



**South Gloucestershire
Director of Public Health**

Annual Report

2013-14





Welcome



The Director of Public Health Annual Report provides a commentary on local health issues based on the latest data. I am deeply grateful to Natalie Field, Deputy Director of Public Health, and the rest of team for their hard work in putting it together.

The last year has been a year of transition and change for the NHS (the largest reorganisation since its creation), for Public Health (returning to local government after 40 years) and for me personally (from Bangladesh to the UK). Much has been in transition and new organisations have been finding their feet and growing into new roles. We felt it appropriate to review the Public Health issues in South Gloucestershire in some detail. Much of the news is good. South Gloucestershire is one of the healthiest places to live in England. Immunisation rates are amongst the highest and life spans some of the longest in the country. But there is also much work to do. The report picks out some of the key issues we face in South Gloucestershire. These include population growth, ageing and multiple health conditions; the poor health outcomes in Priority Neighbourhoods; growing issues of food and fuel poverty; system wide issues such as mental health and alcohol; and the need to work with our schools on public health.

The report highlights the partnerships required with other organisations in an increasingly complex health and social care environment. Budgets are tight, demand is high and unless we prioritise, innovate, and find new ways of working especially across organisational boundaries we will fail the people we serve. However, South Gloucestershire has a long history of collaborative working and is well placed to rise to the challenge. I am excited by the opportunities going forward and I am confident, despite the difficulties ahead, that we can continue to improve the health and wellbeing of the population of South Gloucestershire so that it will remain a great place to live and work.

Dr Mark Pietroni

Definition of Public Health








The science and art of promoting and protecting health and wellbeing, preventing ill-health and prolonging life through the organised efforts of society."

Faculty of Public Health.

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Section 1

**The wider determinants of health:
everybody's business**



The wider determinants of health: everybody's business

Some of the greatest gains in life expectancy and public health have been achieved through improvements in social conditions, rather than through advances in medicine. In addition to better sanitation and housing, there have been fundamental improvements in nutrition and food safety, legislation to improve air quality, health and safety legislation, and the development of immunisation programmes.

Local government is responsible for commissioning and delivering many services that influence the day-to-day conditions in which people live, and which in turn can affect people's health and wellbeing. Therefore, the recent transfer of Public Health professionals and related staff into local authorities provides an opportunity to have greater influence on many of the wider social, economic and environmental determinants of health and health inequalities. Areas where local authority actions can influence health include planning, transport, social care, housing, environmental health, leisure services and education.

1.1 Employment and health

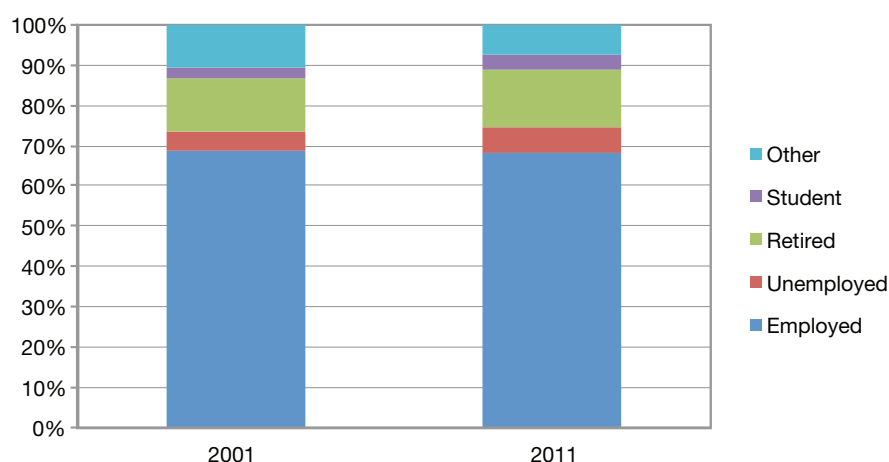
The characteristics of work – activity, social interaction, identity and station – are proven to be beneficial to our physical and mental health. There is evidence of a relationship between unemployment and ill-health and a strong association between unemployment and poor mental health. However, the health of unemployed people is also affected by other variables such as educational attainment, the environment and economic circumstances.

One in seven men develop clinical depression within six months of losing their job¹ and prolonged unemployment increases the incidence of psychological problems from 16 per cent to 34 per cent². There are also major impacts on the spouse of the unemployed person³. There has been new research into the effect of retirement on health. Health tends to improve initially after retirement, before starting to deteriorate due to reduced physical activity and social interaction.

Some new research indicates that being retired decreases physical, mental and self-assessed health. The adverse effects increase as the number of years spent in retirement increases⁴.

Figure 1.1 shows that the proportion of people who were unemployed in South Gloucestershire has increased from 4.4% in 2001 to 6.3% in 2011. A greater increase in unemployment over this period is seen when considering just those individuals classified as 'economically active' (i.e. those individuals working or actively seeking work). Of the economically active population, 6.0% of people in South Gloucestershire were unemployed in 2001 compared to 8.5% in 2011. South Gloucestershire had 1% more unemployment in the economically active population than England in 2001 and 2.2% more unemployment in 2011.

Figure 1.1: Economic activity of South Gloucestershire residents aged 16-74 years 2001 and 2011



Source: Census 2001 and 2011

1.2 Fuel poverty

In England at the start of 2014 (under the original fuel poverty definition⁶) 4.82 million households (about one in four) were in fuel poverty compared to 4.28 million in 2013, an increase of 13%. Compared to 2011, fuel poverty in England has increased by 51% (Association for Conservation of Energy, 2014). The number of dependent children in fuel poverty under the original definition has increased from 1.66 million in 2013 to 1.94 million at the start of 2014 (an increase of 17%).

¹ Royal College of Psychiatrists, 2013 Depression and Men: key facts. Royal College of Psychiatrists website www.rcpsych.ac.uk/healthadvice/problem/disorders/depressionmenkeyfacts.aspx

² Paul and Moser (2009)

³ Marcus, 2012

⁴ Gabriel H. Sahlgren (2013) Work Longer, Live Healthier: Institute of Economic Affairs http://www.iea.org.uk/sites/default/files/publications/files/Work%20Longer,%20Live_Healthier.pdf

⁵ Employed and unemployed categories include full-time students who were in employment or actively seeking work at the time of the census respectively.

⁶ Two definitions for fuel poverty are now in use in the UK.

The original definition is a household having to spend over 10% of its disposable income to pay for adequate energy services.

Under the new definition, a household is said to be in fuel poor if: Their income is below the poverty line (taking into account energy costs); and Their energy costs are higher than is typical for their household type.

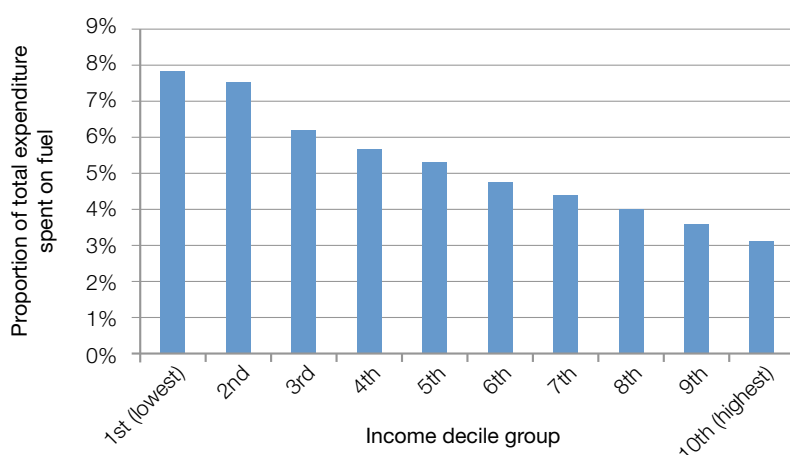
Under the original definition, the number of older people in fuel poverty increased from 2.19 million in 2011, to 2.9 million in 2013, to 3.29 million today – an increase on last year of 13%, and of 50% since 2011.

The number of people in fuel poverty in England under the new definition increased by 1% from 6.91 million in 2013 to 6.99 million people in 2014. Compared to 2011, the number of people is up 6%.

The effect of fuel poverty and a cold home has been shown to increase the likelihood of ill health, including hypertension, heart disease, stroke, influenza and asthma. During the winter of 2011/12 (December to March) there were 24,000 excess winter deaths in England and Wales representing a 15% increase in deaths compared to the average number of deaths occurring during the rest of the year, known as Excess Winter Mortality. For every one degree Celsius that the outdoor temperature falls below the winter average, there are 8,000 extra winter deaths. Tackling fuel poverty has the potential to help save lives; prevent ill-health; reduce admissions (and re-admissions) to hospital (as well as length of stay).

Fuel poverty involves a complex interplay of factors including energy efficiency of property, household income, energy costs, housing tenure and external environment. Although low income households spend the lowest absolute amount on fuel, it accounts for a greater proportion of their overall expenditure than amongst high income households⁷. Almost 8 per cent of total expenditure in the lowest income decile group is on domestic fuels, compared to just three per cent in the highest income decile group (See figure 1.2).

Figure 1.2: Proportion of total expenditure on fuel, by income decile group in England, 2011⁸



Source: Department of Energy and Climate Change

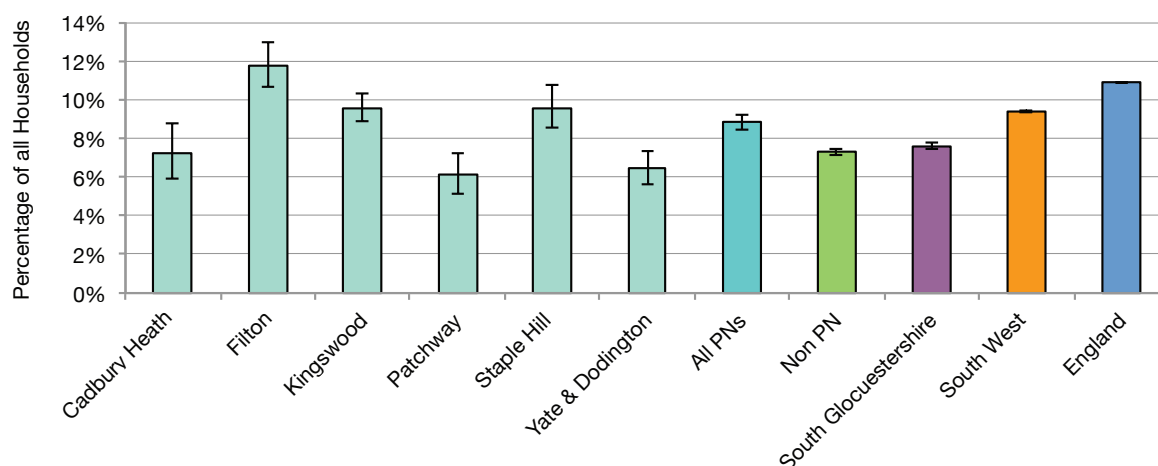
Over the last decade, millions of households across the country have benefitted from improved energy efficiency and through measures such as cavity wall and loft insulation. South Gloucestershire's Warm & Well scheme began in 2001 aiming to improve energy efficiency in the home via energy efficiency advice, promotion and referrals to loft and cavity wall insulation installation and direct referrals to Warm Front⁹. Although both the Warm & Well and the Warm Front Schemes have ended, South Gloucestershire now has an Affordable Warmth Action Plan.

⁷ Press V on behalf of National Heart Forum, Eaga Partnership Charitable Trusts, Faculty of Public Health Medicine, Help the Aged and Met Office. 2003. Fuel Poverty and Health – a Guide for PCOs, and Public Health and Primary Care Professionals. London: NHF.

⁸ Department of Energy and Climate Change (2013) Annual Report on Fuel Poverty Statistics

Figure 1.3 shows that in 2011, 7957 (7.6%) of households in South Gloucestershire were in fuel poverty compared to an average of 9.4% in the South West¹⁰.

