care. BAPEN. 2012.

Disease-related malnutrition costs in excess of £13 billion per annum based on malnutrition prevalence figures and the associated costs of both health care and social care.[100] The annual health care costs associated with malnutrition are primarily due to more frequent and expensive hospital in-patient spells, more primary care consultations and the greater long-term care needs of malnourished individuals.[101] NICE identified malnutrition as the sixth largest source for potential NHS savings.[102] Early identification and treatment of malnutrition in adults could save the NHS £45.5 million a year even after costs of training and screening.[103]

4.3 DATA: WHAT DO WE KNOW ABOUT MALNUTRITION LOCALLY?

It is estimated that there are around one million older people in the UK who are malnourished or at risk of malnutrition.[104] The vast majority (93%) of people who are malnourished or at risk of malnutrition are living in the community, with a minority in care homes (5%) or in hospital (2%).[105] It is estimated that 25-28% of admissions to hospital and 30-41% of admissions to care homes are at risk of malnutrition.[106,107]

There is a paucity of local data pertaining directly to prevalence or costs of malnutrition.

In Peterborough life expectancy at birth is significantly lower for both males and females compared to the national average. 14% of the population is aged 65 years and over (28,700 people), and the number of people over 65 is set to grow by approximately 31% by 2026. It is estimated that 10-14% of the population aged 65 years and over in England is malnourished.[108] Applying national estimates to the local population; this reflects an estimated 3,000 to 4,000 older residents of Peterborough, or about one in 50 people in the general population. Many more older people are likely to be at risk of malnutrition.

Area-specific concerns about malnutrition should consider how different risk factors may vary in distribution across the county. Health problems may cluster in particular areas. For example, mortality rates from cardiovascular disease, respiratory disease and cancer are higher in Peterborough compared to England, and therefore older people in Peterborough may be at increased risk of malnutrition due to medical risk factors.[109]

In terms of lifestyle and psychosocial risk factors, approximately 32% of older people live alone in Peterborough (8,000 people), and these people may also be at increased risk of malnutrition.

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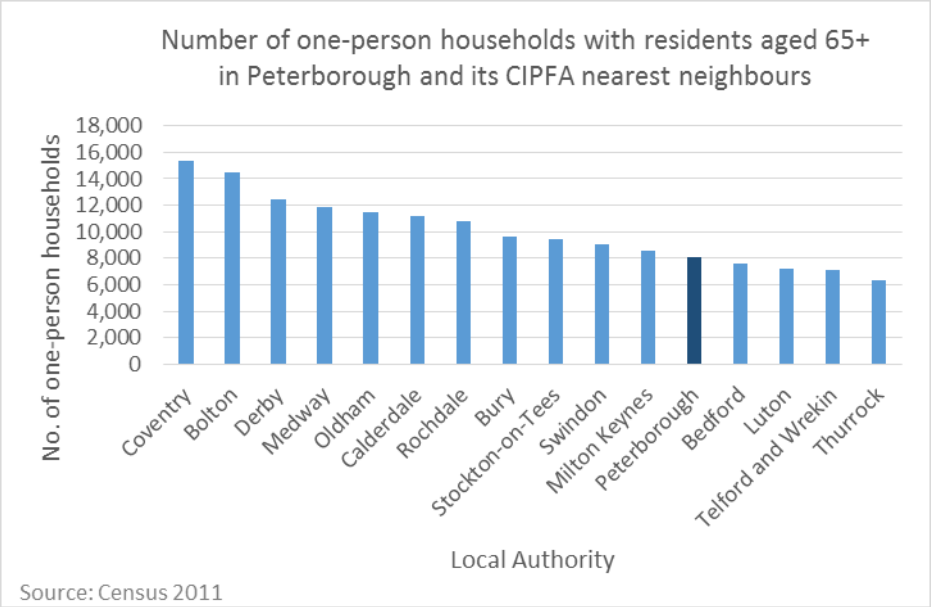
100 Ibid.
101 Ibid.
102 Benefits of Implementation: Cost saving guidance, NICE, (updated) 2013
103 National cost impact report to accompany CG32, NICE, 2006
104 Elia M, Smith RM. Improving nutritional care and treatment. Perspectives and Recommendations from population groups, patients and carers. A report from BAPEN with 18 collaborating partners from the voluntary sector. BAPEN, 2009. http://www.bapen.org.uk/pdfs/improv_nut_care_report.pdf
105 Ibid.
106 Russell CA, Elia M. Nutrition screening survey in the UK in 2007. 2008. http://www.bapen.org.uk/pdfs/nsw/nsw07_report.pdf
107 Russell CA, Elia M. Nutrition screening survey in the UK in 2008. 2009. http://www.bapen.org.uk/pdfs/nsw/nsw_report2008-09.pdf
108 Brotherton A, Simmonds N & Stroud M. Malnutrition Matters. Meeting Quality Standards in Nutritional Care. BAPEN. 2012.
109 Public Health Outcomes Framework. Healthcare public health and preventing premature mortality. Public Health England. http://www.phoutcomes.info/

Figure 11 shows the number of one-person households with residents aged 65 and over in Peterborough and it's Chartered Institute of Public Finance and Accountancy (CIPFA) nearest neighbours. Peterborough has the fourth lowest absolute number of older people living alone among its CIPFA nearest neighbours.

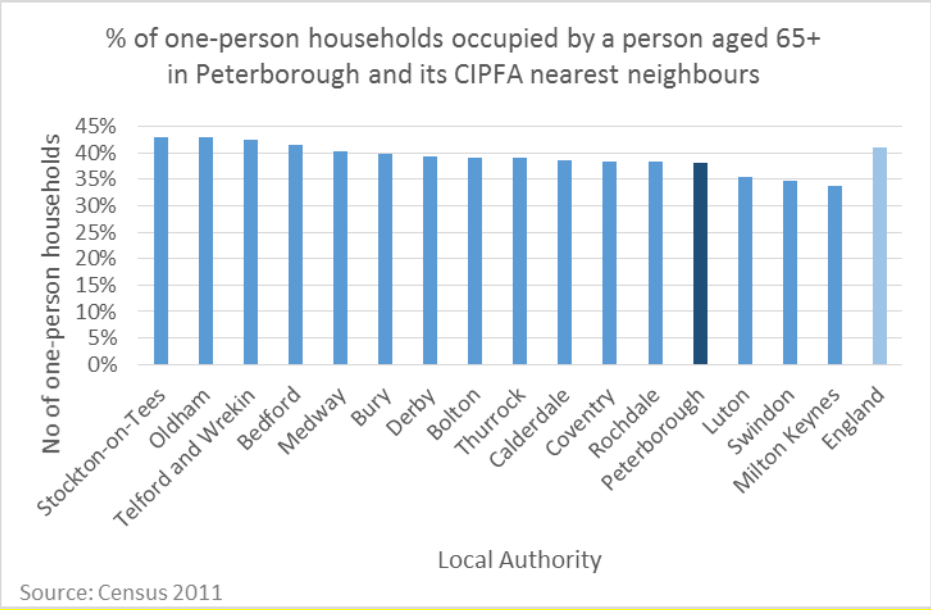
Figure 11: Number of one-person households with residents aged 65 and over in Peterborough and its CIPFA nearest neighbours.



Source: Census 2011

There are many one-person households that are occupied by adults of working age. Within the population of one-person households in Peterborough and its CIPFA nearest neighbours, Figure 12 highlights that a similar percentage of one-person households in Peterborough are occupied by an older person aged 65 and over.

Figure 12: Percentage (%) of one-person households occupied by a person aged 65+



Source: Census 2011

4.3 EVIDENCE BASE: WHAT WORKS? WHAT IS RECOMMENDED?

4.3.1 SCREENING

Screening for those at risk of malnutrition is a key component of primary prevention of malnutrition. The most common validated tool for screening is the Malnutrition Universal Screening Tool (MUST). This tool can be applied to bed-bound patients who cannot have weight/height measurements taken, whereas other tools require calculation of weight/height.[110] Patients who are found to be at risk of malnutrition using the MUST can be commenced on pathways of intervention according to level of risk in order to prevent (or treat) malnutrition.

Studies in the UK, Netherlands and USA have reported improved documentation of nutrition related issues in wards where screening took place, improved weight gain, fewer related hospital-acquired infections, reduced incidence of major complications and length of stay in frail, older patients.[111,112,113,114] A recent Cochrane review reported a lack of high quality evidence about the effectiveness of nutritional screening.[115] However, a number of guideline development groups have considered that the benefits of screening outweigh the risks of failing to detect and treat those with malnutrition, or those at risk of malnutrition.[116]

NICE Clinical Guidelines on Nutrition Support in Adults have recommended screening at the following opportunities:

- All hospital inpatients on admission and weekly when there is clinical concern.
- All hospital outpatients at first OPD appointment and where there is clinical concern.
- All residents of care homes on admission and repeated monthly.
- At initial registration in GP surgeries.
- Annually in GP surgeries for those aged over 75 where there is clinical concern.
- At other opportunities in GP surgeries such as health checks or vaccinations.[117] [118]

[110] Stratton RJ, King CL, Stroud MA et al. (2006) 'Malnutrition Universal Screening Tool' predicts mortality and length of hospital stay in acutely ill elderly. *Br J Nutr*.;95(2):325-30.

[111] Jordan S, Snow D, Hayes C, Williams A. (2003) Introducing a nutrition screening tool: an exploratory study in a district general hospital. *J Adv Nurs*. 44(1):12-23.

[112] Rypkema G, Adang E, Dicke H et al. (2004). 'Cost-effectiveness of an interdisciplinary intervention in geriatric inpatients to prevent malnutrition'. *J Nutr Health Aging.* 8(2):122-7.

[113] Kruizenga HM, Van Tulder MW, Seidell JC et al. (2005)' Effectiveness and cost-effectiveness of early screening and treatment of malnourished patients'. *Am J Clin Nutr*.2(5):1082-9.

[114] Brugler L, DiPrinzio MJ, Bernstein L. The five-year evolution of a malnutrition treatment program in a community hospital. Jt Comm J Qual Improv. 1999 Apr;25(4):191-206.

[115] Omidvari AH, Vali Y, Murray SM, Wonderling D, Rashidian A. Nutritional screening for improving professional practice for patient outcomes in hospital and primary care settings. Cochrane Database Syst Rev. 2013 Jun 6;6:CD005539.

[116] Mueller C, Compher C, Ellen DM. ASPEN. Clinical Guidelines Nutrition Screening, Assessment, and Intervention in Adults. JPEN J Parenter Enteral Nutr. 2011 Jan;35(1):16-24.

[117] Nutrition Support in Adults (CG32). Oral nutrition support, enteral tube feeding and parenteral nutrition. NICE, 2006.

[118] Brotherton A, Simmonds N & Stroud M. Malnutrition Matters. Meeting Quality Standards in Nutritional Care. BAPEN. 2012.

Regular screening and monitoring of all people in care homes has been estimated to cost half the amount of treating those who are malnourished. It is estimated that the overall resource impact of increased screening, early intervention and appropriate treatment could lead to a saving of £71,800 per 100,000 people.[119] The National Collaborating Centre for Acute Care reported that screening of older inpatients was more costly than a strategy of nurses selecting patients for nutritional intervention, but also more effective. It was suggested that screening was cost-effective when compared to a threshold of £20,000 per quality adjusted life year (QALY) gained.[120] It has been reported that screening can improve quality of care,[121] and it may be associated with a modest increase in costs in a hospital setting, but implementation of a screening tool and treatment may result in substantial savings overall by reducing length of hospital stay.[122]

4.3.2 DIETARY INTERVENTION

Expert groups have recommended that those identified as being at risk of malnutrition, using screening tools such as the MUST, should receive dietary advice to optimise oral intake ('food first').[123] A Cochrane review compared patients receiving dietary advice with those who did not receive any advice and reported increased weight gain in the former group.[124] However there was no significant difference in mortality or length of hospital stay in patients receiving dietary advice alone.[125] This suggests a greater role for a 'food first' approach in people who are still in the community and not acutely ill. No study reporting the cost-effectiveness of dietary advice was identified.

Dietary modifications to reduce or prevent malnutrition as recommended by The British Association for parenteral and Enteral Nutrition (BAPEN) and the British Dietetic Association[126] include the following:

- Add everyday foods to diet to increase energy and protein content eg full fat milk, cheese.
- Take small regular meals/snacks with high-energy and protein-rich foods/fluids.
- Overcome potential barriers to oral intake: physical (dentition), mechanical (texture, use of thickened fluids etc), environmental (inability to prepare food, inability to shop etc).
- Consider referral to dietetics, occupational therapy, speech and language therapy services.

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119 NICE support for commissioners and others using the quality standard on nutrition support in adults, NICE, 2012.
120 Nutrition Support in Adults (CG32). Oral nutrition support, enteral tube feeding and parenteral nutrition. NICE, 2006.
121 Rypkema G, Adang E, Dicke H et al. (2004). 'Cost-effectiveness of an interdisciplinary intervention in geriatric inpatients to prevent malnutrition'. *J Nutr Health Aging.* 8(2):122-7.
122 Kruizenga HM, Van Tulder MW, Seidell JC et al. (2005)' Effectiveness and cost-effectiveness of early screening and treatment of malnourished patients'. *Am J Clin Nutr*.2(5):1082-9.
123 Managing Adult Malnutrition in the Community including a pathway for the appropriate use of oral nutritional supplements (ONS). Available from http://www.malnutritionpathway.co.uk/
124 Baldwin C, Weekes CE. Dietary advice with or without oral nutritional supplements for disease-related malnutrition in adults. Cochrane Database Syst Rev. 2011 Sep 7;(9):CD002008.
125 Ibid.
126 British Dietetic Association Factsheet on Malnutrition 2012. Available at: https://www.bda.uk.com/foodfacts/malnutritionfactsheet.pdf

4.3.3 ORAL NUTRITIONAL SUPPLEMENTS

Oral nutritional supplements (ONS) are typically used in addition to normal diet when a person is deemed to be malnourished or at high risk of malnutrition and where dietary modifications alone are insufficient to meet nutritional requirements.[127] A Cochrane Review found that ONS produce a small but consistent weight gain in older people.[128] Use of ONS can decrease functional limitations with no extra costs in those who are already malnourished.[129] Meta-analyses suggest that ONS reduce complications (eg infections, wound breakdown) and mortality in those who are already malnourished.[130] [131]

The role of ONS in primary prevention of malnutrition is less clear. Energy intake and weight gain is significantly greater in those receiving ONS compared to dietary advice alone.[132] Milne et al. reported no significant difference in mortality between those who received ONS and those who did not receive ONS among people who were not malnourished.[133] Evidence for ONS use is not supportive for routine supplementation for older people at home or for use in well-nourished patients in any setting.[134]

NICE recommends use of a validated screening tool such as the MUST, and this tool advises the prescription of ONS in all patients at high risk of malnutrition. Therefore, the supplements have a role in primary prevention, but further research is required to determine how people at risk of malnutrition, but not yet meeting the NICE criteria, to be defined as malnourished, benefit from ONS.

The National Collaborating Centre for Acute Care suggests probable cost-effectiveness of ONS within the context of a screening programme in older hospital patients.[135] Economic analysis of ONS use in the Netherlands estimated an 8.3% cost saving per patient.[136] In a community setting, additional costs of ONS were estimated to be more than balanced by a reduction of other health care costs (eg re-hospitalisation).[137]

4.3.4 OTHER PRIMARY PREVENTIVE MEASURES

127 Managing Adult Malnutrition in the Community including a pathway for the appropriate use of oral nutritional supplements (ONS). Available from http://www.malnutritionpathway.co.uk/

128 Milne AC, Potter J, Vivanti A, Avenell A. (2009) 'Protein and energy supplementation in elderly people at risk from malnutrition'. *Cochrane Database Syst Rev* (2):CD003288

129 Neelemaat F, Bosmans JE, Thijs A. et al. (2012). 'Oral nutritional support in malnourished elderly decreases functional limitations with no extra costs'. *Clin Nutr*.;31(2):183-90.

130 Brotherton A, Simmonds N & Stroud M. Malnutrition Matters. Meeting Quality Standards in Nutritional Care. BAPEN. 2012.

131 Milne AC, Potter J, Vivanti A, Avenell A. (2009) 'Protein and energy supplementation in elderly people at risk from malnutrition'. *Cochrane Database Syst Rev* (2):CD003288

132 Nutrition Support in Adults (CG32). Oral nutrition support, enteral tube feeding and parenteral nutrition. NICE, 2006.

133 Milne AC, Avenell A, Potter J. (2006) 'Meta-analysis: protein and energy supplementation in older people'. *Ann Intern Med*; 144(1):37-48.

134 Ibid.

135 Nutrition Support in Adults (CG32). Oral nutrition support, enteral tube feeding and parenteral nutrition. NICE, 2006.

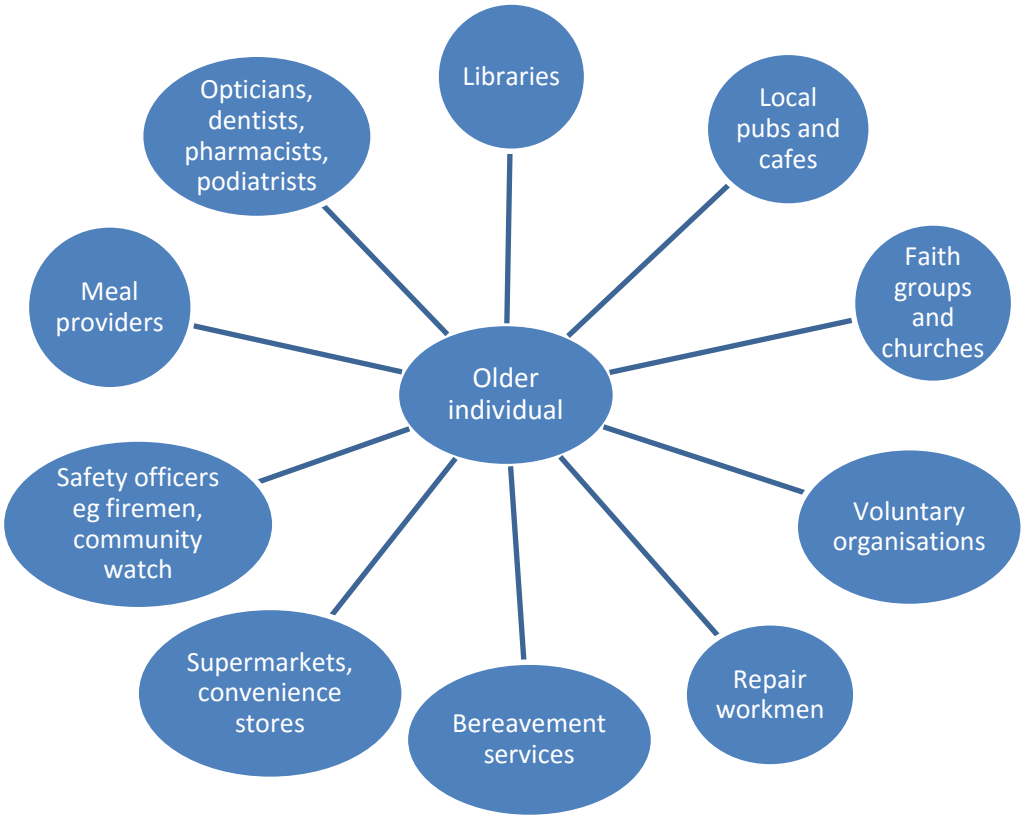
136 Freijer K, Nuijten MJ. (2010) 'Analysis of the health economic impact of medical nutrition in the Netherlands'. *Eur J Clin Nutr.*; 64(10):1229-34.

137 Freijer K, Nuijten MJ, Schols JM. (2012) 'The budget impact of oral nutritional supplements for disease related malnutrition in elderly in the community setting'. *Front Pharmacol*; 3:78.

Raising awareness

About two thirds of people with malnutrition are not recognised as being malnourished,[138] and this is in part due to a lack of public awareness of the problem. Many people mistakenly believe that becoming thinner is a natural part of ageing, and therefore fail to take appropriate action when the signs of malnutrition are first apparent.[139] Older people, their families, and healthcare staff need to be educated on the signs and symptoms of malnutrition, how it can be tackled, and where help can be sought if required.[140] Figure 14 illustrates common 'touch points' identified by the national 'Malnutrition Task Force' where contact with older people is likely in the community. Raising awareness with these groups should lead to better signposting of older people at risk of malnutrition to where they can get help and support.

Figure 13: Common contacts for older people in the community



[138] Stratton RJ, King CL, Stroud MA et al. (2006) 'Malnutrition Universal Screening Tool' predicts mortality and length of hospital stay in acutely ill elderly. *Br J Nutr.*;95(2):325-30.

[139] Malnutrition among older people in the community. Policy recommendations for change. The European Nutrition for Health Alliance. BAPEN. International Longevity Centre UK. http://www.elderabuse.org.uk/Documents/Other%20Orgs/ILC%20Report%20-%20Malnutrition%20among%20Older%20People%20in%20the%20Community.pdf

[140] Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. A Local Community Approach. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

Source: Adapted from Malnutrition Task Force[141]

Table 7 provides some key recommendations of the Malnutrition Task Force to raise awareness which were informed by consultation with older people and carers. The importance of good nutrition needs to be highlighted, but this may lead to confusion with anti-obesity messages. Any advice encouraging older people to eat high energy, high fat, high sugar or high calorie food needs clear explanation.[142] The Malnutrition Task Force has highlighted the importance of promoting positive messages about optimal nutrition, rather than focusing on 'malnutrition' which, as an unfamiliar concept to people, may be associated with neglect or poverty and interpreted as a pejorative term.

Table 7: Key Recommendations to improve public awareness of the risks associated with malnutrition

Recommendations to improve public awareness	
Raising the issue	Avoid the term malnutrition
	Consider alternatives: undernourished, underweight.
	Use phrases which are easy to understand
Messages about malnutrition	Positive messages preferable
	May be helpful to emphasise how to maintain healthy weight and independence
	Important to dispel myth that weight loss is a normal part of ageing
Communicating with carers	Many carers are looking after older people who are malnourished, or at risk of malnutrition, but receiving no nutritional support
	Nutrition can be a big source of worry and frustration for carers
Healthy eating messages	Conventional messages aiming to prevent obesity are taken on board by older people
	Explanation is needed on healthy eating messages for older people who are not overweight
	Messages emphasising small meals with snacks/milky drinks in between are useful
Channels of communication	Older people prefer human sources of information about food and eating
	Healthy weight check by GPs suggested as the best means
	Leaflets in health centres, pharmacies, and articles in local papers may also be useful.

[141] Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. A Local Community Approach. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

[142] Ibid.

Source: Adapted from Malnutrition Task Force[143]

Access to good nutrition

Broad barriers to better nutrition include lifestyle factors, poverty, poor mobility and functional limitations.[144] Optimal access to good nutrition is unique to each individual's circumstances. Appropriate social help may include help with shopping, transport and support with eating and drinking. Some people may need access to meals via home delivery or help with finances and advice regarding benefits.[145] The restoration of social networks can provide the motivation for good nutrition in older age, and community models used elsewhere have included lunch clubs and shopping clubs.[146] Many of the social interventions can be accessed through voluntary organisations, social care, local authorities and private food or meal providers.

Research suggests that in hospital settings, and potentially in care homes, access to good nutrition is often hampered by the structuring of the wards/residences, rather than by the food itself. There may be organisational barriers (eg unsuitable serving times, menus not enabling informed decision-making about what food meets patients' needs); physical barriers (eg not in a comfortable position to eat, food out of reach, utensils or packaging presenting difficulties for eating); and environmental factors (eg staff interrupting during mealtimes, disruptive and noisy behaviour of other patients, unpleasant smells).[147]

Raising awareness of malnutrition amongst hospital and care home staff is a key to enabling improved access to meals. The Malnutrition Task Force recommend training for staff involved in care of older people, including sessions on screening for malnutrition and caring for those with complex needs such as dementia or dysphagia.[148] Initiatives used elsewhere, and which are sought

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143 Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. A Local Community Approach. Malnutrition Task Force 2013 http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

144 Malnutrition among older people in the community. Policy recommendations for change. The European Nutrition for Health Alliance. BAPEN. International Longevity Centre UK. http://www.elderabuse.org.uk/Documents/Other%20Orgs/ILC%20Report%20-%20Malnutrition%20among%20Older%20People%20in%20the%20Community.pdf

145 Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. A Local Community Approach. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

146 Malnutrition among older people in the community. Policy recommendations for change. The European Nutrition for Health Alliance. BAPEN. International Longevity Centre UK. http://www.elderabuse.org.uk/Documents/Other%20Orgs/ILC%20Report%20-%20Malnutrition%20among%20Older%20People%20in%20the%20Community.pdf

147 Naithani S, Whelan K, Thomas J, et al. (2008) Hospital inpatients' experiences of access to food: a qualitative interview and observational study. Health Expect. 11(3):294-303.

148 Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. A Local Community Approach. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

by Age UK, include protected mealtimes (during which ward rounds and medication rounds do not take place) and the use of a red tray system to identify those in need of feeding assistance.[149]

Integrating care for older people

The care of older people and prevention of malnutrition is shared between health workers, carers, social workers and the voluntary sector among others. Clear channels of communication are needed between these sectors, as well as with food providers and retailers. Integration of care is regarded as a key component to preventing ill-health in the older and has been helpful in lowering rates of hospital bed use in parts of England previously.[150] It has been emphasised by the NICE quality standard as being fundamental to the delivery of high-quality care.[151]

Monitoring those at risk of malnutrition

Monitoring of those at risk of malnutrition is a component of prevention which ensures that older people avoid adverse effects. The Malnutrition Task Force has outlined a number of opportunities for this.[152] In primary care, monitoring and recording of weight and risk of malnutrition are recommended for people with long term conditions and at times of routine review. Development of a register of older people with a BMI < 20 is to be encouraged. Care homes and hospitals should screen people on admission, and keep a record of the proportion of people for whom weight has been recorded and monitored. Organisations may choose to implement screening initiatives whereby repeat screens are undertaken when required on a set day of the week (eg 'screening Sundays'). Any system should be embedded within everyday practice and demonstrate compliance to the CQC standard.[153]

Within adult social care, staff should be trained in nutrition care in order for screening and monitoring of nutritional status to be carried out. Local health and wellbeing boards should agree to a set of nutrition indicators in order to establish whether interventions in place are having the desired effect in the community.

4.3.5 NATIONAL GUIDANCE AND RECOMMENDATIONS

NICE Guidance

149 Still hungry to be head. The scandal of older people in later life becoming malnourished in hospital. Age Concern. Age UK. http://www.ageuk.org.uk/documents/en-gb/for-professionals/health-and-wellbeing/id9489_still_hungry_to_be_heard_report_28ppa4.pdf?dtrk=true

150 Imison C, Thompson J. Older people and emergency bed use: exploring variation. King's Fund 2012.

151 Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. Food and Beverage Providers. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

152 Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. A Local Community Approach. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

153 Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. Food and Beverage Providers. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

NICE produced clinical guidelines on 'Nutrition Support in Adults' in 2006.[154] The following key clinical priorities for implementation were outlined:

- Screening for malnutrition, and those at risk of malnutrition should be carried out by healthcare professionals with appropriate skills and training.
- All hospital inpatients, on admission and outpatients at their first clinic appointment, should be screened. Screening should be repeated weekly for inpatients and when there is clinical concern for outpatients. People in care homes should be screened on admission and when there is a clinical concern.
- Hospital departments who identify groups of patients with low risk of malnutrition may opt out of screening these groups.
- Nutrition support should be considered in people who are malnourished and in people at risk of malnutrition. Potential swallowing problems should be taken into account.
- All healthcare professionals who are directly involved in patient care should receive education and training, relevant to their post, on the importance of providing adequate nutrition.
- Healthcare professionals should ensure that all people who need nutrition support receive co-ordinated care from a multidisciplinary team.
- All acute hospital trusts should employ at least one specialist nutrition support nurse.
- All hospital trusts should have a nutrition steering committee working within the clinical governance framework.

NICE published 'QS24: Quality standard for nutrition support in adults' in 2012. This provides specific, concise quality statements, measures and audience descriptors to provide the public, health and social care professionals, commissioners and service providers with definitions of high-quality care.[155] NICE also published 'NICE support for commissioners and others using the quality standard on nutrition support in adults' in 2012 in order to help the implementation of recommendations from NICE guidance.[156] Table 13 summarises these quality statements and the overarching outcomes they contribute towards in the NHS Outcomes Framework and Adult Social Care Outcomes Framework.

The CCG Outcome Indicator Set (CCG OIS) was updated in October 2013.[157] At that time a set of proposed indicators of nutrition support was reviewed, and the value of indicators in this area was recognised. It was decided not to include the indicators for nutrition support in adults in the CCG OIS until further development of these indicators has taken place.[158] NICE is to consider the possibility of further developing overarching outcomes indicators for nutrition support.

