Health inequalities and the social determinants of health

Ref HSCW 003

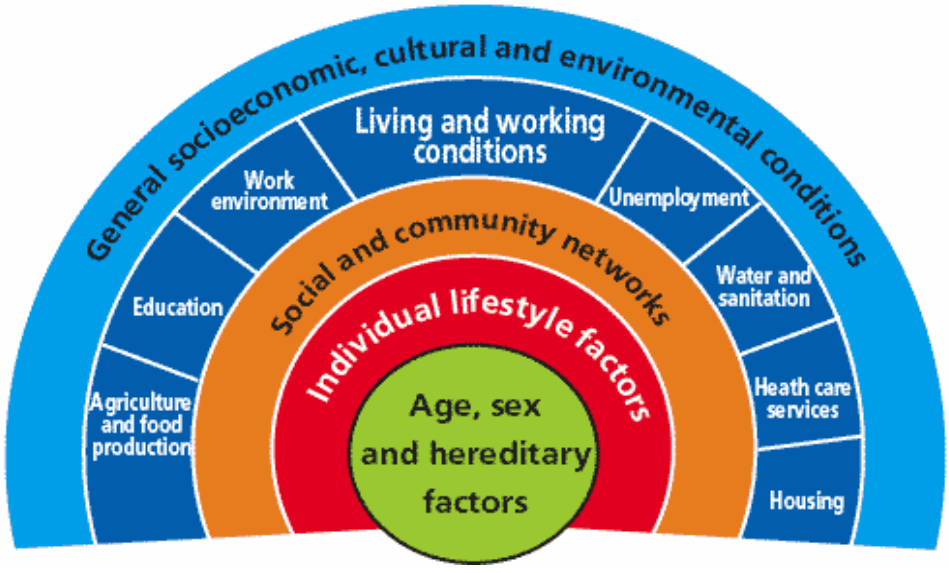
Why is it important?

The health and wellbeing of County Durham's population is shaped not only by lifestyle and behavioural factors but also by a wide variety of social, economic and environmental factors (such as poverty, housing, ethnicity, place of residence, education, and environment). This is nothing new and the importance of these social determinants of health inequalities is well established. Evidence from 'Due North: Independent Inquiry on Health Equity for the North' (2014), the Marmot review ('Fair Society, Healthy Lives', 2010), the Acheson Report (1998) and the Black Report (1982) is very clear that health inequalities are the result of complex interactions which are caused by a number of factors. We know that health deteriorates with increasing socio-economic disadvantage and that improvements in health outcomes cannot be made without action in these social (or wider) determinants.

Health inequalities can be defined as differences in health status or in the distribution of health determinants between different population groups (WHO, 2013). They arise from differences in socio-economic and environmental factors which influence people's behaviour, the opportunities available to them, the choices they make, their risk of poor health and their resilience. Often these inequalities are geographical, with health status or outcomes worse in more deprived areas (the social gradient). They can also be experienced by different population groups such as older people, children, black and minority ethnic groups (BME), lesbian, gay, bisexual, transgender (LGBT). Inequalities in these social determinants of health are not inevitable and are therefore considered avoidable and unjust. Health inequalities are an extremely complex issue and only through concerted and collective effort can they be prevented.

The social determinants of health are widely described as 'the causes of the causes of health inequalities'. These are the conditions in which people are born, grow, live, work and age. We know that these conditions affect the likelihood of people enjoying long, healthy lives and will determine variations in health and life expectancy. The extensive evidence base on health inequalities demonstrates the need for policy makers to focus actions on the social determinants of health as the most effective way of addressing the issue (Marmot, 2010).

Figure 1: The rainbow model of health



Source: Dahlgren and Whitehead, Policies and strategies to promote social equity in health, 1991

Marmot also demonstrated a gradient in health outcomes: the lower an individual's social and economic status, the worse his/her expected health. However, these health inequalities are avoidable and to reduce them is a fundamental issue of social justice, bringing significant benefits to society. The Marmot Review also presented an evidence base of interventions which could contribute to reducing health inequalities by levelling up the gradient. Focusing solely on the most disadvantaged in society will not reduce health inequalities sufficiently. To reduce the steepness of the social gradient in health, actions must be universal but with a scale and intensity which is proportionate to the level of disadvantage. This is called proportionate universalism.

The 'Due North' inquiry documented the scale of the health divide between the North and the rest of England. It noted that the causes of these health inequalities were broadly similar across the country - differences in poverty, power and resources needed for health. However, it stated that the severity of these causes was greater in the North. Furthermore, it suggested that austerity measures were making the situation even worse, impacting more heavily on the North and disadvantaged areas.

The importance of these social determinants of health inequalities is well established. The evidence is very clear that health inequalities are the result of complex interactions caused by a number of factors. These can be described as:

- Inequalities in opportunity – caused by poverty, family circumstances, education, employment, environment, housing
- Inequalities in unhealthy behaviours – caused by smoking, lack of physical activity, eating poor quality food, drugs misuse, inappropriate alcohol consumption and risky sexual activity
- Inequalities in access to services for those who are already ill or have accrued risk factors for disease (health inequity).

THE SOCIAL DETERMINANTS OF HEALTH

Poverty and the effects on health and wellbeing

Poverty is damaging to children, families and our communities. Deprivation and income inequality are important influences on health and wellbeing. The links between poor health outcomes and deprivation are well documented (for example Marmot [2010], Acheson [2008] and the Black Report [1982]). Many health-related issues are worse for people living in poverty, including an increased risk of early death. People living in poverty are likely to experience fewer life chances, shortened life expectancy, poorer general health and fewer opportunities to lead a flourishing life. They are less likely to benefit from education to the same degree as others, are less likely to be in professional, managerial and skilled jobs, and are more likely to live in poor housing and in neighbourhoods where crime is more prevalent and where community safety is threatened. All of these conditions and circumstances can have an adverse effect on physical and mental health and wellbeing. The government's welfare reform programme will also inevitably impact on benefit recipients - disabled people are twice as likely as non-disabled people to live in poverty (Shaw et al, 2008, quoted in Edwards et al. 2013) and further reductions in benefits are likely to exacerbate income inequality.