Figure 1.3: Fuel poverty by Priority Neighbourhood*, South Gloucestershire, South West and England, 2011



Source: Department of Energy and Climate Change, 2011

*See Section 2.4 for further information on Priority Neighbourhoods



Key messages and next steps

- Fuel poverty has increased across England over the last year.
- Energy efficiency measures should be prioritised for people in fuel poverty and for South Gloucestershire this could be delivered through targeting the Priority Neighbourhood areas of Kingswood, Filton and Staple Hill.
- South Gloucestershire Council will continue to work with partners to deliver the South Gloucestershire Affordable Warmth Action Plan.

⁹ Warm Front was government grant-funded programme for tackling fuel poverty in England to help pay for energy efficiency measures. To qualify households had to receive certain income-related benefits, live in a home without working heating, or live somewhere that is poorly insulated.

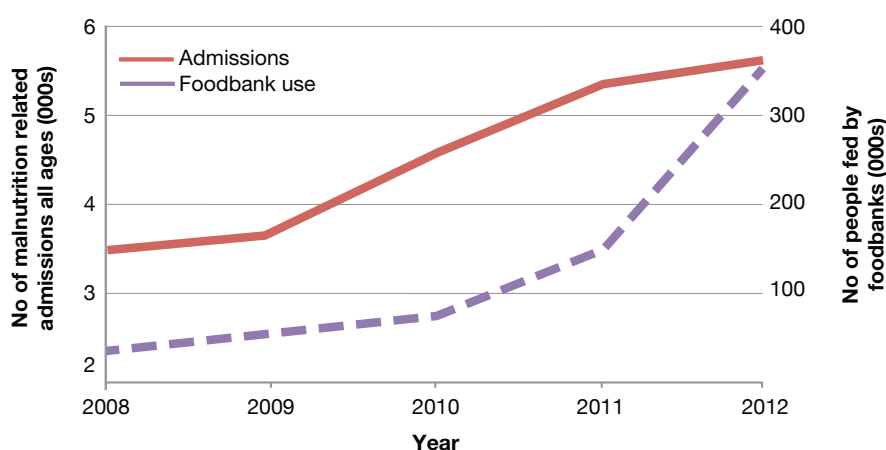
¹⁰ Department of Energy and Climate Change, 2013

1.3 Food poverty

Food poverty can be defined as the inability to obtain healthy affordable food¹¹. It is a growing concern both nationally and locally. A recent survey found that over a third (37%) of people in the South West said they were not able to eat healthily because it was too expensive¹². Figure 1.4 shows that the number of malnutrition related admissions to hospital in England has almost doubled since 2008-09¹³. Although foodbank usage has increased since 2008, the rate has increased exponentially since 2011. This may be partially attributable to an increase in the availability of food banks. Furthermore, there has been a decrease in calories purchased and substitution with unhealthier foods, especially in families with young children¹⁴. This is a concern as being exposed to malnutrition at a young age can have lifelong effects, increasing the risk of cardiovascular and other chronic diseases in adulthood¹⁵.

At a local level, a growing number of people are becoming reliant on food banks. Data from three food banks in South Gloucestershire (Yate, Thornbury and Mangotsfield) shown a four-fold increase in the number of people accessing them in the year from 2012 to 2013, rising from 641 people to 2517 people. People come to rely on food banks for a range of reasons including debt, bereavement, sickness, redundancy, relationship breakdown and domestic abuse.

Figure 1.4: Hospital admissions related to malnutrition and number of people using food banks since economic crisis in England



Source: Taylor-Robinson, D (2013) The rise of food poverty in the UK . BMJ 2013;347:f7157



Key messages and next steps

- The use of food banks is increasing in parts of South Gloucestershire, in line with national trends.
- South Gloucestershire Council in conjunction with partners will develop a new Food and Health strategy.

¹¹ http://www.sustainweb.org/foodaccess/what_is_food_poverty/

¹² Nuffield Health Survey 2014

¹³ Taylor-Robinson, D (2013) The rise of food poverty in the UK . BMJ 2013;347:f7157

¹⁴ Griffith (2013) Gluttony in England? Long-term change in diet. Institute of Fiscal Studies

¹⁵ Victora CG, Adair L, Fall C, Hallal PC, Martorell R, Richter P, et al. Maternal and child undernutrition: consequences for adult health and human capital. Lancet 2008;371:340-57.



1.4 Air quality

The most damaging type of air pollution consists of tiny particles that are suspended in the air, known as particulate matter. These particulates are classified according to their size, as either smaller than $10\mu\text{m}$ (microns) in diameter (PM_{10}) or smaller than $2.5\mu\text{m}$ ($\text{PM}_{2.5}$) and can cause adverse effects to health at very low concentrations. Outdoor air pollution is estimated to have contributed to around 3.2 million deaths in 2010, which represents 3.1% of all deaths globally.

It is estimated that nearly 29,000 premature deaths in the UK occur each year due to particulate matter pollution (specifically $\text{PM}_{2.5}$). In 2011, the Environmental Audit Committee noted that the costs to UK society from poor air quality were equivalent to those from smoking and obesity¹⁷, reducing average life expectancy by six months at a cost of around £16 billion per annum¹⁸. Air pollution remains an invisible public health problem as there is low public awareness of the problem.

In South Gloucestershire, the main pollutant of concern is nitrogen dioxide, which primarily arises from traffic emissions. Road transport can contribute up to 70% of air pollution in urban areas. Although the Council has a duty to review and assess key pollutants, including PM_{10} and nitrogen dioxide (NO_2), the responsibility for achievement of the $\text{PM}_{2.5}$ objective lies with the Government.

Air quality is monitored across South Gloucestershire and compared with national objectives set by the Government. If an area is identified where levels of air pollution exceed national objectives, an 'Air Quality Management Area' (AQMA) has to be declared. An action plan then needs to be developed to improve the air quality in that area.

¹⁷ House of Commons Environmental Audit Committee Report, Air quality: A follow up report, Ninth Report of Session 2010-12, HC1024

¹⁸ Defra, 2010, Valuing the Overall Impacts of Air Pollution

Particulate matter concentrations (PM_{10}) are routinely monitored at two sites in South Gloucestershire - Yate and Filton. because the recorded levels at both of these sites exceed the national objectives. In 2010 three AQMAs were declared for exceedences of the NO_2 annual mean objective ($40\mu g/m^3$) in Kingswood, Staple Hill and at Cribbs Causeway, adjacent to M5 Junction 17. The Kingswood and Staple Hill AQMAs were extended in May 2012 following further assessment. Since its declaration, the Cribbs Causeway AQMA has been found to be below the objective set by the Government. However, the AQMA has been retained in line with advice from the Department for Environment, Food and Rural Affairs (Defra) to monitor and review future pollutant concentrations since these may vary significantly from year to year.

In March 2012, an Air Quality Action Plan was agreed in order to improve air quality within the Kingswood and Staple Hill AQMAs. Although good progress is being made in the implementation of the Action Plan, it is currently too early to confirm its effect on nitrogen dioxide levels.



Key messages and next steps

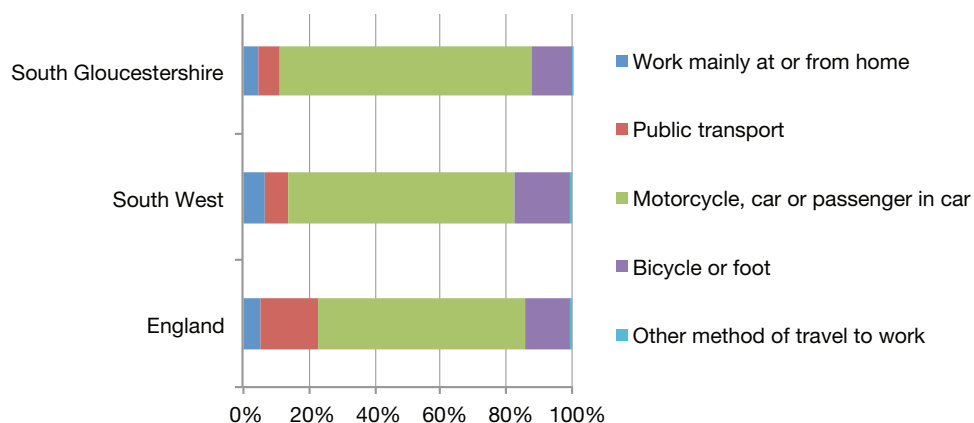
- The health impacts of air pollution are greater than the risks of passive smoking and transport collisions added together.
- Road transport is responsible for up to 70 per cent of air pollutants in urban areas.
- Local air pollution should continue to be monitored with a focus on responding to any new central requirements regarding particulates.
- Work on Priority Neighbourhoods should link the evidence of air pollution in the Air Quality Management Areas of Kingswood and Staple Hill to wider improvements in the built environment and streetscape in these areas.



1.5 Transport and active travel

Since the beginning of the 1950s there has been a rapidly increasing reliance on cars as the main mode of transport within Great Britain, although traffic growth within South Gloucestershire has stabilised over the past decade. This has influenced the design of the built environment to accommodate increasing car ownership. Whilst more recent design guidance has sought to redress the balance, there are many modern housing estates that have been designed around accessibility by car. As a consequence, walking and cycling are made less attractive and the streets are no longer used as areas to congregate, socialise or to play

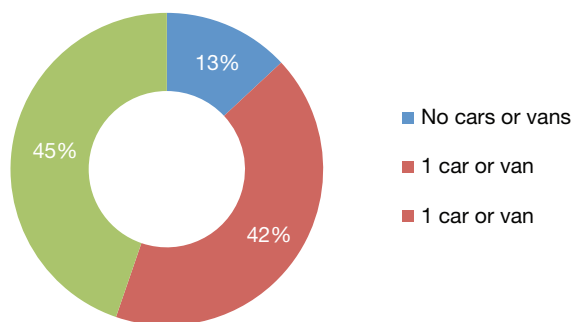
Figure 1.5: Mode of travel to work (Residents aged 16-74)



Source: Census, 2011

Figure 1.5 shows that a greater proportion of residents in South Gloucestershire travel to work by car compared to the South West and national average. Figure 1.6 shows the car ownership in 2011 in South Gloucestershire (source: 2011 Census), which represents a 4.6% increase in the number of cars owned by South Gloucestershire compared to 2001. This reflects an increase in the number of multiple car owning households, as the proportion of households without a car has remained relatively stable at 13.1%.

Figure 1.6: Number of cars and vans per household in South Gloucestershire, 2011



Source: Census, 2011

A growing body of evidence demonstrates that there are significant benefits to health and the environment by reducing our car use and shifting instead to active transport i.e. walking and cycling.¹⁹ Cycling and walking for short journeys has numerous benefits for communities resulting in safer and more pleasant streets, better air quality, lower carbon emissions, reduced congestion and a healthier population.²⁰ The introduction of more 20mph speed zones in residential areas would reduce the number of injuries and deaths on roads as well as increasing active, sustainable and shared travel.²¹

In South Gloucestershire, some progress has been made in supporting people to adopt more healthy and sustainable forms of travel. Together with the other West of England authorities, South Gloucestershire has been successful in securing investment from the Government's Local Sustainable Transport Fund (LSTF) and the Cycle Ambition Fund. These projects build on the achievements of Cycling City to further promote active travel. There has been an increase in the proportion of employees cycling to work from 7.8% in 2006 to 12.6% in 2013 (source: annual snapshot survey of South Gloucestershire employers), whilst between 2008/09 and 2012/13 there was an overall increase in cycling trips of 18.4% (Source: JLTP3 Monitoring). Between 2006 and 2013, the proportion of employees walking to work has increased from 4.5% to 8.5% (source: annual snapshot survey of South Gloucestershire employers).

The recent transition of Public Health staff to the Council brings many opportunities for co-ordinated working with planners and transport officers to make positive changes to the built environment which are conducive to health.

¹⁹ British Medical Association, (2012) Healthy transport = Healthy lives, London: BMA

²⁰ Great Britain. Department for Transport / Department of Health (2010) Active Travel Strategy. London: The Stationery Office

²¹ Dorling, D. 2014 20mph Speed Limits for Cars in Residential Areas, by Shops and Schools, in British Academy, If you could do one thing..." Nine local actions to reduce health inequalities. London: BA

²² The NCMP measures the height and weight of all children in Reception (4 to 5 years of age) and Year 6 (10 to 11 years) in maintained primary schools.