[154] Nutrition Support in Adults (CG32). Oral nutrition support, enteral tube feeding and parenteral nutrition. NICE, 2006.
[155] QS24: Quality standard for nutrition support in adult. NICE. 2012. http://publications.nice.org.uk/quality-standard-for-nutrition-support-in-adults-qs24
[156] NICE support for commissioners and others using the quality standard on nutrition support in adults. NICE. 2012. http://www.nice.org.uk/nicemedia/live/13977/61747/61747.pdf
[157] NICE CCG OIS indicator tracking document 2013. NICE. http://www.nice.org.uk/aboutnice/ccgois/CCGOIS.jsp?domedia=1&mid=1BA36F2A-D22E-A7C4-AC66D21CB048092B
[158] Clinical Commissioning Group Outcomes Indicator Set Advisory Committee. Unconfirmed minutes of the meeting held on Wednesday 2nd October 2013. http://www.nice.org.uk/media/F02/C4/OISMinutes02Oct2013.pdf

Table 8: Quality standard for nutrition support in adults, and the outcomes the quality statements contribute towards in the NHS Outcomes Framework and Adult Social Care Outcomes Framework.

Quality Statements
1 People in care settings are screened for the risk of malnutrition using a validated screening tool.
2 People who are malnourished or at risk of malnutrition have a management care plan that aims to meet their nutritional requirements.
3 All people who are screened for the risk of malnutrition have their screening results and nutrition support goals (if applicable) documented and communicated in writing within and between settings.
4 People managing their own artificial nutrition support and/or their carers are trained to manage their nutrition delivery system and monitor their wellbeing.
5 People receiving nutrition support are offered a review of the indications, route, risks, benefits and goals of nutrition support at planned intervals.
Contribution of Quality statements to NHS Outcomes Framework - Preventing people from dying prematurely. - Enhancing quality of life for people with long-term conditions. - Helping people to recover from episodes of ill health or following injury. - Ensuring that people have a positive experience of care. - Treating and caring for people in a safe environment and protecting them from avoidable harm.
Contribution of Quality statements to Adult Social Care Outcomes Framework - Enhancing the quality of life for people with care and support needs. - Ensuring that people have a positive experience of care and support. - Safeguarding adults whose circumstances make them vulnerable and protecting from avoidable harm.

Source: NICE[159]

[159] QS24: Quality standard for nutrition support in adult. NICE. 2012. http://publications.nice.org.uk/quality-standard-for-nutrition-support-in-adults-qs24

Improving Nutritional Care – Action Plan

This joint action plan from the Department of Health and Nutrition Summit Stakeholder Group (2007) outlined five key priorities for action on malnutrition:[160]

- To raise awareness of the link between nutrition and good health and that malnutrition can be prevented.
- To ensure that accessible guidance is available across all sectors and that the most relevant guidance is appropriate and user-friendly.
- To encourage nutritional screening for all people using health and social care services, paying particular attention to those groups that are known to be vulnerable.
- To encourage provision and access to relevant training for front-line staff and managers on the importance of nutrition for good health and nutritional care.
- To clarify standards and strengthen inspection and regulation.

A range of actions were agreed to support each of the five key priorities for action. These included: (1) support and promote the Council of Europe Alliance (UK)'s 10 key characteristics of good nutritional care in hospitals, (2) a purpose-designed online training session on nutritional care and assistance with eating available to all NHS and social care staff, (3) commitment from the Nursing and Midwifery Council (NMC) that nutrition principles will be required to be assessed in practice as part of student nurse training, (4) the largest study ever undertaken on malnutrition on admission to hospital and care homes across the UK (by BAPEN).

BAPEN Toolkit

The British Association for Parenteral and Enteral Nutrition (BAPEN) has produced a Toolkit 'Malnutrition Matters – Meeting Quality Standards in Nutritional Care' (2012) to help clinical commissioning groups and providers ensure that nutritional issues are being met within all service plans and that best nutritional care is embedded in all UK health and care settings.[161] The toolkit is designed to encourage commissioners and providers to:

- Increase awareness of malnutrition.
- Collate evidence on nutritional care in all settings, in order to support the case for nutritional care, as a fundamental indicator of quality.
- Help commissioners to draw up service specifications that embed nutritional care in all services, and in all health and social care settings.
- Reduce inequalities in nutritional care.
- Provide guidance to service providers to enable them to embed nutritional care in all business cases for new services and development of existing services.

[160] Improving nutritional care. A joint Action Plan from the Department of Health and Nutrition Summit stakeholders. Department of Health. 2007. http://webarchive.nationalarchives.gov.uk/20130107105354/http:/www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_079931

[161] Brotherton A, Simmonds N & Stroud M. Malnutrition Matters. Meeting Quality Standards in Nutritional Care. BAPEN. 2012.

- Facilitate assessment and monitoring of nutritionally related health outcomes.
- Demonstrate value for money for nutritional care.

Other sources of guidance and recommendations

A multi-professional consensus panel produced a treatment guidance pathway 'Managing Adult Malnutrition in the Community' (2012) as a practical guide to support General Practitioners and other healthcare professionals in the community to identify and manage individuals at risk of disease-related malnutrition.[162] This recommends use of MUST, and so risk of malnutrition is based on that which is defined by the screening tool.

The Malnutrition Task Force (MTF) is comprised of an independent group of experts across health, social care and local government. They have produced a Best Practice Principles and Implementation Guide for 'Malnutrition in Later Life: Prevention and Early Intervention' from the approach of the local community,[163] hospitals,[164] care homes,[165] and food and beverage providers.[166] The key principles of best practice for providing good nutrition and hydration care outlined by MTF are:

- Raising awareness to prevent and treat malnutrition and dehydration through education of older people, their families and front line staff.
- Working together within teams, across organisational boundaries and across communities.
- Identifying malnutrition in the individual and prevalence within organisations and across local communities.
- Personalising care, support and treatment for every individual.
- Monitoring and evaluating the individual and the processes in place to address malnutrition.

Meeting people's nutritional and hydration needs is a legal requirement for all organisations registered with the Care Quality Commission (CQC).[167] Regulation 14 of the Health and Social Care Act 2008 outlines that where food and hydration are provided to service users, it must be ensured

[162] Managing Adult Malnutrition in the Community including a pathway for the appropriate use of oral nutritional supplements (ONS). Available from http://www.malnutritionpathway.co.uk/

[163] Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. A Local Community Approach. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

[164] Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. Hospitals. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Hospital.pdf

[165] Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. Care homes. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Care_Home.pdf

[166] Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. Food and Beverage Providers. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

[167] Provider compliance assessment tool – Outcome 5 (Regulation 14): Meeting nutritional needs. Care Quality Commission.

that service users are "protected from the risks of inadequate nutrition and dehydration, by means of the provision of: (a) a choice of suitable and nutritious food and hydration, in sufficient quantities to meet service users' needs; (b) food and hydration that meet any reasonable requirements arising from a service user's religious or cultural background; (c) support, where necessary, for the purposes of enabling service users to eat and drink sufficient amounts for their needs."[168]

4.4 LOCAL ACTION: WHAT ARE OUR LOCAL ASSETS?

4.4.1 HOSPITAL-BASED SERVICES IN PETERBOROUGH

There are several examples of good practice underway in Peterborough City Hospital in terms of prevention of malnutrition and also education of medical, nursing and allied healthcare staff.

Protected Meal Times

Protected meal times are considered by Age UK to be a key step in preventing malnutrition in hospitals. They should ensure that disruption to patients is minimised when given meals, and should include offers of assistance to patients with handwashing, positioning in bed/chair, and feeding. Protected meal times are in operation at Peterborough City Hospital. Food is always available and can be ordered at any time, 24 hours a day, if meals have been missed. Meal times are sometimes inevitably interrupted due to urgent procedures or drug rounds.

Mealtime support

In Peterborough City Hospital modified menus are available for those patients requiring softer foods, along with special menus for those with allergies or special dietary requirements. Finger foods and coloured crockery are made available for patients with dementia if they prefer to eat this way. Every patient has an information board by their room/bed to identify those who need extra assistance with feeding and those who need monitoring using a food chart.

Screening

In-patients in Peterborough City Hospital are screened on admission using MUST and placed on the appropriate nutrition care plan. Patients are re-screened weekly, or after three days if identified at high risk of malnutrition. Screening is part of the Nursing Quality Metrics and is monitored and audited monthly. Screening is not routinely done in the Out Patients Department for all services, but as a minimum, weight, height and BMI should be recorded on the patient's electronic record at each attendance to enable any change in weight to be identified.

[168] Malnutrition in Later Life: Prevention and Early Intervention. Best Practice Principles & Implementation Guide. A Local Community Approach. Malnutrition Task Force 2013. http://www.malnutritiontaskforce.org.uk/downloads/other_resources/Prevention_Early_Intervention_Of_Malnutrition_in_Later_Life_Local_community.pdf

Nutrition Champions

In Peterborough City Hospital each ward has a nominated Nutrition Link Nurse. They attend regular update sessions with the Nutrition Nurse Specialist and Lead Nutrition Support Dietitian. Nutrition Link Nurses are encouraged to share examples of good practice, as well as highlighting barriers to optimal practice.

Nutrition Steering Group and Mealtime Volunteers

There is a Nutrition Steering Committee in Peterborough City Hospital which involves clinicians, dietitians, nutrition nurse specialists, matrons and catering. This meets on alternate months. There is a Meal Time Companion volunteers initiative in operation, but not on all wards.

Nutrition Focus Week

Peterborough City Hospital has an annual Nutrition and Hydration Week which is run by Catering in conjunction with the dietitians.

Discharge from hospital

Patients who may require ONS are discharged from Peterborough City Hospital with a one-week supply of this. After this time patients are either followed up via telephone call from the dietetics teams or else community dietitians assess whether there is an ongoing need for the Office of National Statistics (ONS) or other dietary input.

4.4.2 COMMUNITY-BASED INITIATIVES IN PETERBOROUGH

There are a few community initiatives in Peterborough which are directly aimed at preventing malnutrition among older people. However, many of the risk factors for malnutrition may be prevented or alleviated through general community services aimed at providing support for older people. Several of these initiatives are aimed at keeping older people active, independent, and reducing levels of isolation.

Training of care home staff

Community dietitians in Peterborough have worked with care homes to train staff in the use of screening tools (eg MUST). Guidance is provided to care home staff on taking a food-first approach to preventing malnutrition, and producing home-made nutritional supplements. To support this approach, people living in care homes in Peterborough are no longer prescribed ONS. This is part of the MUST care plan in Peterborough care homes. Meal audits should be undertaken in care homes to assure CQC compliance and ensure that patients are fed good food in a supportive environment. Nutrition link workers have been trained for the majority of care homes and have bi-annual refresher training. Nutrition link workers should ensure good implementation of systems in care homes and contact the dietetic service if residents' nutritional status deteriorates. A new residential home training initiative is being piloted to train staff to better prevent, screen and manage early malnutrition, alongside training for pressure ulcer care, continence and foot care as a rolling programme that is being offered county-wide. Community dietitians have produced posters for care

homes to provide nutrition support for those at medium or high risk of malnutrition, as identified by a MUST score of one or above. Care plans, recipes and other resources are also available.

Advice and information on malnutrition

In addition to their clinical roles, community dietitians in Peterborough provide materials to support older people living at home and their families and carers to prevent malnutrition. These materials include booklets on eating well with a reduced appetite, and how to make homemade supplements. Booklets contain simple recipes using enriched milk and high-calorie ingredients. They encourage fortification of foods using skimmed milk, powder, sugar, double cream, syrup, butter and other simple supermarket ingredients. Recipes are presented in a visually appealing manner and are easy to follow. These booklets are made available to GP surgeries and individuals who are referred to the community dietitians, but their reach is unclear.

Peterborough Council for Voluntary Services (PCVS)

Peterborough Council for Voluntary Service is an umbrella organisation for the voluntary sector in Peterborough[169]. It exists to provide membership and services to local voluntary and community groups and acts as an infrastructure organisation to help strengthen the local voluntary sector. It has a Wellbeing Service which facilitates access and information to a range of services to older people to optimise health, and enable independent living. Although the focus of the services is not directly on the prevention of malnutrition, and their workers do not receive training to identify those at risk, their actions may encourage good nutrition practices. Furthermore the services have the potential to contribute towards the primary prevention of malnutrition by reducing risk factors such as social isolation, loneliness, depression, anxiety and others as the services may provide social contact and an opportunity for volunteers to flag concerns if an older person is at risk of malnutrition. For example, services such as luncheon clubs enable older people to get a hot meal during the day in a sociable context.

The voluntary sector services promoted by PCVS include (not an exhaustive list):

- Community car schemes:
    - Royal Voluntary Service (RVS)(provides a social car scheme for people living within the Peterborough City Council boundary)
    - Dial a Ride (a door to door minibus service which transports older people from their homes to shopping areas)
- Luncheon Clubs – Cambridgeshire and Peterborough Age UK[170] and Ever Green Care Trust.[171]
- Friendship clubs – Cambridgeshire and Peterborough Age UK provide 10 friendship clubs across Peterborough and the clubs often provide a meal.[172]
- Befriending services – Cambridgeshire and Peterborough Age UK provides a befriending service.[173]

[169] http://www.pcvs.co.uk/peterborough-wellbeing-service/
[170] http://www.ageuk.org.uk/cambridgeshireandpeterborough/our-services/peterborough-services/day-care-services/
[171] http://www.evergreencare.org.uk/services/paid-for-services
[172] http://www.ageuk.org.uk/cambridgeshireandpeterborough/our-services/peterborough-services/friendship-clubs/
[173] http://www.ageuk.org.uk/cambridgeshireandpeterborough/our-services/peterborough-services/befriending-service/

- Community meal delivery services ('meals on wheels') including:
  - CAMMS (Cambridge outlying villages),[174]
  - OWL (Hinxton, Ickleton, Duxford, Whittlesford, Little and Great Shelford, Stapleford, Pampisford and Sawston),[175]
  - Meals to go (Wisbech, March and surrounding villages),[176]
  - Wiltshire Farm Foods,[177]
  - And Oakhouse Foods.[178]
- Day Centres:
  - Orton Day Care,[179]
  - Butterfield Day Centre.[180]
- Help at home – Ever Green Care Trust provides a wealth of services including home support and care, hospital to home service, and befriending.[181]

An extensive directory of services within Peterborough is currently being compiled. Peterborough CVS is currently working on a Local Information Project in conjunction with Peterborough City Council and Cambridgeshire County Council to bring together all of the information on the PCVS directory of services to a central point that can be accessed by public, the local authority and statutory services. The PCVS directory has been updated following a community mapping project which micro-mapped 34 square kilometres of central Peterborough to pinpoint community activities.

4.4.3 ACADEMIC WORK AND PROFESSIONAL NETWORKS

There is considerable academic work being done on healthy eating as part of health ageing. Much of the focus of this research is around dementia, and prevention aspects of malnutrition may be only addressed indirectly within other research themes.

The Centre for Diet and Activity Research (CEDAR) in Cambridge University conducts research on dietary influences for healthy ageing. CEDAR has recently found associations between social isolation and lower consumption of fruit and vegetables in older people.[182] The key findings included:

- **Partnership effects.** In older adults, being single or widowed decreased the daily variety of fruit and vegetables eaten compared to being married or living as married.
- **Gender differences.** Marital status affected the variety of vegetables eaten in men more than it did in women. Single, separated and widowed men ate fewer different vegetables than women in similar circumstances.

174 CAMMS Meals on wheels. http://www.cammsltduk.org/
175 OWL Meals-2-you. Papworth Trust. http://www.papworth.org.uk/downloads/owlinsertmealstoyou_110822120129.pdf
176 Meals To Go in Wisbech and beyond. http://www.mealstogo-wisbech.co.uk/
177 Wiltshire Farm Foods. Taking care of mealtimes. http://www.wiltshirefarmfoods.com/about-us
178 Oakhouse Foods. Delicious meals and desserts direct to your door. http://www.oakhousefoods.co.uk/about-us
179 http://www.ageuk.org.uk/cambridgeshireandpeterborough/our-services/peterborough-services/day-care-services/
180 http://www.thebutterfield.plus.com/daycare.html
181 http://www.evergreencare.org.uk/
182 Multiple social ties and healthy eating in older people. Findings from the EPIC-Norfolk study. Evidence Brief. CEDAR. October 2013. http://www.cedar.iph.cam.ac.uk/wp-content/uploads/2013/10/Evidence-Brief-older-people-social-ties-diet-v1.0.pdf

- **Effects on marital status from other social ties.** The role of marital status in healthy eating was altered when a second social tie was considered. Both living alone and having less frequent contact with friends increased the effect of widowhood on reducing vegetable variety.
- **Friend contact and living arrangement.** There was a combined influence of friend contact and living arrangement on vegetable variety. Not only did living alone reduce an older adult's variety of fruits and vegetables, but also eating fewer different vegetables each day was worse among lone-dwellers with infrequent contact with friends.

This makes a compelling case for the important role that social isolation may play in optimising nutrition in older people.

Collaborations for Leadership in Applied Health Research and Care (CLAHRC) for Cambridgeshire and Peterborough was launched in October 2013. One component of the research underway as part of this is the *Eating and Drinking well in Dementia* (Edwina) project. This study aims to increase understanding of the problems around nutrition and hydration for people with dementia, and the solutions that may help them.

The high standard of academic work being produced locally, and the emphasis on healthy ageing by several research groups, provides a potentially valuable resource for malnutrition in older people. Evidence-informed interventions should be trialled and evaluated, ideally in collaboration with academic colleagues, in order to advance knowledge on how malnutrition can be best prevented.

4.4.4 LOCAL VIEWS

The stakeholder event did not illicit local views and future opportunities specifically focussed on malnutrition.

4.5 FUTURE OPPORTUNITIES

There is limited data on malnutrition in older people in Peterborough, and possibilities for addressing that would allow determination of the areas and groups at highest risk of malnutrition in Peterborough for targeted prevention and early intervention services.

The majority of those who are at risk of malnutrition are living in the community and there will be benefits to maintaining resources in the community for prevention of malnutrition, such as, community dietetic services, home help schemes, community navigators, lunch clubs, day care centres, and shopping support services. Work underway to create a single point of access directory of services would be useful for the mapping of provision, including any gaps.

Links could be strengthened further between those in direct contact with vulnerable older people and community dietitians and other health professionals in order to increase awareness of malnutrition and facilitate prevention efforts in the community. There is a need to raise public awareness of malnutrition in older people using positive messages around healthy eating and information to enable families, carers and other contacts to spot signs of malnutrition. Furthermore,

a lack of awareness of the problem and services hinders engagement and access to support. This could be improved by raising awareness amongst older adults, their families and GPs about the service available in the community.

Older people who are discharged from hospital, and deemed to be at risk of malnutrition would benefit from a clear pathway for follow-up support, particularly in the case of older people who live independently and are at risk and may not engage with support services.

Care homes need to ensure that all residents are being screened using a validated screening tool. Older people at risk of malnutrition need to be carefully monitored for their risk using a system which is embedded within everyday practice in care homes and primary care or hospital settings.

There are opportunities to integrate efforts to prevent malnutrition with other care to prevent ill-health in the older. There may be opportunities for greater liaison between public health services and clinical services to encourage exchange and dissemination of expert knowledge of nutrition support, including primary prevention approaches. Evidence-informed interventions for prevention of malnutrition could be trialled and evaluated in collaboration with academic colleagues in Cambridgeshire in order to advance knowledge.

5. SMOKING

5.1 EXECUTIVE SUMMARY - SMOKING

Smoking is the primary cause of preventable and premature death in England, responsible for approximately 79,500 deaths annually between 2012 and 2014. Nearly one in five adults in England aged 16 and over were smokers in 2015 (17.9%) The lowest smoking prevalence, by age group, is among those aged 65 and over (9.9%).

The difference between this age group and other age groups has historically been smaller, and is the result of a combination of factors including death before age 60 from both smoking and other causes of death, and higher smoking cessation rates amongst older people. A recent systematic review of the evidence on smoking cessation in people aged 65 years and over concludes that smoking cessation significantly improves health and reduces mortality for all ages.

In 2015, it is estimated there were nearly 26,500 smokers in Peterborough aged 18 or over (18.1%). Using national estimates for the older population, this suggests there were 3,700 smokers aged 60 years or above (national estimate of 10.1%).

There are no specific recommendations for reaching or delivering services specifically to older populations; smoking cessation interventions known to be effective in the general population have been found to be effective with older smokers across a variety of treatment methods.

Of the smokers Peterborough Stop Smoking service sees, 11% were aged 65 and older in between 2014/15 and 2016/17. In Peterborough the overall 'quit rate' in people of all ages is 77% (a high success rate given the national average is 50%), and this is 6% better among those aged 60 and older (83%). The proportion of smokers in this age group who are lost to follow-up is similar to other age groups.

Increasing access to stop smoking services should be encouraged for older smokers. Local feedback suggests it might be important to emphasise the continued health benefits of quitting at older ages and that it is 'never too late to quit'. There are significant opportunities to encourage referral or signpost older adults to stop smoking services from a broad range of settings including primary care, social care, community and acute health care, housing, and community interest groups.

5.2 KEY FINDINGS

Smoking is the primary cause of preventable and premature death in England, responsible for approximately 79,500 deaths annually between 2012 and 2014. Nearly one in five adults in England aged 16 and over were smokers in 2015 (17.9%). The lowest smoking prevalence, by age group, is among those aged 65 and over (9.9%).

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5.3 CONTEXT: WHY IS SMOKING IMPORTANT?

Reducing tobacco use is one of the most important actions that can be taken to improve health. Tobacco is addictive and harms the people that use it, those around them and communities. Smoking remains the leading cause of preventable and premature death in England, responsible for approximately 79,500 deaths annually between 2012 and 2014.[183]

Nearly one in five adults in England aged 16 and over were smokers in 2015 (17.9%). The lowest smoking prevalence, by age group, is among those aged 65 and over (9.9%). The difference between this older age group and other age groups has historically been smaller, and is the result of a combination of factors including death before age 65 from both smoking and other causes of death, and higher smoking cessation rates amongst older people.

Smoking remains the leading cause of preventable death and disease in England, accounting for more preventable deaths than the following five preventable causes, combined. Over 78,200 deaths in England each year in those aged 35 years and over are caused by smoking. That equates to 18% of deaths in this age group. Smoking is also one of the most significant factors that has an impact on health inequalities and ill-health, with an estimated 454,700 hospital admissions for people aged 35 years and older estimated to be attributable to smoking.[184]

[183] Office for National Statistics (2015). Adult smoking habits in the UK: 2016. Available at: https://cy.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/datasets/adultsmokinghabitsinengland

[184] Health and Social Care Information centre. (2015). Statistics on Smoking: England, 2015. Available at: http://www.content.digital.nhs.uk/catalogue/PUB17526/stat-smok-eng-2015-rep.pdf

Smoking dramatically reduces both life expectancy and quality of life and on average smokers lose about 10 years of life.[185] Half of long-term smokers die from tobacco related illnesses, most prematurely whilst still in middle age (35-69 years), and many more suffer from a variety of chronic conditions related to smoking.[3,186,187] Most smoking-related deaths are from lung cancer, chronic obstructive pulmonary disease (incorporating both emphysema and chronic bronchitis), and cardiovascular disease. Cigarette smoking is implicated in eight of the top 14 causes of death for older adults.[188]

Smoking causes disabling and fatal disease. It also accelerates the rate of decline of bone density during ageing.[185] At the age of 70, smokers have less dense bones and a higher risk of fractures than non-smokers. Female smokers are at greater risk for post-menopausal osteoporosis. Continuing to smoke in later life is associated with the development and progression of some major chronic conditions, loss of mobility, and poorer physical function.[189] In 2004 the US Surgeon General concluded that smoking is a cause of the diseases and other adverse health effects in older adults listed in Table 9.

Table 9: Disease and Other Adverse Health Effects in Older Adults for which smoking is identified as causal by the US Surgeon General:

Cancers	Cardiovascular disease	Respiratory disease	Other
Bladder Cervical Kidney Laryngeal Lung Oral Pancreatic Stomach	Abdominal aortic aneurysm Atherosclerosis Cerebrovascular disease Coronary heart disease	Chronic obstructive pulmonary disease Acute respiratory illness, such as pneumonia. Respiratory effects (eg coughing, phlegm, wheezing and dyspnea)	Cataract Diminished health status/morbidity Hip fractures Low bone density/Osteoporosis Peptic ulcer disease

Source: USHHS, 2004[188]

Smoking kills about 255 people in Peterborough each year.[190] This is an average of nearly five deaths every week.

185 US Department of Health and Human Services. (2010). How Tobacco Smoke Causes Disease: The Biology and Behavioural Basis for Smoking-Attributable Disease: A report of the Surgeon General. Atlanta, GA. Available from: http://www.ncbi.nlm.nih.gov/books/NBK53017/

186 Doll, R, Peto, R, Wheatley, K, Gray, R, Sutherland, I. (1994). Mortality in relation to smoking: 40 years' observations on male British doctors. BMJ. 309:901-11.

187 Doll, R, Peto, R, Boreham, J, & Sutherland, I. (2004). Mortality in relation to smoking: 50 years' observations on male British doctors. BMJ. Available from: http://www.bmj.com/content/328/7455/1519.pdf%2Bhtml

188 US Department of Health and Human Services (2004). U.S. Surgeon General's Report: The Health Consequences of Smoking: A Report of the Surgeon General. U. S. Department of Health and Human Services. Available at: http://www.cdc.gov/tobacco/data_statistics/sgr/2004/complete_report/index.htm

189 LaCroix, A.Z. & Omenn, O.S. (1992). Older adults and smoking. Clin Geriatr Med. 8(1): 69-87.

190 PHE (Public Health England). (2016). Health Profiles 2016, Peterborough. Available at: http://fingertipsreports.phe.org.uk/health-profiles/2016/e06000031.pdf

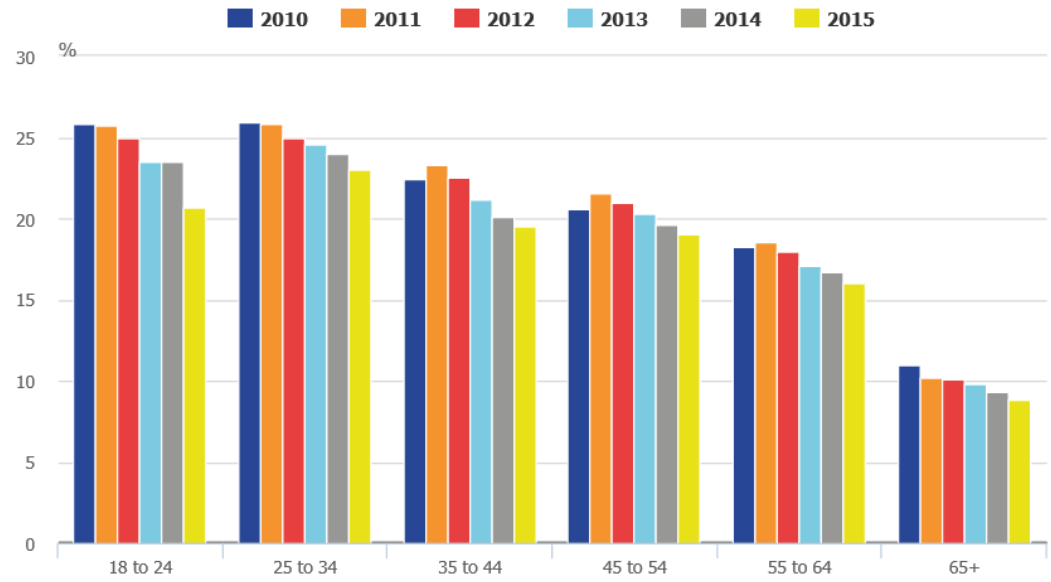
5.4 DATA: WHAT DO WE KNOW ABOUT SMOKING LEVELS LOCALLY?

The Government strategy, Healthy Lives, healthy people: A Tobacco Control Plan for England[191] set out an assessment of what could be delivered through national action, supported and associated with locally driven comprehensive tobacco control practice. The plan's ambition of reducing smoking prevalence among adults in England to 18.5% or less by the end of 2015 has been achieved with 2015 data showing national prevalence of 17.9%. The 2015 ASH report Smoking Still Kills advocates an ambition to reduce smoking in the adult population to 13% by 2020 and 9% by 2025.[192]

Nearly one in five adults in England aged 16 and over were smokers in 2015 (17.9%). The lowest smoking prevalence, by age group, is among those aged 65 and over (9.9%).

In the UK, between 2010 and 2015 there have been reductions in the proportion of current smokers across all age groups. Amongst people aged 65 and over smoking prevalence has reduced from 11% in 2010 to 9.9% in 2015 (Figure 14).

