TABLE OF CONTENTS

Foreword

Part one: Cardiovascular disease in Bournemouth, Poole and Dorset

1. Cardiovascular disease – An introduction and local trends
   a. What is happening with cardiovascular disease?
   b. Why might this have happened?

2. What are we doing now?
   a. Pregnancy and childhood
      i. Smoking in pregnancy
      ii. Exposure to second hand smoke in childhood
      iii. Childhood obesity, diet and physical activity
      iv. Smoking and young people
   b. Risk factors in the adult population
      i. Diabetes, raised cholesterol and hypertension
      ii. Smoking
      iii. Alcohol misuse
      iv. Obesity, diet and physical activity
      v. Exposure to air pollution
   c. Reducing risk in people with disease
   d. Care of disease
      i. Hospital based care and emergency admissions
      ii. Out of hospital care and the end of life

3. What do we need to do differently?

4. Summary of recommendations
TABLE OF CONTENTS

Part two: Health profile indicators, Bournemouth, Poole and Dorset 2007-2015

1. Background

2. Bournemouth
   a. Deprivation and inequality indicators
   b. Trends in rates of early deaths from heart disease and cancer
   c. Community indicators
   d. Children and young people’s health
   e. Adult lifestyle indicators
   f. Disease and poor health
   g. Life expectancy and causes of death
   h. Summary

3. Poole
   a. Deprivation and inequality indicators
   b. Trends in rates of early deaths from heart disease and cancer
   c. Community indicators
   d. Children and young people’s health
   e. Adult lifestyle indicators
   f. Disease and poor health
   g. Life expectancy and causes of death
   h. Summary

4. Dorset
   a. Deprivation and inequality indicators
   b. Trends in rates of early deaths from heart disease and cancer
   c. Community indicators
   d. Children and young people’s health
   e. Adult lifestyle indicators
   f. Disease and poor health
   g. Life expectancy and causes of death
   h. Summary
### USEFUL ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIT-C</td>
<td>Audit Alcohol Disorders Identification Test Consumption questions (a screening tool for problem drinking)</td>
</tr>
<tr>
<td>CABG</td>
<td>Coronary Artery Bypass Graft (a surgical procedure used to treat coronary heart disease)</td>
</tr>
<tr>
<td>CCG</td>
<td>Clinical Commissioning Group (the commissioners of most local NHS services)</td>
</tr>
<tr>
<td>CHD</td>
<td>Coronary Heart Disease (narrowing of the arteries supplying the heart with blood)</td>
</tr>
<tr>
<td>CVD</td>
<td>Cardiovascular Disease (conditions affecting the heart and blood vessels)</td>
</tr>
<tr>
<td>GP</td>
<td>General Practice</td>
</tr>
<tr>
<td>HES</td>
<td>Hospital Episode Statistics (a data warehouse containing details of all admissions, outpatient appointments and A&amp;E attendances at NHS hospitals in England)</td>
</tr>
<tr>
<td>HSCIC</td>
<td>Health and Social Care Information Centre (the national provider of information, data and IT systems in health and social care; sponsored by the Department of Health)</td>
</tr>
<tr>
<td>ICD10</td>
<td>International Statistical Classification of Diseases and Related Health Problems (an internationally agreed medical coding system by the World Health Organisation)</td>
</tr>
<tr>
<td>LSOA</td>
<td>Lower Super Output Area (a geographical area defined by Office for National Statistics the with between 400 and 1200 households)</td>
</tr>
<tr>
<td>MSOA</td>
<td>Middle Super Output Area (a geographical area defined by Office for National Statistics the with between 2000 and 6000 households)</td>
</tr>
<tr>
<td>NCMP</td>
<td>National Child Measurement Programme (the national programme to weigh and measure children in reception and year six)</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health Service</td>
</tr>
<tr>
<td>ONS</td>
<td>Office for National Statistics (the UK’s national statistical institute)</td>
</tr>
<tr>
<td>OPCS4</td>
<td>Office of Population Censuses and Surveys Classification of Surgical Operations, Forth Revision (the nationally agreed coding system for operations and procedures carried out in the acute sector)</td>
</tr>
<tr>
<td>PCI</td>
<td>Percutaneous Coronary Intervention (a non-surgical procedure used to treat narrowed arteries of the heart)</td>
</tr>
<tr>
<td>PHE</td>
<td>Public Health England (a non-executive agency of the Department of Health)</td>
</tr>
<tr>
<td>PM2.5</td>
<td>Particulate Matter less than 2.5 micrometers in diameter (an air pollutant)</td>
</tr>
<tr>
<td>SAIL</td>
<td>Safe and Independent Living (a Dorset wide partnership supporting independent living)</td>
</tr>
<tr>
<td>QOF</td>
<td>Quality and Outcomes Framework (the part of the general practice contract that rewards practices for the provision of high quality care)</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
</tbody>
</table>
FOREWORD

The annual report of the director of public health is an opportunity for us to consider and discuss health issues as they affect our local population.

This year our main theme is a condition many of us will have had experience of either personally, or in friends and family, and that is heart disease and stroke, also called cardiovascular disease.

The reason for choosing this topic is not only that it is important to a lot of people but also, we have recently seen some concerning changes in rates of this condition locally. The additional importance is that any effective response to it involves individuals, communities, and many parts of our public services.

Within Bournemouth, Poole and Dorset death rates from cardiovascular disease have dropped steadily over many years and have been consistently better than the rest of the country. This, however, is changing. In Bournemouth in the last three years, rates have risen markedly in men, with many dying earlier than expected. This is not something seen more widely in England.

This report looks at these recent trends, what it may mean for the future and importantly what we can do to help turn this situation around.

While cardiovascular disease is an important health problem in its own right, it shares its origins and development with other important conditions, including cancer, chronic kidney disease, and diabetes. So, while the focus of the report is on cardiovascular disease, actions to reduce cardiovascular disease rates will have a positive impact on ill health and death in other diseases too.

Many thanks to those who helped develop this report, in particular: Dave Goswell, Sam Crowe, Kate Harvey, Claire Lehman, Paul Compton and Helena Cain.

We hope you enjoy this report and would welcome feedback on both the content and how you feel we can best involve you in responding to these challenges.

Thank you.