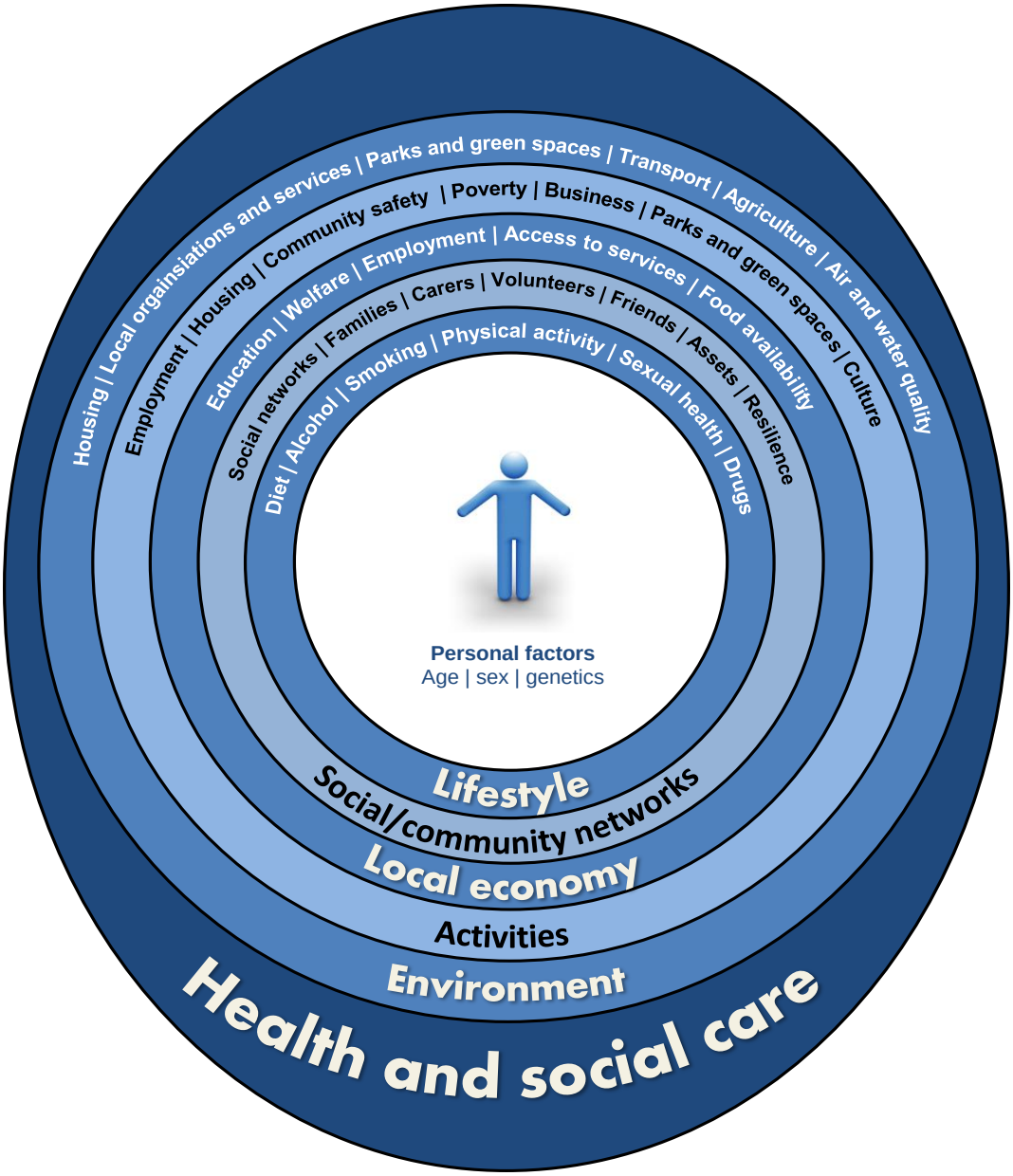
Growing up in poverty has a significant impact on children and young people, both during their childhood and beyond. Children who are unable to enjoy leisure activities with their peers may find that their education suffers, making it difficult for them to achieve their full potential and get the qualifications needed to sustain a well-paid job. This will impact on a child's development, as children from low income families are often excluded from extra curricula activities, e.g. school trips, etc. This in turn limits their potential to earn the money needed to support their own families in later life and so a cycle of poverty is created.

Economy and employment and the effects on health and wellbeing

Employment and the working environment have a direct impact on the physical, social and economic wellbeing of employees and their families. Being in good and secure employment has a significant and positive impact on wellbeing. Unemployment and worklessness play a significant role in increasing poverty and social isolation for individuals. The performance of the economy gives a good indication of both levels of employment and prosperity in the general population. In particular, levels of employment provide an indication of the health of the working age population. A review of evidence-based research over a substantial time period has served to demonstrate that unemployment and worklessness play a significant role in increasing poverty and social isolation and loss of self-esteem. These issues also decrease psychological wellbeing, physical health and mental health and wellbeing.

There is evidence that work is generally good for physical and mental health and wellbeing, whereas worklessness is associated with poorer physical and mental health. One of the leading causes of worklessness and sickness absence in the UK is poor mental health. Those with poor mental health have employment rates of between 16-35 per cent (London Mental Health and Employment Partnership, 2012).

Figure 2: The social determinants of health, influences on health and wellbeing



Housing and the effects on health and wellbeing

Housing is a key determinant to health and wellbeing. Poor quality housing is a risk to health - living in housing which is in poor condition, cold, overcrowded or unsuitable will adversely affect the health and wellbeing of individuals and families, young and old. It can cause or exacerbate a range of underlying health conditions, from falls to poor mental health. Cold, damp housing has a direct impact on increased winter hospital admissions and excess winter deaths, cardiovascular, respiratory and rheumatoid diseases as well as hypothermia and poorer mental health. Well insulated houses require less energy to achieve temperatures necessary to ensure that vulnerable people are not cold and therefore increasingly susceptible to infection and other health conditions.