Figure 14: Proportion (%) of current smokers 2010 to 2015 by age group, UK

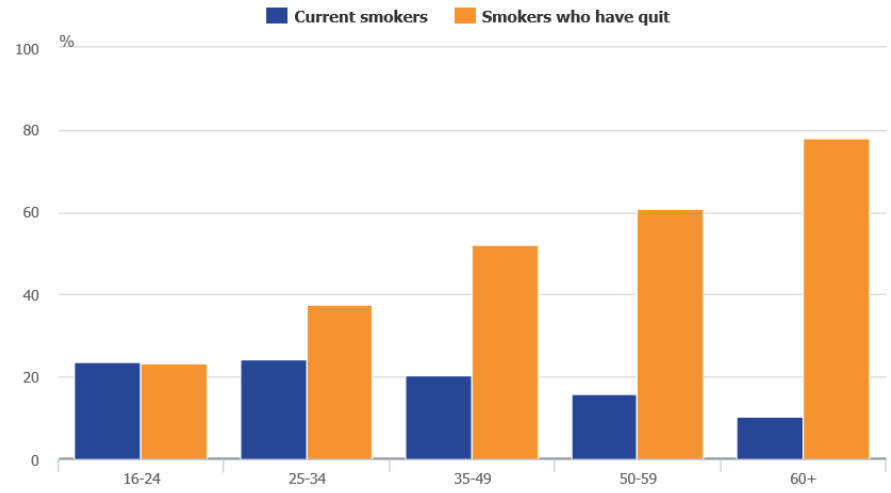


Source: Annual Population Survey, Office for National Statistics

191 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213757/dh_124960.pdf
192 http://www.ash.org.uk/files/documents/ASH_962.pdf

Nationally, in 2015, older people in Great Britain were more likely to quit smoking than younger people. As people get older they are more likely to have quit – partly reflecting that they had more time to do so. In 2015, of those aged 60 years and above 77.9% had quit smoking whereas 23.3% of those aged 16 to 24 years had quit (Figure 15).

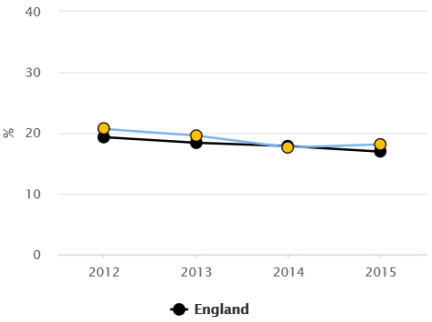
Figure 15: Proportion of those who are current smokers or who have quit by age



Source: Opinions and Lifestyle Survey [193]

Smoking rates in Peterborough have been declining over recent years. In 2012 one in four (20.7%) adults in Peterborough smoked. In 2015 smoking prevalence amongst adults aged 18 and over is estimated to be 18.1%. In terms of number of people smoking in 2015 this equates to 26,500 people of whom 2,500 are estimated to be over 65 years or 3,700 people aged over 60 years. The figures for the older population are calculated using national data since there is no local estimate.

Figure 16: Smoking prevalence among persons aged 18 years and over Trend 2012-2015 (%)



Recent trend: –

Period		Count	Value	Lower CI	Upper CI	East of England	England
2012		-	20.7	18.2	23.2	18.3	19.3
2013		-	19.6	17.2	21.9	17.5	18.4
2014		-	17.6	15.4	19.9	17.7	17.8
2015		-	18.1	15.9	20.3	16.6	16.9

Source: Annual Population Survey (APS)

Source: Public Health Outcomes Framework indicator 2.14 www.phoutcomes.info/ prevalence estimates from Annual Population Survey (APS)

[193] Adult smoking habits in the UK: 2015. Office for National Statistics. Available at: https://cy.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2015

Smoking rates among routine and manual workers have also declined and in Peterborough are 25.6% which is below the national average of 26.5%. However, in Peterborough there are still some key populations with particularly high smoking rates including women who smoke in pregnancy (around 15% against the national average of under 11%) and Eastern European communities who are key areas of focus for Peterborough as well as ensuring that we maintain the trend of reducing smoking rates across the whole Peterborough population.

The dashboard below shows that Peterborough has a statistically worse smoking attributable mortality rate than the national average and the rate of smoking attributable hospital admissions is also worse than the national average along with emergency hospital admissions for COPD.

Figure 17: Tobacco Control Indicators Dashboard, Public Health England, March 2017

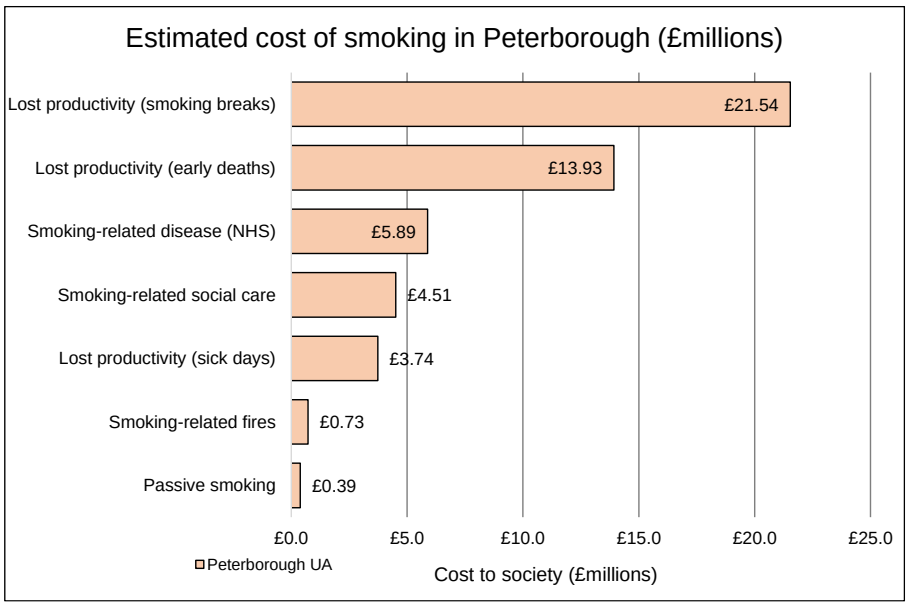
Indicator	Period	England	Peterborough	1 - Thurrock	2 - Swindon	3 - Milton Keynes	4 - Coventry	5 - Bolton	6 - Derby	7 - Telford and Wrekin	8 - Rochdale	9 - Medway	10 - Luton	11 - Oldham	12 - Bedford	13 - Calderdale	14 - Stockton-on-Tees	15 - Bury
Smoking Prevalence in adults - current smokers (APS)	2015	16.9	18.1	21.3	18.7	16.4	16.6	18.5	18.7	18.2	22.0	22.3	15.8	22.2	17.2	18.7	18.4	19.5
Smoking Prevalence in adults in routine and manual occupations - current smokers (APS)	2015	26.5	25.6	25.8	25.3	25.4	23.9	34.3	31.1	32.0	31.0	29.7	21.2	36.3	32.3	29.1	29.3	30.1
Smoking attributable mortality	2012 - 14	274.8	298.2	328.1	284.4	282.8	285.4	336.7	295.3	314.2	358.9	319.1	274.4	349.2	226.9	319.3	319.8	316.7
Smoking attributable hospital admissions	2014/15	1671	1768	1926	1729	1998	1607	1700	1747	2185	2129	1415	1695	1952	1382	1824	2401	1749
Premature births (less than 37 weeks gestation)	2012 - 14	77.6	72.0	79.2	78.8	83.1	84.8	79.7	93.8	75.7	83.7	84.1	76.2	86.0	73.9	76.6	81.8	73.7
Low birth weight of term babies	2015	2.8	2.6	2.5	3.2	3.0	2.9	3.2	3.0	2.5	2.9	2.2	3.6	3.5	2.7	3.3	2.9	2.5
Hospital admissions for asthma (under 19 years)	2015/16	202.4	285.7	97.7	199.5	232.9	219.9	259.6	122.4	487.4	376.3	202.1	197.3	356.4	229.8	196.2	257.1	349.8
Smoking attributable hospital admissions	2014/15	1671	1768	1926	1729	1998	1607	1700	1747	2185	2129	1415	1695	1952	1382	1824	2401	1749
Cost per capita of smoking attributable hospital admissions	2011/12	38.0	36.6	37.9	37.0	34.2	36.7	40.1	36.4	39.1	42.1	33.0	39.6	46.0	32.5	38.8	39.1	37.1
Emergency hospital admissions for COPD	2014/15	415	549	490	403	466	504	536	450	455	621	431	533	570	366	492	606	403
Lung cancer registrations	2012 - 14	79.7	78.0	83.0	78.6	71.3	89.9	92.6	88.7	84.5	105.7	82.5	80.9	117.6	66.7	91.1	97.1	104.3
Oral cancer registrations	2012 - 14	14.2	18.5	13.8	13.9	11.9	17.0	17.7	13.9	16.4	18.2	14.1	16.0	17.6	13.4	15.4	18.9	15.2

Source: Public Health England www.phoutcomes.info/

5.5 ECONOMIC COSTS OF SMOKING

Each year in England research estimates that smoking costs society approximately £13.74 billion.[194] The estimated annual economic cost of smoking in Peterborough is £50.7 million[195] (Figure 18); mainly as a result of lost workforce productivity, together with costs to the NHS and other public sector organisations.

Figure 18: Estimated cost of smoking in Peterborough (£ millions)



Source: Action on Smoking and Health, 2013[196]

5.6 EVIDENCE BASE: WHAT WORKS? WHAT IS RECOMMENDED?

Many of the negative health effects of smoking can be reversed with smoking cessation. Doll *et al* (2004)[187] reported on a 50 year cohort study examining the impact of smoking cessation on survival in a large cohort of British male doctors, (1951 to 2001). The study found that quitting smoking beyond middle age still had a positive effect on total mortality. Overall, the study found that stopping smoking at age 50 halved the hazards of smoking; cessation at 30 avoided almost all of it. Stopping smoking at age 60, 50, 40, or 30 gains, respectively, about three, six, nine, or 10 years of life expectancy. Smokers who quit at 65 to 74 years of age had age-specific mortality rates beyond 75 years which were lower than smokers who do not quit. The grey dotted lines in Figure 19 show the benefits in years gained in the men who stopped smoking in the previous decade.

194 Nash, R, & Featherstone, H. (2010). Cough Up: Balancing tobacco income and costs in society. Policy Exchange. Available from: http://www.policyexchange.org.uk/images/publications/cough%20up%20-%20march%2010.pdf

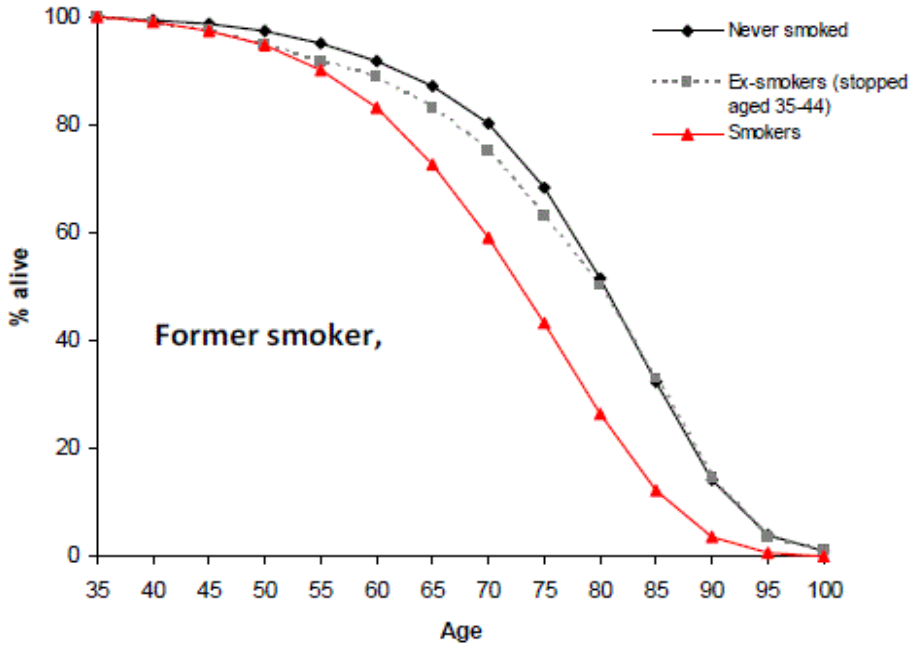
195 Ash (Action on Smoking and Health) (2013). The Local Cost of Smoking. Available from: http://www.ash.org.uk/localtoolkit/

196 Ash (Action on Smoking and Health) (2013). The Local Cost of Smoking. Available from: http://www.ash.org.uk/localtoolkit/

A contemporary systematic review of the evidence for the benefits of smoking cessation in people aged 60 years and older, concludes smoking cessation significantly improves health and reduces mortality for all ages.[197]

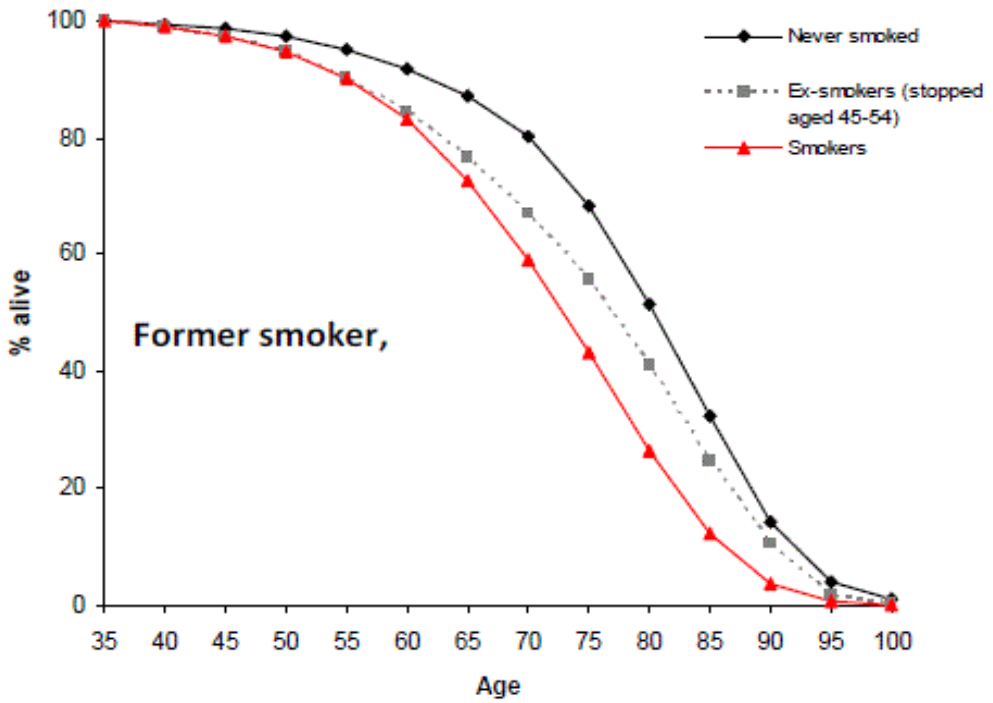
Figure 19: Effects on survival of stopping smoking in the previous decade

a. Former smoker, stopped aged 35-44

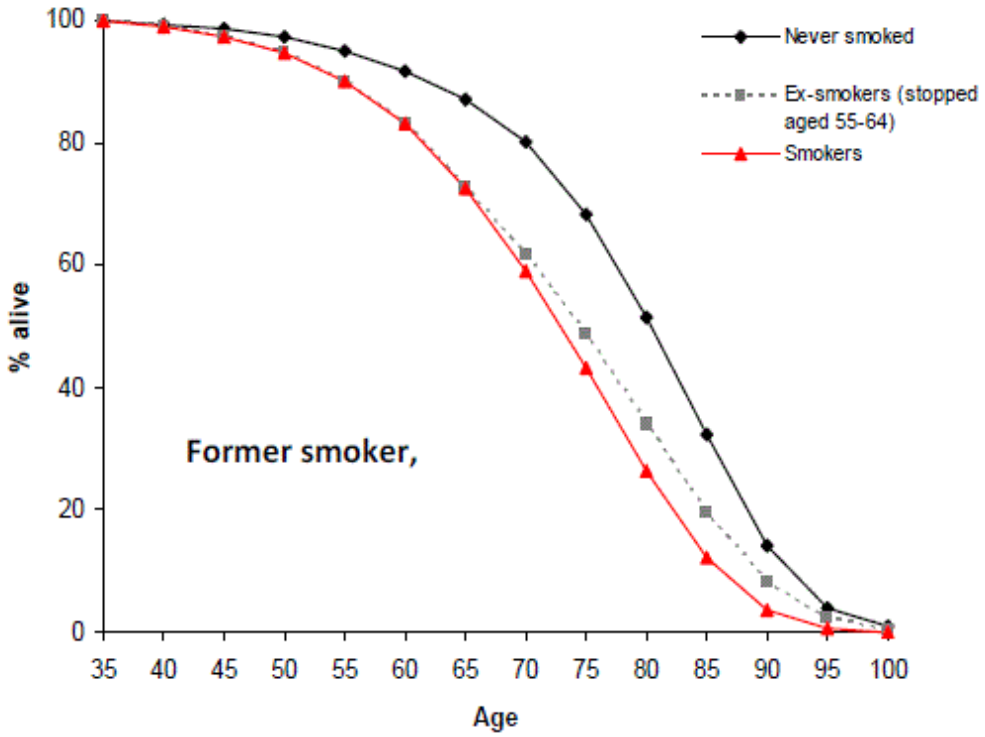


[197] Gellert C, Schöttker B, Brenner H (2012) Smoking and all-cause mortality in older people: Systematic review and meta-analysis. Arch Intern. Med 172 (11):837-844.

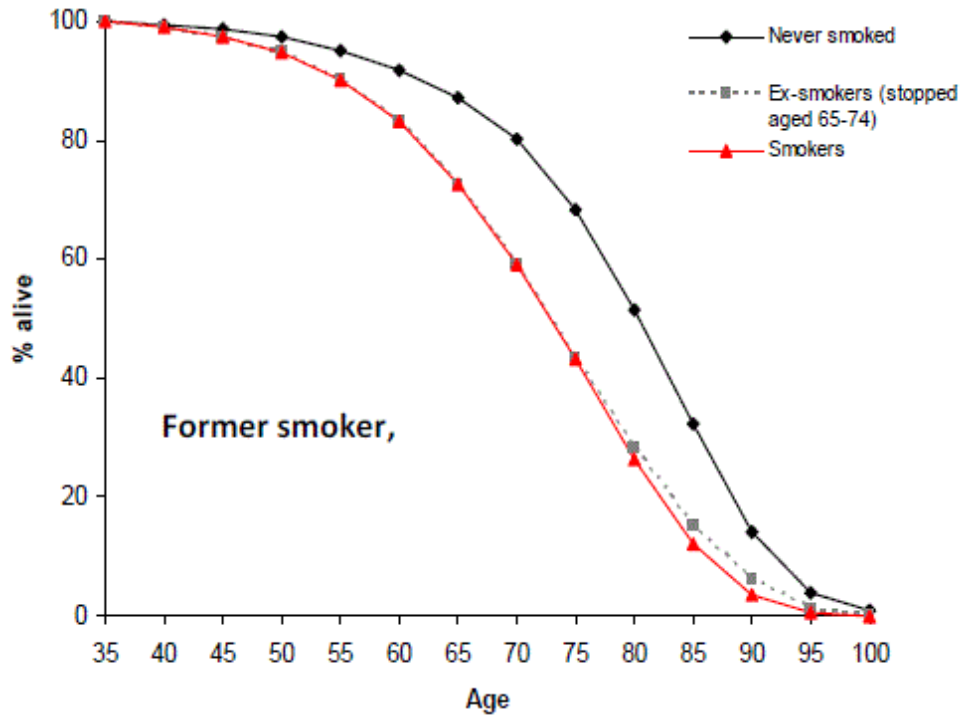
b. Former smoker, stopped aged 45-54



c. Former smoker, stopped smoking aged 55-64



d. Former smoker, stopped smoking aged 65-74



Source: (Adapted from Doll et al, 1994; pp 901-11).[186]

In summary, by successfully stopping smoking, people can avoid smoking-related diseases and live longer, whatever their age.[198] The table below demonstrates the benefits in terms of life expectancy and associated overall health associated with stopping smoking:

Figure 20: Benefits in terms of life expectancy and associated overall health associated with smoking

Age at which stopped smoking	Years of life gained
30	10
40	9
50	6
60	3

Source: HM Government 'Healthy Lives, Healthy People: A Tobacco Control Plan for England'

[198] UK Govt: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213757/dh_124960.pdf

Although smoking cessation services were provided sporadically beforehand, the 1998 White Paper *Smoking Kills*[199] made them comprehensive and more widespread throughout Britain by 2000. Since then the National Institute for Health and Clinical Excellence (NICE) and the Department of Health (DoH) have produced, and regularly update, best practice guidance on smoking cessation service delivery and monitoring (Table 10). A systematic review by Bauld and colleagues[200] has shown that Stop Smoking Services (SSS) in the UK and treatments for smoking cessation are effective in helping smokers to quit. When the effectiveness of the stop smoking services in England was assessed it found that 15% of those smokers making a quit attempt through a SSS, had quit at one year.[196] In comparison, the 12-month quit rate among people who attempt to quit unaided is estimated to be about 4%.[201]

Within the guidance there are no specific recommendations for reaching or delivering stop smoking services specifically to older populations, but there is no evidence to suggest that general smoking cessation services are not appropriate for delivering, or reaching, this population group. An investigation as to whether treatments are equally effective for smokers over the age of 50 found that smoking cessation interventions that have been shown to be effective in the general population have also been shown to be effective with older smokers across a variety of treatment methods.[202] These include counselling interventions, physician advice, buddy-support programmes, age-tailored self-help materials, and proactive telephone counselling (which are important as mobility may be an issue for some older people). The success rate of giving up smoking generally increases with age, and in England (April 2015 – March 2016) this increased from 43% for those aged under 18, to 57% of those aged 60 and over.[203]

Table 10: Guidance on smoking cessation[204]

NICE smoking and tobacco guidance
PH1 – Brief interventions and referral for smoking cessation
PH5 – Workplace interventions to promote smoking cessation
PH6 – Behaviour change – the principles for effective interventions
PH9 – Community engagement
PH10 – Smoking cessation services
PH14 – Preventing the uptake of smoking by children and young people
PH15 - Identifying and supporting people most at risk of dying prematurely

199 DoH (Department of Health). (1998). Smoking Kills; A white paper on tobacco. HM Government. Available at: https://www.gov.uk/government/publications/a-white-paper-on-tobacco

200 Bauld, L (2010). The effectiveness of NHS smoking cessation services: a systematic review. Journal of Public Health. 32(1): 71-82. Available from: http://intl-jpubhealth.oxfordjournals.org/content/32/1/71.full

201 Hughes JR, Keely J, Naud S. (2004). Shape of the relapse curve and long-term abstinence among untreated smokers. Addiction. 99(1):29-38. Available from: http://content.digital.nhs.uk/searchcatalogue?productid=21374&q=Statistics+on+NHS+Stop+Smoking+Services&sort=Relevance&size=10&page=1#top

202 Fiore, M.C. (2000). US public health service clinical practice guidelines: treating tobacco use and dependence. Respiratory Care. 45 (10): 1200-62.

203 Health and Social Care Information Centre (2016). NHS Stop Smoking Services: England, April 2015-March 2016. Office for National Statistics. Available from: http://www.hscic.gov.uk/catalogue/PUB11454

204 NICE guidance, technical appraisals, and quality standards all accessible from the NICE website, available at: http://www.nice.org.uk

PH23 – School based interventions to prevent smoking
PH26 – Quitting smoking in pregnancy and following childbirth
PH39 – Smokeless tobacco cessation: South Asian communities
PH45 – Tobacco Harm reduction
PH48 – Smoking cessation in secondary care
Technical appraisals (NICE)
TA123 – Smoking cessation – varenicline
TA39 replaced by PH10 – smoking cessation – buproprion and nicotine replacement therapy
Quality standards (NICE)
QS43 – Smoking cessation - supporting people to stop smoking
QS10 – Chronic obstructive pulmonary disease (COPD) quality standard
Department of Health
Local stop smoking services – service delivery and monitoring guidance 2011/12
Local stop smoking services – Key updates to the 2011/12 service delivery and monitoring guidance for 2012/13
Source: http://www.nice.org.uk/guidance/lifestyle-and-wellbeing/smoking-and-tobacco

The Health Improvement domain of the Public Health Outcomes Framework (2013-2016) has the objective that people are helped to live healthy lifestyles, make healthy choices and reduce health inequalities. This is supported by a set of indicators for tracking progress including three smoking specific indicators; smoking status at time of delivery, smoking prevalence (15 year olds), and smoking prevalence adult (over 18 years of age).[205]

5.7 LOCAL ACTION: WHAT ARE OUR LOCAL ASSETS?

Since 1 April 2017, a new Healthy Lifestyles Delivery Service has been in place in Peterborough led by Solutions4Health who are the largest independent provider of Smoking Cessation Services in England. The service will provide interventions which support individuals to modify their behaviour and to reduce the risk factors that contribute to early death and reduce quality of life.

The new service is based in the heart of the community with access points to smoking cessation (and other integrated lifestyle) services developed across Peterborough in GP practices, pharmacies, schools and community settings.[206] The service will target harder to reach communities and those populations with higher smoking prevalence to improve both uptake and outcomes. Services will be delivered alongside a range of innovative campaigns which will be taken directly into communities raising awareness and providing specialist advice on quitting smoking.

[205] Data on smoking in Peterborough for the Public Health Outcomes Framework (PHOF) indicators is available at: http://www.phoutcomes.info/public-health-outcomes-framework

[206] http://www.healthypeterborough.org.uk/Aug-2016/stop-smoking/local-stop-smoking-support

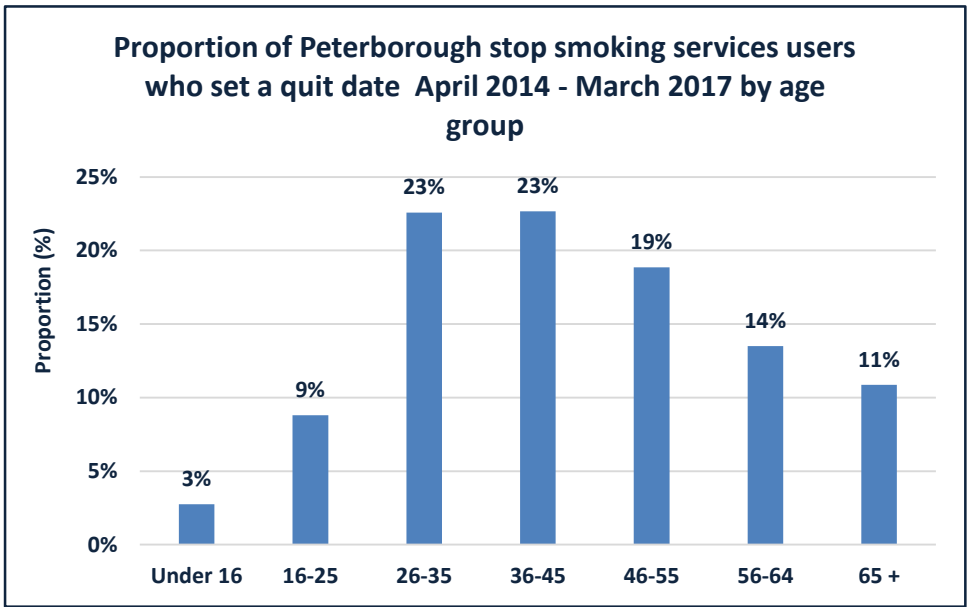
Other assets locally are all those individuals and services that refer individual smokers into the Peterborough service, including health providers, voluntary and community organisations, and individuals.

Alongside this, Peterborough City Council is committed to delivering a strategy of Tobacco Control, including measures such as increasing the provision of smoke free environments to ensure we offer the best possible chance for Peterborough residents to improve their health and wellbeing.

Information on the benefits of quitting smoking[207] can be accessed via the link www.healthypeterborough.org.uk

Of the smokers seen by Peterborough stop smoking service, 11% were aged 65 and older with on average over 100 people accessing the service annually (Figure 21).

Figure 21: Proportion of Peterborough stop smoking service users who set a quite date April 2014 – March 2017 by age group

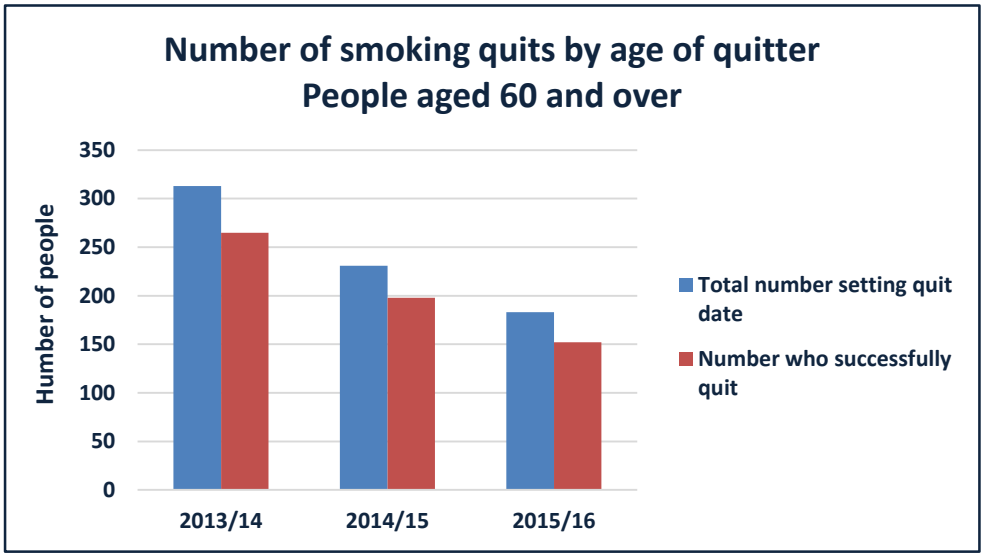


Source: Peterborough Stop Smoking Service

In Peterborough the overall 'quit rate' in people of all ages is 77% (a high success rate compared to the national average of 50%), and this is 6% better among those aged 60 and older (83%). The proportion of smokers in this age group who are lost to follow-up is similar to other age groups.

