Public Health in Portsmouth

The purpose of this paper is to update the Members of HOSP on the key health issues facing the residents of Portsmouth and the priorities of the new public health team, Public Health Portsmouth.

The list of public health responsibilities transferring to the City Council on 1st April 2013 is in **Appendix 1**. Public Health spending will be funded by a new "Ring-Fenced Public Health Grant"; it is envisaged that the authority to finalise the budget and determine the appropriate use of the Grant will be delegated to the Director of Public Health and the Head of Financial Services. The level of the grant has been set at £15.7 million in the next financial year. The "Grant Conditions" have now been published (https://www.wp.dh.gov.uk/publications/files/2013/01/LA-Grant-cir-and-allocations1.pdf). The main requirements are:

- The Grant can only be used to meet eligible expenditure incurred for the purpose of the council's Public Health functions;
- The Department of Health (DH) will monitor grant spending against identified responsibilities and outcomes;
- A "Statement of Grant Usage" signed by the Chief Executive will be required after the end of the financial year.

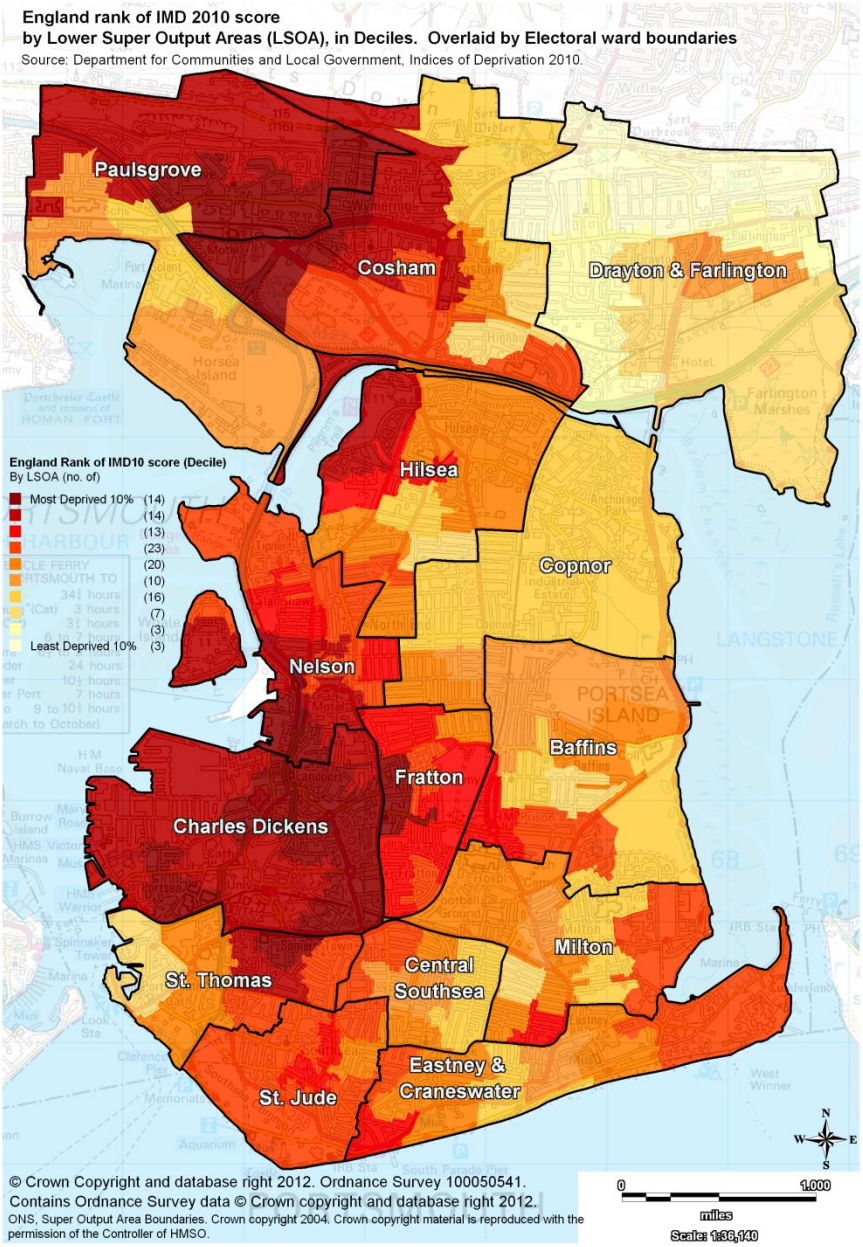
The health needs of Portsmouth

A full description of the health needs of Portsmouth can be found in the annual summary of the Joint Strategic Needs Assessment (JSNA), which is produced by the Public Health Intelligence Team. From April, the production of the JSNA will be a statutory responsibility for the City Council and Portsmouth Clinical Commissioning Group; this will be overseen by the Health and Wellbeing Board. The JSNA is used to inform the development of the Health and Wellbeing Strategy. The JSNA annual summary for 2012 was presented to the Health and Wellbeing Board at the December 2012 meeting; a full copy of the summary can be found on the City Council's website (http://www.portsmouth.gov.uk/living/19369.html).