Poor housing can affect health in terms of: access in and around the home, particularly for vulnerable and disabled groups of the community; provision of adequate spaces for living and playing in and around the home, including the importance of front and back gardens or common public spaces; quality of existing and new homes, including construction, internal environments and design quality.

Fuel poverty arises from a household's inability to afford the energy required to power and heat its home to a satisfactory standard. A household is in fuel poverty if it is on a low income and faces high costs of keeping adequately warm and other basic energy services (Fuel poverty and cold home-related health problems, PHE, 2014). Fuel poverty is driven by three main factors: household income, the current cost of energy and the energy efficiency of the home. The Marmot Review Team (Health Impacts of Cold Homes and Fuel Poverty, 2011) reported a strong

relationship between fuel poverty and the likelihood of reporting bad general health, including poor mental health (Marmot, 2011).This relationship appears to be particularly strong amongst people aged 65 and over, and includes greater mortality risk.

Social isolation and the effects on health and wellbeing

Social isolation and loneliness is a significant and growing public health challenge for County Durham's population. It affects many people living in the county and has a significant negative effect on health and wellbeing across the life course. Anybody can be affected by social isolation or loneliness and it can 'affect any person, living in any community'. It is costly to local health and care services and can increase the chances of premature death.

Older people are particularly vulnerable due to factors such as bereavement, reduced mobility, sensory impairment or limited income. However, other groups are also at risk including new, young or lone parents; carers (both young and old); women experiencing domestic abuse; lesbian, gay, bisexual or transgender young people; the long term unemployed; people with autism or a learning disability; those with a physical disability or long term condition; black minority ethnic and recent migrant communities; those experiencing poverty and deprivation; the young, the homeless, and those with substance misuse problems.

Risk factors for isolation and loneliness can be categorised into four distinct areas:

Personal circumstances	Health and disability	Life changes	Social determinants
Age	Cognitive impairment	Young / lone parenthood	Transport
Gender	Sensory impairment	Moving house	Rurality
Ethnicity	Mobility	Retirement	Crime / fear of crime
Sexuality	Chronic illness	Becoming a carer	Housing
Living alone	Incontinence / hygiene issues	Bereavement	Built environment
Low income	Malnutrition	Hospitalisation	Natural environment
In care	Drug & alcohol misuse	Recently stopped driving	Digital exclusion
			Availability of toilets
			Availability of parks / play areas

Further exploration of social isolation is provided in the Annual Report of the Director of Public Health County Durham 2014.

Education and the effects on health and wellbeing

There is a strong link between education and health outcomes, with poor educational attainment being associated with poorer health outcomes and lower life expectancy, poor mental wellbeing and lower levels of disability-free health. Furthermore, evidence shows that education is linked to health behaviours such as smoking, excessive alcohol use and poor diet and that low levels of physical activity co-occur in the most deprived populations. Buck and Forsini, (2012) found that people with no qualifications were more than five times as likely as those with higher education to engage in all four unhealthy behaviours. The report warned that the poorest people and those with the least education are most at risk. This could exacerbate widening health inequalities.

Built and natural environment and the effects on health and wellbeing

There are close links between the built and natural environment and health and wellbeing. The spaces and places in which we live, work and socialise and the connections between these areas all influence physical and mental wellbeing.

Poor air quality, seasonal temperature changes, occurrence of extreme weather (excess cold/heat, storms, heavy snow fall, flooding) and the inability to access good quality green open space can have negative impacts on physical and mental health. These impacts are felt unequally across certain groups of society, having a greater impact on those who are elderly, very young, long term sick, disabled or living on low income. This puts increased, but avoidable, pressure on our health and social care services. How severely a person will be affected will depend not just on their level of exposure but on how well they are able to cope with and respond to such conditions.

Poor air quality has been identified as a significant public health issue. The burden of particulate air pollution in the UK in 2008 was estimated to be equivalent to nearly 29,000 deaths at typical ages and an associated loss of population life of 340,000 life years lost (Public Health Outcomes Framework, PHE). According to a 2014 Air Quality Progress Report for Gateshead Council, it is the third largest contributor to premature deaths in the UK.

The changing world climate and increasing risk of extreme weather events, for example colder winters and/or warmer summers, will impact on the health and wellbeing of County Durham residents. Green spaces have always been used as areas for relaxation and places for people to meet and rest. Evidence suggests that exposure to green spaces can improve mental and physical wellbeing and stimulate social interaction.

The increased reliance on cars has contributed to sedentary lifestyles and poses a risk to health, as does the resulting air pollution. Sustainable design is intrinsic to development schemes and the promotion of cycling and walking as a form of exercise will not only benefit health but will also improve wellbeing through increasing social interaction within communities.

Research has shown that a well-designed built environment with local access to the natural environment can provide effective and relatively inexpensive opportunities for communities to increase their levels of physical activity. Improvements to cycling and walking routes, the availability of parks and open spaces and safe areas for children to play are examples of the contribution the environment can make to health and wellbeing. In addition, the wide range of natural landscapes within County Durham - from the North Pennines Area of Outstanding Natural Beauty across to the Durham Heritage Coast - provide excellent opportunities to be active in natural settings.

The increased incidence of flooding over recent years has highlighted the importance of both an immediate response to and the long term adaptations required in relation to extreme weather events. The predicted increase in occurrences of both major flooding and hotter summers presents a threat to health and wellbeing. Direct exposure to extreme weather could result in injury from trauma or exposure to excessive heat or cold. Increased temperatures present particular risk of heat stroke for the over 75s, the chronically sick and the very young, as well as impacting on those suffering from cardiovascular diseases.