David Phillips
Director of Public Health

Cllr Janet Walton
Leader – Borough of Poole Council
Portfolio Holder for Public Health and Community Engagement
Borough of Poole Council

Cllr Rebecca Knox
Portfolio Holder for Health and Wellbeing
Dorset County Council

Cllr Jane Kelly
Portfolio Holder for Public Health
Bournemouth Borough Council
Part one:

Cardiovascular Disease in Bournemouth, Poole and Dorset
1. Cardiovascular disease: an introduction and local trends

A child born in England today should expect to live a longer, healthier life than ever before. But one in three deaths in England still occur before the age of 75, and more than three quarters of these are a result of the four ‘big killers’:

- Cancer
- Cardiovascular disease (heart disease and stroke)
- Respiratory disease
- Liver disease

Cardiovascular disease (CVD) is a broad term covering disease of the heart and blood vessels caused by progressive blockage of blood vessels, which in turn reduces blood flow to key organs. The results include:

- **Brain**
  - [mini] Stroke
  - Dementia [some forms]

- **Heart**
  - Angina & Heart attack [Coronary Heart Disease]
  - Heart failure

- **Blood Vessel Disease**
  - Big vessels – e.g. aortic aneurysm
  - Smaller vessels – e.g. gangrene
  - Other organs – e.g. kidneys

CVD is the second most common cause of death in England, causing more than 30,000 ‘premature’ (before age 75) deaths a year.

In Bournemouth, Poole and Dorset, more than 6000 people died before the age of 75 between 2011 and 2013. Nearly 1300 of these deaths, or over 400 a year, were due to CVD in our population of 750,000 people.

Recently, for the first time in more than 20 years we have seen an increase in premature CVD death rates in Bournemouth, specifically in men aged 60-74. This is concerning as it is a pattern that has not been seen in similar populations. Similarly there are strong suggestions that the rate of fall of is slowing in other parts of our community.
Premature death rates are higher in the most deprived and poorest communities. For example, in Bournemouth, residents of West Howe are four times more likely to die of CVD before the age of 75 than someone living in Westbourne. A similar picture of higher death rates in more deprived areas is seen elsewhere, such as between residents of Parkstone and Poole Town, and between residents of Preston and Littlemoor. The rate of decline has differed between and within authorities. The current rates and changes in rates by authority between 2001 and 2013 are shown in Figure 1 below:

**Figure 1: Premature mortality from cardiovascular disease (CVD)**

- **Dorset**
- **Bournemouth and Poole**

![Map showing mortality rates](image)

<table>
<thead>
<tr>
<th>Authority</th>
<th>CVD Mortality</th>
<th>Trend</th>
<th>% change since 2001/03</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bournemouth</td>
<td>80.4</td>
<td></td>
<td>-28%</td>
</tr>
<tr>
<td>Christchurch</td>
<td>53.1</td>
<td></td>
<td>-42%</td>
</tr>
<tr>
<td>East Dorset</td>
<td>49.8</td>
<td></td>
<td>-37%</td>
</tr>
<tr>
<td>North Dorset</td>
<td>44.3</td>
<td></td>
<td>-50%</td>
</tr>
<tr>
<td>Purbeck</td>
<td>54.2</td>
<td></td>
<td>-32%</td>
</tr>
<tr>
<td>West Dorset</td>
<td>49</td>
<td></td>
<td>-47%</td>
</tr>
<tr>
<td>Weymouth and Portland</td>
<td>67.2</td>
<td></td>
<td>-49%</td>
</tr>
<tr>
<td>Poole</td>
<td>35.7</td>
<td></td>
<td>-49%</td>
</tr>
</tbody>
</table>
a. What is happening with cardiovascular disease?

Local CVD death rates have been consistently better than the rest of the country and steadily decreasing since 1980.

The national pattern of decrease has been a result of:

a. reductions in risks (e.g. smoking, high blood pressure, high cholesterol) and improvements in diet;

b. the development of more effective treatments.

At the same time, as many risk factors have been improving, some risk factors have been worsening including physical inactivity, obesity and diabetes. Declining death rate is seen for CHD (narrowing of the arteries that supply the heart), have been a major part of the reduction in CVD deaths, the reasons and contribution to the changes for this (1980 to 2000) are shown in Figure 2 below.

Figure 2: Contributing factors to the reduction in CHD deaths, 1981-2000

Source: Unal, Critchley and Capewell, 2005
The recent increase in rates of premature death from CVD in Bournemouth is unusual in that the trend of CVD death rates first slowing and then increasing is only seen in five other areas in England; importantly none of these are similar to Bournemouth in terms of population and geography.

Figure 3: Trends in under 75 Mortality from CVD

Figure 3 shows these trends from 2001 to 2013 (the latest year for which we have data) and whilst we have not seen an increase in the CVD death rates in Dorset and Poole, the decrease in death rates do appear to be slowing, and could soon plateau in the same way as Bournemouth.
The Bournemouth increase in premature mortality gives us real cause for concern. If the current rate continues, it will result in an estimated 20 additional premature deaths a year from CVD. If the rate change continues (as shown in the worst case scenario in Figure 4 below), this could result in an extra 70 deaths a year.

Figure 4: Projected premature deaths from CVD in Bournemouth

![Mortality rate graph showing trends and projections for Bournemouth and England. The graph includes annotations indicating a projection of an additional 70 deaths per year in the worst case scenario.](image-url)
b. Why might this have happened?

There is no simple explanation for the increase in early CVD death rates in Bournemouth in terms of population change, in-migration of less healthy people or a rise in risk factors across the population.

We must therefore look at more specific local issues to try and find an explanation, such as:

a) Is care provision adequate, particularly for those at greatest risk of premature death from CVD?

b) Do local programmes that aim to reduce the risk of developing CVD reach those most at risk?

These activities above to prevent premature death from CVD span the whole of life, from birth to death, as illustrated below in Figure 5.

**Figure 5: A life course approach to CVD – An Illustration**
2. What are we doing now?

a. Pregnancy and childhood

i. Smoking in pregnancy

*Background*

Rates of CVD are higher in children born to mothers who smoke during pregnancy. Reducing mothers’ smoking in pregnancy offers a real opportunity to improve their children’s chances of not developing CVD later in life.

Whilst data on smoking in pregnancy often underestimates rates, locally it suggests that at least 12% of women in Bournemouth, Poole and Dorset were smoking at the time of delivery in 2013/14³.

Data from Bournemouth and Poole shows that a higher percentage of mothers from deprived areas smoke at the time that they book with a midwife early in pregnancy. National data shows that these differences remain at the time of delivery.