[207] http://www.healthypeterborough.org.uk/march-april-2017/stop-smoking/5-benefits-of-quitting-smoking

Figure 22: Number of smoking quits by age of quitter. People aged 60 and over



Source: DH Quarterly Returns

Between 2013/14 and 2015/16 there has been an overall drop of 47% of smokers accessing the Peterborough Stop Smoking service and a decline amongst people aged 60 and over of 42%. Those aged 65 and over are more likely to access the stop smoking service via their GP (55%), and less likely to access support via core (23%) or pharmacy (21%) services.

Breathe Easy Peterborough[208] is a support group for people affected by lung conditions, and is supported by the British Lung Foundation. An example of the type of advertisement used is shown in

[208] Breathe Easy Peterborough. British Lung Foundation. Available at: https://www.blf.org.uk/support-in-your-area/breathe-easy-peterborough-support-group

Figure 23 below.

Figure 23: Example of advertising for older populations

5.8 LOCAL VIEWS AND FUTURE OPPORTUNITIES

As the proportion of older people that make up the Peterborough population increases, it is likely that there will be an increase in the number of older smokers. The service that the Peterborough stop smoking advisors offer, when older smokers present to them for help to stop smoking appears to be appropriate and effective, but more could be done to increase the number of people accessing the service.

Stop smoking services should continue to be offered to older people by GPs and other health professionals. Additionally, pharmacies are usually well located and easily accessible in the heart of local communities, which could be appealing to older adults especially for those older adults with reduced mobility as a venue for promoting stop smoking services.[209] There are significant opportunities to encourage referral or signpost older adults to stop smoking services from a broad range of settings including primary care, social care, community and acute health care, housing, and community interest groups.

[209] Further up-to-date information on the needs for pharmaceutical services in Peterborough is published in the Pharmaceutical Needs Assessment, available at: https://www.peterborough.gov.uk/healthcare/public-health/pharmaceutical-needs-assessment/

A key theme is the need to promote the message "it's never too late to quit smoking" and the supporting evidence of the associated health gains. The message is relevant to health professionals frequently in contact with older adults as well as directly to older adults themselves. GPs and pharmacists and other health professionals are well placed to promote smoking cessation to this age group who are presenting at these services for other reasons.

In addition to health professionals, these types of messages could be delivered by non-professionals and voluntary organisations as motivators or champions. There might be opportunities to tie messages in with wider family focused tobacco control approaches, such as Smoke Free Homes and Cars, or alongside other healthy behaviour messages. A further key time to promote messages of smoking cessation was in the workplace through retirement packages offered to employees.

It is recognised that many older people who access the stop smoking services have needs in addition to smoking cessation, and loneliness and social isolation. Stop smoking advisors are ideally placed to refer these older people on to other community services, such as existing community provision, community navigators, who have a focus on reducing social isolation, and there may be opportunities to strengthen referrals and signposting routes.

Furthermore, there is a proportion of older adults who are 'well' and who are not accessing health services for other reasons, and the resultant question of how this group of older adults could be targeted with stop smoking messages.

6. ALCOHOL

6.1 EXECUTIVE SUMMARY

There is an increasing quantity of information which suggests that the misuse of alcohol is an issue for older age groups. This includes those who are long term misusers but also those who start misusing later in life, which is associated with life changes especially isolation and loneliness.

6.2 NATIONAL

- Despite drinking comparatively little, older drinkers consume alcohol far more often than other age groups and the cumulative effect of this regular or frequent drinking may be problematic.
- Despite lower levels of alcohol consumption, more older people are admitted to hospital with an alcohol-related condition than younger age groups.

Alcohol related death rates are highest among those aged 55-74 years of age.

Brief interventions are an early intervention for the identification and prevention of any escalation of alcohol misuse. This has been found to be most effective and cost effective in Accident and Emergency settings and primary care. In addition, a Hospital Liaison Service also has strong evidence base and has been found to be cost–effective and a cost saving intervention.

Figure 24: Alcohol in older people

6.3 CONTEXT – WHY IS ALCOHOL IMPORTANT?

There is an increasing awareness that substance misuse, especially alcohol, is more prevalent in the older population (greater than 65 years) than previously thought. Many of those who misuse alcohol may have started earlier in life but some commence in response to traumatic life events such as loss of a partner. Key factors are loneliness and life changes. In addition professionals often find it difficult to ask 'embarrassing' questions of older people but there are warning signs.

Older adults are not a homogenous group, and appropriate responses require recognition of the vast range of cultural differences, preferences and perspectives on what healthy ageing means to individuals and their communities.

Chronic pain and polypharmacy are important cross-cutting themes, and particularly pertinent for older people who have more long term conditions and painful conditions which may result in the use of pain-relief medication and multiple other medications.

Risk factors for Substance Misuse in older people

There is a range of life experiences that are described as risk factors for drug and alcohol misuse across the population; notably many of these circumstances may be particularly experienced in later life – such as retirement and bereavement. Researcher Sarah Wadd from the Substance Misuse and Ageing Research Team, University of Bedfordshire has described the following circumstances as potentially leading to increased use or misuse:

- Bereavement
- More time and opportunity to drink
- Loneliness and boredom
- Loss of friends and social status
- Being a carer
- Chronic pain

Sociocultural issues may also have a bearing on risk, for example ethnicity or sexual orientation.[210]

Why is alcohol important?

At a generalised level, there is a trend that alcohol consumption declines with age. However this statement masks important details on consumption, hospital admissions, and mortality:

Despite drinking comparatively little, older drinkers consume alcohol far more often than other age groups and the cumulative effect of this regular or frequent drinking may be problematic.[211]

Despite lower levels of alcohol consumption, more older people are admitted to hospital with an alcohol-related condition than younger age groups

Alcohol related death rates are highest among those aged 55-74 years of age.

[210] Wadd S, Galvani S. The Forgotten People : Drug Problems in Later Life.; 2014

[211] Demographic information including population estimates and forecasts are available on Cambridgeshire Insight website at: http://www.cambridgeshireinsight.org.uk/populationanddemographics

Older people experience high and increasing levels of alcohol-related harm; in light of an ageing population this has an important bearing on the need for health and social care services.

One of the key explanatory factors is that due to physiological changes in later life, smaller levels of alcohol and drugs may produce greater intoxication effects in older people.[212]

Therefore, many researchers and commentators believe that the current description of 'misuse' is not sufficiently sensitive for the older population: "One could define alcohol misuse in the elderly as any alcohol use, not necessarily heavy use or meeting criteria for alcohol abuse or dependence, that leads to either subjective distress, discrete adverse events, or functional decline" Trevisan, 2014.[213]

Researchers[214] have described three different trajectories of problematic alcohol consumption in older people:

- Early-onset drinkers (Survivors): those who have a continuing problem with alcohol which developed in earlier life.
- Late-onset drinkers (Reactors): they begin problematic drinking later in life, often in response to traumatic life events such as the death of a loved one, loneliness, pain, insomnia, retirement, etc.
- Intermittent (Binge drinkers): they use alcohol occasionally and sometimes drink to excess which may cause them problems.

The patterns of alcohol consumption within the older population are complex with variation by gender, marital status, ethnicity, socioeconomic group.[215] As per the general population, there is the 'alcohol harm paradox' that although more affluent groups consume more alcohol, less affluent groups are more susceptible to the harms associated with alcohol consumption.

6.4 DATA – WHAT DO WE KNOW ABOUT ALCOHOL LOCALLY?

Figure 25 shows the number of units of alcohol consumed in a given day by people in England, separated by age group and gender. For both men and women, the age group with the highest proportion drinking at all is those aged 55-64. In addition, nearly of third of men aged 65-74 consume more than the daily recommended limit, whilst around 20% of women aged 65-74 do so.

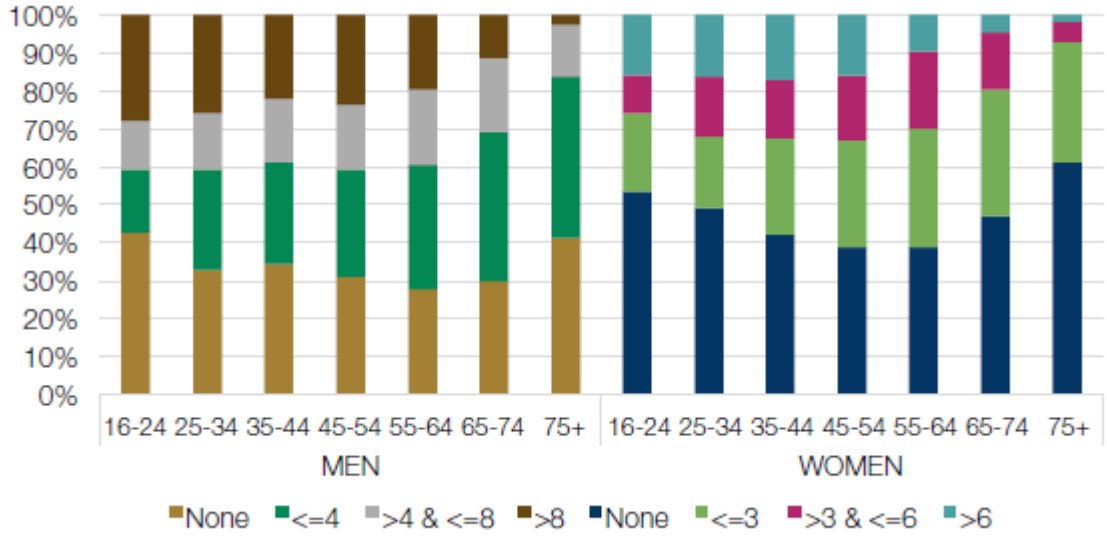
[212] Holdsworth C, Mendonca M, Frisher M, Shelton N, Pikhart H, Oliveira C De. Alcohol Consumption, Life Course Transitions and Health in Later Life. 2014;(c):1-8. http://www.drugs.ie/resourcesfiles/ResearchDocs/Europe/Research/2014/alcoholconsumption_laterlifepaper_keele-ucl-2014.pdf.

[213] Quoted in ´Problematic Substance Use in Older People' Presentation by Sarah Wadd, University of Bedfordshire, June 2015. Available at: http://www.beds.ac.uk/research-ref/iasr/mrc/archive/26-june-2015

[214] Institute of Alcohol Studies. Older People and Alcohol. London; 2013.

[215] Holdsworth C, Mendonca M, Frisher M, Shelton N, Pikhart H, Oliveira C De. Alcohol Consumption, Life Course Transitions and Health in Later Life. 2014;(c):1-8. http://www.drugs.ie/resourcesfiles/ResearchDocs/Europe/Research/2014/alcoholconsumption_laterlifepaper_keele-ucl-2014.pdf.

Figure 25: Daily alcohol consumption (England) number of units (by age group)



Source: Health Survey for England 2013

Findings from the first report from the Drink Wise, Age Well programme[216]:

Several important findings have emerged from this research:

- The majority of survey respondents aged over 50 in the UK are 'lower risk' drinkers. However there is a significant minority who are not. 17% of the survey respondents are 'increasing risk' drinkers (those of an AUDIT score between 8 and 15), whilst 3% were found to be of 'higher risk' (AUDIT score of 16+). In terms of frequency, 17% of older respondents drink 4 or more times each week.
- The reasons given for consuming alcohol, as well as with whom they drink, varies between lower risk and higher risk drinkers. Whilst 92% of lower risk drinkers drink with someone else, only 62% of higher risk drinkers do. Whilst 1% of lower drink drinkers say they drink when down or depressed, this increases to 36% for higher risk drinkers. And 78% of higher risk drinkers say they drink to take their mind off their problems, compared to just 39% of lower risk older respondents.
- Amongst the older adults surveyed who said they were drinking more now than in the past, the five most frequently reported reasons for the increase are age-related. These were retirement (40%), bereavement (26%), loss of sense of purpose in life (20%), fewer opportunities to socialise (18%) and a change in financial circumstances (18%).
- A number of factors have been identified as being associated with an older adult being an increasing risk or a higher risk drinker. Being an increasing risk drinker is associated with being male, younger, living in Scotland, identifying as LGBT, not having a chronic illness, still being in work and not having further education after school leaving age. The factors associated with being a higher risk drinker include the first four factors listed above, along with living alone, not having a partner, being widowed and having a chronic illness or disability.
- Higher risk drinkers also are more likely to report poorer physical and mental health, whilst both 'increasing risk' and 'higher risk' drinkers are more likely to say they are unable to cope with stresses in life, unable to get emotional support from family, and not able to engage in activities they find fulfilling.
- Respondents over 50 who feel downhearted or depressed are nearly 4 times as likely to be a higher risk drinker, as are those who accomplished less than they would have liked as a result of emotional problems. We also found that the strongest predictor for being a higher risk drinker is not coping with stress. Both increasing risk and higher risk drinkers were less likely to say they were free from worries about money and less likely to say they feel part of their community.
- Around 4 in 5 of increasing risk drinkers said that on no occasion had relatives, friends, doctors or other health workers been concerned about their drinking or suggested that they cut down. 1 in 5 higher risk drinkers had never been asked. Around a quarter (23%) of respondents would not know where to go for help if they needed it, with 1 in 4 saying they would not tell anyone if they needed help.
- We have also found that 74% of respondents in the UK cannot correctly identify the recommended drink limits. When asked about attitudes towards people with alcohol problems, 20% of respondents thought that the majority of people with alcohol problems cannot recover, and 45% thought that people with alcohol problems have themselves to blame (increasing to 55% for over 65s). These attitudes held by a significant minority of older respondents in the UK indicate that there are some stigma and barriers which need to be considered when forming strategies to reduce alcohol-related harm in this age group.

One major issue identified in this report is the lack of understanding and knowledge in relation to units and recommended alcohol guidelines. The recent revision of alcohol guidelines may reduce some of this lack of clarity by reintroducing weekly guidelines rather than weekly plus daily guidelines and introducing a shared limit of 14 units per week for both women and men,

Drink Wise, Age Well: Alcohol Use and the Over 50s in the UK 5

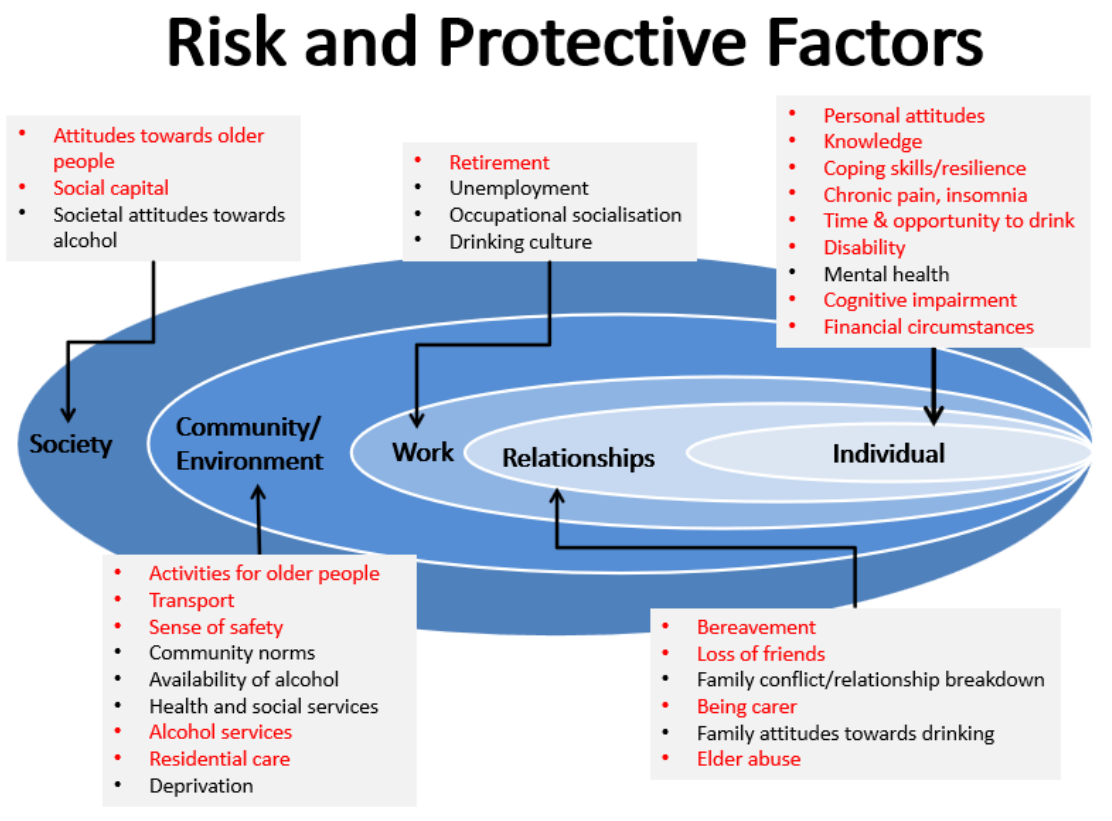
[216] Drink Wise, Age Well: Alcohol Use and the over 50s in the UK (January 2016) www.drinkwiseagewell.org.uk

6.5 EVIDENCE BASE – WHAT IS RECOMMENDED?

Overall there is limited published evidence on preventative measures for alcohol misuse in older adults. A recent pan-European study of grey literature on initiatives to prevent the harmful effects of alcohol for older people found a lack of information on initiatives, and indications that alcohol use in older people is not perceived as a major issue for prevention.[217]

Effective prevention strategies may need to recognise the social determinants of health and wellbeing in older people, for example the detrimental impacts of isolation and loneliness on health. These protective factors are identified in the figure below.

Figure 26: Potential risk and protective factors for alcohol use in older people. Source - The Forgotten People[218]



Source: http://slideplayer.com/slide/3102557/

[217] Palacio-Vieira J, Segura L, Gual A, et al. Good practices for the prevention of alcohol harmful use amongst the elderly in Europe, the VINTAGE project. Ann Ist Super Sanità. 2012;48(3):248-255.

[218] 'Problematic Substance Use in Older People' Presentation by Sarah Wadd, University of Bedfordshire, June 2015. Available at: http://www.beds.ac.uk/research-ref/iasr/mrc/archive/26-june-2015

Education and Information

There may be gaps in knowledge about the risks of substance misuse in older people among both the general public, and health and care staff. For example, a large-scale (16,710 respondents) survey within a Big Lottery Fund study on the relationship between older adults and alcohol, found 74% respondents were unable to correctly identify the recommended drink limits.[212] The report noted: *there are many stages where individuals or organisations can identify alcohol-related harm in older adults. However, we have found that these stages often lack an appreciation of the role age can have on alcohol-related harm. Government strategies and public health initiatives often focus on younger people; networks of family members, colleagues and friends who often identify problem drinking in older adults can decline in later life; both primary and acute care services often do not appreciate the relationship between alcohol-related harm and age; and treatment and service provision are often not designed with the needs of older adults in mind.*

Guidelines

There is a wider national question on whether guidelines on alcohol consumption for the population should be separately described for older people, an approach championed in other countries. While there are not general recommendations of lower levels in the UK, the recent CMO review of guidelines[216] does highlight older people as a group in their advice on short term effects of alcohol: *'some groups of people are likely to be affected more by alcohol and should be more careful of their drinking on any one occasion'.*

Other approaches – harm reduction and brief advice

In recognition that older people may not respond to campaigns and promotional materials with the same reaction as working age adults, work for an alcohol campaign (alcohol effects) in older people identified that drinking behaviour reconsideration among over 55s might be most impacted by the idea of alcohol exacerbating any existing health conditions, with a focus particularly on stroke, localised cancer and heart disease.[219] This learning can be applied to Identification and Brief Advice (IBA) interventions with older people.

One of the key explanatory factors is that due to physiological changes in later life, smaller levels of alcohol and drugs may produce greater intoxication effects in older people.[210]

http://www.ias.org.uk/Alcohol-knowledge-centre/Alcohol-and-older-people/Factsheets/Older-peoples-drinking-habits-Very-little-very-often.aspx

[219] Identification and Brief Advice: A recommended approach for older people. Presentation by George Ames, Forsters/DH. March 2010. Available at: http://www.alcohollearningcentre.org.uk/Topics/Latest/Resource/?cid=5995

Motivators for Older People (from presentation by Joe Keegan, Cambridgeshire County Council)

- Staying healthy and independent.
- Sleeping better.
- More energy to go out and socialise.
- Improved memory.
- Save money.
- Less likely to fall.

Professional barriers

- Lack of awareness that alcohol misuse is a potentially important problem for older people.
- Reluctance to ask embarrassing questions of older people.
- Attitude that older people are too old to change their behaviour.
- Belief that it is wrong to 'deprive' older people of their 'last pleasure in life'.
- Inability to identify signs and symptoms of alcohol problems in older people.

7. ENVIRONMENT

7.1 KEY FINDINGS

The built environment can have a clear effect on both physical and mental ageing and is one of the modifiable risk factors affecting health ageing. Peterborough meets many of the criteria of an 'obesogenic environment'; one that lends itself poorly to physical exercise in everyday life, such as walking/cycling as a primary method of transportation. Compared to other areas of the UK, Peterborough has relatively poor options for residents to effectively utilise non-motorised transportation for commuting/pleasure, with analysis suggesting the city has below average cycling/walking routes, relatively poor public transport options and therefore high levels of driving and car use. The most deprived electoral wards in the urban centre of Peterborough also have particularly poor cycling/walking routes and high prevalence of fast food restaurants.

The percentage of physically inactive adults in Peterborough is statistically significantly worse than England (34.3% compared to 28.7%).

Levels of use of motorised transport are slightly higher in Peterborough's least deprived areas than in the most deprived, perhaps as a result of a need to commute longer distances in rural areas, a less well developed public transport network or simply greater affluence affording opportunities for the choosing of private transportation.

Peterborough has been ranked as the most 'car dependent' city in the UK and the resultant effects on public health can be seen in Peterborough have a statistically significantly high percentage of adults with excess weight compared to England (68.9% compared to 64.6%). Prevalence in Peterborough of conditions associated with low levels of physical activity, such as coronary heart disease and stroke, are currently similar to national averages but this may be partly due to Peterborough's disproportionately young population. Without intervention and careful consideration of public health measures within the design of expanding areas of Peterborough, prevalence of these conditions and others, such as dementia, that are affected by these modifiable risk factors is likely to increase in future.

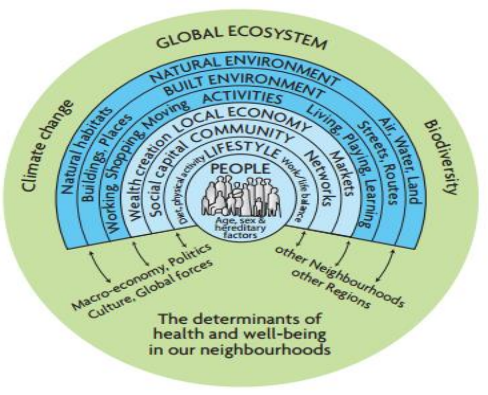
It is estimated by NHS England that in April 2016, there were 1,734 people with dementia registered with one of Peterborough's 29 General Practices. However, nationally it is estimated that only 66.4% of people with dementia have received an appropriate diagnosis; the true number of people in Peterborough with dementia may therefore be closer to 2,600, a difference of approximately 870 people. The number of over 65s in Peterborough with dementia is expected to increase 60% over the next 15 years, from around 1,660 people to 2,660. Assuming a 66.4% diagnosis rate, the actual number of people aged 65+ with dementia in Peterborough in 2015 is more likely to be approximately 2,500 people, rising to approximately 4,000 by 2030. Consideration may, therefore, be given to further incorporation of 'dementia friendly' principles in to the design to the built environment in Peterborough as the city continues to grow and expand.

7.2 CONTEXT – WHY IS THE BUILT ENVIRONMENT IMPORTANT TO OLDER PEOPLE'S PRIMARY PREVENTION?

The quality and accessibility of the environment in which a person lives can have a significant impact on how active they are in society, with associated benefits or costs to their physical and mental health, particularly among relatively older portions of the population.[220]

Environmental exposure is one of the modifiable risk factors affecting healthy ageing, in relation to elements such as cardiovascular health (affected by 'walking/cycling friendly environments' and local facilities to exercise as part of a community) and exposure to environmental pollutants and chemicals that adversely affect the ageing process and can result in the development of some diseases at an earlier age than expected (Environmental Health Perspectives, 2013). Generally, the more accessible and age-friendly an environment is, the more active older people may be.[221] However, it is recognised that individual actions to improve lifestyle and/or health status are likely to be influenced by the environmental and socioeconomic context in which they take place. The built environment includes several material determinants of health, including housing, neighbourhood conditions and transport routes, all of which shape the local social, economic and environmental conditions for which good health is dependent.[222]

Figure 27: The Determinants of Health & Wellbeing in Our Neighbourhoods



Source: Barton, H. & Grant, M., 'A Health Map for the local Human Habitat', Journal of the Royal Society for the Promotion of Public Health, 2006; 126(6): 252-261

Good health is associated with access to green space and time spent outdoors and good quality green spaces, such as parks, are noted to have both a positive impact on health and increase local resident 'neighbourhood satisfaction'.[223] Conversely, environments that indirectly encourage motorised transport as a primary means of transportation and/or otherwise present barriers to

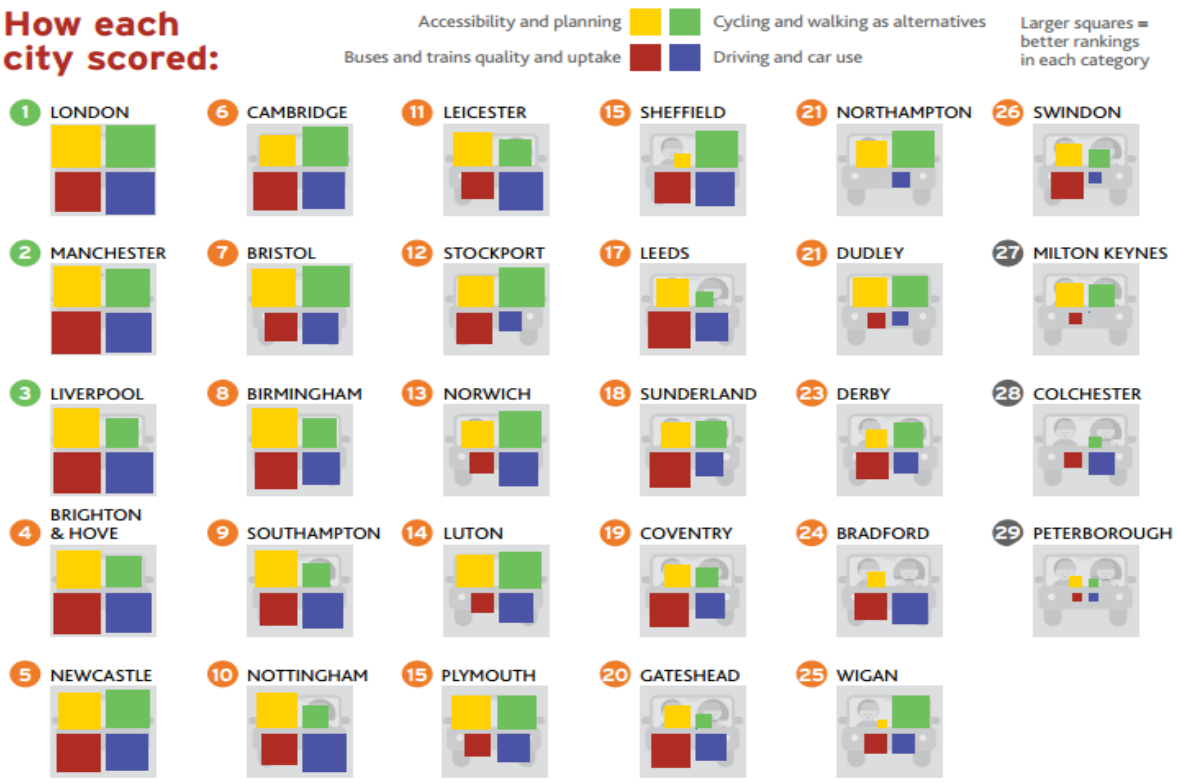
[220] http://www.healthyageing.eu/steps/environment-and-accessibility
[221] 'Ageing Society and Environmental Health Challenges', Environ Health Perspect 121:a68–a69 (2013). http://dx.doi.org/10.1289/ehp.1206334 [Online 1 March 2013] https://ehp.niehs.nih.gov/1206334/
[222] http://www.gcph.co.uk/assets/0000/4174/BP_11_-_Built_environment_and_health_-_updated.pdf
[223] https://www.noo.org.uk/LA/tackling/greenspace

going outside can have adverse long term consequences on the physical and mental health of local residents.[224]

7.3 DATA – WHAT DO WE KNOW ABOUT THE LOCAL ENVIRONMENT?

The term 'obesogenic environment' refers to the role environmental factors may play in determining both nutrition and physical activity.[225] An obesogenic environment is one that, directly or inadvertently, promotes sedentary behaviour and poor quality food choices and Peterborough displays many of the aspects of an obesogenic environment, which potentially affects healthy ageing and future prevalence of conditions including cardiovascular disease, stroke and hypertension.