The risk of damage to the environment, involving air, water and changes to the eco-system, is expected to increase. Those with lower incomes are most vulnerable to the effects of this, as they are less able to afford the appropriate adaptations to their homes. Demand pressures will increase on the council and emergency services to deal with these incidents and service provision will be impacted as a result.

Encouraging more physical activity is central to improving the health and wellbeing of the population and reducing overall health care costs. Parks, open spaces and the natural environment in general are vital, cost-effective resources which allow a range of physical activities to be carried out to increase a person's health and wellbeing. There will be an increased frequency of extreme weather, which can have a negative effect on people's health. Plans are being developed to help people understand the likely impacts and prepare appropriately.

Transport and travel and the effects on health and wellbeing

Transport has a vital role in contributing to the health and wellbeing of County Durham's population and can contribute significantly to health inequalities when transport needs are not met. It can impact on individual health and wellbeing in both a negative and positive way. On the one hand it is an enabler, allowing greater and more rapid access to health and care services, employment, leisure and active travel opportunities, education and social support. On the other hand, negative aspects can include poor air quality, transport related accidents and injuries, noise, stress and anxiety, fear of traffic, reduced physical activity and physical segregation of established communities. These issues particularly affect the most deprived and most vulnerable people in our communities.

Active travel focuses on physically active modes of transport (e.g. walking and cycling) rather than using cars or trains. This approach has the key benefits of increasing levels of physical activity, improving physical and mental health and wellbeing, lowering air and noise pollution and promoting sustainable travel through lower carbon emissions. Affordable, reliable public transport is important for many in society - older people, those living in rural areas and communities and for those with no access to a car. According to the 2011 Census, around a third of County Durham households has no access to a car.

Crime and anti-social behaviour and the effects on health and wellbeing

Crime, anti-social behaviour and fear of crime can have a significant impact on the health and wellbeing of individuals and the community. Victims of crime often suffer from a wide range of physical and mental health problems, including injury, disability and severe mental illness. Offenders also have a range of health needs. In some cases, there is also an impact on the children of victims and offenders. Wider implications of crime and fear of crime include financial loss, social exclusion and isolation of older people and restrictions on unsupervised outdoor play for children.

Durham data – the local picture and how we compare

The health and wellbeing of the people in County Durham has improved significantly over recent years but remains worse than the England average. Health inequalities remain persistent and pervasive. Levels of deprivation are higher and life expectancy is lower than the England average. There is also inequality within County Durham for many measures (including life expectancy, childhood obesity and premature mortality for example).

Too many of our population suffer from avoidable ill-health or die prematurely. Lifestyles remain a key driver to reducing premature deaths but it is clear that social, economic and environmental factors also have a significant and direct impact on health and wellbeing. Marmot identified a clear social gradient for mortality and morbidity, where the poorer are sicker and die earlier. Mortality and morbidity, along with life expectancy and healthy life expectancy are influenced by the conditions in which one is born, lives and dies. Many people in County Durham continue to engage in unhealthy behaviours when compared to England, directly linked to the social, economic and environmental factors outlined above. Smoking prevalence, proportion of mothers smoking during pregnancy, childhood and adult obesity, levels of binge drinking, admissions to hospital for acute intoxication and teenage conception rates are all greater than the England average. Lower than average levels of breastfeeding initiation and participation in physical activity are prevalent, combined with poor diet.

Public Health England's Health Profiles provide a snapshot of health and wellbeing in County Durham. Produced annually using key indicators, these profiles enable comparison locally, regionally and nationally. They are designed to help local commissioners and providers across the health and social care system understand the health needs of their population, in order to work collaboratively in partnership to improve health and reduce health inequalities.

Headlines taken from the Public Health England County Durham Health Profile 2015 (Figure 3) include**:**

- The health of people in County Durham is varied compared to the England average.
- Deprivation is higher than the national average and around 20,000 of our children live in poverty.
- Life expectancy for men and women is lower than the England average.
- Life expectancy is lower for both men and women in the most deprived areas of County Durham.
- Around 21% of Year 6 pupils are classified as obese, worse than the England average.
- The rate of alcohol-related hospital stays among under 18s is worse than the England average, at 70 stays per year.
- Levels of teenage pregnancy, breastfeeding and smoking at time of delivery are worse than the England average.
- Over a quarter of adults are classified as obese.
- The rate of alcohol-related harm hospital stays is worse than the England average, at 4,053 stays per year.
- The rate of self-harm hospital stays is worse than the England average, at 1,471 stays per year.
- The rate of smoking related deaths is worse than the England average, at 1,117 deaths per year.
- Estimated levels of adult excess weight, smoking and physical activity are worse than the England average.
- The rate of hip fractures is worse than the England average.
- Rates of sexually transmitted infections and TB are better than the England average.

Figure 3: County Durham Health Profile 2015 summary
Source: Public Health England