Portsmouth City is the most densely populated area outside of London. It covers 15.5 square miles and has 205,100 residents. The number of people registered with practices in Portsmouth is higher; GPs serve 215,622 registered patients. Over the next 10 years there will be a 6% increase in the size of the population (218,314). This increase will not be evenly distributed across all age ranges; in the over 65s age group there will be a 17% increase (nearly 5,000 more people).

Deprivation is an important determinant of disease. Portsmouth is ranked 75th out of 326 local authorities in England (where 1 is the most deprived). **Figure 1** shows a map of the deprivation levels across the City. Most deprivation (dark areas) is experienced by people in Charles Dickens and Paulsgrove wards.

Fig 1 - Map of deprivation



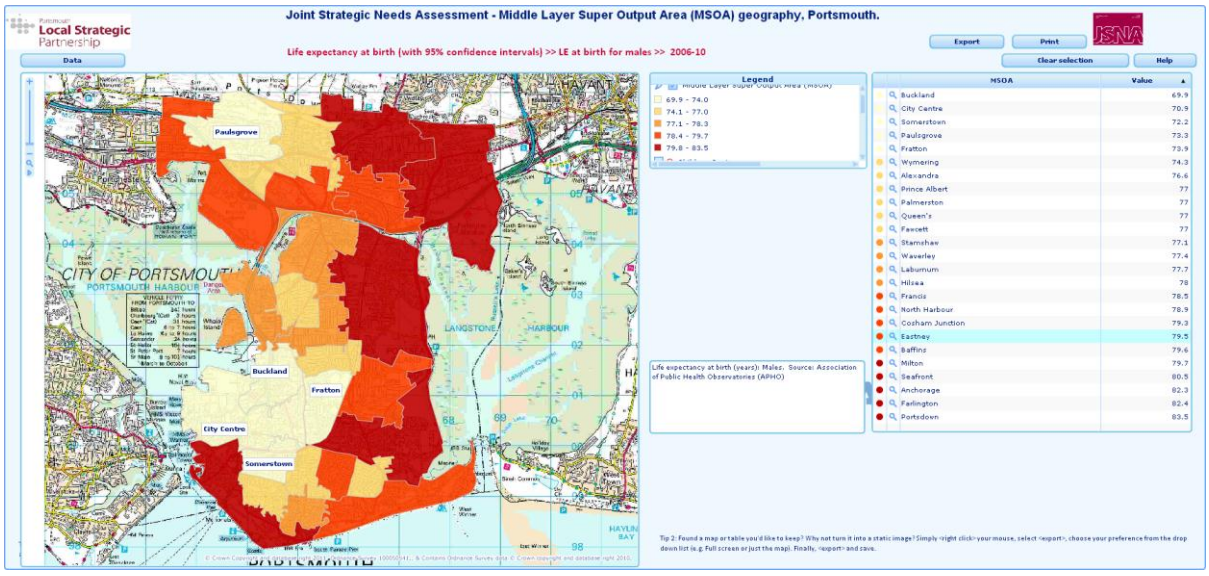
Deprivation is linked to a broad range of outcomes that affect health, known as the wider determinants of health; in **Appendix 2** is a table demonstrating how the City performs in these outcomes against our comparator local authorities. Portsmouth is ranked 8th best of 19 comparator local authorities for deprivation (first line of table at Appendix 2). But we are in the worst six for:

- Statutory homelessness
- GCSE achievement

- Violent crime
- Smoking
- Drinking alcohol
- Hospital stays for self-harm
- Sexually transmitted diseases
- Excess winter deaths
- Smoking-related deaths
- Early death due to cancer
- Road injuries and deaths.