*What is being done?*

Smoking in pregnancy services have recently been re-designed, in particular to try to reduce the historical 50% non-attendance at appointments. There are now three additional pregnancy liaison midwives across Bournemouth, Poole and Dorset who have received specialist training to support women who need further help. Community midwives also support women who smoke throughout their pregnancy, deliver brief interventions and provide monitoring of progress. We are also piloting a voucher scheme in Weymouth to encourage women to stop smoking in pregnancy.

*Gaps and recommendations*

Smoking in pregnancy remains highest in areas of deprivation. Recent work described above aims to improve both the pace and scale of change. Data from these services will allow us to track progress from the first appointment with a midwife, at 36 weeks of pregnancy, and the time of delivery, to make sure that support is effective in reducing smoking and improving important health outcomes such as baby’s birth weight.

ii. Exposure to second hand smoke in childhood

*Background*

The Royal College of Physicians recognise that passive smoking in the home is a major hazard to the health of children⁴. Nationally, 9,500 children are admitted to hospital every year as a direct result of exposure to second hand cigarette smoke (passive smoking). Children growing up with parents or others in the household who are regular or occasional smokers are up to three times more likely to start smoking themselves, further increasing their risk of future problems.
What is being done?

Nationally, smoking in cars with children will be banned from 1 October 2015. Locally, the Dorset wide tobacco control alliance oversees local tobacco control activity. This includes exploring the use of new environmental carbon monoxide monitors in selected residential flats, following complaints of smoking in communal areas. The system would be the first of its kind in the UK and will support campaigns to raise awareness of how far second hand smoke travels, reduce residents’ exposure particularly in families with young children, and increase awareness and access to local services and support.

Gaps and recommendations

As smoking rates continue to be higher in more deprived areas, so too must action to reduce children’s exposure to second hand smoke. Further work to support smokefree homes can come from all agencies working with families including health visitors, children’s centres and Dorset Fire and Rescue Service. Similarly, it is critical that adult stop smoking services support those living in households with children and families, particularly where rates are highest.

iii. Childhood obesity, diet and physical activity

Background

There is a national programme which measures child weight at reception (age 5-6) and year 6 (age 10-11). Rates of children who are overweight or obese are increasing at both ages locally. Childhood obesity rates are higher in areas of deprivation. This is shown in Figure 6 below.

Figure 6: Rates of excess weight or obesity in reception (age 5-6) (2013/14)
One reason for this is that children in the lowest income groups generally have a poorer diet, and are less likely to have been breastfed as an infant. A greater proportion of children consume the recommended amount of fruit and vegetables a day in households with the highest income (27% boys, 30% girls) than in households with the lowest income (16% girls, 17% boys). More than half of pupils in schools in England are either taking packed lunches to school, which are known to be less healthy, or eating at off-school premises, which is likely to be even less healthy. Locally, we have a particularly low take up of school lunches in both primary school (22% in Bournemouth, 23% in Dorset, 18% in Poole compared to 46% in England) and secondary school (29% in Bournemouth, 31% in Dorset, 30% in Poole compared to 40% in England).

The 2012 Health Survey for England suggested that 90% of children aged two to four do not meet the levels of physical activity recommended for their age group. Similarly, only 21% of boys and 16% of girls aged between five and 15 meet the recommended levels – this represents a significant decrease for boys since 2008. Children in the lowest income brackets are more likely to report low levels of activity, which increases steadily with age, and most in girls.

National surveys suggest that most children have good knowledge and positive attitudes to food, e.g. 72% of girls and 64% of boys aged 11-15 agree that healthy foods are enjoyable and most children disagree with the statements “I get confused over what’s supposed to be healthy”, “if you do enough exercise you can eat whatever you like”, and “I don’t really care what I eat”.

Whilst knowledge of the specific recommended levels of physical activity is low, 74% of girls and 61% of boys want to do more activity.

**What is being done?**

The causes of childhood obesity are complex and an effective local response requires action from many people and organisations. Locally, midwives have been trained to support weight management during pregnancy and there is a clinic in Bournemouth to support pregnant women who are severely overweight at booking. Health visitors are trained to support a range of behaviour changes including maternal weight management.

LiveWell Dorset started in April 2015 and supports adults (including parents and families) with weight management and improved lifestyle choices. Children’s centres and health visitors work with families to support breastfeeding and healthy diets, and school nurses offer support linked to the national child measurement programme once children start school.

Across Bournemouth, Poole and Dorset councils, elected members are leading a task and finish group to explore wider action; the group is due to report this year. There are many other local programmes including work to reduce food poverty through the Bournemouth and Poole Sustainable Food Partnership.

**Gaps and recommendations**

The recommendations from the Dorset-wide obesity task and finish group will help to support a whole-council approach in Bournemouth, Poole and Dorset to improve the prevention and management of childhood obesity. Proposals will need joined-up action to supporting healthy diets and childhood physical activity, including programmes to increase walking, cycling and access to play areas, particularly in areas of deprivation.
iv. Smoking and young people

Background

Smoking among young people has been in long-term decline since the mid-1990s but a clear association with deprivation remains.

Not only are children in the lowest social groups more likely to grow up exposed to second hand smoke, but they are also more likely to become smokers themselves, start smoking at an earlier age, and smoke more cigarettes a day. About two-thirds of adult smokers report they took up smoking before the age of 18, and almost 48% started smoking regularly before the age of 16.\textsuperscript{11}

Public Health England estimates that Bournemouth has high rates of 15 year olds who are regular smokers (10.6%). Dorset (9.8%) and Poole’s (9.4%) estimated rates were also above the England average (8.7)\textsuperscript{12}. These results have been validated by local survey data in Poole. Areas with the highest rate are often the most deprived, as show in figure 7 below.

Figure 7: Estimated rates of regular smoking at age 15

What is being done?

Smoking among young people is falling fast and there is much national and local work to support this trend and push for further falls in rates. There is significant evidence that exposure to tobacco advertising and promotion increases the likelihood of children taking up smoking.
Standardised cigarette packaging will be introduced nationally from May 2016. ‘Proxy purchasing’ of cigarettes is illegal and the sale of electronic cigarettes will be restricted to 18 years or above from autumn 2015. Locally, the Dorset wide tobacco control alliance oversees tobacco control measures, many of which relate to preventing underage sales and stopping young people from starting to smoke.

**Gaps and recommendations**

Ongoing programmes to stop young people from starting smoking, including those developed through the local tobacco control alliance, will need to continue to focus efforts towards areas of deprivation, where rates are the highest. Collective efforts, including by trading standards officers, will continue to be vital. These local efforts need to run in tandem with a coherent national strategy and a set of national policy and legislative activities.