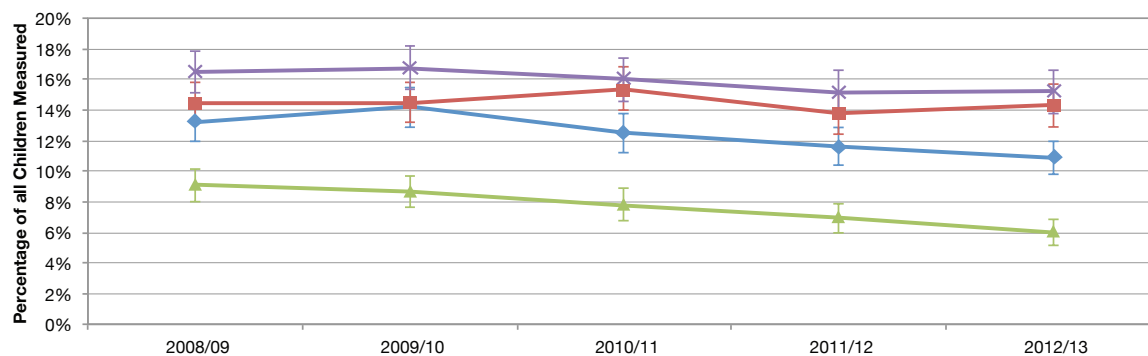


Children's activity and its link to obesity

Play is central to children's physical, psychological and social wellbeing. However, children today play together outside much less than in the past as there is greater fear of strangers and road traffic collisions, school break times have been cut, there is less street space for play and indoor 'screentime' has become the default leisure pastime. When children do manage to take part in outdoor activity, it is often organised by adults with less spontaneity, social interaction and fun.

Childhood overweight and obesity have risen as children's physical activity levels have dropped and they are an ongoing public health concern for South Gloucestershire. Figure 1.8 shows the childhood overweight and obesity rates in South Gloucestershire between 2008/9 and 2012/13.

Following a long-term rise based on national data, there are signs that the overweight and obesity rate in South Gloucestershire amongst Reception children may have peaked (at about 14% and 9% respectively) and started to decline (to about 11% and 6% respectively) over this period. The trend for Year 6 children is less pronounced but the obesity rate appears to have reached a plateau in 2008/9 and 2009/10 (about 17%) and started to reduce slightly in 2010/11. This pattern may reflect a lag in the trend in obesity rates for Year 6 compared to Reception children.

Figure 1.8: Overweight and obesity by year group, 2008/09 to 2012/13; South Gloucestershire

Source: National Child Measurement Programme (NCMP)²²

In November 2013, a stakeholder event was held to consult on the priorities for South Gloucestershire's new Healthy Weight Strategy. More than 90 delegates from over 30 different organisations from the statutory, private and community and voluntary sector attended the event. The next steps will involve the healthy weight strategy group coming together to finalise priorities and develop an action plan to go out to formal consultation in the New Year. The Healthy Weight Strategy will deliver against a number of high level actions within the Joint Health and Wellbeing Strategy.



Key messages and next steps

- South Gloucestershire Council will work with partners to develop a Physical Activity Strategy to encourage an increase in everyday activity such as walking and cycling.
- South Gloucestershire Council will invest in transport measures that will promote active and sustainable travel through the Local Transport Capital Programme and other associated funding streams.
- South Gloucestershire Council will work with landowners and developers to ensure that new communities are designed to encourage local trips to be made on foot, by bike, and by public transport.
- South Gloucestershire Council will work with partners to better enable practitioners to identify cases of childhood overweight and to support parents in seeking referral to appropriate services. The REACH (Rethinking Eating & Activity for Children's Health) programme is the main service in South Gloucestershire for assisting children who are above the healthy weight range.

²² The NCMP measures the height and weight of all children in Reception (4 to 5 years of age) and Year 6 (10 to 11 years) in maintained primary schools.

1.6 Education

The influence of childhood experiences on health status later in life is well documented (Wadsworth 1997; Felitti 1998; Galobardes 2006). There is evidence to suggest that attitudes, beliefs and behaviours learned during these early years - for example, those relating to smoking, physical activity and food choices - show strong 'tracking' into adulthood (Kelder 1994). Promoting healthy habits during these early formative years is therefore of key importance."²³ There is increasing evidence that children with higher levels of emotional and social well-being tend to have higher levels of academic achievement and are more engaged in school.²⁴

ASSIST – A Stop Smoking in Schools Programme

ASSIST is an on-going smoking prevention programme which has been running in South Gloucestershire since 2009. It aims to reduce smoking in adolescents by training and supporting influential Year 8 students as 'peer educators'. So far almost 600 peer educators have been trained have reached over three thousand fellow pupils with conversations on the risk and costs of smoking and the benefits of not smoking. Evaluation of the ASSIST programme nationally and locally in Bristol has shown it to be effective over a 2-year follow-up period.



Key messages and next steps

- A new programme called 'Health in Schools' is being developed in South Gloucestershire schools for the 2014/15 academic year. It will build on the whole-school approach to health employed by the previous Healthy Schools Programme. Pupils, parents and teachers will be supported to integrate healthier behaviours in the journey to/from school, the school environment and the curriculum.
- The introduction of universal free school meals for infant school children and the introduction of compulsory cooking lessons from September 2014 provide particular opportunities for the Health in Schools Programme.
- A survey will be commissioned to gather information on health and lifestyle behaviours amongst school-age children in South Gloucestershire. The survey will provide trend data and increase understanding of pupil's perceptions of their health & wellbeing and behaviours.



²³ The WHO Health Promoting School framework for improving health and well-being of students and staff (2011) World Health Authority

²⁴ Morrison Gutman L & Vorhaus J (2012) The Impact of Pupil Behaviour and Wellbeing on Educational Outcome. Institute of Education, University of London. DFE-RR253



Section 2

Summary of South Gloucestershire demographics and health



Summary of South Gloucestershire demographics and health

This section provides a summary of the current demographics and key health trends in South Gloucestershire, including:

- Population and geography
- Population age structure
- Life expectancy
- Premature cardiovascular disease mortality
- Premature cancer mortality

The annual Health Profile for South Gloucestershire 2013, published by Public Health England, is presented in Appendix A. This provides information on some additional health indicators and data on the wider determinants of health.



2.1 Population and geography

South Gloucestershire consists of urban and suburban areas within the north and east fringes of Bristol and a larger rural area containing the towns of Yate/Chipping Sodbury and Thornbury and over 30 villages. Sixty percent of residents live in urban fringe suburbs, the remainder either in rural villages or small market towns.

The South Gloucestershire population has grown by 7.1% between 2001 and 2011 and there are currently around 266,147 residents (mid year 2012 estimates). This number is projected to rise to 289,457 in 2021 (based on 2011 baseline population of 263,417).

These figures do not take into account the additional housing growth which will take place in South Gloucestershire (see section 4.3).

2.2 Population and age

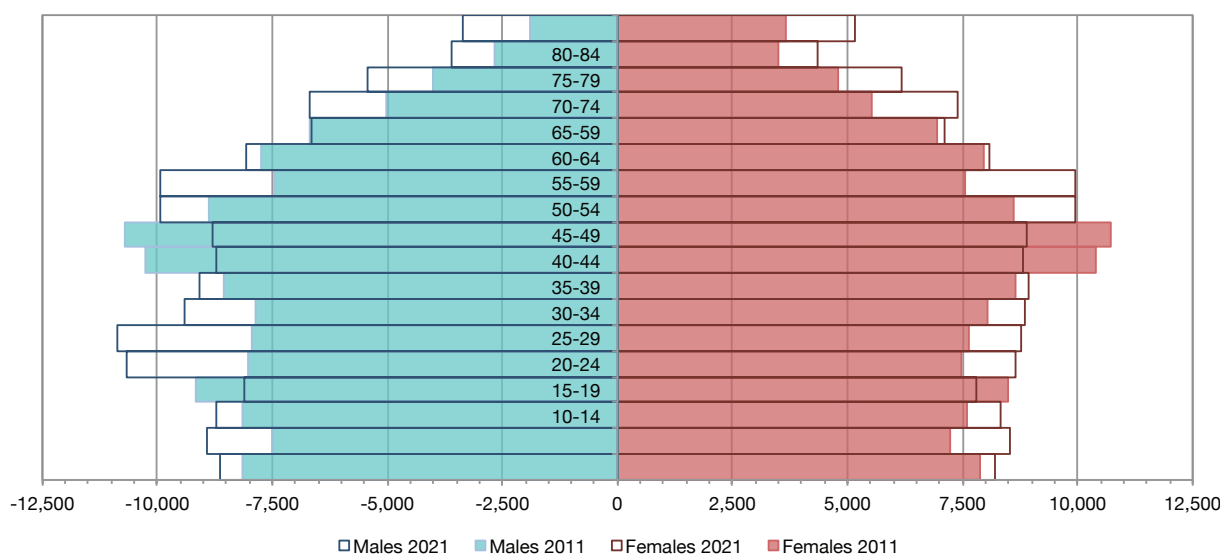
The population-age structure in South Gloucestershire is very similar to the national average with:

- **24.1% aged under 20 years**
- **58.4% aged between 20 and 64 years**
- **17.5% aged 65 years and over.**

The elderly population will grow particularly fast. Projections suggest there will be an additional 17,500 people aged over 75, in ten years time.

The number of births per year has risen from 2684 in 2001 to 3117 in 2011, increasing by an average of 2% per year over this time. It is likely that the birth rate will continue to rise.

A small but growing proportion of the population are from Black and Minority Ethnic (BME) groups: 8.1% according to 2011 compared to 4.1% at the 2001 census. This figure includes all groups in South Gloucestershire apart from White British.

Figure 2.1: South Gloucestershire population pyramid for 2011 and 2021

Source: Office for National Statistics, Population Estimates

The 'dependency ratio' is the ratio of the number of people aged 0-15 years and over 65 years, to the number of people of working age 16-64 years. It was 57% in 2012 and it is projected to rise to nearly 62% by 2021. This means that the working-age group, who tend to provide the informal care for the elderly, will be more stretched.

2.3 Life expectancy

Life expectancy in South Gloucestershire is greater than the England and Wales average by approximately 2 years for men and 1.5 years for women. Over the period from 2001-2003 to 2010-2012, life expectancy in South Gloucestershire increased by 2.3 years for men and 2.6 years for women (see Table 2.1). The increase is higher than those seen nationally for women (2.3 years), but less than the national increase for men (2.99 years).