Figure 28: Car Dependency Analysis, Campaign for Better Transport, 2014



Source: Campaign for Better Transport, 2014

Peterborough was ranked by the Campaign for Better Transport's 2014 'Car Dependency Scorecard 2014' (the most recent such analysis) as the most car-dependent city in the UK.[226] As noted in Figure 28, above, Peterborough scored poorly for all four assessed criteria: accessibility and planning

[224] https://www.ncbi.nlm.nih.gov/pubmed/28134006

[225] 'Foresight – Tackling Obesities: Future Choices – Obesogenic Environments – Evidence Review', Government Offices for Science, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/295681/07-735-obesogenic-environments-review.pdf

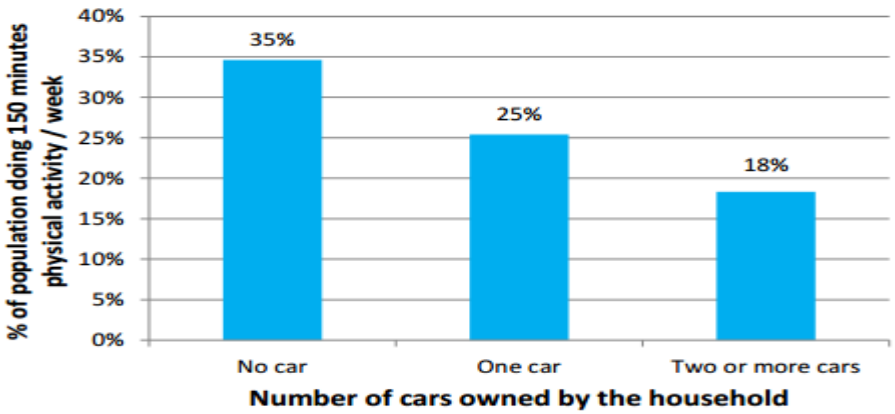
[226] 'Car Dependency Scorecard 2014', Campaign for Better Transport, http://www.bettertransport.org.uk/sites/default/files/pdfs/Car_Dep_Scorecard_2014_LOW_RES.pdf

(ranked 27th/29), cycling and walking as alternatives to driving (28th/29), bus/train quality and uptake (28th/29) and driving and car use (28th/29).

At present Peterborough only has one 'Air Quality Management Area' (AQMA) order, a requirement from the Air Quality Standards Regulator that air quality within an area be improved. This order is as a result of emissions from brickworks located in an area administered by Fenland District Council; Peterborough City Council and Fenland District Council are in continued liaison with regards to enacting an appropriate action plan to resolve this issue. There is only one other area in Peterborough, Taverner's Road in the Central electoral ward, that is noted as approaching declaration as an AQMA, as a result of excessive traffic and properties located close to the kerb line, meaning residents are exposed to high levels of pollutants.[227]

However, an environment that is notably 'car dependent' provides wider public health challenges in addition to those related to air quality, including the risk to health of lack of exercise, being overweight/obese and resultant poor overall cardiovascular conditioning. It is noted by the Department of Health that the easiest way for most people to stay physically active is by incorporating physical activity, such as walking or cycling, in to their daily lives, particularly as part of commuting for work.[228] Figure 29, below, shows that the percentage of people undertaking the recommended 150 minutes per week of exercise through travel to work alone decreases from 35% for households without a car to only 18% for houses with two or more cars.

Figure 29: Percentage of the population meeting the recommended 150 minutes per week of physical activity requirement via active travel, by household car ownership, 2013/14



Source: 'Health Impacts of Cars in London', Greater London Authority, 2015, URL: https://www.london.gov.uk/sites/default/files/health_impact_of_cars_in_london-sept_2015_final.pdf

[227] Peterborough City Council Local Sustainable Transport Fund Data Monitoring Report 2016.

[228] 'Start active, stay active: a report on physical activity from the four home countries', Chief Medical Officers (2011), Department of Health.

Studies and analysis of the effects of different methods of transport on health conclude that:

- Each additional hour spent travelling in a car per day is associated within a 6% increase in the likelihood of becoming obese.[229]
- Each additional kilometre walked per day is associated with a 4.8% reduction in the likelihood of becoming obese.[230]
- Switching from private motor transport to active travel or public transport is associated with a significant reduction in body mass index (BMI).[231]

Figure 30: Summary of Key Public Health Indicators Affected by Levels of Physical Activity/Transport Infrastructure, Peterborough & Nearest CIPFA Comparators

Indicator	Period	England	Peterborough	1 - Thurrock	2 - Swindon	3 - Milton Keynes	4 - Coventry	5 - Bolton
Excess weight in Adults	2012 - 14	64.6	68.9	70.4	69.5	69.1	62.4	63.2
Recorded diabetes	2014/15	6.4	6.5	6.3	6.9	5.5	6.5	7.9
Colorectal cancer	2012 - 14	12.3	13.8	15.3	10.8	13.7	10.4	12.6
Breast cancer	2012 - 14	21.9	18.7	21.8	25.8	23.2	18.1	23.3
Hypertension: QOF prevalence (all ages)	2014/15	13.8	11.9	14.1	13.7	12.1	13.7	14.1
CHD: QOF prevalence (all ages)	2014/15	3.2	2.7	2.7	2.8	2.4	2.6	3.4
Stroke: QOF prevalence (all ages)	2014/15	1.7	1.3	1.5	1.5	1.1	1.5	1.8
Depression: Recorded prevalence (aged 18+)	2014/15	7.3	6.9	8.0	7.6	7.3	7.0	8.4
Killed and seriously injured (KSI) casualties on England's roads	2012 - 14	39.3	43.7	38.3	33.2	38.1	34.7	28.3

Source: Public Health England 'Fingertips' Tool, https://fingertips.phe.org.uk/profile/physical-activity/data#page/0/gid/1938133001/pat/6/par/E12000006/ati/102/are/E06000031/iid/11601/age/164/sex/4/nn/nn-1-E06000031

[229] 'Start active, stay active: a report on physical activity from the four home countries', Chief Medical Officers (2011), Department of Health.

[230] Frank LD, Andresen MA, Schmid TL Obesity relationships with community design, physical activity, and time spent in cars. (2004) Am J Prev Med 27(2):87–96

[231] Martin A, et al. Impact of changes in mode of travel to work on changes in body mass index: evidence from the British Household Panel Survey. (2015) J Epidemiol Community Health 0:1–9. doi:10.1136/jech-2014-205211

Data show that 68.9% of Peterborough residence have excess weight, defined as having a body mass index greater than or equal to 25kg/m^2. Prevalence of hypertension, coronary heart disease and stroke are all lower than England in Peterborough but, as these data are not age-standardised, this may be attributable, at least in part, to Peterborough's relatively young population compared to England. 24.5% of Peterborough's population is aged under 18 compared to 21.3% in England, whereas only 14.3% of Peterborough's population is over 65, compared to 17.6% in England.

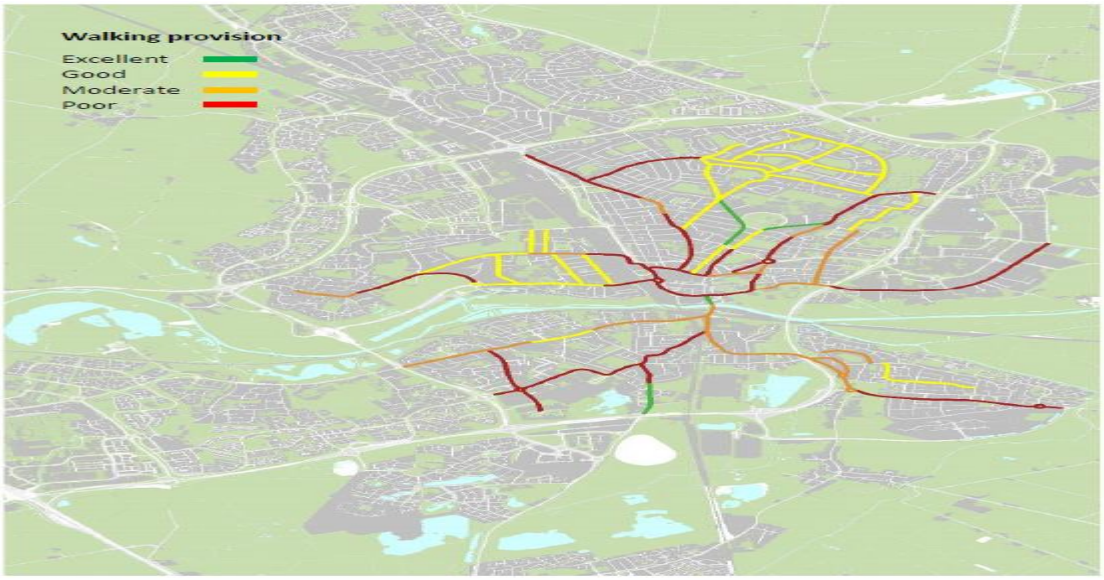
Figure 31: Percentage of Peterborough Residents Aged 16-74 in Employment Travelling to Work by Car, Van, Taxi, Motorcycle, Scooter or Moped by Deprivation Quintile, 2011

Deprivation Quintile	Number of Employed Residents 16-74 Travelling to Work via Taxi, Motorcycle, Scooter, Moped, Car or Van	Number of Employed Residents 16-74 Travelling to Work via Bicycle, On Foot, Public Transport or Other Means	Total residents 16-74 in employment	% of Employed Residents 16-74 Travelling to Work via Taxi, Motorcycle, Scooter, Moped, Car or Van	% of Employed Residents 16-74 Travelling to Work via Bicycle, On Foot, Public Transport or Other Means
5 = Least Deprived (Barnack, Fletton & Woodston, Glinton & Castor, Gunthorpe, Wittering)	9,810	3,756	13,566	72.3%	27.7%
4 (Hampton Vale, Hargate & Hempsted, Orton Waterville, Werrington)	13,952	4,383	18,335	76.1%	23.9%
3 (East, Eye, Thorney & Newborough, Fletton & Stanground, Park)	14,360	6,251	20,611	69.7%	30.3%
2 (Central, North, Paston & Walton, Ravensthorpe, Stanground South)	13,142	6,886	20,028	65.6%	34.4%
1 = Most Deprived (Bretton, Dogsthorpe, Orton Longueville, West)	10,677	4,827	15,504	68.9%	31.1%
Total	61,941	26,103	88,044	70.4%	29.6%

Source: Census 2011 'QS701EW' – Method of Travel to Work

As per the 2011 Census, 70.4% of residents aged 16-74 in employment stated that they primarily journeyed to work via car, van, taxi, motorcycle, scooter or moped, compared to 29.6% who journeyed via bicycle, on foot or via other means. This percentage is relatively consistent between deprivation quintiles although marginally higher in the least deprived areas of Peterborough, perhaps as a result of a need to commute longer distances in rural areas, a less well developed public transport network or simply greater affluence affording opportunities for the choosing of private transportation.

Figure 32: 'Walkfriendly Mapping Output', Central Peterborough



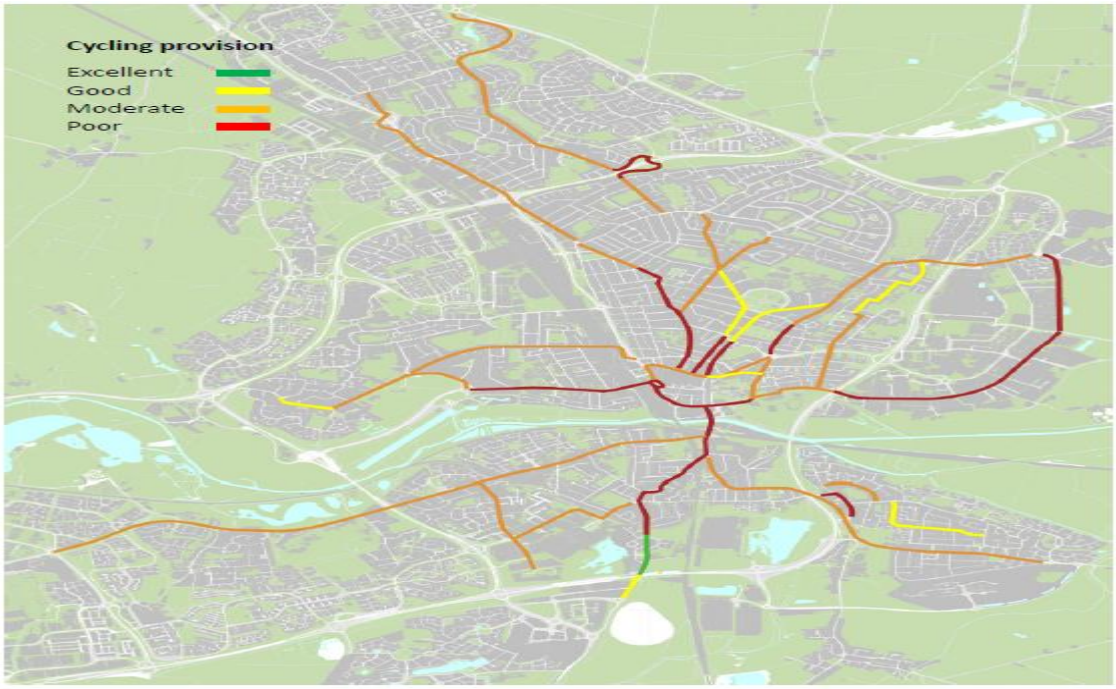
Source: Peterborough City Council LSTF Monitoring Report 2016

Peterborough City Council has a stated vision for Peterborough to be 'the UK's Environment Capital', with a vision that by 2050, 90% of journeys in the city will be zero-emission and walking, cycling and public transport will be the preferred methods of transportation for most residents.[232]

The above map illustrates the quality of walking routes in Peterborough as assessed by Peterborough City Council's 'Walkfriendly/Cyclefriendly' project. This project looked at barriers to walking in the centre of Peterborough including restriction of walking by geographical features including busy roads, air quality, local environmental features etc. and assessed that approximately one third of walking routes in the area were 'poor'.

[232] https://www.peterborough.gov.uk/council/campaigns/environment-capital/

Figure 33: 'Cyclefriendly Mapping Output', Peterborough



Source: Peterborough City Council LSTF Monitoring Report 2016

Peterborough City Council's 'Cyclefriendly' analysis shows that the centre of Peterborough has relatively poor cycle routes at present, with only one area (London Road, between Fletton Parkway and Cooke Avenue' assessed as 'excellent'. Analysis suggests that the cycle network in the centre of Peterborough is disjointed and it is difficult to plan cycle journeys across significant areas of the city without taking inconveniently divergent routes at many junctures, which may encourage people to drive instead of cycling leading to an increase in congestion and pollution within the centre of the city.

Another factor of obesogenic environments is availability of unhealthy, relatively inexpensive foods. The British Nutrition Society notes that a healthy, balanced diet can protect against chronic diseases, aid recovery from illness, improve mental health and general wellbeing and preserve immune function, digestive health and bone and oral health.[233] A healthy diet includes the consumption of at least five vegetables per day, relatively low amounts of fat and sugar and high amounts of beans, fish, eggs, meat and other proteins.[234]

[233] https://www.nutrition.org.uk/attachments/131_7.%20Prof%20Judy%20Buttriss%20A%20public%20health%20approac%20to%20healthy%20ageing%20-%20conclusions%20of%20the%20Task%20Force.pdf

[234] http://www.nhs.uk/Livewell/Goodfood/Pages/Healthyeating.aspx#5aday

Figure 34: Fast Food Outlets in Peterborough, 2015

Area	Count of Fast Food Outlets in Area (2015)*	Estimated Population (2015)**	Rate per 100,000 Population	IMD 2015***	IMD Rank (1 = Most Deprived, 5 = Least Deprived)
Central	54	13,074	413.0	45.8	1
Walton	9	5,960	151.0	25.9	3
East	10	12,215	81.9	37.6	2
Stanground Central	8	10,830	73.9	24	3
Newborough	2	2,745	72.9	17.2	4
Park	8	10,992	72.8	26	2
Fletton and Woodston	9	12,515	71.9	23.5	3
Bretton North	7	9,886	70.8	39	2
Orton with Hampton	10	15,658	63.9	14.5	5
Orton Waterville	5	8,323	60.1	17.9	4
Paston	5	8,946	55.9	36.9	2
Werrington North	4	7,581	52.8	17.4	4
Dogsthorpe	5	9,846	50.8	40.7	1
Werrington South	3	6,132	48.9	10.6	5
Eye and Thorney	3	6,318	47.5	20.8	4
Glinton and Wittering	3	6,943	43.2	10.1	5
Orton Longueville	4	10,267	39.0	40.5	1
Stanground East	1	3,010	33.2	25.4	3
Bretton South	1	3,013	33.2	27.7	2
North	2	6,348	31.5	42.4	1
Ravensthorpe	2	8,479	23.6	42.2	1
West	2	9,171	21.8	15.3	4
Barnack	0	3,098	0.0	9.8	5
Northborough	0	2,630	0.0	10.1	5
Peterborough	**157**	**193,980**	**80.9**	**27.7**	-

*** Source: Public Health England 'Fast Food Outlets by Local Authority'** http://www.noo.org.uk/visualisation

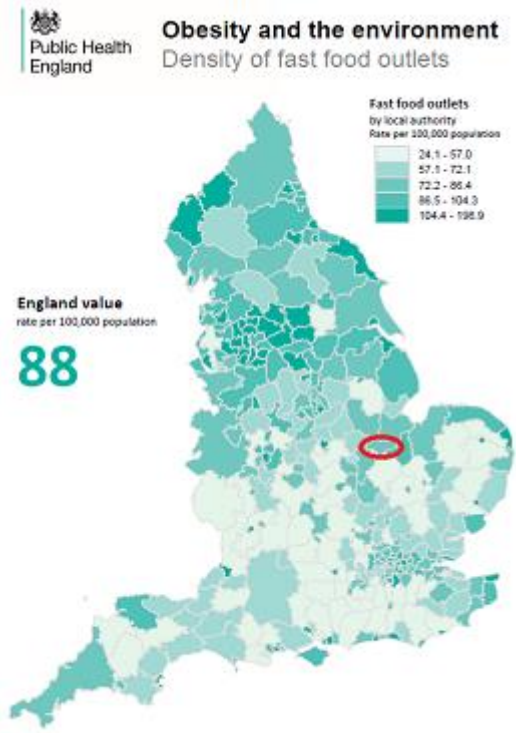
**** Source: Office for National Statistics, 'Population Estimates for UK, England and Wales, Scotland & Northern Ireland', mid-2015,** https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/latest

***** Source: Department for Communities & Local Government, 'English Indices of Deprivation 2015', https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015**

Figure 34, above, shows that the majority of fast food outlets in Peterborough are located within some of Peterborough's most relatively deprived areas, with one third (54/157) within the Central

ward, which was among Peterborough's most deprived 20% of electoral wards prior to the redrawing of electoral ward boundaries in 2016. Although this is partly due to the number of takeaway restaurants located within Peterborough's city centre, designed to capitalise on the night life within the city, this high prevalence in a deprived area may be a contributory factor in relation to a number of poor healthcare outcomes observed within the area. However, Peterborough's overall rate of 80.9 fast food outlets per 100,000 population compares favourably with the national rate of 88.0/100,000 as illustrated in the map below.

Figure 35: Density of Fast Food Outlets, England, 2014



Source: PointX Data 2014, Thomson Directories Ltd, Copyright Link Interchange Network Ltd, Copyright Database/Copyright & Ordnance Survey, Crown Copyright and/or Database Right 2006. All Rights Reserved, Licence Number 10034829

Dementia & the Built Environment

What is dementia, who is affected and how much does it cost?

Dementia describes different brain disorders that trigger a loss of brain function. These conditions are usually progressive and eventually severe. Alzheimer's disease is the most common type of dementia, affecting 62% of those diagnosed. Symptoms of dementia include memory loss, confusion and problems with language. Dementia is one of the main causes of disability later in life, ahead of cancer, cardiovascular disease and stroke. However, as a country, we spend much less on dementia than on these other conditions.

There are 850,000 people with dementia in the UK, with numbers set to rise 17.6% to one million by 2025. One in six people over the age of 80 have dementia and 70% of people in care homes have dementia or severe memory problems. However, dementia is not exclusively a disorder that affects the elderly; there are over 40,000 people under 65 with dementia in the UK. There is no cure for any type of dementia. Delaying the onset of dementia by five years would halve the number of deaths from the condition, saving 30,000 lives per year.

For every person living with dementia, the annual cost to the UK economy is over £30,000. Two thirds of the cost of dementia is paid by people with the condition and their families and unpaid carers supporting someone with dementia save the economy £11 billion per year.

Data Source for above information: Alzheimer's Society, https://www.alzheimers.org.uk

It is estimated by NHS England that in April 2016, there were 1,734 people with dementia registered with one of Peterborough's 29 General Practices. However, nationally it is estimated that only 66.4% of people with dementia have received an appropriate diagnosis; the true number of people in Peterborough with dementia may therefore be closer to 2,600, a difference of approximately 870 people. As shown by Figure 36 below, the number of over 65s in Peterborough with dementia is expected to increase 60% over the next 15 years, from around 1,660 people to 2,660. Assuming a 66.4% diagnosis rate, the actual number of people aged 65+ with dementia in Peterborough in 2015 is more likely to be approximately 2,500 people, rising to approximately 4,000 by 2030.

Figure 36: Estimates of number of people aged 65+ in Peterborough with dementia 2015-30

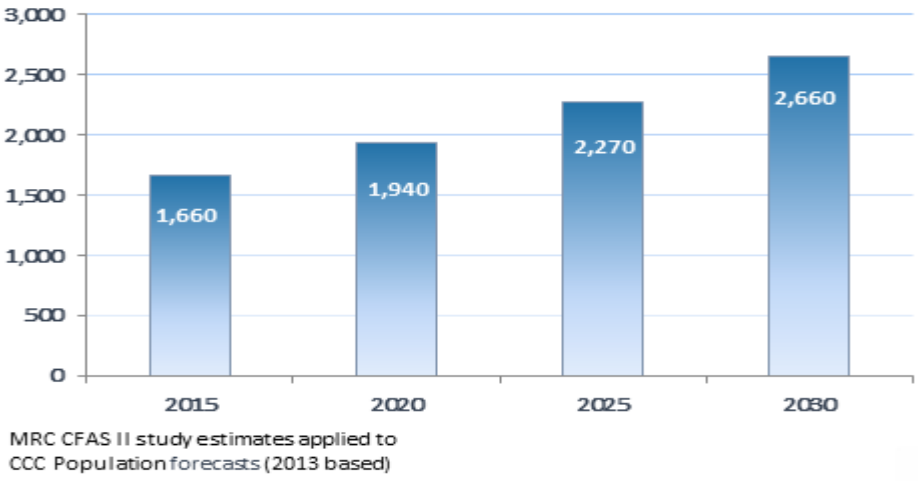


Figure 37: Dementia in Peterborough – 'Pathway on a Page' Spine Chart

Indicator	Period	Peterboro		England	England		
		Count	Value	Value	Lowest	Range	Highest
Dementia: Recorded prevalence (all ages)	2015/16	1,254	0.62%	0.76	0.29%		1.35%
Dementia: Recorded prevalence (aged 65+)	Sep 2016	1,274	4.86%	4.31	3.42%		5.50%
People receiving an NHS Health Check per year	2015/16	5,153	10.3%	9.0	3.3%		19.6%
Smoking Prevalence in adults - current smokers (APS)	2015	-	17.7%	16.9	9.5%		26.8%
Hypertension: Recorded prevalence (all ages)	2015/16	23,855	11.8%	13.8	7.7%		17.9%
Percentage of physically active and inactive adults - inactive adults	2015	-	34.3%	28.7	17.5%		43.7%
Dementia: Ratio of inpatient service use to recorded diagnoses	2014/15	710	59.7	54.6	36.7		80.8
Dementia: DSR of emergency admissions (aged 65+)	2014/15	1,050	3,725	3306	1,840		5,663
Directly Age Standardised Rate of Mortality: People with dementia aged 65+	2014	218	785	750	445		1,064
Deaths in Usual Place of Residence: People with dementia aged 65+	2014	155	71.1%	67.5	33.9%		83.6%

Source: https://fingertips.phe.org.uk/profile-group/mental-health/profile/dementia/data

Peterborough has a younger population than England, with 85.8% of residents under the age of 65 compared to 82.7% in England and only 14.2% over the age of 65, compared to 17.3% in England. This is reflected in relatively low recorded dementia prevalence for all ages; however, recorded prevalence in people aged 65+ is significantly higher than England. It is also of note that Peterborough has a significantly high ratio of inpatient service use to recorded diagnoses (meaning that a relatively high number of people are admitted to hospital with a mention of dementia on inpatient hospital services in comparison to the number of people with a recorded diagnosis of dementia on primary care practice registers). The number of physically inactive adults in Peterborough is also significantly higher than England.

Figure 38: Dementia in Peterborough – 'Pathway on a Page', Comparison to Chartered Institute of Public Finance & Accountancy (CIPFA) Nearest Socio-Economic Neighbours

Indicator	Period	England	Peterborough	1 - Thurrock	2 - Swindon	3 - Milton Keynes	4 - Coventry	5 - Bolton	6 - Derby	7 - Telford and Wrekin	8 - Rochdale	9 - Medway	10 - Luton	11 - Oldham	12 - Bedford	13 - Calderdale	14 - Stockton-on-Tees	15 - Bury
Dementia: Recorded prevalence (all ages)	2015/16	0.76	0.62	0.56	0.62	0.49	0.58	0.76	0.83	0.59	0.66	0.57	0.49	0.77	0.63	0.77	0.99	0.94
Dementia: Recorded prevalence (aged 65+)	Sep 2016	4.31	4.86	3.80	4.04	3.86	3.89	4.56	5.12	3.61	4.08	3.46	4.20	4.92	3.80	4.29	5.47	5.17
People receiving an NHS Health Check per year	2015/16	9.0	10.3	11.4	8.3	10.8	12.1	13.2	5.1	5.7	17.3	6.6	7.4	9.1	8.8	11.7	11.2	16.5
Smoking Prevalence in adults - current smokers (APS)	2015	16.9	17.7	21.3	18.7	16.4	16.6	18.5	18.7	18.2	22.0	22.3	15.8	22.2	17.1	18.7	18.4	19.4
Hypertension: Recorded prevalence (all ages)	2015/16	13.8	11.8	14.0	13.8	12.2	13.2	14.0	13.4	13.7	14.0	14.0	12.0	13.4	13.7	13.7	14.6	13.4
Percentage of physically active and inactive adults - inactive adults	2015	28.7	34.3	29.6	27.4	27.3	27.9	31.1	27.8	28.5	32.5	29.4	30.9	38.2	27.2	29.3	33.6	28.4
Dementia: Ratio of inpatient service use to recorded diagnoses	2014/15	54.6	59.7	60.2	48.7	50.9	73.8	52.6	53.6	58.4	62.6	54.0	55.7	64.7	65.0	51.1	44.9	43.6
Dementia: DSR of emergency admissions (aged 65+)	2014/15	3306	3725	3763	2732	3650	4909	3566	3775	3064	4027	2762	3596	4896	3500	3724	3504	3299
Directly Age Standardised Rate of Mortality: People with dementia aged 65+	2014	750	785	826	754	731	815	860	729	870	926	895	812	997	773	774	769	967
Deaths in Usual Place of Residence: People with dementia aged 65+	2014	67.5	71.1	57.1	68.5	64.1	63.5	68.8	67.6	74.1	73.3	60.8	67.2	63.3	73.1	63.6	68.2	73.9

Source: https://fingertips.phe.org.uk/profile-group/mental-health/profile/dementia/data

The table above compares Peterborough to its 15 nearest socio-economic neighbours in relation to key dementia indicators. Peterborough's profile is relatively similar to the majority of CIPFA neighbours, although it is of note that levels of physical inactivity in adults (defined as adults undertaking fewer than 30 minutes of at least moderate intensity physical activity per week) are among the highest within the group. The National Institute for Health and Care Excellence (NICE) publication 'Disability, Dementia and Frailty in Later Life – Mid-Life Approaches to Prevention' states that people who increase physical activity reduce the risk of developing dementia.[235] The report recommends that national organisations and local government departments that influence public health should continue to develop and support population-level initiatives to reduce the risk of dementia by making it easier for people to be more physically active.