---

**b. Risk factors in the adult population**

Risk factors for CVD include:
- High blood pressure (hypertension)
- Smoking
- High blood cholesterol
- Type 2 diabetes or raised blood sugar
- Lack of exercise
- Long term excessive alcohol use
- Being overweight or obese
- Having a family history of heart disease and being of some specific ethnic backgrounds, such as African Caribbean and South Asian

These factors are often linked and the programmes to reduce risk overlapping.

**i. Diabetes, raised cholesterol and hypertension**

**Background**

Diabetes and hypertension rates vary significantly across Bournemouth, Poole and Dorset. We would expect higher rates of these factors in areas of deprivation but, while the strength of relationship varies, it appears that the highest rates are currently seen in more affluent areas.

Figure 8 shows the percentage of the total adult population with a diagnosis of either diabetes or hypertension in each GP practice. Practices in the least deprived areas appear to have higher rates of diabetes than those in less deprived areas. This could be for several reasons, e.g. more affluent areas tend to have an older population, so more people with these conditions purely because of age. People with the conditions may also be less likely to be identified in more deprived areas as the uptake of screening services is lower in these areas.
Figure 8: Rates of diabetes and hypertension in GP registered adult populations in Dorset, Bournemouth and Poole

Source: GP Fingertips, 2015
Exception reporting, which is the process by which practices can exclude patients from reporting for specific reason, is higher in practices in areas of deprivation.

This suggests that these risk factors may remain disproportionately undiagnosed and potentially unmanaged, particularly in these deprived areas.

**What is being done?**

The national health check programme aims to prevent and reduce harm from CVD through identification and management of these risks. It is a programme that all local authorities must commission, and it targets the top seven causes of early cardiovascular death, specifically: high blood pressure, smoking, cholesterol, obesity, poor diet, physical inactivity, and alcohol consumption.

Adults aged 40-74 without known cardiovascular disease, diabetes or kidney disease are invited for a free health check every five years. Participants have their risk of cardiovascular disease assessed and are then supported, if needed, to take steps to improve their health. The programme also helps to identify those with undiagnosed cardiovascular disease so that their conditions can be managed appropriately.

Our local health checks programme in Bournemouth, Poole and Dorset is mainly delivered through GPs. The coverage of our health checks programme has been increasing in line with the England average but we know that there is variation at a local level. Coverage is lowest in the most deprived areas where we know that there is a higher risk of CVD.

Because of this, Public Health Dorset is developing opportunities for new types of providers to offer health checks in more deprived areas in a bid to try and increase the number of checks delivered.

Figure 9 shows the percentage of the eligible population that have taken up a health check within each GP practice between April 2012 and March 2015. Whilst many of our local practices are doing well, there is considerable variation and many are doing much worse than the national and local average.

**Figure 9: Health check uptake by practice**
The National Institute for Health and Clinical Excellence (NICE) advises offering cholesterol lowering drugs to those who have a 10% or greater 10-year risk of developing CVD.

Locally, we know little about whether this guidance is routinely followed but estimates from elsewhere in the country suggest that rates of prescribing drugs to lower cholesterol are low in people without diagnosed disease\textsuperscript{13}. Blood pressure lowering therapy is also under utilised in some groups.

As a general rule, half of people with hypertension are unidentified, and half of those identified do not have their blood pressure controlled although this will vary considerably between GP practices.

\textit{Gaps and recommendations}

The health check programme is failing to reach the areas where people have the highest rate of risk factors for cardiovascular disease. More remains to be done to reduce the variations in primary care delivery of health checks and treatment of people with established cardiovascular disease risks. This includes a strong focus to encourage those living in areas of deprivation to take up the health check offer as these populations have the highest level of risk but are currently the least likely to receive a check.

We need to do more to understand the follow-up that happens after health checks, not only around the appropriate prescribing of medical treatments, but also the extent to which people receive support to change their lifestyles.

In time we will be able to measure the proportion of those having a health check that are found to be high risk, and be able to follow referral to, and take up of, the new LiveWell Dorset service.

\textit{ii. Smoking}

\textit{Background}

Smoking is estimated to cause nearly 10% of all CVD. Estimates suggest that, despite considerable efforts, 17\% of adults in Bournemouth, 20\% of adults in Poole and 14\% of adults in Dorset smoked in 2013, compared to the England average of 18\%.

\textit{What is being done?}

The Dorset wide tobacco control alliance oversees local tobacco control measures. Alongside the activities to reduce exposure to second hand smoke and stop young people from starting smoking, the alliance is prioritising illegal sales, and supporting smokers to quit, abstain or cut down. There has been a reduction in the number of people accessing NHS SmokeStop services since 2012, with more local activity in pharmacies than GP services.

The new health improvement service, LiveWell Dorset, is a single point of access for local residents, which offers a range of support options to support behaviour change in smokers and others.

\textit{Gaps and recommendations}

We need to make sure we have flexible and accessible services that meet the needs of local communities and target areas of deprivation and high need. These need to include cutting down to stop and short-term abstinence programmes alongside the standard 12-week quit programme.
iii. Alcohol misuse

The World Health Organisation (WHO) estimates that 10% of alcohol-related deaths are due to cardiovascular disease. In 2012, there were 8,367 alcohol-related deaths in the UK - so we can estimate that there were more than 800 alcohol-related CVD deaths in the UK.

Figure 10: Estimated rates of binge drinking for people aged 16 and over

Alcohol-related hospital admissions are above the England average in Bournemouth and the borough is ranked third highest in the country for alcohol-specific death rates for men. Weymouth and Portland also have higher than average rates of hospital admissions and are in the top 20% for alcohol-specific death rates for men. Estimates for binge and high-risk drinking are above the national average in Bournemouth. This is illustrated in Figure 10.

A review of deaths during a five-year period in Bournemouth, Poole and Dorset that were solely attributable to alcohol revealed that just 33% of people dying were known to specialist community
treatment services, despite 97% of them being known to primary care, and more than 80% having had a record of repeated hospital admissions with an alcohol problem.

**What is being done?**

The effectiveness of brief interventions in reducing alcohol consumption is well documented, and specialist treatment services have good outcomes from formal treatment for those with alcohol dependency.

Training in screening and brief advice has also been offered in the past to a range of health and social care front line staff. Local councils also work closely with the police, probation service and other stakeholders to tackle the harm from alcohol through licensing, regulation and enforcement.