		Indicator	Rate or %	2015 Health Profile			
				Measure	No.	Sig* worse than England?	Period
Our Communities	1	Deprivation	%	28.7	148268	Yes	2012
	2	Children in poverty	%	22.7	20075	Yes	2012
	3	Statutory homelessness	CR/1000	0.9	198	No	2013/14
	4	GCSE achieved (5A*-C including Maths and English)	%	57.6	3027	No	2013/14
	5	Violent crime	CR/1000	8.2	4204	No	2013/14
	6	Long term unemployment	CR/1000	10.1	3327	Yes	2014
Child & young peoples health	7	Smoking at time of delivery	%	19.9	1049	Yes	2013/14
	8	Breast feeding initiation	%	57.4	3006	No	2013/14
	9	Obese children (year 6)	%	21.3	1038	Yes	2013/14
	10	Alcohol-specific stays (under 18)	CR/1000	69.9	70	Yes	2011/12-2013/14
	11	Teenage conceptions (<18)	CR/1000	33.8	293	Yes	2013
Adults health & lifestyle	12	Smoking prevalence	%	22.7	n/a	Yes	2013
	13	Physically active adults	% 16+	51.4	248	Yes	2013
	14	Obese adults	% 16+	27.4	n/a	No	2012 (APS)
	15	Excess weight in adults		72.5	970	Yes	2012 (APS)
Disease and poor health	16	Incidence of malignant melanoma	DASR/100,000	17.3	80	No	2010-12
	17	Hospital stays for self-harm	DASR/100,000	287.7	1471	Yes	2013/14
	18	Hospital stays for alcohol related harm	DASR/100,000	788	4053	Yes	2013/14
	19	Drug misuse	DASR/100,000	6.4	2155	No	2011/102
	20	Recorded diabetes	%	6.9	30506	Yes	2013/14
	21	Incidence of TB	CR/1000	1.9	10	No	2011-2013
	22	Acute sexually transmitted infections	CR/100,000	611	2050	No	2013
	23	Hip fractures in 65s and over	DASR/100,000	674	662	Yes	2013/14
Life expectancy and causes of death	24	Excess winter deaths	Ratio	19	314	No	01.08.10-31.07.13
	25	Life expectancy - male	Years	78	n/a	Yes	2011-2013
	26	Life expectancy - female	Years	81.3	n/a	Yes	2011-2013
	27	Infant deaths	DASR/100,000	3.2	18	No	2011-2013
	28	Smoking related deaths	DASR/100,000	381.3	1117	Yes	2011-2013
	29	Suicide rate	DASR/100,000	13.4	68	No	2011-2013
	30	<75 mortality rate: CVD	DASR/100,000	88.8	413	Yes	2011-2013
	31	<75 mortality rate: Cancer	DASR/100,000	166.6	782	Yes	2011-2013
	32	Killed & seriously injured on roads	DASR/100,000	38.5	198	No	2011-2013

	Indicator has improved from previous profile
	Indicator has not changed from previous profile
	Indicator has deteriorated from previous profile

Yes	Indicator value is significantly worse than England
No	Indicator value is not significantly worse than England

Measuring inequality

Life expectancy can be used as a measure of the health of the population. It tells us how long children born today would be expected to live, if they experienced the current mortality rates of the area they were born in throughout their lifetime.

Absolute inequality gaps between County Durham are simply the difference between the value for County Durham and the value for England for any given indicator.

For example, the County Durham value for male life expectancy (2012-14) is 78.1 years compared to 79.6 years for England, so the absolute gap is -1.5 years (Table 1).

Table 1: Selected absolute and relative inequality gaps between County Durham and England
Source: Various

Life expectancy (years)[1]		**Male**	**Female**
Life expectancy at birth in County Durham	2012-14	**78.1**	**81.4**
Life expectancy at birth in England	2012-14	**79.6**	**83.2**
Absolute gap in life expectancy between County Durham and England (years)		**-1.5**	**-1.8**
Relative gap (%)		**1.9%**	**2.2%**
Obesity in Children (Year 6)[2]			
Obesity in County Durham (%)	2010/11-2014/15	**23.1**	**20.1**
Obesity in England (%)	2010/11-2014/15	**20.6**	**17.4**
Absolute gap in excess weight between County Durham and England (percentage points)		**2.5**	**2.7**
Relative gap (%)		**10.3%**	**13.4%**
All cause premature mortality (<75 years)[3]			
ACPM in County Durham	2012-14	**471.7**	**336.8**
ACPM in England	2012-14	**410.5**	**267.7**
Absolute gap in ACPM between County Durham and England (rate per 100,000)		**61.2**	**69.2**
Relative gap (%)		**14.9%**	**25.8%**

In order to allow comparison between different indicators, the relative inequality gap is used. This is calculated by dividing the absolute gap by the value in the standard or less deprived area, in this case England. In the male life expectancy example, the relative gap between County Durham and England equals 1.5/79.6, which expressed as a percentage is 1.9%.

The Institute of Health Equity's 'Marmot Indicators 2015' (Figure 4) relate to the social determinants of health, health outcomes and social inequality, and broadly correspond to the six policy recommendations proposed in Fair Society, Healthy Lives:

1. Give every child the best start in life
2. Enable all children, young people and adults to maximise their capabilities and have control over their lives
3. Create fair employment and good work for all
4. Ensure a healthy standard of living for all
5. Create and develop healthy and sustainable places and communities
6. Strengthen the role and impact of ill health prevention.

Health inequalities exist **between** County Durham and England:

- Life expectancy (at birth, 2012-14) for men living in County Durham is 1.5 years less than the England average. For women it is 1.8 years less than the England average
- Healthy life expectancy (at birth, 2012-14) for men living in County Durham is 4.9 years less than the England average. For women it is 4.6 years less than the England average
- Breastfeeding prevalence at 6 to 8 weeks (2014/15) in County Durham (28.9%) is lower than England (47.2%)

[1] Public Health Outcomes Framework, Public Health England
[2] NCMP Local Authority Profile, Public Health England
[3] 2012-14, Compendium of Population Health Indicators, Health and Social Care Information Centre Indicator Portal

- Excess weight in 10-11 year olds (2014/15)[4] in County Durham (36.5%) is significantly higher than the England average (33.2%)
- Teenage conception rates (2013) were significantly higher in County Durham (33.8 per 1,000 15-17 year olds) than England (24.3 per 1,000).
- Registered disease prevalence within County Durham by Clinical Commissioning Group (CCG) is greater than England for many conditions where a national comparison is available. Registers where prevalence is more than 20% higher than England in both of the county's CCGs include:
    - Coronary Heart Disease
    - Stroke / Transient Ischaemic Attach
    - Chronic Obstructive Pulmonary Disease
    - Learning disabilities
- Admissions to hospital for alcohol related conditions (2013/14, narrow definition) were significantly higher in County Durham (788 per 100,000) than England (645 per 100,000)
- Premature mortality rates from cancer (2012-14) in County Durham (168.6 per 100,000) are significantly higher than England (141.5 per 100,000)