Figure 39: Dementia Mortality Data – Peterborough & England

Indicator	Period	Peterboro		England	England		
		Count	Value	Value	Lowest	Range	Highest
Directly Age-Standardised Rate of Mortality: People with dementia aged 20+	2014	220	196.7	188.0	111.6		265.3
Directly Age Standardised Rate of Mortality: People with dementia aged 65+	2014	218	785	750	445		1,064
Deaths in Usual Place of Residence: People with dementia aged 65+	2014	155	71.1%	67.5	33.9%		83.6%
Place of death - care home: People with dementia aged 65+	2014	133	61.0%	58.5	21.6%		76.5%
Place of death - hospital: People with dementia aged 65+	2014	59	27.1%	31.4	14.9%		58.9%
Place of death - home: People with dementia aged 65+	2014	22	10.1%	8.4	2.7%		22.5%

Source: https://fingertips.phe.org.uk/profile-group/mental-health/profile/dementia/data

The directly age-standardised rate of mortality among people with dementia in Peterborough is higher than, but statistically similar to, England for persons aged 20+ and 65+. 71.1% of people with dementia in Peterborough die either at home or in a care home, compared to 67.5% in England. 27.1% of people with dementia in Peterborough die in hospital compared to 31.4% in England.

[235] https://fingertips.phe.org.uk/profile-group/mental-health/profile/dementia/data#page/6/gid/1938133052/pat/6/par/nn-1-E06000031/ati/102/are/E06000031/iid/90277/age/164/sex/4/nn/nn-1-E06000031

Figure 40: Preventative Measures Relating to Dementia in Peterborough

Indicator	Peterborough	England	Peterborough Status	Rationale
Smoking Prevalence in Adults (%, 2015)	17.7%	16.9%	Statistically similar to England	Tobacco consumption is noted as a risk factor in the development of dementia due to evidence that there may be a vascular component to many dementias
Percentage of Physically Inactive Adults (%, 2015)	34.3%	28.7%	Statistically significantly worse	Physical inactivity is noted as a risk factor in the development of dementia due to evidence that there may be a vascular component to many dementias
Excess Weight in Adults (%, 2012)	65.5%	63.8%	Statistically similar to England	Obesity is noted as a risk factor in the development of dementia due to evidence that there may be a vascular component to many dementias
Admission Episodes for Alcohol-Related Conditions - 40-64 Years (Directly Standardised Rate per 100,000, 2014/15)	324.1	299.6	Statistically similar to England	People who drink above NHS recommended limits of alcohol are at increased risk of dementia
People Receiving an NHS Health Check (%, 2015/16)	10.3%	9.0%	Statistically significantly higher	NHS Health Checks provide an opportunity for the promotion of positive health behaviours and raising personal awareness of vascular risk factors which increase the risk of dementia
Recorded Hypertension Prevalence (%, 2015/16)	11.8%	13.8%	Statistically significantly lower (may be attributable to Peterborough's relatively young population and/or issues with recording)	High blood pressure is a known risk factor for dementia, as it can cause damage to blood vessels in the brain and cause cells in the brain to decay
Recorded Stroke Prevalence (%, 2015/16)	1.3%	1.7%	Statistically significantly lower (may be attributable to Peterborough's relatively young population and/or issues with recording)	Evidence shows that vascular dementia has the same risk factors as cardiovascular disease and stroke and so the same preventive measures are likely to reduce risk
Recorded Diabetes Prevalence (%, 2015/16)	6.5%	6.5%	Statistically similar to England	The mechanisms behind the development of diabetes can also damage small blood vessels in the brain, contributing towards both Alzheimer's disease and vascular dementia

Source: https://fingertips.phe.org.uk/profile-group/mental-health/profile/dementia/data

As noted above, Peterborough has a statistically significantly percentage of inactive adults. Numbers of smokers, adults with excess weight and admission episodes for alcohol-related conditions are all higher than England, although not significantly so, and these factors are noted as potentially increasing the risk of dementia.

1. Evidence – what works? What is recommended?

NHS guidelines suggest adults aged 19-64 should try to be active daily and should do at least 150 minutes of moderate aerobic activity (eg cycling or fasting walking), 75 minutes of vigorous aerobic activity (such as running or hiking) or a mix of the two eg two 30 minute runs plus 30 minutes of fast walking per week. Strength exercises on two more days a week that work all the major muscles (legs, hips, back, abdomen, chest, shoulders and arms) should also be undertaken.[236]

[236] http://www.nhs.uk/Livewell/fitness/Pages/physical-activity-guidelines-for-adults.aspx

The 2009 Annual Report of the Chief Medical Officer summarised the impact of becoming more active on several key diseases, as shown below.

Figure 41: Summary of Impact of Physical Activity on the Risk of Common Disease

Disease	Effect of physical activity
Coronary heart disease	Moving to moderate activity could reduce risk by 10%
Stroke	Moderately active individuals have a 20% lower risk of stroke incidence or mortality
Type 2 diabetes	Active individuals have a 33–50% lower risk
Colon cancer	The most active individuals have a 40–50% lower risk
Breast cancer	More active women have a 30% lower risk
Osteoporosis	Being physically active reduces the risk of later hip fracture by up to 50%

Source: Department of Health, 'On the State of Public Health: Annual Report of the Chief Medical Officer', 2009

Evidence summarised in the 2012 British Heart Foundation Briefing 'Factors Influencing Physical Activity in Older Adults'[237] notes that physical activity is a complex behaviour in older adults which is influenced by a wide range of factors. Older adults face a number of internal and environmental barriers to becoming and remaining active, including:

Biological and demographic Factors:

- Men tend to be more physically active than women.
- As age increases, physical activity participation decreases.
- The decline in physical activity participation with age is highest among minority ethnic groups, those from lower socio-economic backgrounds and those who have lower levels of educational attainment.
- People living alone are more likely to have lower physical activity levels than their married peers.

Psychological Factors:

- Physical activity participation is positively affected by an older adult's belief in their ability to be active, confidence in their own physical abilities, perceptions of risk and general beliefs, attitudes and values.
- Physical activity participation is negatively affected by fear of falling over, exertion or not reaching fitness goals, as well as concern for personal safety during the activity.

[237] http://www.bhfactive.org.uk/files/1174/Factors%20Older%20Adults%20AW.pdf

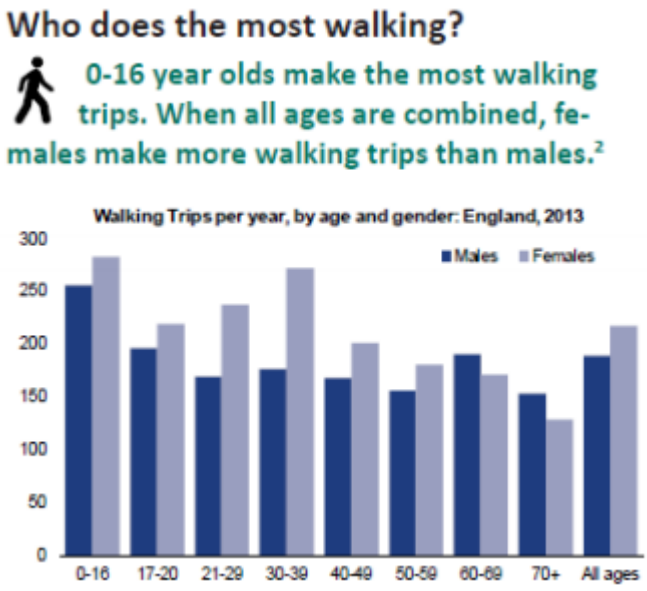
Social Factors:

- Mutual trust, shared values and feelings of community among neighbours are linked to increased physical activity levels.
- Physical activity participation is influenced by 'significant others' such as health professionals, physical activity instructors, care givers, family and friends. Opinions and support given from these significant others can have both a positive and negative affect on physical activity participation.

Environmental Factors:

- Older adults are more likely than other age groups to not go out or participate in an activity, eg walking to the shops, for fear of crime.
- Pedestrians are most likely to be victims of a road traffic accident and many older adults are unable to cross a road within the allotted time of a traffic light controlled crossing.
- A lack of transport is frequently cited by older adults as a reason they are unable to take part in activities.
- Older adults have reported that having somewhere interesting to go motivates them to walk more.
- A lack of suitable opportunities and settings for physical activity is often reported by this age group.

Figure 42: Walking Trips per year, Age & Gender Breakdown, 2013



Source: National Travel Survey, Department of Transport, 2013

Data show that walking levels are highest in younger age groups and tend to fall with age, particularly among people aged over 40. Increased activity among this age group has the most immediate benefits in terms of health and wellbeing, as well as aiding healthy ageing, lessening the risk of trips and falls and increasing the likelihood of independent living.[238]

Travel choice is known to be influenced by both individual behaviour and environmental factors and, as noted above, Peterborough's status as an usually 'car-dependent' city creates an issue with regards to promoting and improving public health. Systematic review that has found that decisions taken by adults on whether to walk/cycle or drive as method of transportation are affected by infrastructural aspects such as easy access to shops and services and good quality walking/cycle routes. As shown above, Peterborough has a relatively poor infrastructure in this regard, particularly in the relatively deprived, urban centre of the city.[239]

The National Institute for Health and Care Excellence (NICE) provides healthcare guidance aimed at preventing disease, ensuring clinical excellent and improving the health of the population. NICE briefing LGB8[240] summaries NICE recommendations for local authorities and partner organisations in relation to walking and cycling and its findings include:

- Ensuring there is a network of paths for walking and cycling between places locally.
- Reducing road danger and perception of danger.
- Ensuring other policies support walking and cycling.
- Using local data, communication and evaluation to develop programmes.
- Including practical support, information about options (including public transport links to support longer journeys), routes, cycle parking and individual support.
- Focus on key settings.

NICE's public health guideline PH8[241] summarises NICE guidance on the promotion and creation of physical environments that support increased levels of physical activity, including the below key recommendations:

- Involve all local communities and experts at all stages of the development to ensure the potential for physical activity is maximised.
- Ensure pedestrians, cyclists and users of other modes of transport that involve physical activity are given the highest priority when developing or maintaining streets and roads.
- Plan and provide a comprehensive network of routes for walking, cycling and using other modes of transport involving physical activity.

238 Hamer M., et al, Taking Up Physical Activity in Later Life and Healthy Ageing: the English Longitudinal study of Ageing'. British Journal of Sports Medicine, 2013; 48:239-243 doi:10.1136/bjsports-2013-092993

239 T Sugiyama, E Leslie, B Giles-Corti, N Owen, Associations of neighbourhood greenness with physical and mental health: do walking, social coherence and local social interaction explain the relationships? J Epidemiol Community Health, 2008;62:e9 doi:10.1136/jech.2007.064287

240 https://www.nice.org.uk/advice/lgb8/chapter/introduction

241 https://www.nice.org.uk/guidance/ph8

- Ensure public open spaces and public paths can be reached on foot, by bicycle and using other modes of transport involving physical activity; they should also be accessible by public transport.
- Ensure public open spaces and public paths are maintained to a high standard. They should be safe, attractive and welcoming to everyone.
- Those involved with campus sites, including hospitals and universities, should ensure different parts of the site are linked by appropriate walking and cycling routes.
- Ensure new workplaces are linked to walking and cycling networks.

Healthy environment

In 2016, NHS England, in conjunction with Public Health England, named 10 sites in England for the development of new healthy towns as part of the Healthy Towns Programme, an initiative designed to pool and implement academic research and evidence of best practice to ambitiously demonstrate the possible improvement of health through the built environment.[242] One of the chosen sites was Northstowe in Cambridgeshire, which undertook an initial consultation and evidence review on the concept of an 'age-friendly town' from which the below feedback and evidence was sourced, which may be of use as part of the development of future areas of Peterborough as the city continues to expand:

- Remaining in one's own home, as part of the local community, for as long as possible is considered greatly preferable to have to 'downsize' to a different area or otherwise vacate property (eg accept a placement in a care home).[243]
- Maintaining outdoor activity and mobility man contribute to a greater sense of well-being and greater quality of life among older people.[244]
- Time spent outdoors offers greater opportunities to be physically active.
- Spending time outdoors offers greater opportunities to be physically active.
- There is a positive relationship between the number of 'outdoor personal projects' older people participate in and measures indicative of their quality of life.[245]
- Contributing to, as well as receiving from one's community were both seen to be of equal importance and age-friendly communities should seek to promote active and continual engagement in community life.[246]

[242] https://www.england.nhs.uk/ourwork/innovation/healthy-new-towns/
[243] Wiles, J.L., et al., The Meaning of "Ageing in Place" to Older People. The Gerontologist, 2011
[244] van den Berg, P., et al., Ageing and loneliness: The role of mobility and the built environment. Travel Behaviour and Society, 2016. 5: p. 48-55.
[245] Curl, A., et al., Outdoor Environmental Supportiveness and Older People's Quality of Life: A Personal Projects Approach. Journal of Housing For the Elderly, 2016. 30(1): p. 1-17.
[246] Emlet, C.A. and J.T. Moceri, The importance of social connectedness in building age-friendly communities. Journal of Ageing Research, 2011

- There are a number of barriers and facilitators to going outdoors and spending time there that older people face, including the below comments expressed as part of the Northstowe consultation:
    - Local shopping and services provide older adults with places to walk, to meet others and to stay without a car.
    - Concerns about traffic and inadequate pedestrian infrastructure limit walking and other activities in neighbourhoods by making older adults feel unsafe.
    - A neighbourhood's overall sense of attractiveness, including gardens, buildings and streets, encourages walking for exercise and pleasure.
    - Adequate public transportation is essential to remaining active in the larger community and independent in one's neighbourhood.
    - Being able to drive may be important, but access to public transport is also considered an important resource in enabling independent mobility.
    - The design of the physical environment can influence the decision on where to go/which location or whether to go at all.

- Falling and the fear of falling threaten the ability to go outdoors and the quality of life of older adults.
- Falls occur in different contexts and locations and there are a number of risk factors associated with falling.[247] Much of the research carried out on falls has focused on falls in the home and in institutions, with relatively little examining the problem of falls outdoors.[248] Factors associated with falling outdoors are different from those indoors and include trip hazards such as uneven pavements, steps and obstacles in urban settings.[249]
- Outdoor falls usually occur on the street and of these, 73% of these are caused by factors like uneven surfaces or tripping over objects, pavements and kerbs.[250]

The Age-friendly Cities Project[251] carried out by Universities of Liverpool and Cambridge as part of the National Institute for Health Research's Ageing Well Programme interviewed older people within focus group settings to solicit their views on the concept of age-friendly cities and found that outdoor hazards and the risk of falls were a key worry for older people. Fear of falling leads to a lack of confidence in going outdoors which in turn can lead to a less active lifestyle and greater social isolation.[252]

[247] Deandrea, S., et al., Risk factors for falls in community-dwelling older people: a systematic review and meta-analysis. Epidemiology, 2010. 21(5): p. 658-68

[248] Li, W., et al., Outdoor falls among middle-aged and older adults: a neglected public health problem. American Journal of Public Health, 2006. 96(7): p. 1192-200

[249] Curl, A., et al., Developing an audit checklist to assess outdoor falls risk. Proceedings of the Institution of Civil Engineers - Urban Design and Planning, 2016. 169(3): p. 138-153

[250] Li, W., et al., Outdoor falls among middle-aged and older adults: a neglected public health problem. American Journal of Public Health, 2006. 96(7): p. 1192-200

[251] http://sphr.nihr.ac.uk/ageing-well/projects/developing-age-friendly-towns-and-cities/

[252] Scheffer, A.C., et al., Fear of falling: measurement strategy, prevalence, risk factors and consequences among older persons. Age and Ageing, 2008. 37(1): p. 19-24

Other points noted within the Northstowe design code that specifically incorporate healthy ageing principles include:

- Prominence given to public green spaces and the connecting of walkways and cycleways.
- Where steps or kerbs are used, edges should be clearly marked with a contrasting material so that they can be seen.
- Consideration is given to the importance of adequate lighting for older people who may have vision impairments.
- Adequate and regular seating is provided in the design code.

Regarding falls specifically, the table below shows that Peterborough has statistically significantly high directly age-standardised rates of injuries due to falls in people aged 65+ (persons and males) and injuries due to falls in people aged 65-79. Of Peterborough's nearest CIPFA comparators, only Coventry has any statistically significant indicators for injuries due to falls.

Figure 43: Falls Data, Peterborough & Nearest CIPFA Comparators

Indicator	Period	England	Peterborough	1 - Thurrock	2 - Swindon	3 - Milton Keynes	4 - Coventry	5 - Bolton
2.24i - Injuries due to falls in people aged 65 and over (Persons)	2014/15	2125	**2373**	1560	2071	2023	**2596**	1975
2.24i - Injuries due to falls in people aged 65 and over (Male)	2014/15	1740	**2057**	1368	1434	1767	**2114**	1611
2.24i - Injuries due to falls in people aged 65 and over (Female)	2014/15	2509	2690	1751	2708	2280	**3078**	2340
2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Persons)	2014/15	1012	**1183**	656	1012	1024	**1299**	927
2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Male)	2014/15	826	1018	553	701	881	**1108**	750
2.24ii - Injuries due to falls in people aged 65 and over - aged 65-79 (Female)	2014/15	1198	1347	759	1323	1166	**1490**	1104
2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Persons)	2014/15	5351	5826	4179	5141	4922	**6357**	5013
2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Male)	2014/15	4391	5070	3730	3559	4335	**5031**	4105
2.24iii - Injuries due to falls in people aged 65 and over - aged 80+ (Female)	2014/15	6312	6582	4629	6724	5510	**7683**	5921

Source: Public Health Outcomes Framework

The economic burden of falls in old age is substantial – only motor vehicle accidents contribute more to lifetime costs of injuries, with wrist and hip fractures contributing the most as a result of falls in elderly people.[253] NHS guidance[254] suggests a number of steps that may be taken with regards to mitigating the risk of falls in the home, including:

- Maintaining a 'safe' house – mopping up spillages, removing clutter, using high-wattage light bulbs and organising the home so that climbing, stretching and bending are kept to a minimum.
- Requesting a home hazard assessment, which involves the identification of potential hazards by a trained healthcare professional.
- Undertaking strength and balance straining.
- A regular (at least annual) review of medication to ensure it is still appropriate and side effects are not contributing to the risk of a fall.
- Regular sight tests, particularly if an individual is concerned about poor vision.
- Avoiding or reducing alcohol intake.

Dementia

Substantial research has been undertaken into the notion of 'dementia friendly physical environments'. A Dementia Friendly Physical Environments Checklist has been compiled by Dementia Action UK and includes the following points to be noted regarding dementia and physical environments:[255]

Quiet Spaces:
- Are there quiet spaces available for people who might be feeling anxious or confused?

Signage:
- Are signs clear, in bold face with good contrast between text and background?
- Is there contrast between the sign and the surface it is mounted on?
- Are signs fixed to the doors to which they refer?
- Are signs at eye level and well-lit?
- Do signs use simple images/icons where possible?
- Are glass doors clearly marked?
- Are signs for toilets and exits clear?

Lighting:
- Are entrances well-lit, making use of natural light were possible? Are pools of bright light or deep shadows avoided?

Flooring:
- Are highly reflective or slippery floor surfaces avoided?
- Are bold patterns avoided in favour of plain flooring?
- Are changes in floor finish flush rather than stepped?

[253] http://www.bmj.com/content/345/bmj.e4919
[254] http://www.nhs.uk/Conditions/Falls/Pages/Prevention.aspx
[255] http://www.dementiaaction.org.uk/assets/0000/4336/dementia_friendly_environments_checklist.pdf

Changing Rooms and Toilets:

- Are changing rooms available where an opposite sex carer or partner can help out if the person needs help with their clothes? If not, are staff briefed in how to meet this need sensitively?
- Do you have a unisex toilet or other facility which would allow someone to have assistance without causing them or other user's embarrassment?
- Toilet seats that are of a contrasting colour to the walls and rest of the toilets are easier to see if someone has visual problems.

Seating:

- In larger premises – do you have seating areas, especially in areas where people are waiting?
- Does seating actually look like seating, in a way that will be easily understandable to a person with dementia.

Navigation:

- Research shows that people with dementia use 'landmarks' to navigate their way around, both inside and outside. The more attractive and interesting the landmark, the easier it is to use as a landmark.

8. ENABLERS AND BARRIERS

8.1 KEY FINDINGS

- Peterborough's population is heterogenous and while it comprises many groups, careful consideration of the needs of individuals within groups is important.
- There is a significant burden of preventable disease and opportunities for primary prevention but many barriers to positive behaviour change.
- Understanding of risk behaviours can be gained by consideration of the broad determinants of health. These include age, sex, ethnicity, socioeconomic status, education level access, culture and environment.
- Although some services are already available, adaptations must be made to target and tailor interventions for successful outreach.
- Experienced facilitators can reap large benefits in ensuring reach of routine campaigns to vulnerable groups. Messaging and risk communication needs careful design and should be accompanied by signposting to readily accessible local services.
- Existing local ambassadors should be mobilised, harnessing assets and enthusiasm. Seed funding and projects demonstrate this potential.

8.2 CONTEXT – WHY IS CONSIDERATION OF THE ENABLERS AND BARRIERS TO PRIMARY PREVENTION IMPORTANT?

Primary prevention of disease is complex: several lifestyle modifications are well-documented. There are personal, social, cultural, neighbourhood and socioeconomic determinants that affect personal ability and motivation to make lifestyle modifications. Facilitating behaviour change is challenging, particularly in diverse vulnerable communities, therefore, it is vital to consider the enablers and barriers to primary prevention specific to a population.

8.3 DATA: THE POPULATION OF PETERBOROUGH BY AGE, SEX, DEPRIVATION/INEQUALITY AND ETHNICITY

Personal, social, environmental and societal factors create different enablers and barriers for primary prevention. A report by Public Health England[256] focuses on changing risk behaviours and promoting cognitive health in older adults. Four themes run throughout this document to form the basis for enablers and barriers to healthy ageing:

1. **Age**
2. **Sex**
3. **Deprivation/ inequality**
4. **Ethnicity**

[256] https://www.gov.uk/government/publications/changing-risk-behaviours-and-promoting-cognitive-health-in-older-adults.

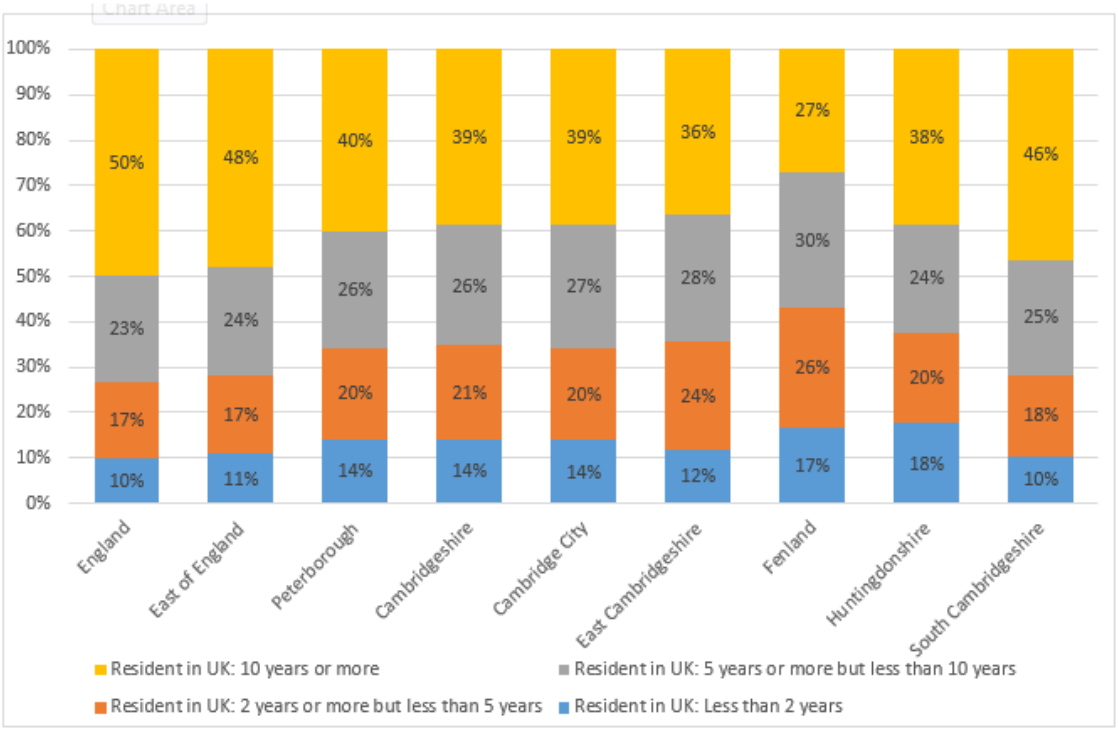
The population of Peterborough is young and rapidly expanding. As one of the fastest growing cities in the UK, its population is predicted to grow by 34.9% between 2010 and 2031.[257] It is an ethnically diverse city, with 29.1% of residents not self-identifying as White English, Welsh, Scottish, Northern Irish or British. The next most common ethnicities declared in the 2011 census[258] were Asian/Asian British: Pakistani or British Pakistani (6.6%), White Polish (3.1%) and Asian/Asian British: Indian or British Indian (2.5%).

In 2014, economic migration was most common from Poland (1,100 migrant national insurance registrations), Republic of Lithuania (974), Portugal (504), Romania (427) and Latvia (397).[258]

Peterborough has the second highest percentage of people who cannot speak English in the East of England (4.86% of the population compared to 1.12% in the East of England).[258]

Information on the length of time the non-UK born population has resided in a location indicates how settled they are. The figure below shows the length of residence in non-UK born migrants in Peterborough and for each area in Cambridgeshire at the time of the 2011 Census[258].

Figure 44: Length of Residence in Non-UK Born Migrants in Peterborough and Cambridgeshire, 2011



Source: Census 2011

[257] https://www.peterborough.gov.uk/upload/www.peterborough.gov.uk/healthcare/public-health/PeterboroughJSNA-CoreDataset-2016.pdf?inline=true

[258] Census, 2011, https://www.nomisweb.co.uk/census/2011/qs601ew

Economic inequalities are found when Peterborough is compared to other cities and within the population itself. In Peterborough Unitary Authority, 37.5% of residents are in the most deprived quintile compared to 20.2% in England. Deprivation is more significant in central Peterborough.

8.4 DATA: WHAT IS KNOWN ABOUT RISK BEHAVIOURS?

The risk behaviours thought to be of most importance in primary prevention of disease have already been discussed in the previous chapters of this JSNA: physical activity, alcohol, smoking, diet/malnutrition and environment.

In addition, social isolation will be considered in this chapter. The importance of social isolation was outlined in a recent report by Public Health England. This states that the quality and quantity of social relationships affect health behaviours, physical and mental health, and risk of mortality.[259] Therefore, social isolation can demonstrate vulnerability to risk factors and poor health.

Now, the proportion of the population affected by risk behaviours will be considered by age, sex, inequality and ethnicity followed by the potential impacts of these risk behaviours in terms of the burden of disease in Peterborough.

8.5 DIFFERENCES IN RISK BEHAVIOURS

Data is available for the proportion of these five groups of the population affected by risk factors. Little data is available for Peterborough; the majority is on a national level. The data shows the sections of the population in which risk behaviours are more prevalent. Later sections will go on to discuss why the risk factors may be more prevalent and therefore can help to elucidate the barriers and enablers to prevention of these risk factors.

1. Age

The Public Health England report mentioned above[256] highlights that consideration should be given to the best ways to engage older adults in changing health behaviour, as behaviours can be more entrenched.

Physical activity: Data from PHE shows that those over 65 do least physical activity.[260] The percentage of people over 65 that do more than 30 minutes of exercise each week is only 52.1% in people over 65 years old. This suggests that 47.9% of this age group lead a very sedentary lifestyle and compares to 69.7% in 55-65 year olds.