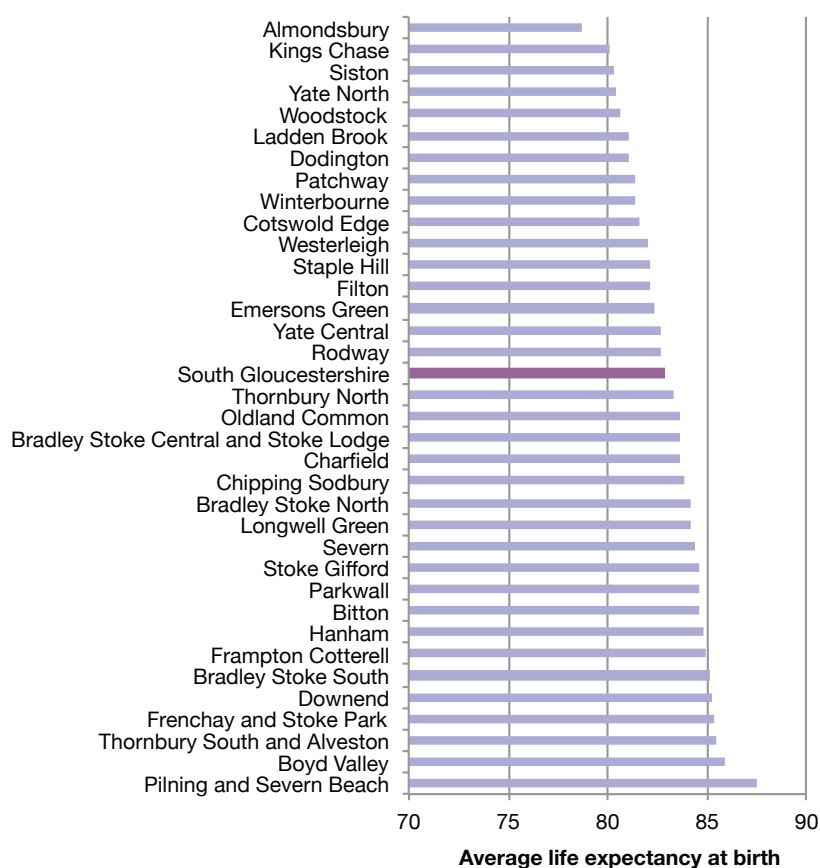
Table 2.1: Life expectancy in South Gloucestershire and nationally 2010-2012

	Life expectancy in South Gloucestershire	Life expectancy in England and Wales
Men	81.0 years	79.1 years
Women	84.6 years	82.9 years

Source: Health and Social Care information Centre, Compendium of Population Health Indicators

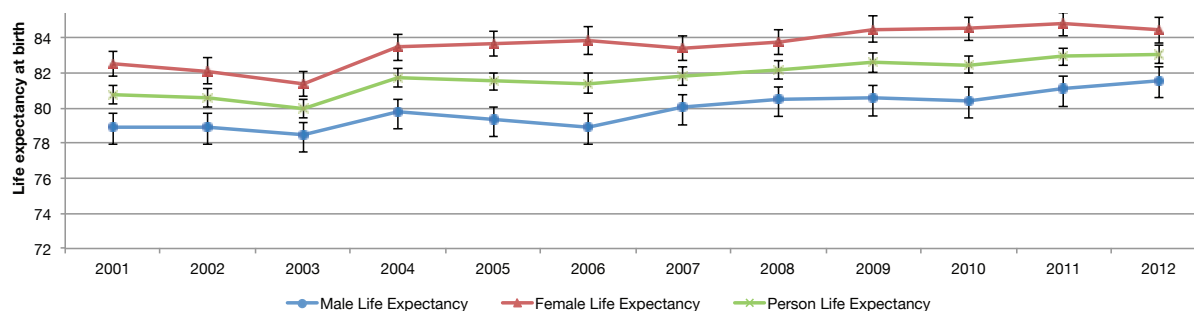
The breakdown of life expectancy in South Gloucestershire by ward is shown in Figure 2.2. The calculated life expectancy has increased over the last decade in about 90% of wards. There are five wards in which calculated life expectancy is significantly lower than the South Gloucestershire average (Yate North, Woodstock, Siston, Kings Chase and Almondsbury). Three of these are part of Priority Neighbourhoods.

Figure 2.2: Life expectancy at birth by ward, South Gloucestershire, based on populations and births during 2010-2012



Source: Primary Care Mortality Data

Figure 2.3: Life expectancy at birth by sex, South Gloucestershire, 2001-2012



Calculated using SEPHO Life expectancy template
 Populations: Office for National Statistics LA level SYOA populations (revised in light of census)
 Deaths: Office for National Statistics Mortality & Primary Care Mortality Data

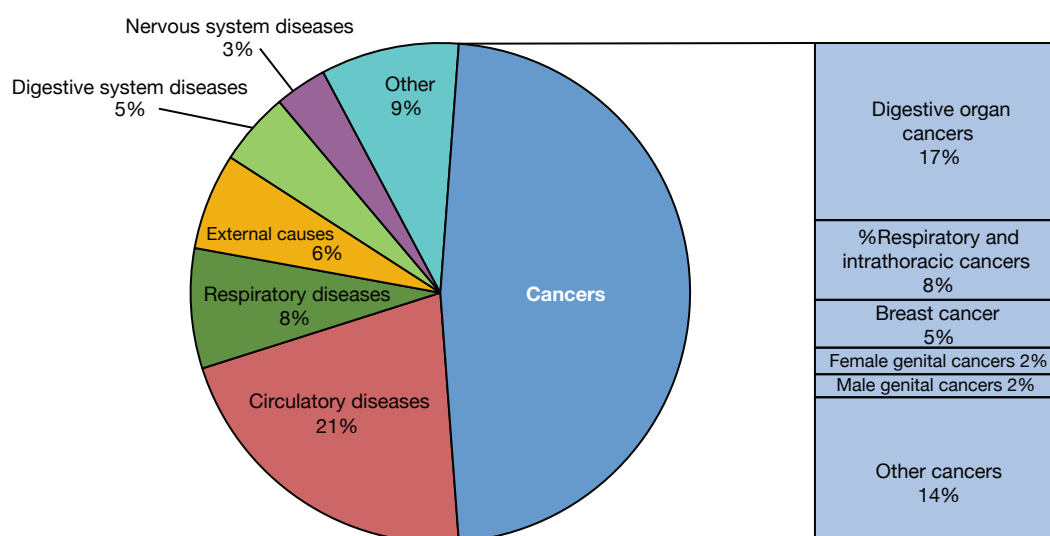


The Marmot Review into health inequalities, published in 2010, clearly illustrated the differences in health, wellbeing and life expectancy of people in different social circumstances. It highlighted that people being born in the poorest neighbourhoods in England will die on average 7 years earlier than those living in the richest group and there is an even greater difference in the length of time people can expect to live in good health (disability-free life expectancy). In South Gloucestershire there is a gradual trend of narrowing difference in life expectancy between men and women (Figure 2.3). Lower life expectancy is experienced in the more disadvantaged areas of South Gloucestershire.

Life expectancy is 6.2 years lower for men and 4.8 years lower for women in the most deprived areas of South Gloucestershire than in the least deprived areas.

2.4 Premature mortality

Figure 2.4: Causes of premature death, South Gloucestershire, 2012



Source: Primary Care Mortality Data

Figure 2.4 shows the relative proportion of diseases contributing to premature mortality (under 75 years) in South Gloucestershire. Almost half of premature mortality is caused by cancers. Circulatory diseases accounts for over a fifth of premature mortality.



Causes of premature death, South Gloucestershire, 2012

Cause of premature death	Number	Percentage
Circulatory diseases	126	21
Respiratory diseases	46	8
External causes	37	6
Digestive system diseases	28	5
Nervous system diseases	20	3
Other	53	9
	283	48

Cancer (of which)

Digestive organ cancers	100	17
Respiratory and intrathoracic cancers	45	8
Breast cancer	27	5
Female genital cancers	15	2
Male genital cancers	13	2
Other cancers	82	14
Benign neoplasms & neoplasms of uncertain behaviour	1	
Total	593	100

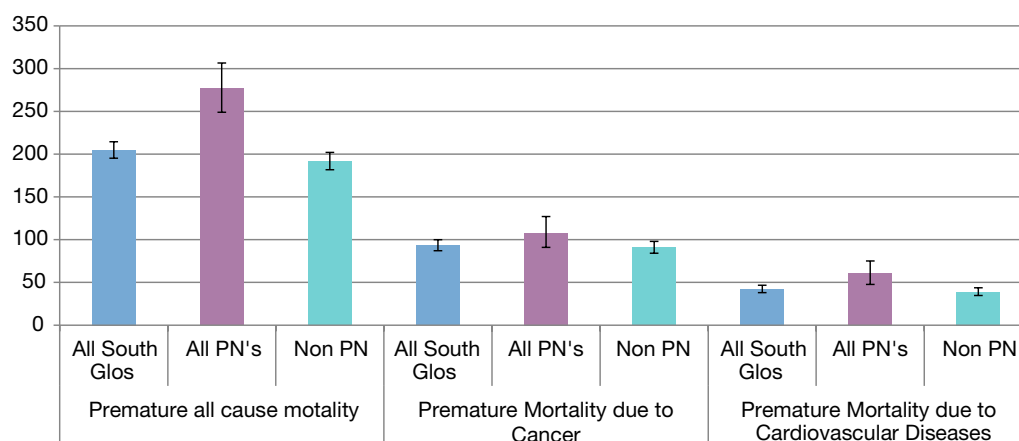
Mortality rates for cardiovascular disease and cancers have reduced substantially for both men and women in South Gloucestershire over the last ten years. The premature death rate from cancer (proportion of deaths under the age of 75 years) is 12.5% lower than the England rate and 6.3% lower than the rate for the South West (2010-12 pooled). The premature death rate from cardiovascular disease is 29.0% lower than the England rate and 15.2% lower than the rate for the South West (2010-12 pooled).

However, there are six localities in South Gloucestershire that have been defined as Priority Neighbourhoods because they are the most deprived, face the greatest health inequalities and have the greatest health need. These are:

- Filton
- Patchway
- Kingswood
- Staple Hill
- Cadbury Heath
- West Yate/Donnington.

Figure 2.5 presents the premature death rate (all-cause) for South Gloucestershire as a whole and for each of the wards which contain a Priority Neighbourhood. The rates in these wards are significantly higher than the South Gloucestershire rate and some are higher than the national average.

Figure 2.5: Premature mortality (under 75 years) by Priority Neighbourhood Status, All cause, cancers and cardiovascular disease, South Gloucestershire, 2010-2012 pooled



Source: Primary Care Mortality Data and Office for National Statistics revised populations

Section 3

Health promotion and lifestyles

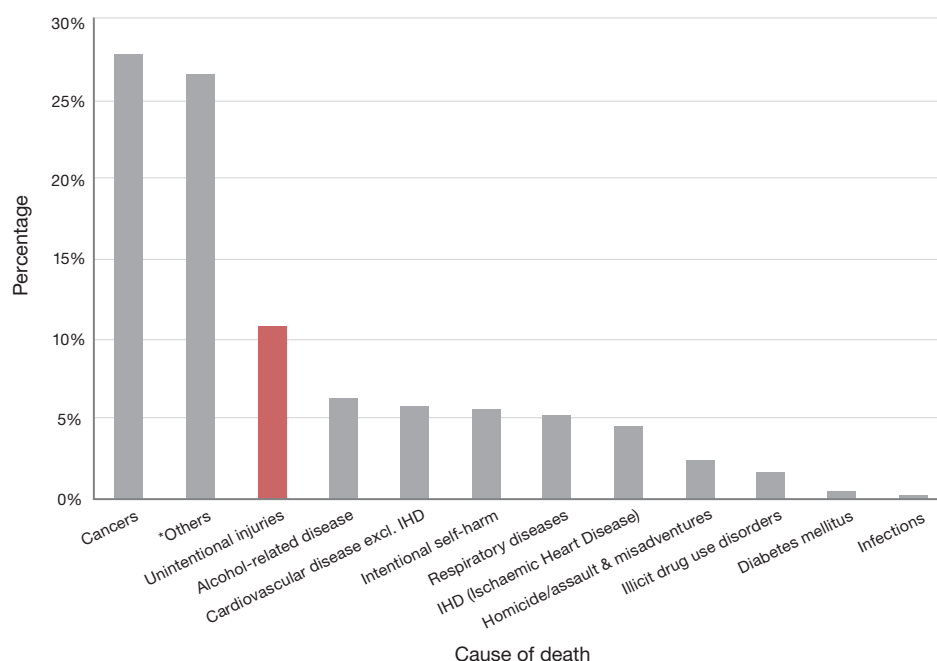


Health promotion and lifestyles

This section of the report presents a summary of three key health promotion / lifestyle issues:

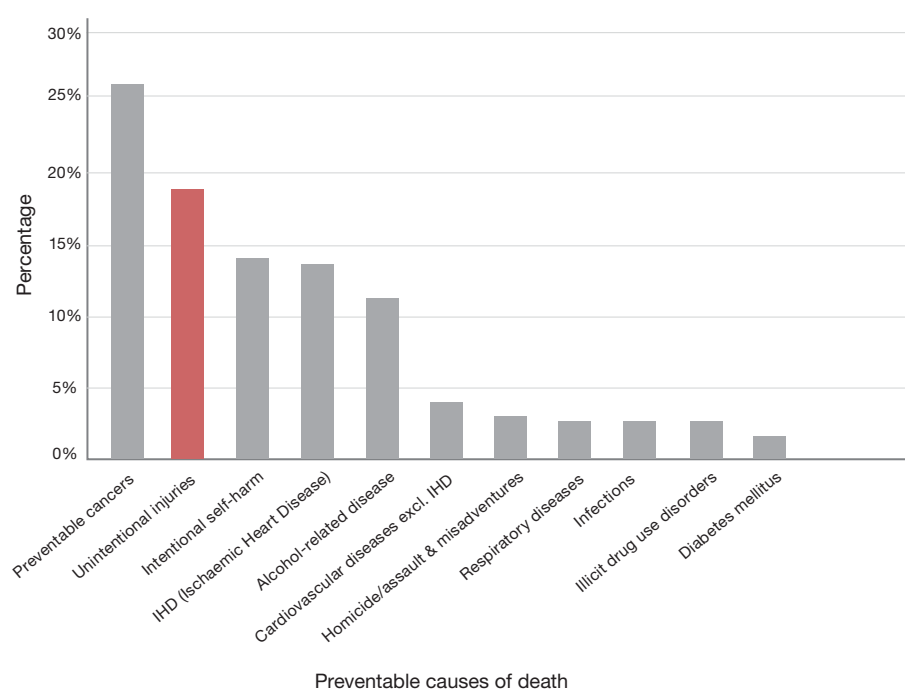
- Injury prevention
- Alcohol and violence
- Mental health

Injuries place a heavy burden on NHS and social care expenditure. ONS data for Years of Life Lost (YLL) for all causes of death within the population aged 15-64 years shows that deaths due to unintentional injuries are the second biggest cause of YLL behind cancers as shown in Figure 3.1. The large 'others' category' includes many unrelated causes of death such as mental health disorders and diseases of the digestive, nervous and genito-urinary system.

Figure 3.1: Percentage of Total Years of Life Lost to people of working age (15–64) from all causes, England and Wales 2010

Source: RoSPA analysis of Office for National Statistics mortality data, England and Wales, 2010

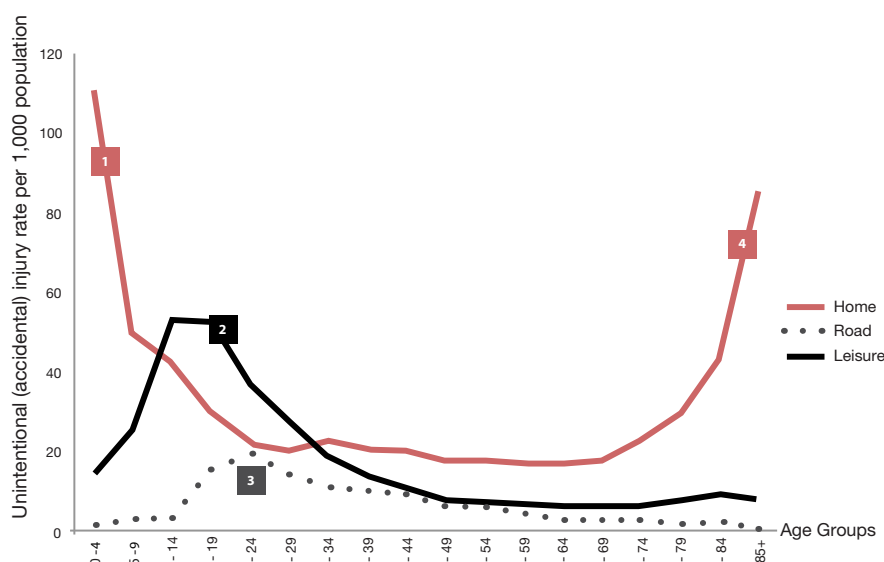
Figure 3.2 shows the Preventable Years of Life Lost (PrYLL) profile for all ages to 65 years. At first glance, it seems surprising that this profile is virtually identical to that of Figure 3.1 with the unintentional injuries still accounting for 19% of PrYLL. On reflection, however, this is because the number of deaths in the 0-15 year age group is relatively small and therefore has little effect on the overall PrYLL profile.

Figure 3.2: Percentage of total preventable years of life lost to people of working age (15–64) from all causes, England and Wales 2010

Source: RoSPA analysis of Office for National Statistics mortality data, England and Wales, 2010

Figure 3.3 highlights where the peaks exist at home, road and leisure injuries and identifies where action is needed.

Figure 3.3: Unintentional injury rates reported to A&E by age



Source: RoSPA / All Wales Injury Surveillance System (AWISS)

1. Under-5s are most likely to be unintentionally injured in the home.
2. Young adults are most likely to be unintentionally injured while undertaking leisure activities.
3. Young people are a group at particular risk and speed is a major risk factor that influences the number of road casualties.
4. Over-65s are most likely to be unintentionally injured in the home.

Unintentional injury is a leading cause of death among children aged 1-14 years particularly in disadvantaged households. It results in more hospital attendances amongst children than any other cause. For children aged under 15 years, nearly half (49%) of the emergency admissions to hospital for an unintentional injury were the result of a fall.

People aged 65 and older are most likely to be unintentionally injured in the home. Falls and fall-related injuries are a common and serious problem for older people. People aged 65 and older have the highest risk of falling, with 30% of people older than 65 and 50% of people older than 80 falling at least once a year. The age-sex standardised rate of hospital admissions due to falls in people aged 65 and over per 100,000 population in South Gloucestershire is higher (2,327) than the rate for the South West as a whole (2,199)²⁶.

Falls prevention – an example

Public Health have worked closely with the Clinical Commissioning Group (CCG) to deliver a falls prevention template to GPs to ensure, in-line with NICE guidance, patients who have fallen or are at risk of falling are offered appropriate support by primary care and community services, including signposting to appropriate community groups, to reduce the risk of falling again.

²⁶ Source: 2010/11 PHOF

Young people are a group at particular risk and speed is a major risk factor that influences the number of injuries from road casualties. In 2010, there were 1,461 deaths in England due to motor vehicle traffic collisions. Mortality and injury due to motor vehicle collisions are notably higher for young people living in deprived areas.²⁷



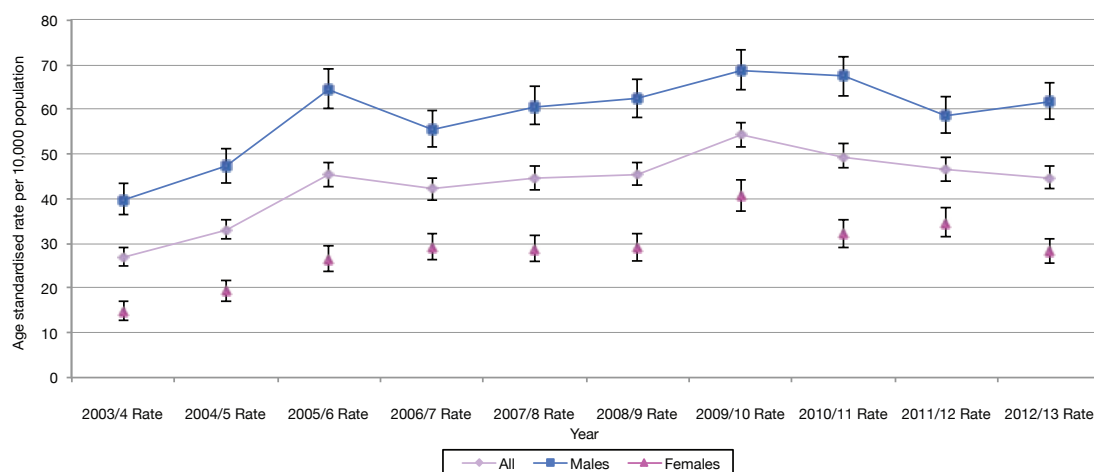
Key messages and next steps

- The rate of admissions to hospital as a result of falls among people aged 65 years and over is higher in South Gloucestershire than the South West as a whole.
- To reduce the risk of falls amongst older people we will continue to undertake targeted risk assessments working closely with primary care and community health staff and with home improvement agencies to assess environmental hazards with intervention.
- The promotion and raising awareness of safety in the home through health visitors and other professionals working with parents/carers of young children should continue.
- South Gloucestershire Council will continue to commission home safety checks and fit safety gates and fire guards.

3.2 Alcohol and violence

A significant health risk of consuming alcohol is injury as a result of assault. Figure 3.4 shows the hospital alcohol-specific hospital admission rates in South Gloucestershire from 2003/4 to 2012/13, for men and women. The figure illustrates that alcohol-specific admissions have increased significantly for both males and females from 2003/04 to 2009/10. There has been a modest decline in rates since then but they remain now 50% higher than a decade ago.

²⁷ Annual report of the Chief Medical Officer, Volume 1 2011

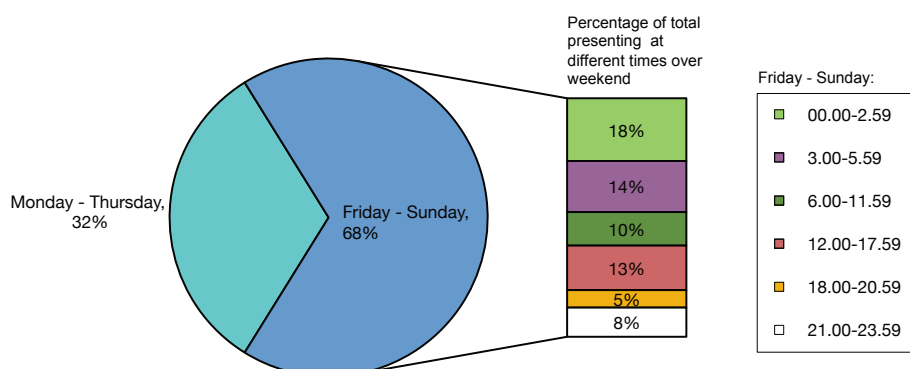
Figure 3.4: Alcohol specific hospital admissions by sex, South Gloucestershire, 2003/4 to 2012/13


Source: Secondary Users System Database

Local data on alcohol related assaults are recorded at the Emergency Department at Frenchay hospital and the two Minor Injuries Units (MIUs) as part of the Frenchay Alcohol and Assaults Project. This section reports on data collected about assaults presenting to the Emergency Department and at the MIUs.

Alcohol was recorded as being involved in 42% of all assaults. In 32% of assaults it was stated that alcohol was not involved. For the remainder (289) there was no record of whether or not alcohol was involved.

Amongst the 843 assaults where alcohol involvement was recorded between April 2011 and March 2013, there were 483 A&E and MIU attendances. These assaults accounted for 57% of assaults where alcohol involvement status was known.

Figure 3.5: Assaults relating to alcohol presenting at emergency department and minor injury units in South Gloucestershire by time and day attended (2011/12 to 2012/13)


Source: North Bristol Trust Data

Alcohol-related assaults that resulted in attendance at Frenchay Emergency Department and Minor Injury Units (MIUs) from 2011/12 to 2012/13 were more prevalent amongst men than women, accounting for 77% and 23% of attendances respectively. Half of the people attending the Frenchay Emergency Department/ MIUs due to alcohol related assaults were aged between 15 and 24 years. The frequency of alcohol-related assaults is strongly dependent on the day of the week and the time of day, as indicated in Figure 3.5. More than two thirds of alcohol-related assaults present at Frenchay Emergency Department/ MIUs on Friday to Sunday and almost half of these are between the hours of midnight and 6am.

The Emergency Department and MIU data shows that, where details of assaults are provided, 75% of alcohol-related assault injuries were to the face or head, with 72% of alcohol related assaults originating in a public place (such as a pub) and 15% originating in the home. Where the cause of the injury was specified, 86% were caused by a body part (for example kicking), with 7.6% were caused by a blunt object, 5.1% by a bottle or glass and 1.1% by a knife.