There has also been innovative work in Poole. For example, Poole Hospital has introduced routine alcohol screening in various clinical settings, and now does about 20,000 screenings a year, of which 20-25% of people met the criteria for a brief intervention and 5% were assessed to require specialist care. The Poole GPs also have an assertive outreach service that works with a small number of people with alcohol dependency who regularly attends the emergency department. The service has had a significant impact on the number of hospital emergency attendances and acute admissions.

The local councils have recently established a new Dorset wide governance arrangement for drugs and alcohol with a range of stakeholders. This provides an exciting opportunity for all stakeholders to work together to build on existing achievements, one of the first priorities is to develop a Dorset wide alcohol strategy.

**Gaps and recommendations**

The challenges from alcohol are many and complex, and the response must focus on both prevention and treatment. There is a need to widen the use of screening tools for problem drinking and provide brief advice across a range of frontline services both in health and social care settings. We also need to make sure our local health check programme reaches those with the highest need and those with hazardous drinking are supported appropriately.

A significant proportion of those requiring treatment for alcohol dependency are not in contact with services and more work is needed to make sure services are accessible and acceptable to everyone in need of help.

**iv. Obesity, diet and physical activity**

**Background**

It is estimated that more than half of our local adult population are overweight or obese (59% in Bournemouth, 58% in Poole and 62% in Dorset). Roughly a third of these overweight people are classified as obese.

Salt consumption is one dietary factor that is related to the risk of developing high blood pressure. Nationally, there have been many campaigns about limiting daily intake of salt to below 6g, but the average amount of salt consumed by adults in the UK is currently 7.2g a day.
People who are physically active have a lower risk of CVD than those who are inactive. The Active People’s Survey suggests that Bournemouth has much lower rates of adult inactivity than most of the country (ranked fifth); Dorset and Poole have higher rates of inactivity.

There is also considerable local variation in physical activity, including the proportion of people reporting playing sport at least once a week, as shown in Figure 11. Areas showing particularly low rates of participation tend to be areas of high deprivation.

**Figure 11: Proportion of adults playing sport at least once a week**

What is being done?

We described earlier the LiveWell Dorset service. As it develops, one of the aims is to make sure that the advice offered about being more active is in line with the national strategy, ‘Everybody active, every day’. This encourages people taking up regular activity by building it into their everyday lives, not necessarily doing sports or going to the gym.

There are a range of local council-led programmes to increase active travel, and increase the use of leisure and open spaces.
Gaps and recommendations

As mentioned in other parts of this report, we need to make sure our local health checks programme reaches those with the highest need; understand who uses services, such as weight management, and with what outcomes.

Programmes developed by local councils to actively promote walking and cycling, such as those funded by the Local Sustainable Transport Fund, need to describe clearly the links with health. Incorporating this type of active travel into everyday activity is one of the easiest ways to meet the recommended national physical activity recommendations.

v. Exposure to air pollution

Background

Short-term exposure to air pollution causes a range of health effects including worsening of existing illness and increasing the risk of hospital admission for cardiovascular disease and respiratory conditions. Long-term exposure increases death rates from cardiovascular disease, with the link strongest with levels of fine particulate matter in the air (known as PM$_{2.5}$). These particles come from a range of sources including road vehicles, industrial engines and use of fuels for heating and other purposes.$^{15}$

Whilst outdoor air pollution has decreased in the last few decades in the UK, national levels of air pollution still have a significant impact on the life expectancy of the population and air pollution is one of the top priorities for action globally in reducing rates of CVD. Rates of air pollution across Bournemouth, Poole and Dorset vary considerably as shown in Figure 12 below. It is estimated that current levels of PM$_{2.5}$ contribute to approximately 4% of all deaths a year locally.$^{16}$

Figure 12: Measures of particulate matter (PM$_{2.5}$) across Bournemouth, Poole and Dorset
What is being done?

Local councils in the UK have a legal responsibility to review air quality and to put measures in place to reduce emissions if levels exceed national standards. Locally, there are a number of air quality management areas where air quality standards are unlikely to be met and air quality management plans are in place, including sections of Commercial Road and Ashley Road in Poole, Chideock, and part of Dorchester High East Street.

Local environmental health teams and Public Health Dorset are exploring local issues around air quality, including the potential for an air quality monitoring network to assess local levels of PM2.5 and links to local health indicators.

Gaps and recommendations

Local work needs to continue to recognise the impact of air quality. The health impacts of air pollution should also be central to decision-making for planning and transport. The use of national guidelines is useful but levels just below upper limits still pose a significant risk even though action is not required by law.

There is also more work to do to understand both local levels outdoors and the impact of indoor air pollution (e.g. in the home and in cars).

---

c. Reducing risk in people with disease

Background

Comparing the rates of conditions and risk factors that we expect in populations with the rates currently diagnosed suggests that we are not identifying a large proportion of those with CVD; detection rates are particularly low in areas of deprivation.

Figure 13 shows the percentage of the expected rates of stroke and coronary heart disease identified in each practice across Bournemouth, Poole and Dorset. The greatest difference between observed and expected rates of diabetes, stroke and coronary heart disease (CHD), appear to be in areas of deprivation.

When looking at the tables below we need to understand that practices can exclude patients from disease reporting for a variety of reasons. As mentioned in an earlier section, the level of exception reporting is higher in areas of deprivation.
The management of blood pressure, blood sugar and cholesterol in diabetics is important in terms of whether they will develop complications from diabetes, including heart disease. As is shown in Figure 14, the management of these rates in people with diabetes is generally best in areas of affluence and worst in areas of deprivation where there are already higher rates of CVD and low levels of diagnosis of diabetes.
Public Health England (PHE) has analysed local performance in terms of spend, quality of care and outcomes relating to cardiovascular disease and compared our local performance to similar areas elsewhere in the country. The report identified the potential for ‘significant benefit to patients if improvement to primary care management indicators were made’. PHE also concluded that Dorset showed room for improvement in 21 of the 27 indicators relating to effective primary care management of CVD.
What is being done?

Currently, primary care quality is incentivised through the GP contract. Practices receive additional income for reaching targets for the quality management of long-term conditions including cardiovascular disease. The above data from PHE, and more local analysis, suggests that there is significant room for improvement.

Gaps and recommendations

We are currently failing to appropriately implement readily available and effective interventions across our local population. The variations in detection and management of CVD highlights how much more can be done to reduce risk in those with disease, particularly in areas of high need, generally areas of high deprivation.