Alcohol: Younger people tend to drink more heavily (exceeding eight units for men and six units for women) on a single occasion than older people 6% of men aged 65 and over had drunk heavily on at least one day in the previous week, compared with 19% of men aged 45-64.[261] However the Health

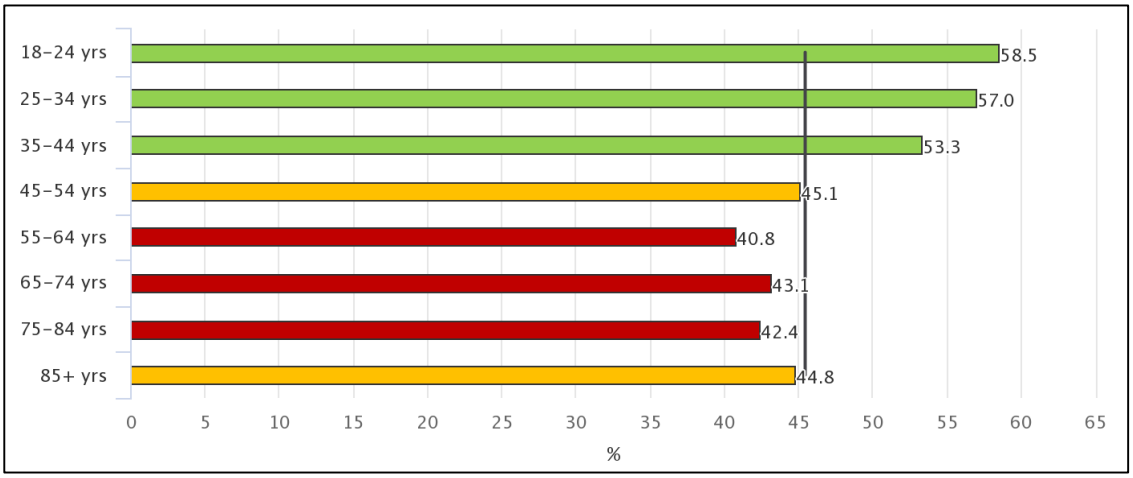
[259] Local action on health inequalities: Reducing social isolation across the life course. Public Health England 2015
[260] Public Health England. Public Health Profiles. https://fingertips.phe.org.uk/
[261] https://www.alcoholconcern.org.uk/alcohol-statistics

Survey for England 2016[262] found that the proportion of adults who drank alcohol on more than five days in the last week prior to being surveyed increased up to age 65- 74 before levelling off.

Smoking: When considering prevalence of smoking, the age group with the highest prevalence is 25-29 with 24.1%. Lowest is over 90 with a prevalence of 2.3% with prevalence in general decreasing as age increases.[260]

Social isolation: Figure 45 produced using the Public Health Profiles from Public Health England shows the percentages of social care users who have as much social contact as they would like. The benchmark being used throughout this report is the average for England, a value that should be achievable. In the figures green indicated better, orange similar and red worse than the benchmark.

Figure 45: Social Isolation Adult Social Care Users who have as much social contact as they would like, England 2015/16 – Data partitioned by Age



Source: Public Health Profiles, Public Health England

Notably, this chart shows that in England only 42.4% of 75-84 year olds have as much social contact as they would like, a figure that is below the UK's national average.

2. Sex

Physical activity: In 2015 25.0% of males and 32.2% of females only manage less than 30 minutes of physical activity per week.[260]

Alcohol: This is a risk factor that affects males more than females: in 2013 alcohol-rated mortality was 15.9 per 100 000 in males compared to 7.3 in females.[260] Furthermore, male admissions for alcohol-related reasons in 2014/15 were double that of females (2,947 compared to 1,450).[260]

Smoking: Similarly smoking is more prevalent: in 2015 the percentage of the population who were current smokers was 19.1 in males and 14.9 in females.[260]

[262] http://content.digital.nhs.uk/catalogue/PUB20999/alc-eng-2016-rep.pdf

Social Isolation: Over 2015/16, 46.4% of males had as much social contact as they would like compared to 44.7% of females.[260]

3. Deprivation/inequality

When comparing the most-deprived to the least-deprived deciles of the population of England, the trend is one of increasing prevalence of risk behaviours with increasing deprivation. This can be seen in the table below:

Table 11: Measure of risk factor in least and most deprived decile

Measure of risk factor	Least deprived decile	Most deprived decile
Alcohol related mortality	8.0 per 100,000	17.5 per 100,000
Alcohol related admissions	1,687 per 100,000	2,829 per 100,000
Smoking prevalence	14.3%	20.4%
Less than 30 minutes of physical activity achieved	23.6%	35.0%

Source: Public Health England[260]

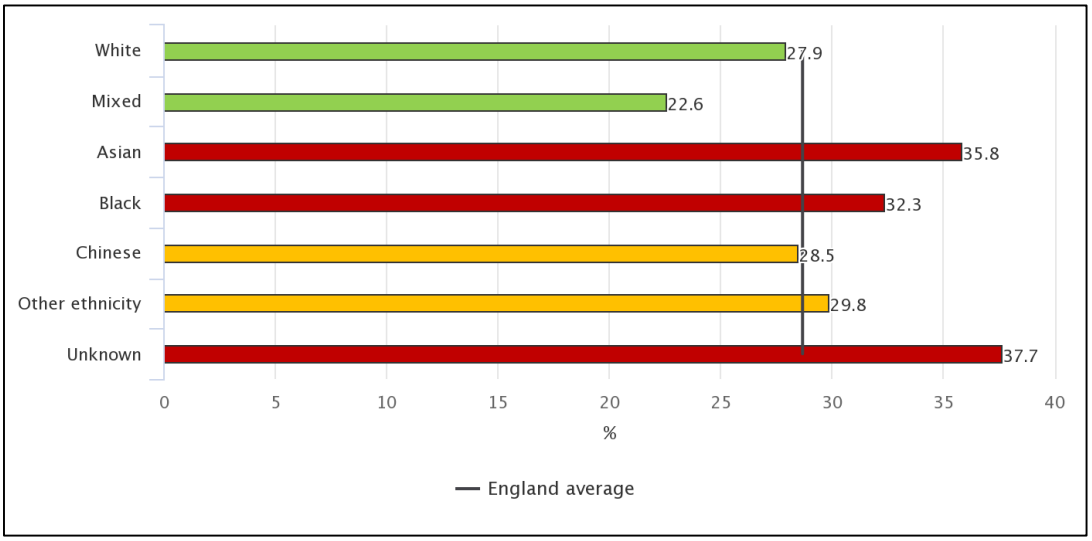
4. Ethnicity

Physical activity: Participation in physical activity has been shown to differ between ethnic groups, for example, Indian, Pakistani, Bangladeshi and Chinese women are all less likely than white women to meet recommended guidelines for physical activity.[263]

This is consistent with Public Health England data for physical activity in ethnic groups as shown in the graph below.[260]

[263] https://www.ukdataservice.ac.uk/use-data/data-in-use/case-study/?id=97

Figure 46: Percentage of adults achieving less than 30 minutes of physical activity per week – England 2015 – Data partitioned by Ethnic groups



Source: Public Health Profiles, Public Health England

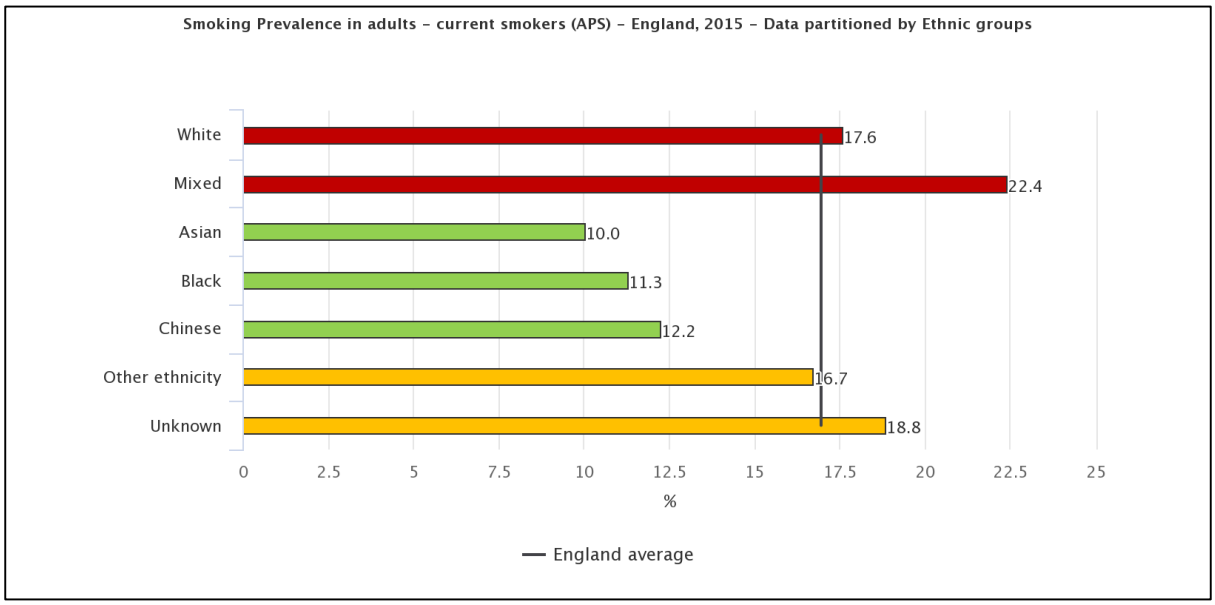
Lack of physical activity and unhealthy diets can lead to a difference in disease burden and all-cause mortality in different ethnic groups. Some black and Asian populations increased risk for obesity and related disease compared with white British groups.[264]

Research has shown that south Asian and black ethnicity is a predictor of obesity-related behaviours among children in the UK and this cannot be explained by deprivation.[265]

Smoking: Smoking, however, is recorded to be less prevalent in some ethnic groups with Asian, Black and Chinese groups having significantly less than the average for England, however all forms of tobacco consumption may not be captured. This can be seen in the chart below.

264 http://content.digital.nhs.uk/catalogue/PUB13219
265 http://bmjopen.bmj.com/content/4/1/e003949.full

Figure 47: Smoking Prevalence in adults – current smokers (APS) – England, 2015 – Data partitioned by Ethnic groups



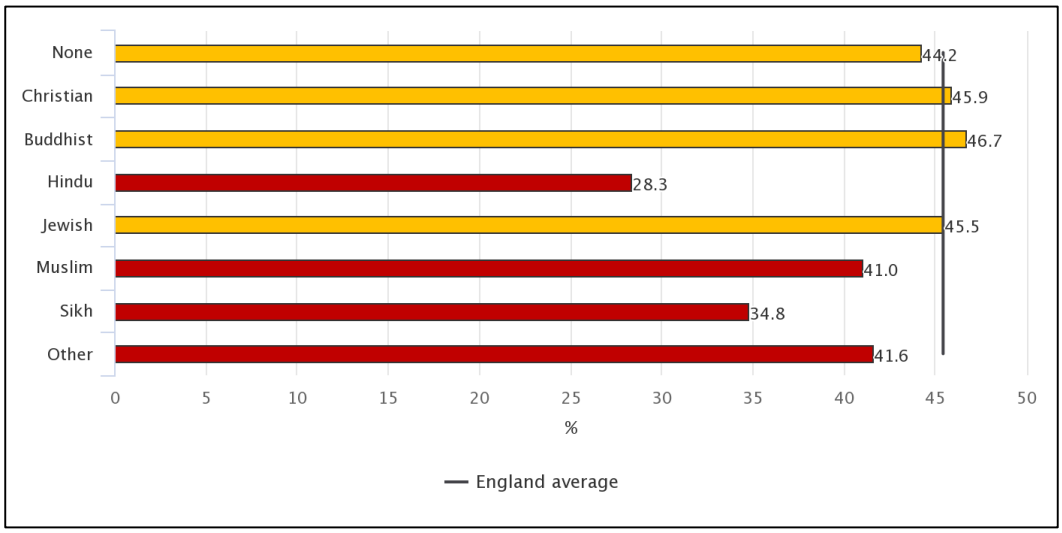
Source: Public Health Profiles, Public Health England

Alcohol: There is evidence from World Health Organisation (WHO) showing that rates of alcohol consumption per capita in Lithuania, Latvia and Poland is higher than the UK.[266] Although this does not represent the behaviour of people from these countries in the UK, it is likely to give some indication of potential risk behaviours in those who have immigrated.

Social isolation: The graph below shows the most socially isolated groups to be Hindus, Muslims and Sikhs.[260]

[266] http://www.who.int/substance_abuse/publications/global_alcohol_report/msb_gsr_2014_2.pdf?ua=1

Figure 48: Social isolation: adult social care users who have as much social contact as they would like – England, 2015/16 – Data partioned by Religion – eight categories



Source: Public Health Profiles, Public Health England

Burden of risk factors and disease in Peterborough: the evidence

Statistics regarding the burden of individual risk factors in Peterborough are not available, however the potential consequences can be extrapolated in morbidity and mortality data.

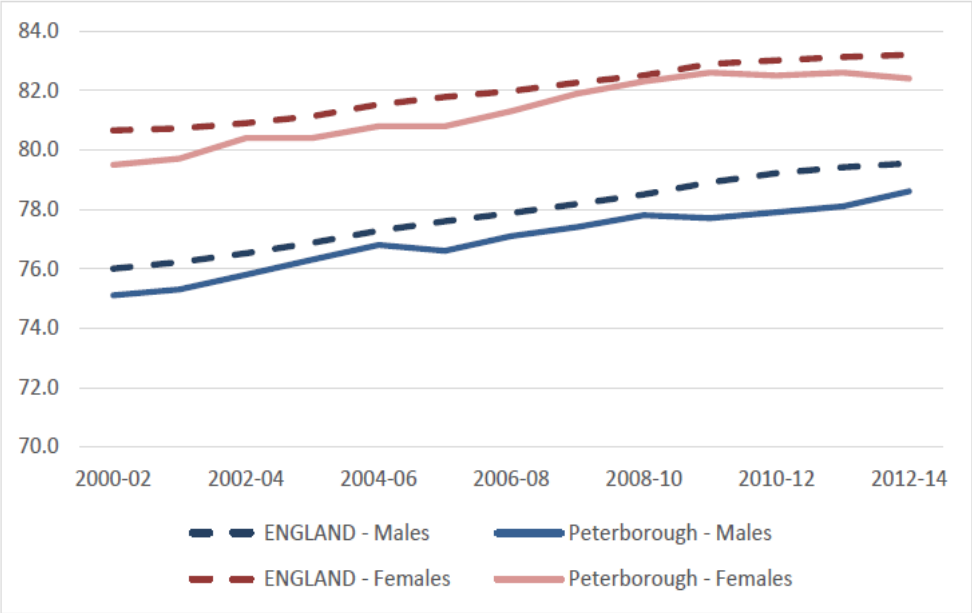
Peterborough has a lower life expectancy, disability-free life expectancy and higher premature mortality rate - deaths under the age of 75.[267]

The graph below shows the life expectancy and how it has varied from 2000 to 2014. Life expectancy is defined as that average number of years a person may expect to live given contemporary mortality rates.[268]

[267] https://healthierlives.phe.org.uk/topic/mortality

[268] https://www.peterborough.gov.uk/upload/www.peterborough.gov.uk/healthcare/public-health/PeterboroughJSNA-CoreDataset-2016.pdf?inline=true

Figure 49: Life Expectancy at birth, 2000/02 – 2012/2014[261]



Source: Public Health Profiles, Public Health England

Disability-free life expectancy was 60.3 over the period 2009-2011, whereas for England it was 63.9. The prevalence of conditions which can greatly effect quality of life and life expectancy in Peterborough can be compared to the other local authorities in England:

- There were 253 premature deaths due to lung cancer in 2013-15 in Peterborough. This ranked 73rd of 150 local authorities.
- Mortality attributable to smoking in over 35 year olds in 2012-14 was higher in Peterborough than the average in England (298.2 per 100,000 in Peterborough compared to 274.8 per 100,000 in England).
- Heart disease caused 205 premature deaths in Peterborough in the same time frame, equating to 64.4 per 100,000 compared to a regional average of 43.5/100,000 and a national average of 49.2/100,000. This ranks poorly at 121st of the 150 local authorities.

The burden of disease can be considered in terms of the four stratifications of the population: age, sex, inequality and ethnicity. This offers insight into the enablers and barriers to primary prevention.

1. Age

The burden of disease is known to increase with age. It is important to consider the enablers and barriers of how a group accesses healthcare.

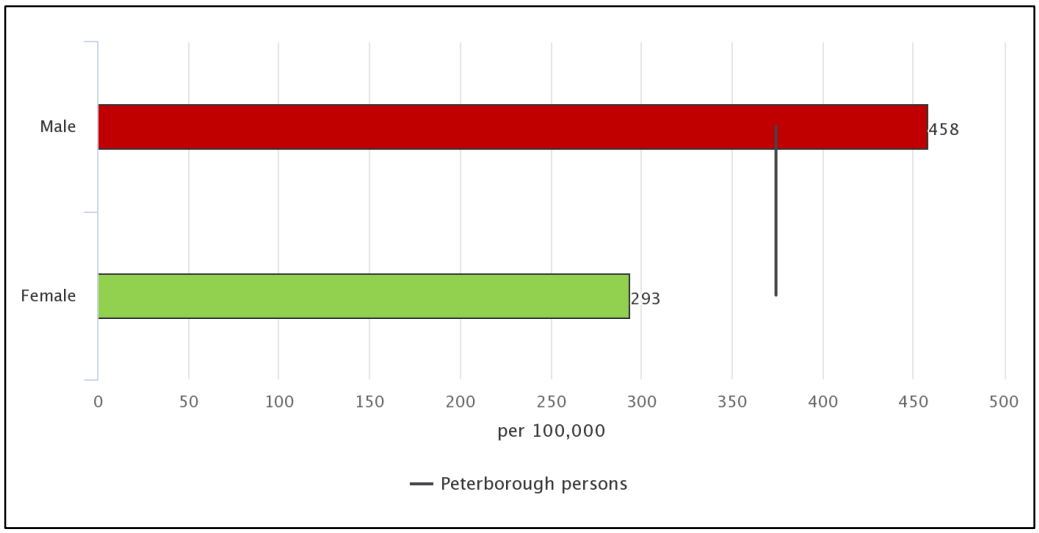
Data from over 65 year olds shows that 21.72% of attenders to accident and emergency were discharged with no follow up and 5.09% were discharged with follow up by their GP. This suggests there may be a significant percentage of people who are attending accident and emergency, who could be seen by their GP instead so there may be changes that could be made in signposting services.

2. Sex

The graph above (Figure 49) highlights that the increase in life expectancy in recent years was slower than that observed nationally for women whilst the life expectancy for men remained below the national average despite a similar increase of around 3.5 years. Male life expectancy at birth is currently 78.6 and for females it is 82.4 years.

The graph below shows data for premature mortality Peterborough. Premature mortality is defined as deaths below the age of 75. These rates for Peterborough are significantly worse than England (England data: premature mortality rate for males is 410 per 100,000 and for females is 268 per 100,000).

Figure 50: Premature mortality from all causes (Female) – Peterborough 2013 – 14 – Data partitioned by Sex



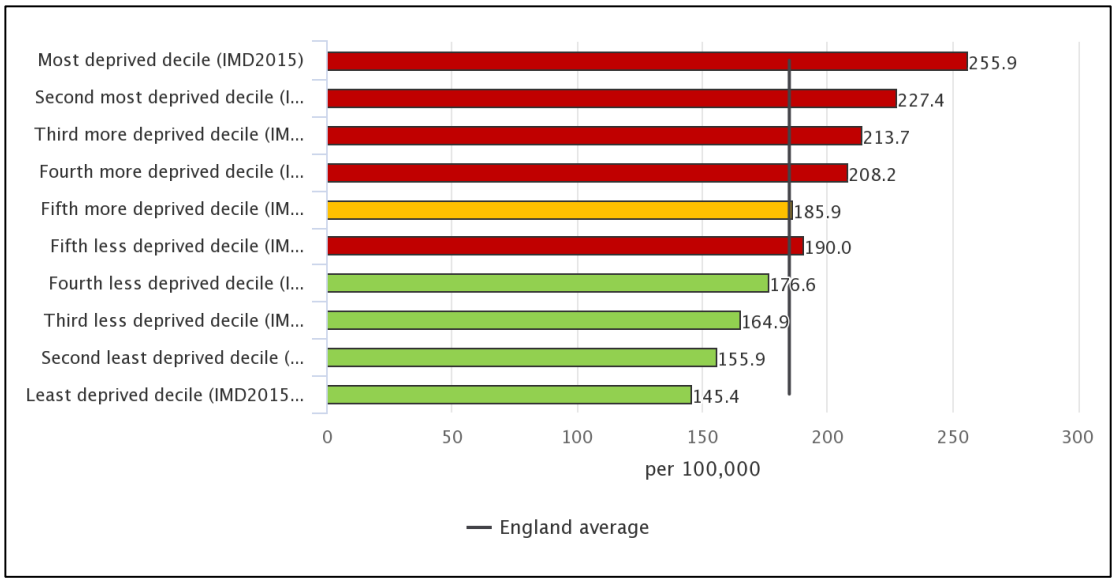
Source: Public Health Profiles, Public Health England

3. Deprivation/inequality

The increased prevalence of risk factors in the more deprived sections of the population to contribute to increased mortality from preventable causes. Deaths are considered preventable if, in light of the understanding of the determinants of health at the time of death, all or most deaths from the underlying cause (subject to age limits if appropriate) could potentially be avoided by public health interventions in the broadest sense.

The graph below is compares mortality rate from causes considered preventable in England and shows that higher levels of deprivation is associated with an increased rate.[260]

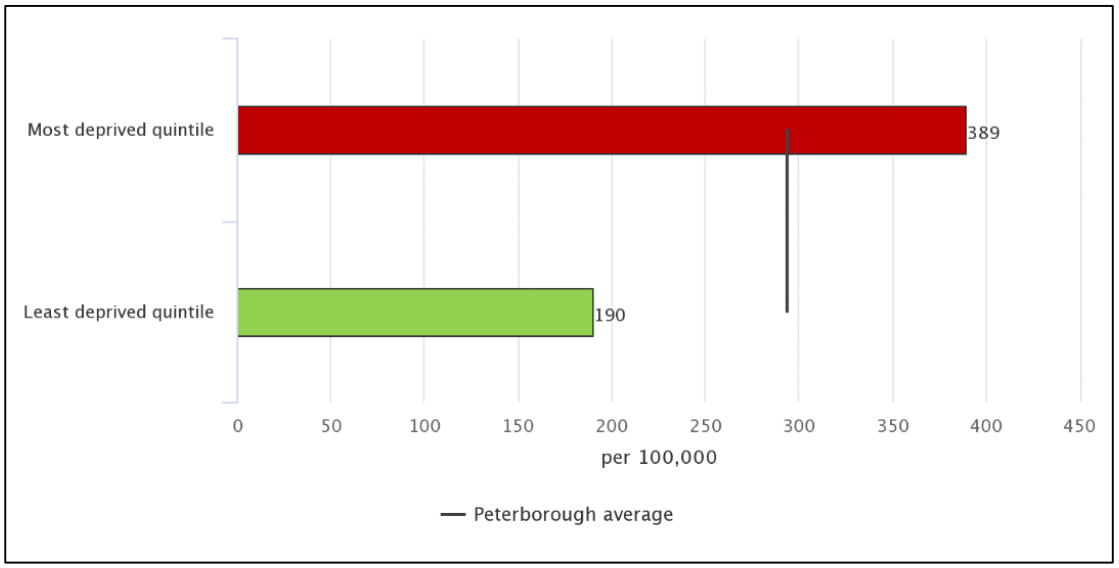
Figure 51: Mortality rate from causes considered preventable – England, 2013 – 15 – Data partitioned by County and UA deprivation deciles in England (IMD2015)



Source: Public Health Profiles, Public Health England

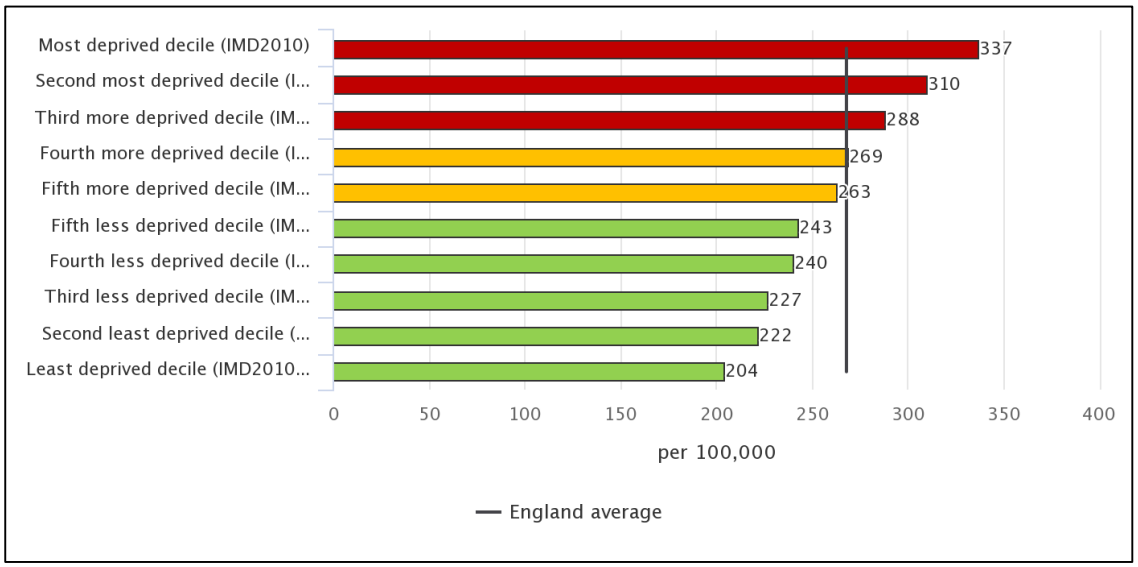
Premature mortality related to inequalities is known for both England and Peterborough. Below there are charts to show the most deprived and least deprived quintiles in Peterborough for females followed by the deprivation deciles in England.

Figure 52: Premature mortality from all causes (Female) – Peterborough, 2012 – 14 – Data partitioned by LSOA11 Deprivation quantiles within area (IMD2010)



Source: Public Health Profiles, Public Health England

Figure 53: Premature mortality from all causes (Female) – England 2012 – 14 – Data partitioned by District and UA Deprivation Deciles in England (IMD2010)



Source: Public Health Profiles, Public Health England

Strikingly the least deprived areas in Peterborough have a better premature mortality rate compared to the most deprived that have a worse mortality rate than England's average. This implies a wider inequality gap in Peterborough than England in terms of premature mortality. Peterborough exhibits a similar trend in statistics when males are considered.

Looking at the differences within Peterborough by electoral ward there is an 11.1 year difference between the ward with the highest female life expectancy and that with the lowest: 78.4 years in Orton Longueville compared to 89.5 years in Werrington North. The wards with greater proportions of BME groups generally have higher rates of mortality.

The hospital standardised admission rate (SAR) highlights the differences between the number of hospital admissions that occurred within a population and the number that would have been statistically expected within the population, adjusted for variance in age and sex of the population. High standardised admission ratios for all-causes and for CHD in particular are associated closely with the electoral wards in Peterborough which also have high levels of income deprivation.

Furthermore, the three most deprived GP practices in Peterborough have statistically significantly higher rates of accident and emergency attendances by the over 65s in the period 2016-17 than other practices in the Peterborough area over all three years. In the practices with the lowest IMD scores, three practices have statistically significantly lower rates than the Peterborough area average over the three years. Reasons for this could include poorer health in these populations or inappropriate accessing of healthcare.

4. Ethnicity

There is a higher prevalence of some diseases in ethnic minority groups in England including:

- The prevalence of diabetes is greater than twice that of the general population in people who are black Caribbean, Indian and Pakistani.
- The incidence of stroke is higher in black ethnic groups.
- There are increasing indications that the prevalence of dementia in Black African, Caribbean and South Asian UK populations is greater than in the white UK population. Additionally the age of onset is lower for Black African-Caribbean groups than the white UK population.

A group that is not highlighted in the previous data is gypsies and travellers. In 2011, 14.1% of Gypsies and Irish Travellers in England and Wales rated their health as bad or very bad, compared with 5.9% of White British and 9.2% of White Irish people.[269]

While the variability in general health among different ethnic groups can sometimes be explained by an older age profile, this is not the case for Gypsies and Irish Travellers, of whom only 6% were aged 65 and above in 2011 and who had a low median age of 26.[270] These groups are known to have a high prevalence of diabetes, cardiovascular disease, premature myocardial infarction, obesity, asthma and mental health issues such as stress, anxiety and depression.[271]

The way different BME groups access healthcare is different. Although there is no local data, literature suggests that the uptake rates for cancer screening nationally is lower in some ethnic groups including South Asian in which it is 50% less.

Unfortunately there is little data available on the use of the services for primary prevention but focus groups of ethnic minorities in Peterborough report knowing few services available for them to access eg no exercise groups.

[269] Office for National Statistics (2013) Ethnic Variations in General Health and Unpaid Care Provision, 2011.
[270] Office for National Statistics (2014) What does the 2011 Census tell us about the Characteristics of Gypsy or Irish Travellers in England and Wales?
[271] https://www.equalityhumanrights.com/sites/default/files/ief_chapter_9.pdf

8.6 EVIDENCE: WHAT ARE THE ENABLERS AND BARRIERS TO PRIMARY PREVENTION?

The National Institute for Health and Care Excellence (NICE) publication 'Improving Access to Health and Social Care Services for People Who Do Not Routinely Use Them'[272] states that key barriers to the access of services fall in to two broad categories:

- Structural and service characteristics, such as the structure, organisation and delivery of services and elements of delivery such as location and opening times.
- Population characteristics, including country of origin and cultural/attitudinal and lifestyle characteristics.

Looking more closely at the population stratified in to age, sex, deprivation and ethnicity can show differences in enablers and barriers.