Alcohol Liaison Nurse

Since June 2013, a pilot project has been running to provide an Alcohol Liaison Nurse to assist people with alcohol-related problems through three GP practices in South Gloucestershire. The project is funded by South Gloucestershire Drug & Alcohol Team. The nurse was employed by South Gloucestershire Specialist Drug & Alcohol Service within Avon & Wiltshire Partnership Trust.

The pilot service has achieved its target of 45 people accessing treatment. The Drug and Alcohol Action Team Joint Commissioning Group have agreed to continue to fund this service through 2014 to provide fast, effective advice on alcohol detoxification and to support GP's further in identifying service user needs in their area.

3.3 Mental health

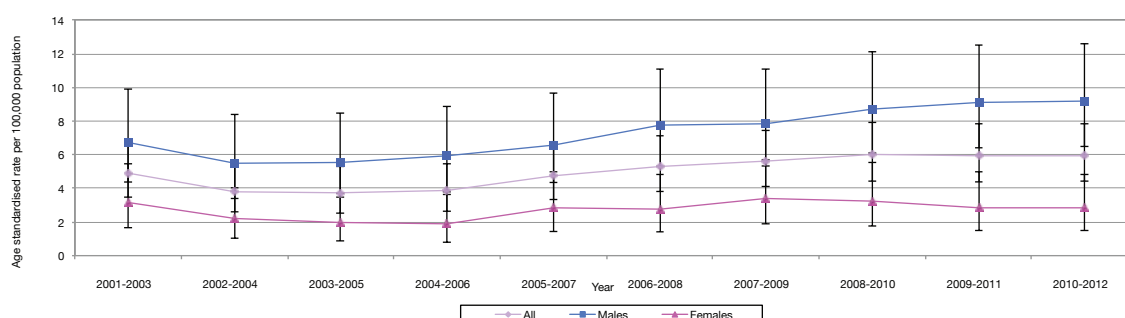
The prevention of mental ill-health and the promotion of mental wellbeing have been identified as priorities in the Governmental Strategy "No health without mental health"²⁸. More women than men are more diagnosed with common mental illness (anxiety and depression) because men are less likely than women to seek help. In fact, men may be at higher risk than women of mental ill-health as they tend to have higher levels of social isolation, a greater risk of becoming homeless and are more likely to display risky destructive behaviours²⁹.

Figure 3.6 shows the suicide rates for men and women between 2001-2003 and 2010-2012 for South Gloucestershire. There has been a small increase in male suicide rates from 2007-2009 to 2010-2012. Female rates have remained relatively constant over the same period. Suicide rates are consistently two to three times higher in males than females, which is in keeping with the national picture.

²⁸ Department of Health (2011) No health without mental health: A Cross-Governmental Mental Health Outcomes Strategy for People of All Ages. HM Government, London.

²⁹ Wilkins, D. (2010) Untold problems: A review of the essential issues in the mental health of men and boys. Men's Health Forum. Available online

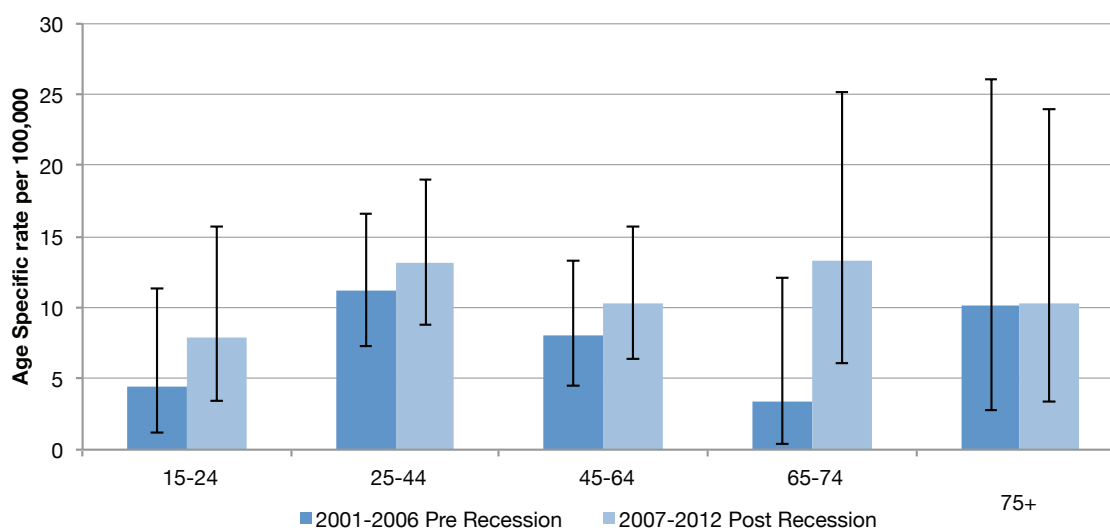
Figure 3.6: Trend in suicide and death by injury of undetermined Intent by sex, 3-Year rolling average, South Gloucestershire, 2001-2003 to 2010-2012



Source: Primary Care Mortality Data file and Office for National Statistics

There is evidence that economic conditions can impact suicide rates³⁰. This is reflected in the pattern of changing suicide rates in Figure 3.6. Figures 3.7 and 3.8 compare suicide rates in South Gloucestershire before and after the recession by gender and age. The data suggest that the recession had a greater adverse effect on the suicide rate amongst men than amongst women. Unemployment may have a more damaging impact on men's mental health compared with women³¹. With the exception of the over 75 year old age group in men, all other age groups showed some evidence for an increase in age specific suicide rates post recession. However, these findings are not definitive (the error bars overlap due to the small numbers of suicides).

Figure 3.7: Pre and Post recession rates of suicide and death by injury of undetermined intent for males by broad age group, South Gloucestershire, 2001-2006 to 2007-2012 pooled

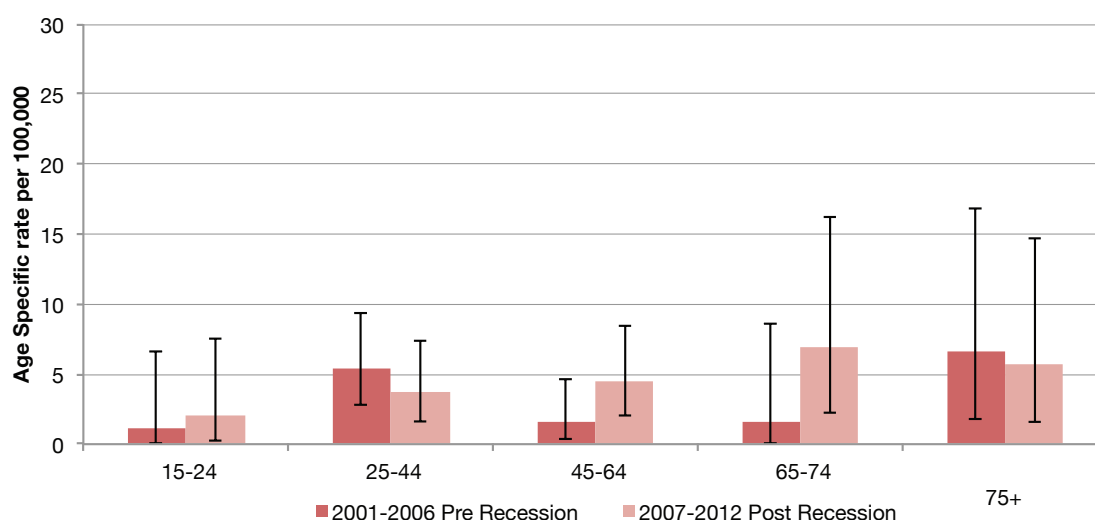


Source: Primary Care Mortality Data file and Office for National Statistics

³⁰ Hawton, K. and Haw, C. (2013). Economic recession and suicide. BMJ 347:f5612

³¹ Wilkins, D. (2010) Untold problems: A review of the essential issues in the mental health of men and boys. Men's Health Forum. Available online

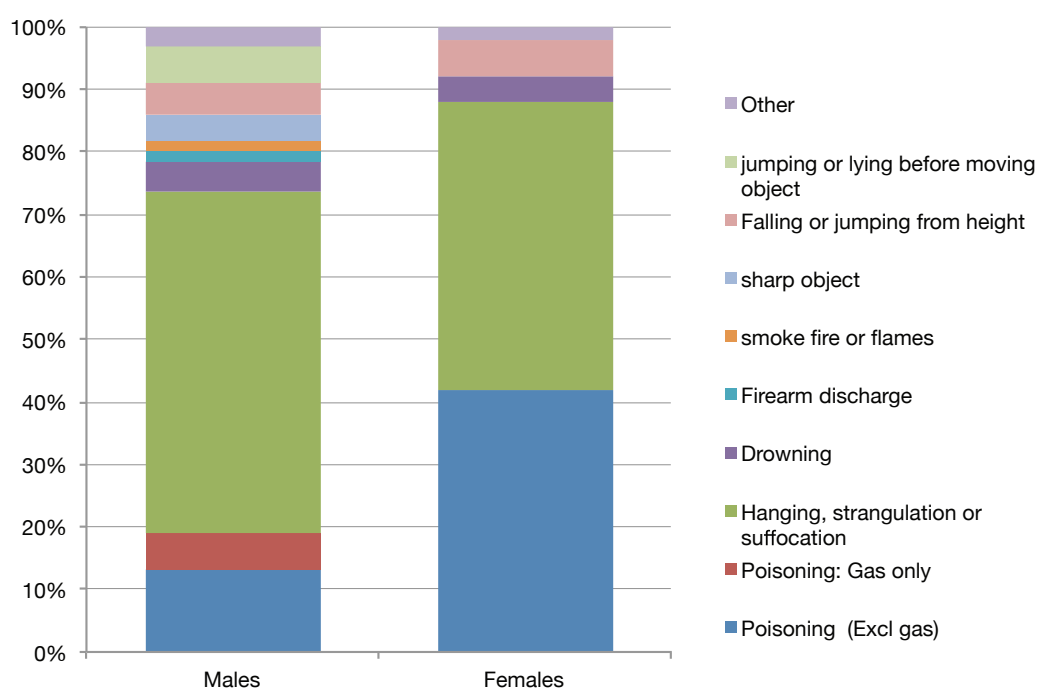
Figure 3.8: Pre and post recession rates of suicide and death by injury of undetermined intent for females by broad age group, South Gloucestershire, 2001-2006 to 2007-2012 pooled



Source: Primary Care Mortality Data file and Office for National Statistics

Figure 3.9 shows the mode of suicide by sex for South Gloucestershire residents from 2001-2012. Hanging was the most common mode of suicide for men and women (54.5% and 46% of all suicides respectively). Men were more likely than women to utilise highly lethal methods of suicide such as the use of firearms, jumping or lying in front of a moving object (for example trains) and gassing.

Figure 3.9: Percentage of suicide and death by undetermined intent by mode and sex, South Gloucestershire, 2001-2012 pooled



Source: Primary Care Mortality Data file and Office for National Statistics

Key messages and next steps

- Suicide rates have increased in males in South Gloucestershire since 2006.
- There is some evidence of an increase in suicide rates in the six years post recession compared to the pre recession years.
- Hanging, strangling and suffocation are the most common methods of suicide in males and females, although men are more likely than women to use lethal methods such as firearms or jumping in front of a moving object.
- South Gloucestershire Council and partners are developing a new Mental Health and Wellbeing strategy to support the prevention of mental ill health in South Gloucestershire.



The health and social care system

4.1 The recent reorganisation of the NHS, 2013

The Health and Social Care Act 2012 brought about major changes, which came into full effect on 1st April 2013. At a national level, the Act formalised the abolition of Primary Care Trusts and Strategic Health Authorities and created Public Health England, NHS England and Healthwatch England.

New organisations established 1st April 2013 by the Health & Social Care Reforms

Clinical Commissioning Groups (CCGs)

Every GP practice in England is now part of a Clinical Commissioning Group (CCG). CCGs now commission the majority of health services that were previously commissioned by Primary Care Trusts, including urgent and emergency care, most elective hospital care, maternity services and most community and mental health services.