We need to extend those interventions that offer the greatest potential impact. If we treat high cholesterol effectively in all currently known CHD patients we could postpone around 30 deaths a year, treating high blood pressure effectively and effective diabetes management could together postpone the same number of deaths again.

d. Care of disease

i. Hospital based care and emergency admissions

Background

When people are acutely ill with cardiovascular disease, e.g. heart attack, stroke, they are often admitted to hospital as an emergency. While emergency admission rates related to CVD can be an indicator of the quality of disease management, this is not always the whole picture, and can also sometimes reflect the local organisation and availability of out of hospital care.

Nationally, we know that there are clear variations in emergency admissions for CVD, however, studies have found no clear link between the quality of disease management in primary care (as measured by the quality and outcomes framework) and emergency admission rates.

We do know that emergency admission rates are higher in areas of deprivation and areas with higher rates of CVD and smoking.

Public Health England compared Bournemouth, Poole and Dorset emergency admission rates with similar areas in the country. They identified that the three areas have a high rate of emergency admissions for coronary heart disease for men.

Public Health England also identified higher rates of a range of surgical treatments or repairs for CVD in Bournemouth, Poole and Dorset (excluding Coronary Artery Bypass Grafts for which Dorset has the seventh lowest rate in the country).
Percutaneous Coronary Intervention (PCI) is often performed to treat the damage caused by coronary heart disease. Further analysis by Public Health England\textsuperscript{21} found that Dorset CCG had the second highest rate of PCI in England (planned and unplanned combined), after adjusting for age differences in the local population.

There is clearly considerable local variation, and this variation does not appear to be linked to need (such as deprivation), or outcome, such as emergency admission rates. For example, Christchurch and West Dorset are areas with similar levels of deprivation and similar levels of premature CVD mortality but, after adjusting for age differences in the local population, Christchurch has more than twice the rate of planned admissions for treatment than West Dorset.

Figure 15: Expected count of PCIs by local authority based on national age-specific rates (2012/13)

For many years, Dorset CCG has had one of the highest national rates of implantation of devices to assist with heart failure, including implantable defibrillators and pace makers. While this represents high levels of access for these procedures, less is known about the extent to which this represents value. For example, compared with similar CCGs with similar populations, Dorset was estimated to be undertaking an additional 2,371 pacemaker procedures a year, and an additional 517 implantable cardiac defibrillators\textsuperscript{22}.

What is being done?

There has been a large national push for investment in the provision of hospital-based pathways for the treatment of heart disease and stroke during the last 15 years. This has had a particular focus on improving access to treatment for CHD.

There has also been considerable effort in recent years to improve the treatment of stroke in hospital. This includes providing urgent treatment to break down blood clots, access to improved scanning to diagnose stroke, and a push to improve the length of time that people are cared for in dedicated stroke wards. Data suggests further work to improve the quality of local services, including the proportion of patients admitted directly to a stroke unit in under four hours.
**Gaps and recommendations**

We need to do more to understand if the way resources are currently invested for cardiovascular disease in hospital are delivering the best value for the whole population. For example:

- Do the higher rates of access to surgical procedures, as identified by Public Health England, result in better outcomes both for individual patients and the population as a whole?

- Why do we see such wide local variations in these rates?

The recent Dorset Clinical Services Review may have taken us some way on this journey. It is important that while this process is underway we make sure there are discussions about how best to design services appropriately targeted to those with the greatest need, and that there is a real focus on measuring outcomes at population level. Above all, there is a much greater need to look at the quality and outcomes of care along whole pathways, not just in particular settings such as hospitals.

**ii. Out of hospital care and the end of life**

**Background**

As death rates from CVD have generally fallen over the past 30 years, and ignoring the recent upturn that is the focus of this report, there are now more people living with CVD. Survivors of acute events, e.g. heart attacks, often develop complications such as heart failure after a number of years. One challenge is how to ensure patients have as good a quality of life as possible.

One service, to do this, is provided by the NHS, cardiac rehabilitation. It is also increasingly recognised that some patients benefit from becoming more involved in self-management of their condition, and there are several patient support groups for people with CVD around Dorset.

Nationally, we know that many people experience poor care at the end of life\(^2\). For example, while there is a strong preference for dying in our own home, only around one in five deaths occurred in residents’ own homes (20% Dorset, 20% Poole, 22% Bournemouth)\(^4\). While this is similar to (or, for Bournemouth, better than) the England average of 20%, other areas are achieving better – in Cambridgeshire, 27% of deaths occur in patients’ own homes.

**What is being done?**

A range of programmes are offered in Bournemouth, Poole and Dorset. These include various exercise-on-referral schemes; in addition, NHS Dorset CCG commissions the My Health, My Way programme to support to people living with a chronic condition such as CVD to change their lifestyles.

Cardiac rehabilitation can improve health outcomes and quality of life for people with coronary heart disease through help with changing their lifestyle, as well as exercise training\(^5\).

The local cardiac rehabilitation service is provided by specialist nurses and exercise professionals across Bournemouth, Poole and Dorset.
There is also work to improve joint working, including the Better Together programme and Better Care fund initiatives. These aim to improve outcomes and experience of care across Bournemouth, Poole and Dorset. Programmes include a focus on joint working across health and social care, improving support for carers, and improving access to patient information through development of the Dorset Care Record.

**Gaps and recommendations**

We need to make sure that our programmes are effectively targeted and meet local need. We need better local understanding of who is accessing and benefiting from support, including community based cardiac rehabilitation. The advice provided through cardiac rehabilitation programmes about lifestyle change, including exercise and diet, should include specialist behaviour change support. The new LiveWell Dorset service is also available to help people more generally with behaviour change.

It is also clear that we need to do more to make sure our population is able to die with dignity, including dying at home when possible and desired. Having access to the appropriate care out of hours is vital to this as is agreed plans for managing events at the end of life. The Better Together programme and Better Care Fund programmes must include a focus on the quality of care at the end of life as well as continuing to improve local support for carers.
3. What do we need to do differently?

The information in this report clearly suggests that the improvements in early death rates from cardiovascular disease we have seen for many years have slowed dramatically, and, in some places and for some people, such as men in Bournemouth, to the extent they are getting worse.

There is no reason to believe this trend will reverse without effective action, given that death rates are driven by rates of risk factors such as diabetes, obesity and physical inactivity in our population, which are increasing rather than decreasing.

The data also shows marked differences in death rates as well as differences in the levels of risk and the take up of preventive services within our local populations.

We have had high levels of investment in hospital-based treatment services for CVD for many years through the NHS and while this investment has contributed to the improvements we have made locally, the evidence suggests more investment in these services will not necessarily have the same impact as a sustained commitment to prevention and improving primary care based services in the future.