Figure 4: The Marmot indicators for County Durham, the North East and England, 2015. Source: Institute for Health Equity, 2015

Health outcome indicators		County Durham	North East	England
Healthy life expectancy at birth - Male (years)	2011-13	**58.4**	59.3	63.3
Healthy life expectancy at birth - Female (years)	2011-13	**59.3**	60.1	63.9
Life expectancy at birth - Male (years)	2011-13	**78.0**	78	79.4
Life expectancy at birth - Female (years)	2011-13	**81.3**	81.7	83.1
Inequality in life expectancy at birth - Male (years)	2011-13	7.0	-	-
Inequality in life expectancy at birth - Female (years)	2011-13	7.5	-	-
People reporting low life-satisfaction (%)	2014/15	5.0	6.1	
Giving every child the best start in life				
Good level of development at age 5 (%)	2013/14	**56.7**	55.8	60.4
Good level of development at age 5 with free school meals (%)	2013/14	**40.1**	39.1	44.8
Enabling all children, young people and adults to maximise their capabilities and have control over their lives				
GCSE achieved 5A*-C including English and Maths (%)	2013/14	57.6	54.6	56.8
GCSE achieved 5A*-C including English and Maths with free school meal status (%)	2013/14	35.3	30.4	33.7
Create fair employment and good work for all				
Unemployment % (ONS model-based method)	2014	7.5	8.5	6.2
Long term claimants of job seekers allowance (rate per 1,000 population)	2014	**10.1**	12.5	7.1
Ensure a healthy standard of living				
Fuel poverty for high fuel cost households (%)	2013	**11.5**	11.8	10.4
Create and develop healthy and sustainable places and communities				
Utilisation of outdoor space for exercise / health reasons (%)	2013/14	16.7	17.5	17.1

Significantly worse than England	Not significantly different to England

[4] N.B. This is a different measure to that in Table 1

The Public Health Outcomes Framework sets out a vision for public health, the desired outcomes and the indicators which will help us to understand how well public health is being improved and protected (Department of Health). The framework outlines the overarching vision for public health "to improve and protect the nation's health and wellbeing, and improve the health of the poorest fastest".

The Public Health and NHS Outcomes Frameworks share many indicators on premature mortality. Shared indicators in the two outcomes frameworks mean that in addition to continuing their traditional roles, with public health covering prevention and the NHS covering treatment, they will each work harder to support a more holistic approach. For example, the outcomes frameworks recognise the role of public health in improving early cancer diagnosis and the role of NHS practitioners in providing advice to patients and the public on how to maintain and improve health.

The outcomes framework is split into four indicator domains:

- Domain 1: Improving the wider determinants of health
- Domain 2: Health improvement
- Domain 3: Health protection
- Domain 4: Healthcare public health and preventing premature mortality

The Public Health Outcomes Framework indicators for the wider determinants, where County Durham is significantly different to England, can be seen below:

Indicators significantly better than England	Indicators significantly worse than England
School Readiness: the percentage of Year 1 pupils achieving the expected level in the phonics screening check (Female)	Children in poverty
The rate of complaints about noise	School Readiness: the percentage of children achieving a good level of development at the end of reception (Persons)
Statutory homelessness - households in temporary accommodation	School Readiness: % of children with free school meal status achieving a good level of development at the end of reception (Persons)
Social Isolation: percentage of adult social care users who have as much social contact as they would like	First time entrants to the youth justice system
Social Isolation: percentage of adult carers who have as much social contact as they would like	16-18 year olds not in education employment or training
	Sickness absence - % of working days lost due to sickness absence
	Violent crime (including sexual violence) - hospital admissions for violence
	Fuel poverty

Source: Public Health Outcomes Framework, PHE, May 2016

Segmenting life expectancy by cause of death

Public Health England's 'Segment Tool' provides information on life expectancy and the causes of death which are driving inequalities in life expectancy at national, regional and local area levels. Targeting the causes of death which contribute most to the life expectancy gap should have the biggest impact on reducing inequalities.

For males and females, the tool provides data tables and charts showing the breakdown of the life expectancy gap in 2012-14 for two comparisons:

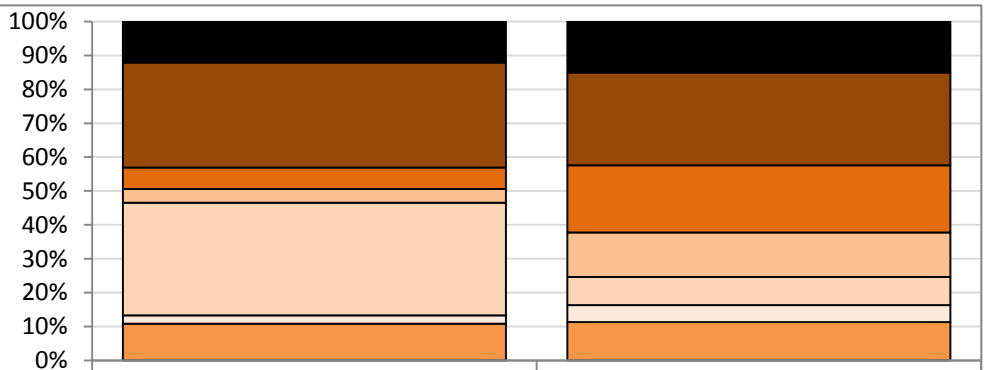
1. The gap between the Local Authority as a whole and England as a whole (Figure 5).
2. The gap between the most deprived quintile and the least deprived quintile within the Local Authority (Figure 6).