Public Health England

Public Health England (PHE) provides national leadership and expert services to support public health, and will also work with local government and the NHS to respond to emergencies. It has been established as an executive agency of the Department of Health, and has brought together a number of organisations, including the former Health Protection Agency, into a single public health function. Its roles include:

- coordinating a national public health service and delivering some elements of this;
- building an evidence base to support local public health services;
- supporting the public to make healthier choices;
- providing leadership to the public health delivery system;
- supporting the development of the public health workforce.

NHS England

NHS England has been established as an executive non-departmental public body of the Department of Health, at arm's length to the government. Its overarching role is to improve health outcomes for people in England. Its roles include:

- providing national leadership for improving outcomes and quality of care;
- overseeing the operation of clinical commissioning groups;
- allocating resources to clinical commissioning groups;
- commissioning primary care and a range of specialist services.

Local Healthwatch

A local Healthwatch is an independent organisation which gives citizens and communities a stronger voice to influence and challenge how health and social care services are provided within their locality. Local Healthwatch has a seat on Health and Wellbeing Boards, ensuring that the views and experiences of patients, carers and other service users are taken into account when local needs assessments and strategies are prepared.

4.2 Demand on health & social care services

A key role for public health is to help commissioners ensure that money is spent in a way that is matched to health needs. As part of the new arrangements, Health and Wellbeing Boards have a key role in linking the health needs identified through the Joint Strategic Needs Assessment to the commissioning plans put forward by the local Clinical Commissioning Group.

Public Health has responded to new commissioning processes introduced from April 2013 following the establishment of Clinical Commissioning Groups by clarifying public health priorities and working closely with the CCG on commissioning intentions and prioritisation.

Demand for health care over the next few years from population growth alone can be predicted for each of the main types of hospital activity among South Gloucestershire residents. Each year it is predicted that urgent admissions will rise by 1.6%, planned admissions by 1.4% and Accident and Emergency attendances by 1.1%. However, new housing developments have not been taken into consideration.

Growth assumptions

The South Gloucestershire population has grown by 7.1% between 2001 and 2011 and there are currently around 266,147 residents (mid year 2012 estimates). This number is projected to rise to 289,457 in 2021 (based on 2011 baseline population of 263,417). These figures do not take into account the additional housing growth which will take place in South Gloucestershire.

Public Health have this year begun to develop new ways of working with Council Planning colleagues and statisticians within the South West Commissioning Support Unit to accurately forecast demand for health services reflecting plans within the South Gloucestershire Housing Strategy and the impact on the above population projections of 14,134 dwelling completions forecast within South Gloucestershire for the period 2011/12 – 2018/19.

4.3 Long-term conditions

Long-term conditions are chronic diseases for which there is currently no cure and include diabetes, chronic obstructive pulmonary disease, arthritis and hypertension. They are managed with drugs and other treatment. However, the presence of two or more long-term conditions is associated with poorer quality of life, higher hospital admissions and greater rates of mortality. Health services in particular, are largely organised to provide care for single diseases. As people get older they are more likely to develop a long-term condition and to experience multi-morbidity. The number of people with multi-morbidities is increasing and is expected to increase further over the next two decades. The number of people with multi-morbidity is projected to rise from 1.9 million in 2008 to 2.9 million in 2018³².

The increasing prevalence of long term conditions is a major challenge for the health and social care system. As people develop more than one chronic condition, their care becomes disproportionately more complex and expensive. Health services are traditionally organised to provide care for single diseases. An integrated pathway rather than an organisational response is key to delivering high quality services that meet the needs of patients/clients.

Multi-morbidity and particularly physical-mental multi-morbidity is more common among deprived populations³³ – and there is evidence that the number of conditions can be a greater determinant of a patient's use of health service resources than the specific diseases. People in the most deprived 10% are 1.5 to 2 times more likely to suffer most second morbidities.

In Scottish primary care disease registers, the number of morbidities and the proportion of people with multi-morbidity increased substantially with age 34. By age 50 years, almost half of the population had at least one morbidity, and by age 65 years almost 75% had at least one morbidity and 30% had multi-morbidity. Although the prevalence of multi-morbidity is much higher in older people than in young or middle-aged people, more than half of people with multi-morbidity and nearly two-thirds with physical-mental health co-morbidity are younger than 65 years³⁵.

³² Department of Health (2012) Report Long-term conditions compendium of Information: 3rd edition

³³ Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B (2012) Research Paper Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study

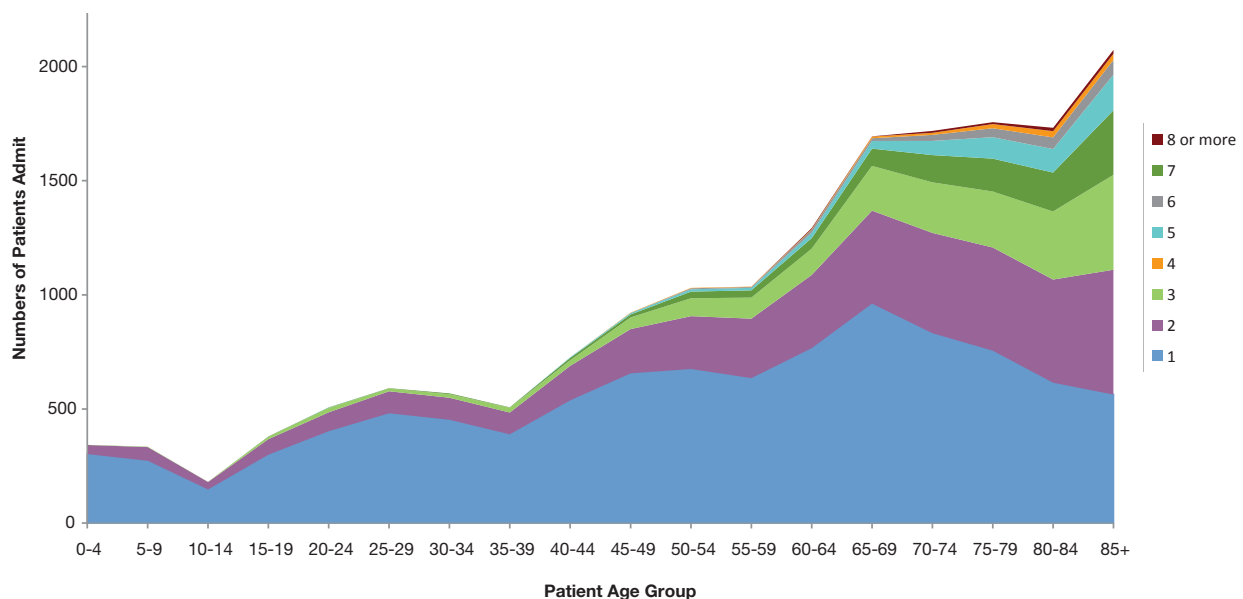
³⁴ Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B (2012) Research Paper Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study

³⁵ Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B (2012) Research Paper Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study



Figure 4.1 shows the number of long-term conditions amongst patients admitted to hospital in 2013 in South Gloucestershire. These data are based on patients admitted to hospital who have one or more long-term conditions. The number of patients admitted to hospital with more than one long-term condition doubles between 55-59 years and 65-69 years.

Figure 4.1: Number of long-term conditions in hospital admitted patients in South Gloucestershire, 2013





Key messages and next steps

- Long-term conditions are a major challenge facing health-care systems worldwide, but health systems are largely configured for individual diseases rather than multi-morbidity.
- Alternative models need to be developed in order to improve the co-ordination of treatment for people with multiple long-term conditions
- Improvements to personalised care planning will increase support for patients with long-term conditions and ensure they obtain the best treatment to reduce their risk of developing complications.
- The new Mental Health and Wellbeing Strategy will also focus on mental wellbeing in people with long-term conditions.





Health protection

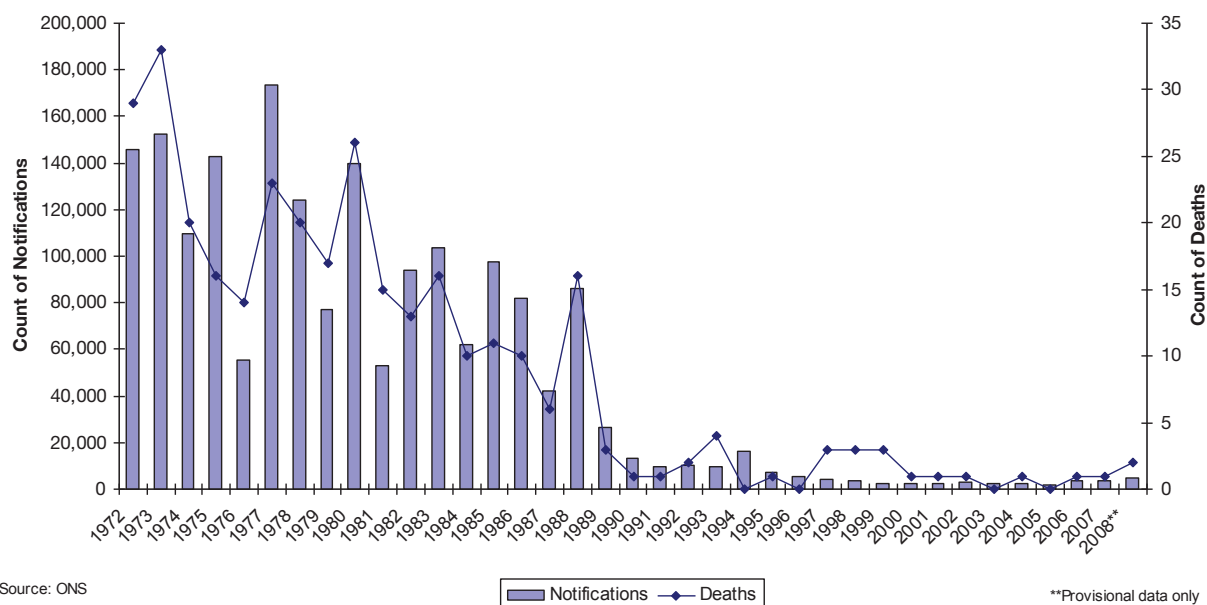
This section provides a summary of some health protection issues in South Gloucestershire. The following items are addressed:

- Measles
- Performance of routine vaccination programmes
- Meningococcal meningitis
- Sexually transmitted infections (STIs)

5.1 Measles

Immunisation is the safest and most effective method of controlling many infectious diseases. In the UK there have been dramatic reductions in all infections covered by the immunisation programme. However, as a result of the successes, people do not realise the seriousness of some of these diseases and some have declined immunisation.

In 1961, there were over 760,000 notifications and 152 deaths from measles. Measles immunisation was first introduced in 1968, and Figure 5.1 shows that this was followed by a general decline in notifications in subsequent years. To ensure protection for the population, ideally over 95% of children should receive the second dose of the measles, mumps and rubella (MMR) vaccine by their fifth birthday.

Figure 5.1: Measles notifications and deaths 1972 - 2008

The publication of a subsequently discredited paper in a respected medical journal (The Lancet) in 1998, suggested a link between the MMR vaccine and autism and bowel disorders. Unfortunately, the paper attracted widespread media attention and led to a unfounded loss of public confidence in the MMR vaccine. It is important to emphasise that:

- The paper has since been withdrawn by The Lancet and discredited.
- The doctor who was responsible for the (now discredited) paper was struck off the medical register by the General Medical Council.
- Numerous subsequent studies have found no link between the MMR vaccine and autism or bowel disease.

This 'scare' caused MMR vaccination rates to fall sharply, which in turn led to a rise in cases of measles. The years of low MMR coverage rates have left a significant proportion of the population susceptible to measles, mumps and rubella, and there has been a marked rise in the number of measles and mumps cases in recent years.

MMR Catch Up Campaign (April 2013-2014)

The decrease in the uptake of the MMR vaccine between 1998 and 2004 led to a reduced level of protection in the now 10-16 year old age group, and consequently there has been an increase in the number of measles notifications.