This has added importance in an environment where money to invest in services is not increasing and the demands on services from an ageing population are increasing.

There is also a need for us to make sure that all services have a real focus on those areas and populations with the greatest need. The data suggests there are currently large differences in service use and these are not explained by need. We also need to ensure a similar focus on where outcomes are worst and the risks are greatest.

We all need to look at what we can do differently, including learning from what has worked elsewhere. Many of the challenges we face, such as poor rates of uptake of services, have been addressed elsewhere and we need to learn the lessons and change our practice.

Lying at the heart of this issue is the fact that prevention was, and remains, an add-on to mainstream health and care services with little significant long-term investment in prevention services over many years. The reasons for this are several, these include:

- A lack of evidence of what works.
- The need to take a long-term view; results from prevention are rarely seen within the typical budgetary or political time frame.
- A long period of financial austerity and the need to maintain spend on day-to-day frontline services.
- The lack of a local discussion about the value of a long-term commitment to prevention and the need to disinvest in more treatment services to fund this.

We need to work with those agencies that have been effective in putting prevention at the heart of their business, such as the fire and rescue services, and learning from their work, and share resources.

While prevention is most often associated with stopping people developing a condition in the first place, it is equally about preventing complications for those with a disease. This is especially true at the end of life.
where talking to people about death and dying remains a very real challenge. This requires us all, as a
society, to talk about death as well as life.

Several aspects of prevention are often overlooked. One of these is the link of health to income and
employment – generating jobs that support people and their families in meaningful employment,
especially for those with poor health, is key to any effective prevention agenda.

While this may sound like we have a long way to go, we have good starting points for all this work
including a number of existing joint strategies. For example, Dorset Health and Wellbeing Board Strategy
has as one of its priorities as ‘Reducing CVD’ – the summary page is shown below. All the agencies,
including the NHS and local councils, have signed up to this.

**Priority: Reducing circulatory disease**

The term circulatory (or cardiovascular) disease is inclusive of a number of diagnosis, all of which affect the
cardiovascular system, principally cardiac disease, vascular diseases of the brain and kidney, and peripheral arterial
disease. Collectively these diseases remain the biggest cause of premature death in England, though over the past
thirty years cardiovascular mortality rates have decreased significantly. Although these diseases usually affect older
adults, antecedents of circulatory disease begin early on in life, so preventative actions are effective from childhood.
Factors that modify the risk of disease include healthy eating, physical activity and avoidance of smoking.

Overall, rates of disease in Dorset compare well with England as a whole, but circulatory disease remains the most
significant cause of premature mortality in the population. It is also subject to significant inequalities between areas
(Weymouth and Portland has the highest premature mortality rate from circulatory disease) and strongly correlates
with socio-economic status.

<table>
<thead>
<tr>
<th>Vision: To improve the health and wellbeing of people in Dorset and to reduce the inequalities in health outcomes that exist between different parts of the population.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People live in environments that support their health and wellbeing</td>
</tr>
<tr>
<td>2. People, families and communities are enabled to live healthy and fulfilling lives</td>
</tr>
<tr>
<td>3. People with increased risk of poor health are identified early on and are supported to prevent premature problems developing</td>
</tr>
<tr>
<td>4. People living with long-term health problems avoid complications and maintain a good quality of life.</td>
</tr>
<tr>
<td>• Planning a built environment that encourages physical activity.</td>
</tr>
<tr>
<td>• Healthy workplaces</td>
</tr>
<tr>
<td>• Sustainable healthy food production and supply</td>
</tr>
<tr>
<td>• Transport systems that encourage physical activity</td>
</tr>
<tr>
<td>• Reductions in air pollution</td>
</tr>
<tr>
<td>• Programmes to improve early life experiences through support to families and carers. i.e. developing healthy norms</td>
</tr>
<tr>
<td>• Programmes to increase levels of physical activity in target communities.</td>
</tr>
<tr>
<td>• Health education programmes and supportive policies to promote: good nutrition, safer drinking etc</td>
</tr>
<tr>
<td>• Promote NHS Health Checks to target audiences</td>
</tr>
<tr>
<td>• Early identification and treatment/management of modifiable risk factors: hypertension, cholesterol, smoking, alcohol misuse, obesity.</td>
</tr>
<tr>
<td>• Good management of diabetes.</td>
</tr>
<tr>
<td>• Effective treatment / revascularisation</td>
</tr>
<tr>
<td>• Cardiac rehabilitation</td>
</tr>
<tr>
<td>• Ongoing management of risk: blood lipids, blood pressure</td>
</tr>
<tr>
<td>• Anti-thrombotic therapy</td>
</tr>
<tr>
<td>• Reablement</td>
</tr>
<tr>
<td>• Care for people in community or hospital: assistance with independent living.</td>
</tr>
</tbody>
</table>
One of the challenges is that some of the key actions in the Health and Wellbeing Board strategies are often not priorities for the responsible organisations e.g. NHS as described in their ‘Annual Operating Plans’. Such preventative strategies involve long-term commitment, with the organisational focus is often, understandably, on more short-term issues such as hospital waiting times. While these are important they must be balanced against the need to look forward – this has been well expressed in the recent NHS Five Year Forward View describing the need to see a radical upgrade in prevention and public health.

Prevention is a longer-term strategy, but the issue of increasing CVD death rates is pressing and we need to take action that is going to have an impact in the short term, examples of activities with the most short-term gain for the investment include:

- Care of people with known risk factors – make sure these are effectively managed and differences between communities are reduced.

- Care of people with diagnosed disease – make sure treatment is effective and other risks identified and managed.

In doing all of these activities we need to:

- Recognise this is collective effort and all agencies and individuals have a role.

- Appreciate that efforts in preventing CVD will have benefits beyond the specific condition, e.g. for cancer prevention.

- Use existing structures and processes e.g. health and wellbeing boards, to integrate population priorities with organisational ones.

- Focus effort on those with poorest outcomes.
4. Summary of recommendations

Whilst a response to this challenge of cardiovascular disease is a collective effort, there are a number of specific actions that are needed, these are summarised below.

- Embed prevention in all areas of service commissioning, consistent with the NHS Five Year Forward View and the strategic plans of both local health and wellbeing Boards.

- Make sure that risk factors for cardiovascular disease in the local population are effectively managed and differences between communities are reduced.

- Extend signposting to LiveWell Dorset services to support changing health behaviours.