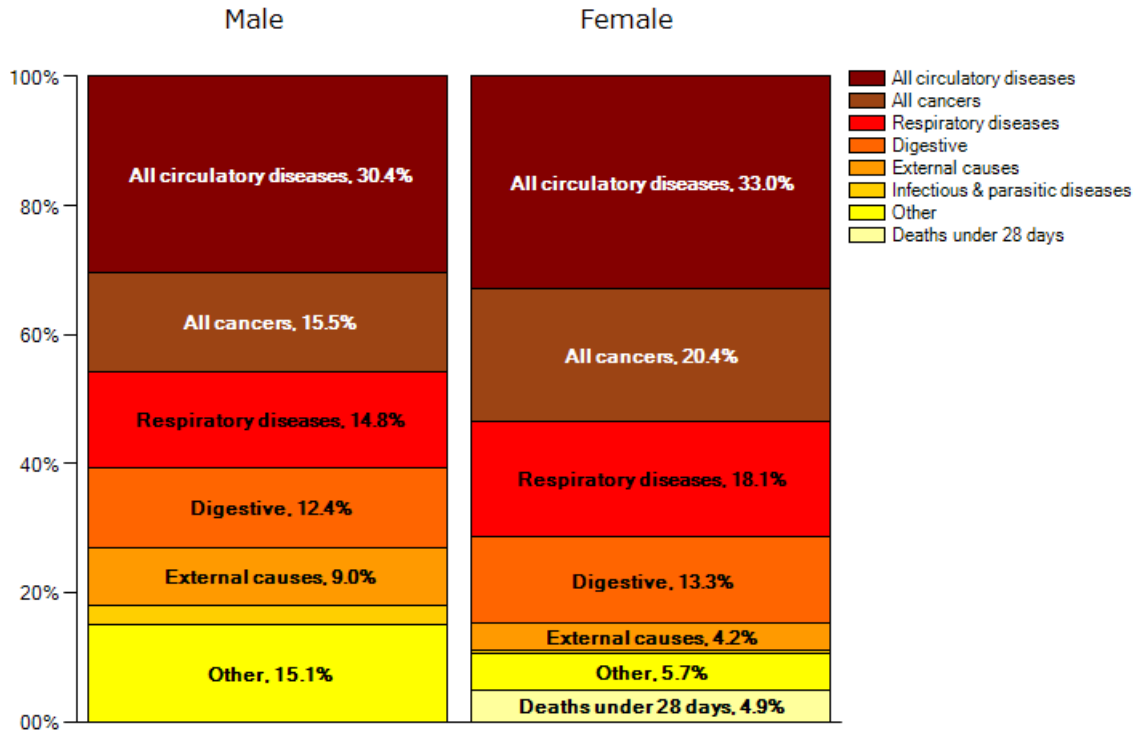
Figure 2 shows the distribution of male life expectancy across the City. The areas with the lowest levels of life expectancy (light areas) correspond to the most deprived areas. It is important to highlight that male life expectancy is significantly shorter than the England average; males in the most deprived areas live almost 11 years fewer than males in the least deprived areas of the City.

Figure 2 - Map of male life expectancy



The main causes of the gap in male and female life expectancy are demonstrated in **Figure 3**. The top three causes for males are coronary heart disease, liver disease and respiratory (most notably lung cancer). Smoking is the main reason for the gap in life expectancy between rich and poor; the other two main lifestyle factors contributing to the gap are alcohol and obesity.

Figure 3 - Scarf plot of the causes of the inequalities in life expectancy



Public health priorities

In future, the performance of the City Council in undertaking its public health functions will be monitored against the Public Health Outcomes Framework (PHOF), which is in **Appendix 3**. The indicators are grouped in four domains - the wider determinants of health, health improvement, population healthcare and health protection.

The national Public Health Observatories have just released data for the city's performance against some of these indicators where data is available (http://www.phoutcomes.info/). Listed below are key indicators where we are performing significantly worse than the national average or where we need to maintain performance, which are consistent with the findings of the JSNA.

- **Improving the wider determinants of health**
  - Children living in poverty
  - Pupil absence
  - 16-18 year olds not in education, employment or training
  - Killed and seriously injured casualties on England's roads
  - Violent crime (including sexual violence) - violent offences
  - Reoffending levels
  - Statutory homelessness

- **Health Improvement**
  - Smoking during pregnancy

    - Smoking in adults
    - Alcohol related admissions to hospital
    - Excess weight in 4-5 years and 10-11 years
    - Self-reported feeling worthwhile
    - Under 18 conceptions
    - Cancer screening uptake
    - Undiagnosed diabetes
    - Take up of the NHS Health Checks programme by those eligible
    - Injuries due to falls in people aged over 65 years

- **Population healthcare and preventing premature mortality**
    - Premature mortality and preventable mortality due to:
        - Cardiovascular disease
        - Cancer
        - Liver disease
        - Respiratory disease
    - Excess winter deaths
    - Emergency admissions to hospital within 30 days of discharge
    - Preventable sight loss due to macular degeneration

- **Health protection**
    - Vaccination uptake for children
    - Chlamydia screening.

Public Health Portsmouth's Business Plan 2013/14

Public Health Portsmouth is currently developing its business plan for next year. In order to have maximum effect on increasing life expectancy and reducing the gap in health inequalities, the draft PH strategy has identified five strategic objectives for public health in the City:

1. Get the best possible start in life by concentrating on pre-birth to 5 years old age group;
2. Help young people to be ready, willing and able to work;
3. Create a better environment for people to live, work and play;
4. Encourage healthy lifestyles by helping people to stop smoking, lose weight and drink less;
5. Maintain maximum independence and dignity in old age.