In response to the recent increases in confirmed measles cases, a national MMR 'Catch-up Campaign' to vaccinate this age group was launched in April 2013 by Public Health England and NHS England. The campaign invited children aged 10-16 years who were identified as being unvaccinated, for immunisation. In South Gloucestershire 297 children aged 10-16 years were vaccinated between April 2013 and September 2013 as part of this campaign.

5.2 Routine vaccination programmes

Most immunisations are delivered by GP Practices, the exception to this, being the human papilloma virus (HPV) vaccination programme which is delivered via school nurses. Several new vaccination programmes were introduced in 2013/14 including rotavirus for children by the age of two, shingles for people aged 70 or 79, and a flu vaccination programme for all children aged two and three.




National targets for vaccination of children under five years vary between 95% and 97% and are based on the World Health Organisation (WHO) definitions. There are currently no set targets for the new rotavirus programme, HPV, the school leaver booster, or shingles programme. For the flu programme, the target is set at 75% uptake. This does not include carers or children aged two and three.

Table 5.1 shows the uptake of immunisations in South Gloucestershire compared with regional and national averages in 2012/2013. Uptake exceeded 95% for three of the five pre-school vaccines (DTaP/IPV/Hib, Hib/MenC and 1st MMR dose) and is higher than regional and national uptake figures. The uptake of two doses of MMR by the age of five is steadily improving to almost 92%. Provisional quarter three data shows that uptake of Rotavirus is already 85.6%. Seasonal flu uptake for over 65 year olds exceeds the 75% uptake target. However, uptake for at risk groups, pregnant women and carers is currently below the 75% target.

Table 5.1: Vaccinations and immunisation uptake and targets 2012/13

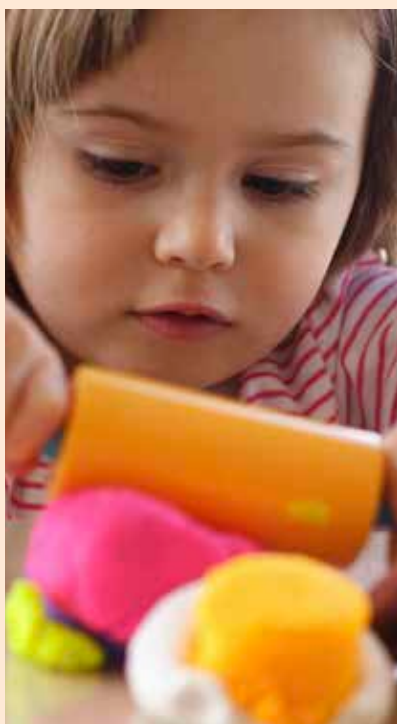
Uptake of Immunisations in South Gloucestershire compared with the National and Regional Average for 2012/13

Vaccine	South Gloucestershire	South West	England
Pre-School: Percentage of children immunised by their 5th birthday			
DTaP/IPV/Hib (1 in 5) ³⁶	98.7%	96.9%	95.8%
DTaP/IPV/Hib (1 in 5) booster	94.1%	90.8%	88.9%
Hib/MenC booster ³⁷	96.2%	92.7%	91.5%
MMR (1 dose)	96.7%	94.6%	93.9%
MMR (2 doses)	91.6%	88.7%	87.7%
Teenage Vaccinations			
HPV vaccination (3 doses)	78.1%	81.1%	86.1%
Seasonal Flu			
Aged 65 and over	79.5%	73.5%	73.4%
At risk individuals from 6 months to under 65	58.2%	50.8%	51.3%
Pregnant women	51.1%	43.4%	40.3%
Carers	57.8%		

 Target achieved
 Target missed by 5% or less
 Target missed by more than 5%

³⁶ 5-in-1 vaccine, known as the DTaP/IPV/Hib vaccine, is a single injection which protects against five serious childhood diseases: diphtheria, tetanus, whooping cough (pertussis), polio, and Hib Haemophilus influenzae type b.

³⁷ The Hib/Men C vaccine is given as a single injection to boost protection against two different diseases Haemophilus influenzae type b (Hib) and meningitis C.



Key messages and next steps

- Additional work is required to improve uptake for at-risk patient groups for the flu vaccination. This will be incorporated into the seasonal flu planning for the next campaign (starting October 2014).
- A new Screening and Immunisation coordinator has recently been appointed by Public Health England and will be supporting GP practices to implement best practice for delivery of immunisation programmes.
- Proposals are being developed to improve data validation between Child Health Information Systems (CHIS) and GP Practices. This will contribute to improving reported uptake of immunisations.
- The delivery of a schools based immunisation programme for forthcoming vaccination programmes is being explored.

5.3 Meningococcal meningitis

Meningococcal infection is caused by certain subgroups of the bacterium *neisseria meningitidis* and may present as meningitis (inflammation of the lining of the brain), septicaemia (bacteria in the bloodstream resulting in blood poisoning) or a combination of both.

Neisseria meningitidis is commonly found in the back of the throat or nose and only occasionally causes disease. Approximately 10% of the population carry *Neisseria meningitidis* which causes meningococcal infection. The highest carriage (around 25%) is in 15-19 year olds. It is not known why some people carry the bacteria without ill effects while others go on to develop meningococcal disease. Infection is not easily spread. It is transmitted from person to person by inhaling respiratory secretions from the mouth and throat or by direct contact (kissing). Close prolonged contact is usually required to transmit the bacteria which do not live long outside the body.

There are at least twelve different groups of meningococci bacteria, which can cause disease; six of these are associated with human epidemics (A, B, C, W135, X and Y). Group A used to be very common in the UK in the first half of the twentieth century. However, for reasons that are not clear, since the 1970s it has virtually disappeared in Western Europe as a cause of disease. Group A, however, remains the most common cause of meningococcal disease worldwide. It causes huge epidemics in the meningitis belt in sub-Saharan Africa, with an incidence as high as 1 case per 100 population and a case fatality rate reaching 75% in children and adolescents.

Before 2000, Group B strains caused around 60-65% of cases in the UK and Group C strains caused around 35-40% of cases. The introduction of Meningitis C vaccine in 1999/2000 had a large impact. Group B strains now account for around 90% of all cases of meningococcal

disease with only around 1-2% of cases caused by Group C strains. The Meningitis C vaccination programme has prevented over 9000 cases of serious disease and more than 1000 deaths.

Meningococcal bacteria have at least 13 different subtypes. Five of these subtypes, A, B, C, Y, and W-135, cause almost all invasive disease. The relative importance of these five subgroups depends on geographic location and other factors.

Meningococcal Outbreak in a Care Home in South Gloucestershire

In November 2013 there was an outbreak of Group B meningococcal infection in a care home in South Gloucestershire. This outbreak started over the weekend and was initially dealt with by the Out of Hours Public Health England Team. After a risk assessment, the team decided that antibiotic chemoprophylaxis should be given to close contacts (i.e. those who have had prolonged close contact in a household type setting during the seven days before the onset of the illness). All residents and staff of the care home were identified as close contacts (110 people in total).

There are two reasons why chemoprophylaxis is given. Firstly to eradicate the meningococcus from the nasopharynx of carriers before it causes more infections and secondly to eradicate the bacteria in those who have newly acquired the invasive strain and who may themselves be at risk. Close contacts are defined as those who have had prolonged close contact in a household type setting during the seven days before the onset of the illness.

An Incident Team was set up led by Public Health England. It included the South Gloucestershire Council Director of Public Health, the NHS England Area Team, the local GP practice and the Care Home. This was a test of the new working arrangements between Public Health England, the NHS England Area Team and South Gloucestershire Council Public Health Team. All parties worked closely to develop a Patient Group Directive which allowed the chemoprophylaxis to be prescribed to a large number of people. A number of the patients had dementia and so informed consent was needed from their guardians. The chemoprophylaxis was delivered to the close contacts within 24 hours. This was important as chemoprophylaxis is most effective when given as quickly as possible.

Further testing identified the subgroup of meningococcal bacteria as W135. This subgroup is relatively rare in the UK. As it is a vaccine-preventable strain, Public Health England advised that vaccination was needed for all those who had received chemoprophylaxis. The Incident Team were able to rapidly source the required amount of the vaccine through national stockpiles. A team of nurses were recruited to administer the vaccine. A Patient Specific Directive was developed by Public Health England and the Director of Public Health to allow vaccination to proceed. No further cases of meningococcal infection were reported.

The distribution of chemoprophylaxis and vaccination to close contacts was an enormous task and required the input of several organisations. The Care Home involved deserves special mention due to the professionalism and co-operation of its staff. This case study is an excellent example of different health organisations working together effectively under pressure to protect the Public's health.

5.4 Sexually transmitted infections

Over the last decade there has been a gradual rise in the overall diagnosis of sexually transmitted infections in South Gloucestershire. The following are taken from most recent available Sexual Health Quarterly Outcome Indicator Report: Quarter 2 2013/14.

Gonorrhoea and Syphilis

From 2010 to date there has been a progressive increase in gonococcal cases diagnosed at the Bristol Sexual Health Centre for which the catchment area includes South Gloucestershire (local authority specific data are not yet available).

The combined gonorrhoea and syphilis rate for genito-urinary medicine (GUM) diagnosis for South Gloucestershire for all persons was 3.4 per 100,000 persons. The combined rate for the South West is 5.7 per 100,000. England data is not yet available.

Chlamydia

Achieving a high diagnosis rate through screening reflects success at identifying infections which, as Chlamydia is most often asymptomatic, may have gone untreated and lead to serious reproductive health consequences.

South Gloucestershire had the lowest uptake of Chlamydia testing in the South West with 5.8% coverage and 7.9% positivity. The percentage of 15 – 24 year olds tested in South Gloucestershire for Chlamydia (April -June 2013) was 2.5% of whom 6.7% were positive. This represents a rate of diagnosis of 675.6 per 100,000 15 – 24 year olds. However this rate is likely to be largely underestimated as laboratory data often cannot be linked to local authority of residence. Local intelligence indicates a diagnostic rate of 1592.6 per 100,000.

Human Immunodeficiency Virus (HIV)

Early HIV diagnosis is associated with better outcomes and lower overall management costs. However around a quarter of people with HIV are unaware that they are infected. Opportunistic testing to detect infection early is therefore extremely important in those identified as being at risk. For South Gloucestershire, between 2010 and 2012, 59.1% of those newly diagnosed with HIV were late diagnoses (a CD4 count of less than 350/ml³). This is higher than the proportion diagnosed late for both South West and England, 49.3% and 49.7% respectively. The reasons for these differences are unclear.

Service provision in South Gloucestershire

Contraceptive services, Chlamydia screening and testing and treatment of STIs are available through GPs and practice nurses across South Gloucestershire. There are five community based contraception and sexual health clinics at Yate, Kingswood, Cadbury Heath, Downend and Thornbury. These clinics provide an alternative setting to primary care for standard advice and are able to offer more specialised treatment, advice and contraception. People requiring complex sexual health screening and services are referred to the Bristol Sexual Health Clinic, located in central Bristol.

Key messages and next steps

- Work will focus on ensuring sexual health services are accessible and appropriately configured to meet the needs of South Gloucestershire residents.
- Work will continue to develop a sexual health strategy for South Gloucestershire in partnership with all agencies involved in commissioning sexual health services.
- Work will continue to increase the diagnosis rate for Chlamydia to 2,300 per 100,000 or higher.
- Work to address the percentage of late diagnosis HIV infections will begin by developing an understanding of the picture for South Gloucestershire and the potential impact of further service development and to consider the appropriateness of opportunistic testing across different settings.

¹ Granoff DM, Harrison LH, Borrow R. Meningococcal vaccines. In: Plotkin SA, Orenstein WA, Offit PA, eds. Vaccines. 5th ed. Philadelphia, PA: Saunders Elsevier; 2008:399–434

¹ History of medicine: on bacterial meningitis. ScienceWeek Web site. http://sn.im/scienceweek.2005.sc050211_3.htm.

¹ Nadel, S. Prospects for the eradication of meningococcal disease. Arch Dis Child 2012;97:993-998

¹ http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1296682977081

¹ Health Protection Agency (updated 2012). Guidelines for Public Health Management of Meningococcal Disease in the UK. Found at: http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1194947389261

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