1. The gap between County Durham and England

The PHE Segment Tool (Figure 5) shows the main contributors to the lower life expectancy in County Durham compared to England. It illustrates that:

- For men
  - Around one-third of the gap between County Durham and England (33.1%) is caused by higher rates of mortality from external causes (including suicide)
  - Around one-third of the gap between County Durham and England (30.9%) is caused by higher rates of cancer mortality
  - Circulatory mortality accounts for 12% of the gap between County Durham and England
- For women
  - Around one-quarter of the gap between County Durham and England (27.5%) is caused by higher rates of cancer mortality
  - Respiratory mortality accounts for almost 20% of the gap between County Durham and England
  - Circulatory mortality accounts for 12% of the gap between County Durham and England

Figure 5: Scarf chart showing the breakdown of the life expectancy gap between County Durham as a whole and England as a whole, by broad cause of death, 2012-14. Source: The Segment Tool, PHE, 2016.



	Men	Women
Circulatory	12.0	15.0
Cancer	30.9	27.5
Respiratory	6.3	19.8
Digestive	4.1	13.1
External causes	33.1	8.4
Mental & behavioural	2.5	5.0
Other	10.8	11.3
<28 days	0.0	0.0

Health inequalities also exist **within** County Durham. For example:

- The distribution of life expectancy (2012-14[5]) within County Durham is unequal. Life expectancy is 6.9 years lower for men and 7.6 years lower for women in the most deprived areas of County Durham than in the least deprived areas (N.B. This is a later period than that reported in the Marmot Indicators and the Public Health England County Durham Health Profile 2015, which was 2011-13).
- The distribution of year six obesity prevalence (2011-14[6]) within County Durham (by Middle Layer Super Output Area) is unequal. It is higher in the more deprived areas.
- The distribution of premature all-cause mortality within County Durham (by Middle Layer Super Output Area, 2011-13[7]) is unequal. It is higher in the more deprived areas.

[5] Slope index of inequality in life expectancy, Public Health Outcomes Framework (PHE) - for more detail, see the 'Life Expectancy' factsheet

[6] Based on National Child Measurement Programme data 2011-14, National Obesity Observatory

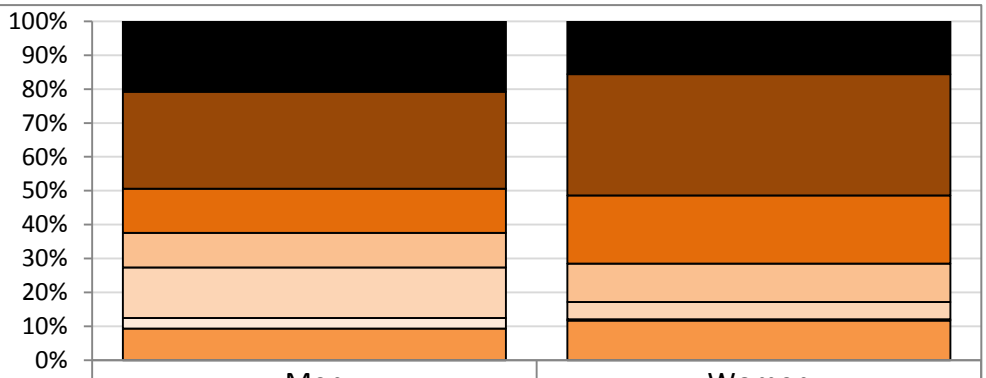
[7] Slope index of inequality in premature mortality, based on Primary Care Mortality Database data, 2011-13

2. The gap within County Durham

The PHE Segment Tool (Figure 6) shows that:

- Cancer is the biggest contributor to the gap between the most and least deprived communities in County Durham for both men (28.6%) and women (35.8%). Around 45% of excess cancer mortality in County Durham was due to lung cancer.
- Circulatory disease is the second biggest contributor to the gap between the least and most deprived in County Durham for men (20.8%) and women (15.6%).
- External causes of death for men (15%) have a greater contribution to the gap between deprived and affluent communities in County Durham compared to women (5.1%).

Figure 6: Scarf chart showing the breakdown of the life expectancy gap between the most and least deprived quintiles in County Durham, %, by broad cause of death, 2012-14. Source: The Segment Tool, PHE, 2016



	Men	Women
Circulatory	20.8	15.6
Cancer	28.6	35.8
Respiratory	13	20.1
Digestive	10.2	11.3
External causes	15	5.1
Mental & behavioural	3.1	0.4
Other	9.3	11.7
<28 days	0	0

The PHE Segment Tool shows the relative contribution to the difference in life expectancy made by various causes of death 1) between County Durham and England and 2) between the most and least deprived areas of County Durham. Results for County Durham illustrate the key role played by avoidable causes of death such as coronary heart disease and lung cancer on inequalities in life expectancy. It should be noted that deaths in younger people contribute to a larger proportion of the gap, as more years of life are lost.

Groups most at risk

Some people are more vulnerable to poor physical and mental health than others. Disadvantaged groups are disproportionately affected by health inequalities, with economically deprived and socially vulnerable groups being at higher risk. This can affect various groups and communities including those living in deprived areas; black and minority ethnic groups; disabled people; people with poor mental health or learning difficulties; lesbian, gay, bisexual, transgender (LGBT) people; Gypsies, Roma and Travellers (GRT); asylum seekers and refugees; carers; ex service personnel.

Men from unskilled, manual occupations are more likely to smoke, drink too much alcohol, suffer from long term conditions (a condition which cannot at present be cured but can be controlled by medication and other therapies). Children from deprived families are less likely to be breastfed, more likely to suffer from asthma, more likely to be obese and more likely to become teenage parents. Migrants, the homeless and drug and alcohol addicts are more likely to suffer from tuberculosis (TB). These inequalities can be partly attributed to disadvantaged groups having

significantly more exposure to risk factors, low uptake of preventative programmes, and delayed presentation to health services and subsequently later access to diagnosis, treatment and rehabilitation.