These Public Health objectives link closely with the findings of the JSNA, the PHOF and the four priority areas identified in the Joint Health and Wellbeing Strategy. The development of these priorities has also been heavily influenced by the Marmot Review ("Fair Society Healthy Lives"; http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review).

The work of Public Health Portsmouth (the transferring public health team and the Younger Persons' Health Improvement and Development Service) is being organised into six programmes to deliver against the strategy and to provide, as a minimum, the mandated public health services. The team is currently prioritising the objectives for each of the programmes. Two key principles, taken from the Marmot review, will guide this work:

- Listening to and working with communities and individuals in partnership to help them identify and solve their own problems, which will be underpinned by adopting an asset based approach;
- Ensuring services are provided to all whilst also ensuring the greatest resource is allocated to where the problems are biggest ("proportionate universalism").

Preliminary priorities are:

A. Remodelling public health services (tobacco, alcohol, obesity and sexual health)
B. Realising the full public health potential of Portsmouth City Council and partners (eg by undertaking health impact assessments of key policies)
C. Shaping Health and Care Services (ensuring services are based on need and we fully harness the potential of providers to improve the public's health).

To inform this work further Public Health Portsmouth is examining in greater detail the reasons for, and the potential solutions to, reducing the gap in male life expectancy. This will be the subject of this year's Public Health Annual Report, which will be published in April 2013.

The Director of Public Health has also identified a contribution of approximately £600,000 from the Public Health Grant which will support other council activities which the council wishes to sustain and which will also improve the Public Health Outcomes (**Appendix B**, item F-058 in the Budget Report approved by the City Council on 12th February 2013).

Appendix 1

Public Health Responsibilities transferring to the local authority on 1 April 2013.

Mandatory services

- National child measurement programme
- NHS Health Checks
- Comprehensive sexual health services
- Public health advice to the CCG
- Ensure plans are in place to protect the population's health

Non-mandatory services

- Tobacco control / smoking cessation services
- Obesity and community nutrition initiatives
- Increasing levels of physical activity in the local population
- Public mental health services
- Local initiatives to reduce excess deaths as a result of seasonal mortality
- Public health aspects of promotion of community safety, violence prevention and response
- Dental public health services
- Accidental injury prevention
- Population interventions to reduce and prevent birth defects
- Behavioural and lifestyle campaigns to prevent cancer and long-term conditions
- Public health aspects of local initiatives to tackle social exclusion
- Local initiatives that reduce public health impacts of environmental risks.
- Local initiatives on workplace health

Appendix 2

Portsmouth's health outcomes against comparator local authorities

Indicator - Rank	Hastings CD	Plymouth UA	Southampton UA	Bristol UA	**Portsmouth UA**	Brighton and Hove UA	Southend-on-Sea UA	Eastbourne CD	Bournemouth UA	Exeter CD	Worthing CD	Portsmouth trend compared to Profile 2011	Compared to England
Deprivation	3	9	10	11	**12**	13	14	16	17	18	19	↓	
% children in poverty (*)	4	14	6	7	**8**	15	11	13	16	18	19	↓	
Statutory homelessness (*)	14	4	10	13	**1**	3	16	19	17	6	18	↓	
GCSE achieved	2	14	6	5	**1**	9	18	11	15	7	17	↑	
Recorded crimes of violence v the person	10	5	1	2	**3**	9	12	8	4	13	15	↑	
Long term unemployment	2	14	18	10	**15**	13	6	11	16	19	12	↑	
Smoking in pregnancy (*)	1	3	9	16	**7**	19	13	11	15	18	17	↑	
Breastfeeding initiation (*)	14	4	9	16	**10**	19	6	17	13	12	18	↑	
Obese children yr 6 (*)	4	10	8	12	**9**	19	15	13	16	14	17	↑	
Alcohol-specific hospital stays (under 18)	8	6	4	15	**14**	9	17	10	13	3	16	n/a	
Teenage pregnancy under 18 (*)	4	11	5	9	**10**	17	15	13	16	14	19	↑	
Estimated prevalence adults smoking (*)	5	4	15	11	**2**	6	16	18	12	14	19	↓	
Est prev increasing & high risk drinking	15	8	7	9	**3**	2	13	18	5	1	11	↓	
Est prev healthy eating adults	8	5	9	12	**7**	18	15	19	17	13	16	-	
Est prev physically active adults (*)	7	12	8	4	**16**	19	3	9	11	17	15	-	
Est prev obese adults (*)	1	6	14	13	**8**	19	4	5	15	16	3	-	
Incidence malignant melanoma	17	1	6	14	**7**	4	16	13	3	2	5	↑	
Self-harm hospital stays (*)	12	14	2	9	**5**	6	17	16	15	11	3	↓	
Alcohol-related hospital stays (*)	7	6	19	4	**10**	11	9	17	5	15	12	↓	
Est prev opiate &/or crack cocaine users	5	8	17	6	**16**	11	13	7	2	14	19	↑	
Diabetes prevalence (*)	4	9	13	16	**12**	19	5	10	15	17	7	↑	
New cases TB	18	15	8	1	**7**	10	6	12	11	16	14	↑	
Acute sexually transmitted disease	16	10	3	14	**4**	2	18	17	5	12	19	n/a	
Hip fracture 65+ yrs (*)	2	7	19	11	**10**	15	14	12	3	13	9	↓	
Excess winter deaths (*)	19	8	10	13	**1**	6	12	4	17	15	2	↓	
Male life expectancy	5	8	18	7	**11**	10	14	17	15	19	9	↑	
Female life expectancy	3	8	14	11	**15**	16	9	18	13	17	12	↑	
Infant deaths (*)	1	7	8	17	**14**	12	18	16	19	4	3	↓	
Smoking related deaths (*)	5	11	10	9	**4**	14	15	18	16	19	17	↓	
eart disease & stroke premature mortality (*)	7	5	13	11	**10**	14	15	18	17	19	16	↑	
Cancer premature mortality (*)	4	13	9	7	**6**	11	15	19	18	16	17	↓	
Road injuries and deaths (*)	3	18	9	17	**4**	2	6	5	8	19	15	↓	

