1 Background
Maintaining a healthy weight is key to health and quality of life. The increase in obesity is one of the most important public health threats facing the people of Portsmouth. NHS Choices point out that obesity can lead to serious and potentially life-shortening conditions such as type 2 diabetes, coronary heart disease, some types of cancer and stroke.1

The costs of diet related chronic diseases to the NHS and more broadly to society are considerable. Poor diet is estimated to account for about one third of all deaths from cancer and CVD.2

Physical inactivity is the 4th leading risk factor for global mortality accounting for 6% of deaths globally. People who have a physically active lifestyle have a 20-35% lower risk of cardiovascular disease, coronary heart disease and stroke compared to those who have a sedentary lifestyle. Regular physical activity is also associated with a reduced risk of diabetes, obesity, osteoporosis and colon/breast cancer and with improved mental health. In older adults physical activity is associated with increased functional capacities. The estimated direct cost of physical inactivity to the NHS across the UK is over £0.9 billion per year.3

2 Portsmouth
a) Children and young people
i) BMI
In 2016/17, 24.1% of Year R pupils (aged 4-5 years) and 36.3% of Year 6 pupils (aged 10-11 years) attending a state school in Portsmouth were overweight, including obese (“excess weight”). The percentage overweight, including obese for Year R pupils attending Portsmouth schools is higher than England and Southampton; and significantly higher than the South East region. The percentage overweight, including obese for Year 6 pupils attending Portsmouth schools is higher than England and Southampton; and significantly higher than the South East region.5

In 2016/17, 10.7% of Year R pupils (aged 4-5 years) and 21.6% of Year 6 pupils (aged 10-11 years) resident in Portsmouth were obese. The percentage of obese Year R pupils resident to Portsmouth is similar to England and Southampton; and significantly higher than the South East region. The percentage of obese Year 6 pupils resident to Portsmouth is similar to England and Southampton; and significantly higher than the South East region.6

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4 “Excess weight” is Public Health Outcome Framework terminology for adults
5 National Child Measurement Programme, Health & Social Care Information Centre.
6 NCMP profile, PHE. https://fingertips.phe.org.uk/profile/national-child-measurement-programme
From 2009/10 to 2016/17, the percentage of boys overweight, including obese have generally been higher (although not statistically significantly) than girls for both Year R and Year 6 pupils attending Portsmouth schools; the exceptions in 2014/15 for Year R and 2008/09 for Year 6. In the latest year (2016/17), 38.2% of boys were overweight, including obese - higher (although not statistically significantly) than girls (34.5%); and 24.9% of Year R boys were overweight, including obese - higher (although not statistically significantly) than Year R girls (23.3%).

Using three-year pooled data, in Portsmouth there have been higher proportions of both Year R and Year 6 pupils obese in more deprived quintiles and the gap has been growing between pupils from the most deprived and least deprived areas (Figure 2 and Figure 3). In 2014/15 to 2016/17, the difference was statistically significantly higher for Year 6, but not for Year R. The obesity rates are similar for boys and girls in Year R, but in Year 6 obesity rates are significantly higher for boys (23%) compared to girls (18%) - this is especially the case in the most deprived areas (26% for Year 6 boys compared to 21% for Year 6 girls) - see Figure 4. Also, of those obese, those in the severe obesity percentile, the rate is higher for Year 6 boys in Portsmouth (5%) compared to girls in Portsmouth (3%) - but again, this is especially the case in the most deprived areas (7% for Year 6 boys compared to 4% for Year 6 girls) - see Figure 5.

Similar trends can be seen for quintiles with higher percentages of children in low income families.7

Also, over the most recent five-year pooled period, Year R pupils are significantly more obese in Paulsgrove, Wymering, North Harbour and Somerstown MSOAs (compared to England) (see Figure 6). Over the same period, Year 6 pupils are significantly more obese in Wymering, Stamshaw, Buckland and City Centre MSOAs (compared to England) (Figure 7).