Extensive research has shown that people who are most affected by societal inequalities related to factors such as low income, gender, social position, ethnic origin, geography, age and disability are more likely to have poorer physical and mental health than the general population. For example:

- Black and ethnic minority communities
- Gypsies and Travellers
- People who are homeless
- People with mental health problems
- People with disabilities
- People with learning disabilities
- Prisoners
- Looked after children
- Teenage parents and the children of teenage parents
- Families living in poverty

Deprived communities
Socially deprived communities currently bear the greatest burden of ill health and disease in County Durham. This is generally accounted for by lifestyle behaviours which are causal factors for many of the main causes of morbidity and premature mortality (smoking, obesity, alcohol). Reasons for this unequal distribution include socioeconomic factors, such as higher rates of unemployment, poor educational attainment, poorer quality housing, as well as lifestyle factors such as higher rates of smoking, higher rates of excessive drinking and poor diet. Mortality rates for the 'big killers' in County Durham including cardiovascular disease and cancer are unevenly distributed and are higher in the more deprived areas. Chronic obstructive pulmonary disease, obesity, diabetes, teenage conceptions, poor oral health are all unevenly distributed along the social gradient.

Children living in poverty
Child poverty is an important issue for public health. Growing up in poverty has a significant impact on children and young people, the impacts of which remain through childhood and beyond. Children who grow up in poverty face significant disadvantage and, as a consequence, are less likely to thrive, learn and achieve. Poverty can remove opportunity for children and young people of the chances others take for granted as they are growing up and this leads to the following generation continuing in a cycle of poverty.

Older people
The number of older people is increasing nationally and locally due to improvements in health and social care. Many long term conditions including cardiovascular disease, osteoarthritis, chronic obstructive pulmonary disease, diabetes, dementia and cancer tend to have a later onset, and so are likely to increase in prevalence as our population ages. Older people are particularly vulnerable due to factors such as bereavement, reduced mobility, sensory impairment or limited income.

Those at risk of stigma & discrimination
Discrimination can leave people feeling isolated. It affects daily life, health and wellbeing. It is caused by societal and individual prejudice against people viewed as being different (e.g. not white, able-bodied, heterosexual and male). This results in a range of oppressive attitudes such as homophobia, ageism, racism, sexism and disableism which pervade our society and have a negative impact on community and individual health and wellbeing. This not only has an impact on the individuals who are stigmatised but also diminishes the people (and organisations) who knowingly or unwittingly promote and support such prejudices. The effect of this on daily life and mental wellbeing is likely to be profound, not only impacting on mental health and self-worth but also preventing individuals from seeking help.

Black and Minority Ethnic (BME) groups, including Gypsy, Roma and Travellers (GRT)
Black and Minority Ethnic populations may experience disproportionately high levels of deprivation, coupled with insufficient services and facilities to support them, and may face negative attitudes. In some cases English may not be the first language. Evidence suggests that older BME groups face more barriers to service access, alongside overcoming stereotype assumptions and the challenge of mainstream services which are not tailored to their specific needs.

The Gypsy, Roma and Travellers (GRT) community forms the largest single ethnic minority group in County Durham. According to the 2011 Census there were 467 people from the GRT community, although it is believed that this figure is not a true representation of the actual population number as many Gypsies, Romas, and Travellers will not self-identify. The Health Needs Assessment for County Durham and Darlington in 2011 estimated that the GRT population in Durham was between 2,200 and 2,940, which is 0.59 % of the county's population.

Analysis from the GRT Health Needs Assessment suggests that the health of this vulnerable group deteriorates more rapidly in older age than the rest of the population. GRT face a range of inequalities in terms of employment opportunities, housing options, the criminal justice system, educational attainment, ill-health and access to social care. People from the GRT community appear over four times more likely to die between the ages of 55 and 74 than the population as a whole. Suicide rates are almost 7 times higher among GRT men compared with men in the general population.

The percentage of the population of County Durham recorded as non-white has risen over the last 20 years, from 0.6% in 1991 to 1.8% in 2011. The majority of the ethnic population in the county has an Asian background and accounts for 51.3% of the ethnic population, 32.7% is from mixed backgrounds, 7.4% from a Black/African/Caribbean background and 8.7% from another non-white ethnic group. Children living in households headed by someone from an ethnic minority are more likely to be living in a poor household. Evidence also suggests that children in the GRT community have problems with literacy and school attainment and they are likely to be assessed as much less school-ready than other children.

Lesbian, gay, bisexual & transgender intersex (LGBTI) population
LGBTI are at higher risk of mental disorder, suicide ideation, substance misuse and deliberate self-harm. 41% of transgender people have reported attempting suicide compared to 1.6% of the general population.

Illicit drug use amongst LGB people is at least 8 times higher than in the general population. Nearly half of LGBT individuals smoke, compared with a quarter of their heterosexual peers. One in ten men who have sex with men are living with HIV and one in three HIV positive men have undiagnosed HIV infection. 85% of men who have sex with men report not receiving information about same sex relationships at school.

People with disabilities
People with disabilities are strongly affected by their physical and social environments, which can greatly facilitate or undermine the independence and quality of their lives. The social environment influences the degree of stigma and discrimination experienced by people with disabilities. In particular, people with chronic mental disorders or intellectual disabilities can be adversely affected.

How does this topic link to our strategies and plans?

'Health inequalities' is a cross-cutting theme which is reflected and referenced in many strategies and plans for County Durham. For example

- County Durham Joint Health and Wellbeing Strategy 2016-2019
- Children, Young People and Families Plan 2015-18
- Durham County Council CAS Service Plan 2016-19
- Safe Durham Partnership Plan 2015-18
- Sustainable Community Strategy 2014-2030

Author:	**Approver:**
Published: June 2016	
Review: June 2017	

Data sources:
Public Health Outcomes Framework, Public Health England (PHE)
2015 Marmot Indicators, Institute of Health Equity
County Durham Health Profile 2015, PHE
National Child Measurement Programme, PHE
Compendium of Population Health Indicators, Health and Social Care Information Centre (HSCIC)
Segment Tool, PHE