Local authorities in ONS Regional Centres Group ranked in descending order of deprivation

- Six highest or worst ranking
- Seven to 13th ranking
- Lowest six ranking

(*) indicator substantially similar to indicator proposed in Public Health Outcomes Framework

Compared to England

- Improving trend ↑
- Worsening trend ↓
- Significantly worse
- No different
- Significantly better

Source: Health Profile, 2012. Association of Public Health Observatories

Portsmouth is in a group of 19 local authorities (LAs) with similar socio-economic profiles. *[The chart above shows only those LAs in the group of 19 which are in the south of England.]*

Appendix 3

Outcomes in the Public Health Outcome Framework

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
V1	Vision outcomes	Healthy life expectancy	Life expectancy is increasing and it is desirable for increased years of life to be spent in good health. This is an indicator of whether efforts are being appropriately targetted at conditions or behaviours that improve people's lives
V2		Differences in life expectancy and healthy life expectancy between communities	These two measures cover morbidity and mortality, and address within area differences, and between area differences
D1.1	Improving the wider determinants of health	Children in poverty - % of children living in households where income is less than 60% of median household income before housing costs	Growing up in poverty damages health and well-being and adversely affects future health and life chances
D1.2		School readiness - foundation stage profile attainment for starting Key Stage 1 (Placeholder)	Key measure of early yrs development
D1.3		Pupil absence - % of half days missed by pupils due to overall absence (incl authorised and unauthorised absence)	Children and young people who are not in school are most vulnerable and more likely to offend than those who are in school. Measured by persistent absence from secondary school
D1.4		First- time entrants to the youth justice system - rate of 10-17 yr olds receiving first reprimand, warning or conviction	Children and young people at risk of offending or within the youth justice systems often have more unmet health needs than other children and young people (0-18) Rate of 0-17 year olds receiving their first reprimand, warning or conviction per 100,000 population
D1.5		16-18 year olds not in education, employment or training	Being NEET between the ages of 16-18 is a major predictor of later unemployment, low income, teenage motherhood, depression, and poor physical health
D1.6i		% of adults with learning difficulties known to social services who are assessed or reviewed during the year and were in settled accommodation at the time of their assessment	Aim to improve outcomes by improving their safety and reducing risk of social exclusion. Also promotes personalisation and QoL, reduce hosp readmittances

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
D1.6ii		% of adults receiving secondary mental health services known to be in settled accommodation at the time of their most recent assessment, formal review or multi disciplinary care planning meeting.	Aim to improve outcomes by improving their safety and reducing risk of social exclusion. Also promotes personalisation and QoL, reduce hosp readmittances
D1.7		Proportion of all people in prison who have a mental illness or a significant mental illness	A reduction in the proportion of people in prison with a mental illness or a significant mental illness can reflect success in one or more of a number of interventions.
D1.8i		Gap between the employment rate for those with a long-term health condition and the overall employment rate	The recent review "Is work good for your health wellbeing" concluded that work was generally good for both physical and mental health and wellbeing.
D1.8ii		Gap between the employment rate for those with a learning difficulty/disability and the overall employment rate	
D1.8iii		Gap between the employment rate for those with a mental illness and the overall employment rate	
D1.9i		% of employees who had at least one day off sick in the previous week.	Costs of working age ill health in UK estimated at £100m pa
D1.9ii		Number of working days lost due to sickness absence	Focus on working age population "working well"
D1.9iii		Rate of fit notes issued per quarter (TBC)	
D1.10		Reported Killed and Seriously Injured (KSI) casualties (actual number and rate per billion vehicle miles)	Road safety has implications for safety of communities, LT costs to hlth and social care systems and to wider economy
D1.11		Domestic abuse (Place holder)	Domestic abuse victims have the highest level of repeat victimisation - often with severity of incidents escalating over time. Alcohol use is indicated in a high proportion of incidents
D1.12		Rate of violent crime, including sexual violence	Enables focus on effective, evidence-based interventions incl more focus on prevention and tx as well as criminal justice