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Figure 2. Percentage of Reception Year pupils obese by most and least deprived IMD 2015 (pupil residence) England quintile, Pupils of Portsmouth residence attending Portsmouth UA schools, three-year pooled trend

Figure 3. Percentage of Year 6 pupils obese by most and least deprived IMD 2015 (pupil residence) England quintile, Pupils of Portsmouth residence attending Portsmouth UA schools, three-year pooled trend
Figure 4. Percentage of Year 6 pupils overweight and obese (including severely obese) by IMD 2015 (pupil residence) England quintile, Pupils of Portsmouth residence attending Portsmouth UA schools, three-year pooled trend.

Figure 5. Percentage of Year 6 pupils severely obese by IMD 2015 (pupil residence) England quintile, Pupils of Portsmouth residence attending Portsmouth UA schools, three-year pooled trend.
Figure 6. Percentage of Reception year pupils obese as statistical significance compared to England by middle super output area. Pupils of Portsmouth residence attending Portsmouth UA schools, 2012/13 to 2016/17.
Figure 7. Percentage of Year 6 pupils obese as statistical significance compared to England by middle super output area. Pupils of Portsmouth residence attending Portsmouth UA schools, 2012/13 to 2016/17.

b) Adults
   i) Lifestyle

i(a) Healthy eating
In 2017/18, the Active Lives Survey found that 50.4% of Portsmouth adults meet the recommended '5-a-day' on a 'usual day' - significantly lower than in 2016/17. The 2017/18 proportion was also lower (but not significantly) than England (54.8%), the ONS 2011 Larger Towns and Cities comparator group (55.0%) and the South East region (57.1%).

In 2017/18, Portsmouth adults ate a significantly lower amount of fruit daily (2.26 fruit portions) compared to England (2.51 fruit portions) and the ONS 2011 Larger Towns and Cities comparator group (2.47 fruit portions) - also, the 2017/18 Portsmouth average was significantly lower than the previous year. However, Portsmouth adults ate similar amount of vegetables daily (2.60 vegetable portions) compared to England (2.65 vegetable portions) and the ONS 2011 Larger Towns and Cities comparator group (2.69 vegetable portions).

The Portsmouth Health and Lifestyle Survey of Adults 2015 found that only 33% met or exceeded the recommended daily minimum of five portions. Barriers to healthy eating were lack of time to prepare or cook food (24%), ‘lack of willpower’ (20%) and the cost of healthy food (19%). Residents in South Portsmouth are particularly likely to say their diet is healthy compared with North Portsmouth and Central Portsmouth (72% compared with 60% and 59% respectively).

i(b) Physical activity and inactivity
In 2017/18, Sport England's Active Lives Survey found 67.7% of Portsmouth adults (aged 19 years and over) were physically active, which is higher (but not significantly) than England (66.3%) and Portsmouth's ONS 2011 Larger Towns and Cities comparator group (69.4%). The same survey found 20.8% of Portsmouth adults (aged 19 years and over) were physically inactive, which is lower (but not significantly) than England (22.2%); but higher (but not significantly) than Portsmouth's ONS 2011 Larger Towns and Cities comparator group (20.0%).

For both physical active and inactive adults, there has been no significant change since comparable data has been available (since 2015/16).

The Portsmouth Health and Lifestyle Survey of Adults 2015 (H&LS 2015) found three in five (59%) Portsmouth adults (aged 16 years and over) meet the recommended weekly minimum of either 150 minutes of moderate activity or its equivalent in vigorous activity. The local survey found that the South locality had a significantly higher proportion meeting the recommended weekly minimum physical activity guideline, than the North and Central localities (and the Portsmouth average) - 66% in the South compared to 55% and 54% in North and Central.