1. Age

Some enablers come with age like the time available for an activity however there are many barriers that can apply to any person when accessing services can increase with age. These include safety fears, disability and chronic disease, lack of suitable transport, lack of ease of access to green spaces, fixed perceptions and expectations of ill-health.[273]

A literature synthesis looking into encouraging physical activity in older people[274] considered personal characteristics, societal influences and environmental factors as barriers and enablers to physical activity.

The personal characteristics that formed barriers included perceptions concerning personality types for example laziness and beliefs about the unavoidable nature of ageing.

Social influences can provide enablers for individuals such as encouragement or support from family, peers, or health professionals. Similarly, environmental factors can provide enablers for physical activity: safe environments, free from crime and traffic, can have a positive influence upon neighbourhood physical activity.

Another large barrier at both an individual and population level is ageism. This is discussed in a report on the barriers and enablers to positive ageing and older people.[275]

Barnes et al[276] used data from the English Longitudinal Study of Ageing (ELSA) to explore access to services throughout life. They found that the older population are subject to multiple exclusions from society. At the local level, a co-ordinated policy involving all the relevant agencies can help link the support that older people need to reduce exclusion and improve their quality of life.

[272] https://www.nice.org.uk/advice/lgb14/chapter/introduction
[273] http://www.wiley.com/legacy/Australia/PageProofs/c10PhysicalActivityAndSedentaryBehaviour_web.pdf
[274] http://www.move.org.au/VAAP/Literature-synthesis-July-2016.aspx
[275] ttps://ore.exeter.ac.uk/repository/bitstream/handle/10871/18103/AbramsSwiftLamontDrury%282015%29-Foresight%20report.pdf?sequence=1&isAllowed=y
[276] Barnes, M. et al (2006) The social exclusion of older people: evidence from the first wave of the English Longitudinal Study of Ageing (ELSA) - final report. London, HSMO

2. Sex

Older women may face ageism together with sexism.[276] Negative outcomes for older women are often reported in connection with the workplace, education, health care, media representation, pension provision, sexuality and physical appearance. These attitudes present large barriers for women in many aspects of life including healthy ageing.

Additionally, time constraints can be large issue for women:[277] women more often have burdens of work and home, which can involve caring for children, older relatives and husbands.

With regards to alcohol, a review in to gender differences when seeking help concluded that while women with alcohol use disorders are more likely to seek help, they are less likely to be identified by their physicians.[278]

When considering service provision for example activity groups, the membership of the group is important to encourage participants to continue engaging: groups of the same gender, age and level of activity.[274]

3. Deprivation/inequality

There is an ongoing debate around whether poverty itself or inequality is the larger problem.[279] This is a complex issue and both appear to impact on the health of individuals in a population.

Low economic status is known to present large barriers to accessing healthcare. One systematic review considered the barriers and facilitators to healthy behaviours in mid-life[280] which have impacts on later life. It found several barriers associated with low economic status. Media campaigns to promote smoking cessation are often less effective in low SES groups. It also found that men on low incomes, low economic status, and unemployed or less well educated were less likely than others to attend health check-ups.

Another review[281] found that the barriers to people with low incomes receiving high quality health care that is responsive to their social circumstances included lack of transportation and difficulty making and keeping appointments.

4. Ethnicity

A review of the barriers to engaging Black and Minority Ethnic groups in physical activity in the UK[282] found 20 barriers which could be clustered in to three broad themes shown in the table below.

277 http://www.tandfonline.com/doi/full/10.1080/17430437.2014.919261

278 Brienza RS, Stein MD (2002) Alcohol use disorders in primary care: do gender-specific differences exist? J Gen Intern Medicine 17: 387–397

279 http://content.healthaffairs.org/content/21/2/31.full

280 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4731386/

281 https://bmcfampract.biomedcentral.com/articles/10.1186/1471-2296-12-62

282 Koshoedo, SA; Simkhada, P; van Teijlingen, ER. Review of Barriers to Engaging Black and Minority Ethnic Groups in Physical activity in the United Kingdom. Global Journal of Health Science 2009: 1(2)

Personal and cultural	Socio-economic and cultural	Environmental
Age	Lack of women only sessions	Weather conditions
Lack of motivation, low priority	No accomplice, partner or group exercise	Lack of knowledge
Safety and fear eg avoidance of crime/sexual abuse	Family obligation eg no childcare support	No referral by GP
Health concerns eg fear of injury	Lack of women only sessions	Uncertainty on source of information
	Cultural sensitive facilities eg videos, music	Commitment to work eg unusual working hours
	Religion	Lack of time
	Negative perception as lay concept of exercise	
	Dress code	
	Language barrier	

The Irish Traveller Movement in Britain provided numerous examples of bias, racism and stereotyping in the media in relation to the reporting of Gypsy, Roma and Traveller (GRT) issues which was hindering integration of these communities.[283]

Poor familiarity with healthcare provisions and language barriers may make it difficult for GRT and other minority ethnic communities to access health services.[284] [285]

Barriers caused by language and cultural differences are considered a primary factor in the observed inequality regarding access to healthcare for some non-UK born populations in comparison to the wider population and resultant issues are likely to be exacerbated by any physical and/or mental health issues suffered by individuals. The East of England Regional Assembly Migrant Health Scoping Report[286] notes that many migrants fail to register with General Practices as a result of

[283] Irish Traveller movement in Britain (2012) Submission from the Irish Traveller Movement in Britain for the Police and press relationship phase of the Leveson Inquiry.

[284] Lane, P., Spencer, S. and Jones, A. (2014) Gypsy, Traveller and Roma: Experts by experience. Reviewing UK Progress on the European Union Framework for National Roma Integration Strategies. Joseph Rowntree Foundation.

[285] European Commission [EC] (2014) Roma Health Report. Health status of the Roma population. Data collection in the Member States of the European Union.

[286] http://www.eelga.gov.uk/documents/publications/smp_migrant_health_issues_scoping_report_updated_jan_2010.pdf

misunderstandings about how health services work and because of barriers faced when trying to do so, such as difficulty communicating without translation/interpreting.

Studies have also revealed that migrants who received accessible information were more likely to have registered with a GP.[287] In addition, migrant groups with the highest health needs are often the ones with the lowest proportion registered with primary care.[288]

There is some evidence regarding specific risk factors. For example, the increased risk of obesity-related disease in some ethnic groups is acknowledged in NICE guidance[289] which recommend reducing the definition of obesity and the threshold for obesity services for people with a black, black Caribbean or south Asian ethnicity from BMI of 30 to 27.5. This would have an impact on weight management services in areas of Peterborough with higher proportions of people from these ethnic backgrounds. It will be important to ensure access to relevant and appropriate services for people from Asian and black ethnicities in general practices with higher proportions of people from these backgrounds.

There are many examples of good practice to enable ethnic groups to access healthcare.

1. Good practice: primary care

There are some examples of good practice to encourage GP engagement with non-UK born residents:

- GP services having weekly drop-in sessions with interpreters available was found to be cost saving and effective. Improved access to community-based GPs and delivery of more appropriate care may lessen the impact on acute services.[290]
- Marginalised and vulnerable adults service – Ipswich – provides initial GP appointments of double the standard length.

2. Good practice: Peterborough Health check pilot

A local pilot in Peterborough targeted the low uptake of NHS health checks in people from minority ethnic communities. These checks were introduced to identify early signs of stroke, kidney disease, heart disease, Type-2 diabetes and dementia. Three surgeries were chosen due to their high proportions of ethnic minorities. The study identified the barriers to increasing the number of health checks. The first were issues with staffing and capacity. The second concerned engaging people who had not responded to previous requests (an annual invitation to book an appointment). The factors that were deemed to play in to this were:

- Language barriers
- Not having the awareness of the importance of health checks

[287] Humphries, L. (2015) Migrant Workers Accessing Healthcare in Norfolk, Healthwatch Norfolk (2)

[288] Stagg, H. et al (2012) Poor uptake of primary healthcare registration among recent entrants to the UK: a retrospective cohort study, BMJ Open 2012, 2: e001453, doi: 10.1136/bmjopen-2012-001453

[289] Obesity in children, young people and adults, 201420 & NICE guideline PH46, 201321

[290] Hargreaves, S. et al (2006) Impact on and use of health services by international migrants: questionnaire survey of inner city London A&E attenders.

The experience of time and priorities being different across different cultures. To tackle these issues, appointments would be made and followed up in a short period of time eg appointments made on a Monday for a Thursday. A follow-up telephone call made by an interpreter to remind the person of the appointment increased the importance of the appointment.

This pilot was very successful and increased the uptake of health checks considerably to 191 health checks for people of Indian, Pakistani, African or Caribbean, Bangladeshi, other Asian background or Eastern European which would likely not have happened otherwise. Unfortunately the baseline number of health checks was not recorded but staff reported that this was a vastly increased uptake. This resulted in 32 referrals to weight management programmes, 33 referrals to smoking cessation services, four people being started treatment for hypertension and six for diabetes.

8.7 LOCAL DISCUSSION: WHAT ARE THE ENABLERS AND BARRIERS TO PRIMARY PREVENTION IN PETERBOROUGH?

Given the diversity of the population of Peterborough, enablers and barriers to primary prevention of long term conditions must be carefully considered. Local views were sought in order to inform further action. This included hosting a stakeholder event in March 2017 which included older people's representatives, service providers and policy makers. Discussion at the event highlighted the enablers and barriers in the following table:

Barriers	Enablers/Local assets
Resistance to chance – 'Peterborough works the way they work!'	Some engagement
New communities	Efforts to integrate
Unhelpful language "Asian communities" and associated assumptions	It is flat – can get out and walk small distances
Negative perceptions of ageing - eg 'physical activity is not for older people'	Can get to the countryside easily
Apathy on behalf of providers and service users – expectation that people won't engage	City centre is small
Urban layout – encourages driving	Active voluntary sector & diverse range of activities eg Muslim women's deaf groups, walking groups
Poor public transport	Desire for growth
Poor work-life balance	Leisure Trust – Independent

Available services not appropriate or accessible to diverse ethnic communities	Strong disability awareness and services available
Isolation and lack of integration -Scattered communities	Some local examples of outreach eg smoking cessation in local community centres
Smoking and drinking as a way of coping, socialising	Luncheon clubs as a platform for activities to encourage healthy ageing
Fear eg of public perceptions, not being able to, fear of falling	Community connectors and health trainers
Low incomes – cannot afford transport or gym membership	Independent leisure trust
Disabilities and chronic disease	

Lessons from this stakeholder event and various focus groups (for full information, please see appendices), began to address the barriers to primary prevention.

Framing of message

A suggested solution to this problem is wider use of 'frailty' rather than a reliance on age. Certain communities consider ageing a social construct. It may be linked to milestones eg becoming elderly occurs when becoming a grandparent (regardless of whether this happens at 45 or 70). With this may come an expectation of illness and the idea that illnesses like diabetes are a normal part of ageing. It is important to challenge these fixed perceptions and encourage healthy ageing.

Moreover, certain health beliefs may be attached to illnesses. Some may adopt a patient persona therefore for example consider themselves unable to do exercise because they are ill with a long term condition. In this way illness can become a binary issue of either ill or well. If these personal barriers are to be challenged it must be done in a sensitive way.

Training

Tackling the issues surrounding this begins with an awareness of how to define groups of people, for example, the term 'Asian Community' can be a large barrier. It naively groups people of different religions, from various countries and people that have moved to the UK at different times. Second generation people who have grown up and worked in the country in general will have a different approach to healthy living than an elderly person who moved to the country with their family and have had little integration into the wider UK society.

Negative expectations and prejudices of professionals can include:

- Expectations that people will engage if given the information. Once the factors that have previously been discussed here are considered, this can be seen to be a rather simplistic view.
- Considering people above a certain age unable to do exercise classes.
- Admitting all people over the age of 65 to a healthcare of the elderly ward in hospital.

Training in cultural competence can alleviate these issues.

Outreach and tailoring of services

The importance of consideration of culture and ethnicity in the context of the socioeconomic situation is highlighted by the following examples: Pakistani women are traditionally the central hub of the family and are incredibly busy so have very little time to think about their health. The food a woman cooks reflects the woman's worth and curries as the traditional food tend to have a high fat content. It is, therefore, important to give people different options for food. Coming from a country where food may be scare leads to the thought 'it is here so I should eat it'. Moreover, beauty is seen in a different light than in Western society, for example if a person is slim some may ask: what is wrong? Awareness and understanding of these complex factors can allow barriers to be broken down.

In the immigrant population, as with the elderly population in general, isolation can be a problem. People who live in isolated communities live, work, shop and socialise within a certain area that is comfortable for them. Accessing services away from this comfort zone can be alien and frightening therefore offering services in close proximity to where they are geographically and personally can increase uptake.

Furthermore, in the elderly, services may be more suitable for a white British service users which compounds inequalities for example 'Singing for the Brain' which are groups for people with Dementia and they often sing old British war songs.

It has be shown that subtle changes these can allow people to engage more easily. Health checks, for example, can be done tailored to the needs of a community:

- Mobile health checks vehicles are being taken to mosques in London removing a variety of issues including transportation and time constraints.
- Adapting the way in which people are invited to appointments was piloted in Peterborough. Cultural differences in how time is viewed mean that a generic 'please make an appointment' invitation letter is much less effective than an allotted appointment time.

Another example of how knowledge can enable access to services: Physical activity classes must take into account the diverse population who may struggle to attend in 'normal' hours, eg Muslim women may not be able to attend women's only swimming from 8 pm until 9 pm. Therefore these services must be flexible and tailored to the community.

Services may be accessed indirectly through family members or carers. It is therefore important to make use of family and community networks.

Coordination and collaboration between services

Lack of coordination between services after years of re-organisation and change provides a large barrier to accessing services. This is compounded by the fact that services often change names.

Signposting

Signposting was seen as vital. The example of giving hairdressers and barbers information to help was offered. Care coordinators are enablers of primary prevention. Examples include admiral nurses in dementia care and care service navigators for motor neurone disease.

A further step suggested was use of a single 'package' for services as service users may be discouraged by bureaucracy or having to deal with multiple different services. Multiple services also lead to logistical issues with information sharing.

Use local leaders and stakeholders

One enabler for this change lies in Peterborough's strong communities and their leaders: religious groups form places where groups regularly meet for example with luncheon clubs providing a target audience for health promotion.

Language can present an impenetrable barrier. Religious groups can help with language barriers in addition to Community connectors and health trainers. These existing links to hard-to-reach communities that should be utilised. Information about health should be carried in different languages on apps, on work phones and ipads etc, however this "positive social change can have a negative effect on older people, eg digital by default and reliance on digital media" and the importance of providing different ways to access information was highlighted.

Opportunistic engagement

Opportunistic engagement can work well, for example, eastern European immigrants (Polish, Latvian, Lithuanian) have Saturday school for their children to teach traditional values. Mothers waiting for their children can provide an opportunity for engagement.

9. SUMMARY OF KEY ACTIONS/OPPORTUNITIES FOR THE FUTURE

The approach to prevention and healthy ageing within this JSNA is in alignment with emerging approaches which take into account the specific needs of older people and opportunities across the lifecourse. This approach is in keeping and responds to demographic change and current pressures on health and social care resources. The JSNA focusses on older people and highlights the specific opportunities that exist in Peterborough particularly around a growing mid-life population (during which many preventative interventions are known to have the greatest impact on later life). The JSNA also presents a description of those at higher risk of poor health in later life and, in response, potential interventions and health promoting approaches that can be adapted and targeted to meet the needs of the most vulnerable groups locally.

Overarching opportunities for action include:

- Co-production of succinct, easily understood and consistent key messages appropriately responsive to key groups.
- Development of tailored and targeted preventative interventions for groups who may be at increased risk of poorer health outcomes and experience greater barriers to access and adoption of preventative approaches.
- Commissioning of robust and targeted research and evaluation to better understand local levels access, engagement and adoption of primary preventative approaches, needs and barriers of local older populations and monitoring of what works.
- Maintain active involvement with older people and ensure co-design of approaches to ensure effectiveness and retain person-centred focus.
- Promotion of intergenerational approaches – what's often good for older people is good for all – enhancing intergenerational relationships and cohesion across communities.
- Promotion of sustainable approaches to ensure continuity and effective impact.
- Commitment, leadership and advocacy of an "Ageing Well" approach, embedded across sectors and agencies to champion and drive strategy and action on health across the lifecourse at the highest level.

This JSNA focussed on the most powerful determinants of health in later life and local partners from across sectors, utilising this work as a foundation, together produced a summary of key actions and practical steps to take going forward to preserve health in later life for each determinant. Each focus area took relevant enablers and barriers into account. Proposed actions and opportunities are presented below.

Physical Activity

- Commission robust and targeted research and evaluation to better understanding the levels of physical activity, needs and barriers of our local older population and monitoring of what works e.g. drop out rates, self-referral from GPs, community based health and wellbeing hubs
- Include health promotion messaging specifically reaches carers – not only to promote physical activity to those they are caring for but also to engage themselves
- Work creatively to co-produce and disseminate targeted and market-segmented messages promoting physical activity and access to services

- Ensure sustainability of services and messages
- Utilise existing assets e.g. Health Checks and Community Serve assets as an opportunity to better target 50+ population and pass on knowledge about available services and general lifestyle
- Generate and disseminate messages on physical activity at schools (relevant for younger people and across the life course).

Diet and Malnutrition

- Gain understanding of key/target risk groups and how best to identify and stratify risk and target those in need
- Review and develop appropriate community pathways
- Develop Community Outreach – including peer learning and education links, utilising creative channels e.g. supermarket links
- Consider promoting messaging regarding diet and available support through winter warmth packs
- Explore hospital and community meals outsourcing, including monitoring of outcomes
- Include metrics addressing diet and malnutrition in older people within an outcomes framework: what does good look like, clear targets, evaluation and what works
- Consider expansion of Cambridgeshire Safe & Well visits to include focus on malnutrition.

Smoking and alcohol

- Commission local research to better understand efficacy of targeted messages and then target to appropriate key groups
- Give parity to mental health – as mandated by national NHS guidance but also due to higher prevalence of tobacco and alcohol use in people with mental illness
- Co-produce messages that are succinct, easily understood and consistent – 'one version of the truth' that responds to key groups appropriately
- Consider delivery of face-to-face messages to specific community groups and at places of work where appropriate
- Explore options of promote alternative ways of social engagement that do not involve alcohol
- Explore relevant social prescribing best practice evidence.

Environments

- Accept that Peterborough is a car dependent city and that interventions need to be framed taking this into account
- Focus in developing solutions for rural transport links with local partners to avoid social isolation in these areas
- Advocate and drive promotion of dementia-friendly environments
- Utilise opportunities through housing sectors to understand safety and appropriateness of homes for older people eg house condition survey – circa £30 million to address category 1 hazards
- Commission greater levels of research to understand needs, particularly in rural areas and utilise local opportunities.

Preventing ill health in later life and promoting healthy ageing is a complex consideration that cannot be addressed by a narrow view of health in older age as a state defined by the absence of disease. Health needs to be considered as a fundamental and holistic attribute that enables older people to achieve the things that are important to them. Ageing is a dynamic process - where subtle shifts in capacity or environment can have significant long-term consequences. To strengthen an older person's ability to navigate and adapt to these dynamics and the losses they are likely to experience, local sectors and partners are well placed to support and foster resilience at a number of levels.

Fundamentally, ageing well is relevant to everybody and the elements required to achieve good health in life are relevant across the lifecourse. Many sectors and partners have joint roles to play in achieving healthy ageing for local communities, for which a commitment to building an age-friendly culture and communities is essential. A system-wide healthy ageing approach requires a transformation of health and care systems away from disease-based curative models and towards the provision of preventative and holistic integrated care that is centred on the needs of local older people.

10. APPENDICES

APPENDIX 1

Accident and Emergency Attendances for patients aged 65+ registered with a Practice in Peterborough LCG by Practice, Directly Age Standardised rate per 100,000

		Number			Age Standardised rate per 100,000		
GP Code	**IMD**	**2014/15**	**2015/16**	**2016/17***	**2014/15**	**2015/16**	**2016/17***
D81624	39.81	168	204	138	51,852	64,968	44,805
D81073	38.20	206	193	206	38,941	34,964	36,268
D81631	38.13	274	273	273	46,758	47,150	47,979
D81065	36.79	135	153	155	44,118	51,689	49,051
D81625	36.07	290	322	309	33,030	33,094	29,513
D81053	35.80	520	601	535	32,663	37,237	32,229
D81063	35.48	422	454	433	36,161	37,960	36,204
D81020	31.71	538	602	483	33,625	35,000	26,938
D81629	31.49	269	294	264	39,852	42,424	37,288
D81605	30.46	148	149	142	33,110	33,864	33,412
D81007	30.26	537	513	510	39,140	36,853	35,590
D81026	30.01	1850	2072	1810	35,488	40,054	35,125
D81019	29.55	277	280	261	34,843	34,146	31,752
D81024	29.25	496	523	455	37,462	39,711	33,854
D81620	28.99	36	53	36	28,346	37,589	21,951
D81023	28.89	478	567	520	29,894	34,322	30,145
D81645	25.47	131	125	118	39,222	37,538	36,646
D81029	24.43	765	719	684	35,648	33,256	31,247
D81615	21.26	177	218	167	25,802	28,874	20,541
D81022	20.60	475	502	456	30,488	31,632	28,411
Y00486	20.20	216	171	153	39,488	31,492	27,667
D81046	19.67	987	1041	1006	32,446	32,329	30,329

D81039	18.64	575	520	510	30,881	27,778	26,956
D81616	15.77	166	156	159	33,068	28,889	26,238
D81630	14.95	229	273	296	52,523	57,474	57,476
D81618	13.50	125	132	137	30,562	30,000	29,718
K83017	13.09	387	410	398	25,065	25,000	23,357
D81031	11.95	714	629	630	28,989	24,911	24,027
K83023	9.78	628	582	549	26,387	23,736	21,631
PETERBOROUGH AREA LCG	-	12,219	12,735	**11,793**	34,027	34,027	34,027
CCG	-	46,817	48,320	44,715	32,200	32,200	32,200

APPENDIX 2 - **Barriers**

Conversations with the community

When describing healthy ageing there was an emphasis on physical health. Many of the Pakistani older men's group described going for walks to get exercise. Similarly the president of the Hindu temple

They said that weight loss was important.

"People need opportunities for exercise that are free or more accessible. The climate here is a problem because it forces you to stay at home more. It's boring, there is a lack of socialising between people compared to Pakistan where there is a 'tea' culture (people just meet up to drink tea). Groups like (Pakistani older men's group) this are good but we need to make them more sustainable."

Health beliefs

They spoke of medicalisation. Many will go to the GP for example to recheck their blood pressure but the GP will say to continue taking medications and that there is no need to have it rechecked.

One gentleman spoke of getting headaches before his diagnosis of hypertension and he drank milk as a remedy for this.

Preventative medicine

Preventative medicine happens from family and the community. For example one gentleman described that when he had been diagnosed with hypertension the GP did not give advice – only medications – and he found out dietary modifications from the community.

Services in the community

They were aware of very few in the community, particularly they felt none were available for older people. Gyms were mentioned but quickly dismissed due to cost.

Daily morning walk at the Hindu temple – set up by one of the committee members – provides an opportunity to both socialise and exercise.

Barriers and enablers

There was a belief that people in the community are not consciously aware of the need to live a healthy lifestyle.

Luncheon clubs provide a time that members of the community come together and these have been used to provide talks about healthy age and there are plans for a health trainer to come and do some chair exercises prior to the food.

Culture was a barrier to any change to diet or exercise and how irrelevant local services were. He used the example of how ridiculous it was to even suggest that a Muslim woman could use a communal pool in Peterborough!

The problem with the Hindu community (compared to the Muslim one) is that it is spread out in Peterborough making it more difficult to have community events. It was noted though that free bus passes for the elderly did alleviate this problem somewhat.

Opportunities – simple things like any leaflets we have can be translated at the Hindu temple.

Spoke of a concession facility being required.

The Hindu temple received a lottery grant which put in place a project officer for the elderly. This meant that the community gained more of an awareness of healthy living through presentations on for example weight management and a professional would monitor blood pressure, glucose levels…

Initially there was some caution engaging with the project in the community. However once trust had been built up.

Sometimes pilot schemes can lead to more sustainable working for example a Pakistani Older Men's luncheon group was given a discrete amount of funding. When the funding came to an end the group continued with each of the men agreeing to pay £3 for food.

Often location is quoted as a barrier to ethnic groups accessing services. However the barrier is more of a subtle one. To give an example to make this point, in Peterborough there is a dementia resource centre across the road from a Hindu temple, yet the feeling from the community was that they would not go to the resource centre. Factors playing in to this could include the feeling that the resource centre is a 'white person's place', a wariness of new places, particularly those dominated by 'white people' and the fact that dementia is seen as a curse or embarrassment.

The dementia resource centre was taking small steps which could have a large impact on breaking down these barriers. Their plan was to initially hold groups at the temple so that trust could be built up and then invite people for a coffee morning so that they could see the resource centre without the added pressure of a group to go to.

Asian culture

In Asian culture the tradition is to 'look after your own'. However this creates problems with isolation. The culture is born from a traditional Asian lifestyle were extended family would life in close proximity and children would look after their parents as they got more elderly.

Transposing this culture on to a life in the UK leads to growing isolation in the elderly as families live in discrete houses, are less likely to go outside because of the weather and experience language barriers which make them less likely to interact. Additionally the pressures of a westernised life mean that the children have much less time to look after their parents.

Furthermore, employment in the country they originated from was very likely to involve physical work so therefore it was not necessary to think of exercise. More unhealthy lifestyles are thought to be due to a combination of climate, geographic and physical factors.

APPENDIX 3 – Feedback from the Dissemination Event

Diet & Malnutrition

Key Issues Captured:

- Identification of malnutrition often via home visits for alternative purposes, eg carers, Fire Service safe and well visits, rather than specifically for malnutrition.
- Reasons for malnutrition issues: dementia, mental health, education, physical issues, loss of interest in maintaining health/addressing root causes of health issues
- Screening tool for malnutrition – can it be extended to not just health professionals?
- What groups are most at risk? – Dementia sufferers, people living alone, people living with mental health issues, alcoholics, those with mobility problems
- Cost of dietary requirements can be considered excessive in some cases?
- Food banks can be a source of 'shame' and don't always cover dietary requirements
- Lack of understanding of some conditions that can lead to malnutrition eg Lactose intolerance
- Accessibility of shops
- Expand Cambridgeshire Safe & Well visits to Peterborough

Recommendations:

- Stratification and identification of key/target risk groups.
- Universal screening tool
- Appropriate community pathways to be implemented/reviewed
- Community Outreach – including peer learning and education links. Supermarket links where appropriate
- Winter warm packs
- Hospital and community meals outsourcing, including monitoring of outcomes
- Inclusion within an outcomes framework: what does good look like, clear targets, evaluation and what works, PlanDoStudyAct approach to developing working models

Alcohol & Tobacco

Key Issues Captured:

- Current health checks don't appear to be hitting target groups in respect of driving behaviour change - more data on which groups we should target - given changing demographics.
- Mental Health not adequately considered - either in relation to tackling smoking and alcohol or impact on mental health.
- Air pollution not poor despite the car usage - so not necessarily a factor for poorer outcomes but worth considering.
- Face to face messages work best with older people - targeted appropriately to their demographic - via PCVS experience.

- Alcohol is associated strongly with social contact and socialising with white British older population how can we find alternatives – eg weight watchers / slimmer's world?

Recommendations:

- Research efficacy of targeted messages and then target to appropriate key groups (based on ethnicity, age, gender etc)
- Give parity to mental health – as mandated by national NHS guidance but also due to higher prevalence of tobacco and alcohol use in people with mental illness
- Keep messages short, easily understood and consistent – 'one version of the truth'
- Deliver face to face messages to community groups and at places of work
- Promote alternative ways of socialising that do not involve alcohol
- Utilise established social prescribing best practice evidence

Built Environment

Key Issues Captured/Recommendations (captured as one by this group?)

- Accept that Peterborough is a car dependent city and frame interventions with this in mind
- Poor rural transport links lead to social isolation
- Promote dementia-friendly environments
- House condition survey – circa £30 million to address category 1 hazards
- Peterborough is a 'new town' with much housing built in 1970s and 1980s so all housing is ageing at once.
- Commission greater levels of research in to need, particularly in rural areas

Physical Activity

Key Issues Captured:

- Better local data required eg exercise rates by age, gender. National surveys not sufficient as need to know electoral ward differences as well
- Do we have enough capacity to meet demand if demand were to be increased by intervention?
- How do we ensure carers can get sufficient physical activity
- Long Term Conditions to be captured by a separate JSNA?
- Lack of clarity over whether messages actually reach intended audiences

Recommendations:

- Commission research in to better understanding of our local population
- Target carers – around 17,000 but estimated to huge unpaid workforce
- Market-segmented messages
- Improve sustainability via monitoring of what works eg drop-out rates, self-referral from GPs,

- Community based health and wellbeing hubs.
- Use Health Checks as an opportunity to pass on knowledge about available services and general lifestyle
- Schools – messages applicable to both children and older people can be disseminated via schools
- Utilise Community Serve assets to better target 50+ population.