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
D1.13i		The proportion of offenders who re-offend from a rolling 12 moth cohort.	Tackling offending behaviour requires multi-agency approach. Behaviour often linked to physical and mental health and subs misuse
D1.13ii		The average number of re-offences committed per offender from a rolling 12 month cohort	
D1.14i		Noise - # complaints to LA about noise	Direct and indirect links between exposure to noise and stress, heart attack and other outcomes
D1.4ii		Noise - rate of pop exposed to transport noise more than xdB(A)	Direct and indirect links between exposure to noise and stress, heart attack and other outcomes
D1.15i		Homelessness acceptances per 1,000 households	Homelessness is a social determinant of health and an indicator of extreme poverty. Homeless households contain some of the most vulnerable households
D1.15ii		Households in temporary accommodation (per 1000 households)	
D1.16		Access and utilisation of green space	Positive relationship between green space and physical and mental wellbeing, and cognitive function through physical access and usage
D1.17		Fuel poverty	Low income, poorly insulated housing and expensive and inadequate heating systems may contribute to fuel poverty, which itself contributes to exess winter mortality (indicator D5.9)
D1.18		Social connectedness (Place holder)	Individuals discussing health issues in social groups are less likely to make poor decisions about their own health
D1.19		Older people's perception of community safety (Place holder)	Factor in helping older people maintain independence and activity and avoid social isolation
D2.1	Health improvement	Incidence of low birth-weight babies for term babies	Low birth weight is a known risk factor for infant mortality. In DH business plan in context of premature mortality, avoidable ill health and inequalities esp child poverty
D2.2i		Breastfeeding initiation	Breastfeeding has positive health benefits for mother and baby in short and long term
D2.2ii		Percentage of Mothers Breastfeeding at 6 – 8 weeks	

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
D2.3		Smoking status at time of delivery	Smoking during pregnancy contributes to 6% of all infants deaths, and accounts for about one third of the difference in infant deaths between the most and least deprived
D2.4		Under 18 conception rate per 1000 females aged 15-17	Teenage parenthood leads to poorer health outcomes for teenage parents and their children
D2.5		Child development at 2 to 2.5 yrs	Reflects importance of parenting and neurological development during pregnancy and the early years of life and children's development at age 5 and beyond
D2.6i		Proportion of children aged 4-5 classified as overweight or obese	Excess weight in children often leads to excess weight in adults. Major determinant of premature mortality and avoidable ill health
D2.6ii		Proportion of children aged 10-11 classified as overweight or obese	
D2.7i		Hospital admissions for deliberate or unintended injuries to children or young people aged 1-5 yrs (per 10,000)	Injuries are the leading cause of death in children and disproportionately affect children from lower socio-economic groups
D2.7ii		Hospital admissions for deliberate or unintended injuries to children or young people aged 5-18 yrs (per 10,000)	Injuries are the leading cause of death in children and disproportionately affect children from lower socio-economic groups
D2.8		Emotional wellbeing of looked after children (placeholder)	Looked after children one of particularly vulnerable groups at risk of developing mental health problems
D2.9		Smoking prevalence - 15year olds (Placeholder)	National target to reduce smoking rate of 15 yr olds to 12% or less by 2015
D2.10		Rate of hospital admission as a result of self-harm	Self-harm one of top 5 reasons for acute medical adm. Increased risk of death by suicide in this group. Higher rates of mental health, alcohol and sub misuse
D2.11		Diet - (Placeholder)	Diet makes important contribution to adverse outcomes eg obesity, stroke, CVD, some cancers
D2.12i		Proportion of adults classified as overweight or obese	Major determinant of premature mortality and avoidable ill health