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11 Defined as adults doing at least 150 “equivalent” minutes of at least moderate intensity physical activity per week in bouts of 10 minutes or more in the previous 28 days.
12 Defined as adults less than 30 “equivalent” minutes of at least moderate intensity physical activity per week in bouts of 10 minutes or more in the previous 28 days.
The local H&LS 2015 also found that 9% of respondents in Portsmouth are sedentary (i.e. do no moderate or vigorous activity). Council/social housing tenants are less active than residents of other types of housing tenures (19% are sedentary, compared with only seven per cent of housing owner-occupiers and 11% of privately-rented tenants). The survey also found that residents are also evenly divided on the amount of exercise they do - almost half (45%) perceive that they currently exercise enough already, while half (50%) accept they do not exercise enough. When it comes to appetite for doing more exercise, the majority (57%) would like to do more exercise than they currently undertake.15


ii) BMI

Estimated prevalence
In 2016/17, Sport England's Active Lives Survey found 26.4% of Portsmouth adults (aged 18 years and over) were obese, which is significantly worse than England (23.3%) and the South East (21.5%) and worse (but not significantly) than Southampton (24.7%).16 The same survey (2017/18) found 64.4% of Portsmouth adults (aged 18 years and over) were overweight or obese (Excess Weight)17, which is significantly worse than the South East (59.7%) and worse (but not significantly) than England (62.0%) and the ONS 2011 Larger Towns and Cities comparator group (60.5 %).18

The Portsmouth Health and Lifestyle Survey 2015 (H&LS 2015) of adults aged 16+ years, found 46% of residents were of healthy weight, 34% overweight and 19% obese. Higher percentages of overweight adults were found in North locality (44% compared to 32% in Central and 27% in South; higher percentages of obese adults were found in North and Central localities (22% in each) compared to South (15%). However, the percentages of overweight and obese increase upon adjusting the BMI in a similar method used for the above Active People Survey percentages - the H&LS 2015 adjusted proportion overweight is 40% and 27% obese. Using the adjusted method the North and Central localities had more similar percentages overweight (42% and 43% in North and Central; compared to 37% in South); the adjusted method also showed higher percentages of obese adults in North and Central localities (34% and 29% respectively) compared to South (21%).

Recorded prevalence
In 2017/18, the numbers of patients aged 18 and over on GP registers with obesity (BMI of at least 30) was 17,196 patients or 9.3% of registered patients - a lower prevalence than England (9.8%); similar to Hampshire & Isle of Wight STP (9.3%); and higher than Southampton (8.7%).

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17 “Excess weight” is Public Health Outcome Framework terminology for adults overweight or obese.

https://fingertips.phe.org.uk  Accessed 8 May 2019
This was an increase from 2016/17, where GP recorded prevalence of obesity was 8.3% of the registered population of Portsmouth aged 18+ years. In 2017/18, recorded prevalence of obesity at GP practices range from 14.0% at the Portsdown Group practice to 5.3% at the Trafalgar Medical Group practice (excluding the University Surgery). \[19\]

**National patterns and trends in adult obesity - March 2019**

Public Health England has published national patterns and trends on obesity nationally

https://khub.net/documents/31798783/32184747/Patterns+and+trends+in+adult+obesity+March+2019.pptx?version=1.2&t=1554375084829&download=true

**Maternal obesity**

Public Health England has published a briefing note on maternal obesity nationally eg UK prevalence, pregnancy outcomes, severe maternal obesity, inequalities, implications for healthcare services and more on guidelines and recommendations:

https://khub.net/c/document_library/get_file?uuid=a5768682-fb3d-4fda-ab4a-937a8d80f855&groupId=31798783

**3 Evidence**

In October 2014, Public Health England published *Everybody active, every day: a framework to embed physical activity into daily life*, an evidence-based approach for national and local action to address the physical inactivity epidemic:

www.gov.uk/government/publications/everybody-active-every-day-a-framework-to-embed-physical-activity-into-daily-life

NICE has published the following public health and clinical guidance relating to healthy weight:

- Four commonly used methods to increase physical activity (PH2)
- Physical activity and the environment (PH8) **REPLACED BY NG90**
- Physical activity and the environment (NG90) **NEW**
- Maternal and child nutrition (PH11)
- Promoting physical activity in the workplace (PH13)
- Promoting physical activity for children and young people (PH17)
- Weight management before, during and after pregnancy (PH27)
- Walking and cycling: local measures to promote walking and cycling as forms of travel or recreation (PH41)
- Obesity - working with local communities (PH42)
- Physical activity: brief advice for adults in primary care (PH44)
- BMI and waist circumference - black, Asian and minority ethnic groups (PH46)
- Nutrition support in adults: Oral nutrition support, enteral tube feeding and parenteral nutrition (CG32)
- Obesity (CG43)
- Overweight and obese children and young people - lifestyle weight management services (PH47)
- Overweight and obese adults - lifestyle weight management (PH53)

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Exercise referral schemes to promote physical activity (PH54)
Type 2 diabetes: prevention in people at high risk (PH38)
Community pharmacies: promoting health and wellbeing (NG102)
Non-alcoholic fatty liver disease (NAFLD): assessment and management (NG49)
Routine preoperative tests for elective surgery (NG45)

These can all be accessed at www.nice.org.uk/guidance.

NICE also provides pathway overviews for:

- Obesity (http://pathways.nice.org.uk/pathways/obesity)
- Diet (http://pathways.nice.org.uk/pathways/diet)
- Physical activity (http://pathways.nice.org.uk/pathways/physical-activity)
- Walking and cycling (http://pathways.nice.org.uk/pathways/walking-and-cycling)

Additionally, local government public health briefings are available for:

- Physical activity (www.nice.org.uk/advice/lgb3)
- Walking and cycling (www.nice.org.uk/advice/lgb8)
- Obesity (www.nice.org.uk/advice/lgb9)
- Body mass index thresholds for intervening to prevent ill health among black, Asian and other minority ethnic groups (www.nice.org.uk/advice/lgb13)

There are also evidence-based care pathways for obesity in children

NICE Evidence Search provides topic information on obesity (www.evidence.nhs.uk/topic/obesity), physical activity (www.evidence.nhs.uk/public-health/physical-activity) and healthy eating (www.evidence.nhs.uk/public-health/healthy-eating), including guidance, commissioning advice, implementation tools, information for the public, ongoing research, and evidence uncertainty.

The 'Obesity: prevention and lifestyle weight management in children and young people quality standard' has been published on the NICE website: http://www.nice.org.uk/guidance/qs94 and Public Health guidelines 'Maintaining a healthy weight and preventing excess weight gain among adults and children' are also available: http://www.nice.org.uk/guidance/ng7

In 2011, the Chief Medical Officer produced a report, UK physical activity guidelines https://www.gov.uk/government/publications/uk-physical-activity-guidelines presenting new physical activity guidelines and fact sheets, covering early years; children and young people; adults; and older adults.


In 2018, the government published a two part action plan to halve childhood obesity by 2030.
4 Action:
Agencies across the city have agreed a Healthy Weight Strategy 2014-2024. (for a copy, email: jsna@portsmouthcc.gov.uk)

The food system review 2015 identified several areas where actions could help address health inequalities, mitigate against the impact of climate change, create a resilient economy:

"Networking: all the priority areas could benefit from stronger networking opportunities eg food business networking, community project networking etc. Through coming together ideas are exchanged and mutual projects identified

Community Engagement: working in the localities to understand community needs and engage people in developing and co-producing solutions that work on the ground

Volunteering: community projects, particularly food growing, rely heavily on volunteers, ensuring that Portsmouth Together and other volunteering organizations are able to sign post people to help on projects is important

Policy: ensuring that policy is ‘food-proofed’ to ensure that it includes references where ever appropriate to support food related work across the city

Communication and information: a one stop shop on line for all things food in Portsmouth would help people engage with good food in a variety of ways." (page 8)