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
D2.13i		% Adults achieving at least 150 mins of physical activity per week - participating in 30 mins, mod intensity sport, 3xwk	Physical inactivity costs the NHS approx £1bn pa - £6.5bn per year to the wider economy - and is one of the top few risk factors for premature mortality.
D2.13ii		Proportion of adults classified as "Inactive"	
D2.14		Smoking prevalence in adults (>18 yrs)	Smoking causes approx 80,000 deaths pa in England, and costs the NHS between £2.5bn-£5bn pa
D2.15		% of adult discharges from drug treatment that were successful	Illicit drug use can cause significant harm to individuals and communities
D2.16		People entering prison with substance dependence issues who are not previously known to community treatment	Measure of successful outcome of treatment interventions in the community. Also measure of primary and secondary prevention work on dvlpmnt of problematic subs misuse among vulnerable groups
D2.17		Prevalence of recorded diabetes	Indicator will raise awareness of trends in diabetes
D2.18		Alcohol-Related Admissions per 100,000 population (DSR)	Deprived areas suffer higher levels of alcohol related mortality, hospital admission, crime, absence from work, school exclusions, teenage pregnancy and RTA linked to greater levels of alcohol consumption
D2.19		Patients with cancer diagnosed at Stage 1 or 2 as proportion of cancers diagnosed	Earlier access to treatment
D2.20i		Breast screening - coverage of women aged 53-70	More breast cancers detected at earlier, treatable, stages
D2.20ii		Cervical screening coverage (less than 5 years since last adequate test) 25-64	More cervical cancer is prevented
D2.21i		HIV Coverage- proportion of pregnant women eligible for infectious disease screening who are tested for HIV, leading to a conclusive result	Continue reduction in HIV-positive babies

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
D2.21ii		Syphilis, hep B and susceptibility to rubella uptake; proportion of women booked for antenatal care, as a reported by maternity services, who have a screening test for syphilis, hep b and susceptibility to rubella	
D2.21iii		The proportion of pregnant women eligible for antenatal sickle cell and thalassaemia screening for whom a conclusive screening is available at the day of report.	Prevention of major disability and ill health
D2.21v		The proportion of babies eligible for newborn hearing screening for whom the screening process is complete with in four weeks corrected age	
D2.21vi		The proportion of babies eligible for the newborn physical examination who were tested with 72 hours of birth.	
D2.21vii		The proportion of those offered screening for diabetic retinopathy who attend a digital screening event.	Early detection through screening halves blindness in people with diabetes
D2.22i		Take up of the NHS Health Check programme - Health Check offered	Health Checks are clinically and cost-effective preventative programme to reduce numbers with heart disease, stroke, diabetes and chronic kidney disease
D2.22ii		Take up of the NHS Health Check programme - Health Check take up	
D2.23i		Self-reported wellbeing - satisfied with life	Promoting wellbeing can improve health outcomes, life expectancy as well as educational, social and economic outcomes
D2.23ii		Self-reported wellbeing - worthwhile	
D2.23iii		Self-reported wellbeing - happy yesterday	
D2.23iv		Self-reported wellbeing - anxious yesterday	
D2.24		Over 65s hospital admissions for falls or falls injuries (actual numbers)	Falls account for majority of hospital admissions for unintentional injury in older people, and falls prevention is a key public health priority

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
D3.1	Health protection	Air pollution - fraction of mortality attributable to particulate air pollution	Years of life can be reduced by exposure to anthropogenic fine particulate matter
D3.2		Chlamydia diagnosis rate per 100,000 young adults aged 15-24 yrs	Early diagnosis and treatment will reduce severe effects of Chlamydia in women eg pelvic inflammatory disease and infertility
D3.3i		Hep B vaccination coverage (1 - 2 year olds)	Vaccination coverage closely correlated with levels of disease
D3.3ii		BCG vaccination coverage (1-16yr olds)	
D3.3iii		DTaP/IPV/Hib Vaccination coverage (1, 2 and 5 yr olds)	
D3.3iv		Men C vaccination coverage (1,2 and 5 yr olds)	
D3.3v		PCV vaccination coverage (1,2 and 5 yr olds)	
D3.3vi		Hib/MenC booster vaccination coverage (2-5 yr olds)	
D3.3vii		PCV booster	
D3.3viii		MMR Vaccination coverage for 1 dose (2 yr olds)	
D3.3ix		MMR Vaccination coverage for 1 dose (5 yr olds)	
D3.3x		MMR Vaccination coverage for 2 doses (5 yr olds)	
D3.3xi		Td/IPV booster vaccination 13-18yr olds	
D3.3xii		HPV vaccination coverage (females 12-17 year olds)	
D3.3xiii		PPV vaccination coverage (over 65s)	
D3.3xiv		Flu vaccination coverage (over 65s)	
D3.3xv		Flu vaccination coverage (at risk individuals aged over six months)	

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
D3.4		Late presentation of HIV aged 15+ yrs	Late diagnosis is single most important factor assoc with HIV-related morbidity and mortality in the UK
D3.5i		Treatment completion rates for TB	TB is increasing. Properly completed treatment can prevent development of drug resistance and reduce treatment costs by at least 80% and treatment time by at least 1.5 yrs per case
D3.5ii		Treatment completion rates for TB - TB incidence	
D3.6		Public sector organisations with board approved sustainable development management plan	Stern Review outlines impact of climate change as cause of premature mortality and as cause of avoidable ill health
D3.7		Comprehensive, agreed, inter-agency plans for responding to public health incidents in place, audited and assured to agreed standard and regularly tested to ensure effectiveness (placeholder)	Proxy measure for assessing probability that response to public health incidents and outbreaks of infection will achieve best possible outcome
D4.1	Healthcare public health and preventing premature mortality	Infant deaths per 1000 live births	Widely used as indicator of overall health of a population as reflects broad range of determinants incl economic development, general living conditions and social and environmental factors
D4.2		Tooth decay in children aged 5	Dental disease more common in deprived compared to less deprived communities. This indicator is a good, direct measure for child health and diet
D4.3		Mortality from causes considered preventable - Age standardised rate of mortality from causes considered preventable per 100,000 population.	Preventable mortality can be defined in terms of causes that are considered to be preventable through individual behaviour or public health measure limiting individual exposure to harmful substances or conditions.
D4.4i		Mortality from all cardiovascular diseases under 75s DSR per 100,000	Circulatory diseases are the biggest cause of preventable death in England, and major cause of health inequality
D4.4ii		Age standardised rate of mortality that is considered preventable from all cardiovascular diseases (Including heart disease and stroke) in persons less than 75 years of age per 100,000 population.	

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
D4.5i		Mortality from all cancers under 75s DSR per 100,000	Cancer is one of the three leading causes of death in people of all ages. Inequalities exist in cancer mortality rates between most and least deprived areas
D4.5ii		Age standardised rate of mortality that is considered preventable from all cancers in persons less than 75 years of age per 100,000 population.	TBC- ONS is currently developing a definition of preventable mortality and the definition of this sub-indicator will align with this.
D4.6i		Mortality rate from chronic liver disease under 75s DSR per 100,000	Liver disease mortality is rising by 10% pa. Average age of death from liver disease is 59 yrs - and is falling. Main cause appears to be alcohol, but also increased trends from fatty liver (obesity) and hepatitis B and C viruses
D4.6ii		Age standardised rate of mortality that is considered preventable from liver disease in persons less than 75 years of age per 100,000 population	TBC- ONS is currently developing a definition of preventable mortality and the definition of this sub-indicator will align with this.
D4.7i		Mortality from respiratory diseases - Age standardised mortality rate from respiratory disease for persons aged under 75 per 100,000 population.	Respiratory disease one of top causes of death
D4.7ii		Age standardised rate of mortality that is considered preventable from respiratory diseases in persons less than 75 years of age per 100,000 population.	TBC- ONS is currently developing a definition of preventable mortality and the definition of this sub-indicator will align with this.
D4.8		Mortality rate for communicable diseases (Placeholder)	Evidence-based prevention, detection and treatment interventions for most communicable diseases yet incidence of certain diseases continues to rise
D4.9		Excess under 75 mortality in adults with serious mental illness (Place holder)	Joint indicator with the NHS Outcomes Framework - Its inclusion in this and the Public Health Outcomes Framework will reflect the importance of such high level priorities being joined up bewteen the public health and the NHS health service agendas.
D4.10		Directly standardised mortality rate from suicide and undetermined injury per 100,000	Suicide is related to number of socio-economic factors incl social exclusion and inequalities in access to relevant service provision
D4.11		Emergency readmissions to hospital within 30 days of discharge	Demonstrates the success of secondary prevention measures in delaying dependency and supporting effective re-ablement and rehabilitation
D4.12i		Preventable sight loss - age related macular degeneration	

PHOF ref	Domain	Outcome	Rationale (as outlined in Framework)
D4.12ii		Preventable sight loss - glaucoma	This indicator relates to three of the main eye diseases, which can result in blindness or partial sight if not diagnosed and treated in time. These are AMD, glaucoma and diabetic retinopathy.
D4.12iii		Preventable sight loss - diabetic eye disease	
D4.12iv		Preventable sight loss - sight loss certifications	
D4.13		Health-related quality of life for older people	Reflects role of public health and social care prevention activity in promoting healthy ageing, and improving quality of life for older people
D4.14		Hip Fractures in over 65s	Hip fracture is a debilitating condition - only one in three suffers return to their former levels of independence and one in three end up leaving their own home and moving to long term care (resulting in social care costs)
D4.15		Ratio of excess winter deaths (observed winter deaths minus expected deaths based on non-winter deaths) to av non-winter deaths	Excess winter deaths are a major cause of mortality and ill health, particularly amongst older people and those on low incomes. Cold weather exacerbates minor and pre -existing medical conditions, and mental health is negatively affected by fuel poverty and cold housing.
D4.16		Dementia and its impacts (Placeholder)	There are an estimated 610,000 people in England with dementia, a number expected to double in the next 30 years. Dementia accounts for more expenditure than heart disease and cancer combined and costs society over £20bn a year.