- Make sure effective interventions to manage cardiovascular disease focus on areas with the highest levels of need and poorest indicators of use of services.

- Better understand access to and impact of long-term condition and cardiac rehabilitation programmes.

- Ensure people can access appropriate care out of hours including end-of-life care.

- The Clinical Services Review (CSR) should explore reasons for the intervention rates for CVD across Dorset and whether hospital care matches need and its impact on individual and population outcomes.

- Improve health checks coverage and reduce variation in coverage, especially in areas of deprivation, and better understand their follow-up.

- Widen the use of identification and brief advice for alcohol misuse and ensure treatment services are accessible to those in need.

- Ensure adult stop smoking services effectively support people living in homes with children to stop smoking, particularly in areas of deprivation.

- Focus efforts to stop young people from starting smoking towards areas of deprivation.

- Support smoke free homes, including through those working with families, eg health visitors, the fire and rescue service, environmental health officers etc.

- Further develop a whole-council approach to the prevention and management of obesity, especially childhood obesity, including supporting healthy diets, physical activity, green spaces and sustainable transport.

- Continue to work together to better understand levels and health impacts of both outdoor and indoor air pollution.
Part two:

Health profile indicators for Bournemouth, Poole and Dorset 2007-2015
1. Background

This section is different from the first section in that it takes a local authority focus across a broad range of ‘health’ indicators over several years, starting in 2007 through to 2015. Public Health England publishes health profiles annually for each local council.

This section uses the health profiles data to look at:

a. the main health and wellbeing issues in each local authority area

b. changes over time.

When published, health profiles contain the most recent national data to support indicators. Each profile may include data covering different time periods due to the length of time before some data become available, and the same data may be repeated in subsequent years if there has not been an update.

Timeliness has improved but even so, indicators in the 2015 profile cover various time periods from 2010-12 to 2014. Looking back to some of the earlier profiles, data may go back as far as 2001.

Using health profile data provides some consistency in how health and wellbeing outcomes are measured over time, although some indicators have changed over the years, as either new indicators are added, some are taken out, or in some cases there are changes to how an indicator is measured or reported. Because of this, direct comparison is not always possible across the whole time period. It has become easier to compare data as it is now published in an interactive tool that lets you look at trends.
2. Bournemouth

a. Deprivation and inequality indicators

There has been little change in the way that the population is classified using the Index of Multiple Deprivation\(^1\) between 2007 and 2015.

The distribution of areas classified as in the most deprived 20% nationally has not changed, including parts of the wards of Central, Boscombe West, East Cliff and Springbourne, Kinson South and Wallisdown and Winton West. In Bournemouth, more than half of the population lives in areas classified as being in the 40% of areas most deprived in England (16% being in the most deprived national 20%).

In 2007, life expectancy in Bournemouth was above the average for England for men and women. In 2015, life expectancy for men in Bournemouth was lower than the England average while life expectancy for women was similar to the England average.

Between the 2007 and 2015 profiles, the gap in life expectancy for men appeared to rise from about eight years to 11 years, while the gap in life expectancy for women remained largely unchanged.

b. Trends in rates of early deaths from heart disease and cancer

There has been consistent measurement of changes in rates of early deaths (under 75s) due to the two biggest causes of death in populations: cardiovascular disease and cancer.

The 2007 profile showed a consistent fall in early deaths from cardiovascular disease, matching the national fall to that point. The under-75 death rate for heart disease and stroke was significantly better than the rate for England at 71 deaths per 100,000 population (England, 91 deaths per 100,000).

This trend has now changed in Bournemouth. Data reported covering 2002-04 to 2011-13 shows a continued fall at first, and then a flattening and an apparent rise from 2008-10 onwards (to 85 per 100,000 compared with 78 per 100,000 nationally in 2011-13). Where Bournemouth was previously doing better than the England average, it is now doing only as well as the England average.

The 2007 profile also showed that the trend in early deaths from cancer in Bournemouth mirrored the national fall in this indicator, and was consistently below the rate for England over the previous nine years. The rate of early deaths due to cancer in the 2007 profile was below the rate for England at 113 deaths per 100,000 (England, 119 deaths per 100,000).

This overall trend has continued up to the 2015 profile (2011-13 data), remaining below the rate for England. However, the Bournemouth rate is not significantly different from the national rate (138 per 100,000 in Bournemouth compared with 144 per 100,000 nationally).

---

\(^1\) A relative measure of deprivation at small area level across England
c. Community indicators

Between the 2007 and 2015 profiles there was little change in the overall picture for the wider factors contributing to health in Bournemouth relative to the England average.

All of these indicators apart from the rate of violent crime show that Bournemouth is doing well compared to England. The rate of violent crimes in Bournemouth has been consistently higher than the average for England for the whole period, but a change in the way the data is calculated means this cannot be directly compared with previous years. The most recent data suggests that the rate of violent crimes is falling in Bournemouth, but the 2013/14 rate of 12.6 per 1,000 remains higher than England at 11.1 per 1,000 population.

The proportion of Bournemouth children living in poverty was the same as England for most of the period since 2007, however the 2015 profile shows the proportion in Bournemouth (18.4%) is now significantly less than the England average (19.2%), the second year it has been better than England.

The proportion of children attaining 5 A* to C grades at GCSE has also improved relative to England, so that for the first time in 2015 the proportion achieving this standard locally was higher than the England average (61.1% v. 56.8%).

d. Children and young people’s health

From 2008, the profiles included a number of indicators specifically focused on children and young people’s health.

Smoking in pregnancy in Bournemouth was similar to the England average in both 2008 (15.5% v 16.1%) and 2015 (12.3% v. 12%, 2013/14 data). Due to a change in how the data is calculated, figures are not directly comparable with 2012/13 and previous years.

The 2008 profile reported on the proportion of reception year children who were obese. In Bournemouth, this was similar to the proportion for England at about 10%. The 2015 profile reported obesity data for year six pupils rather than reception year pupils. Other sources show that there has been no consistent change in either reception year or year six obesity rates in Bournemouth since 2007. The latest available data (2013/14) show local and national rates are similar for reception year. However, in 2013/14, the year six obesity rate in Bournemouth was lower than the rate for England as a whole.

Teenage pregnancy rates in Bournemouth in the 2008 profile were lower than the England average. Since then rates have fallen, but have mostly been similar to England. From 2014 the profiles have used data for single year periods rather than three year periods, with the latest reported data still showing similar figures for Bournemouth and England (22 v. 24 per 1,000, 2013 data).

e. Adult lifestyle indicators

These indicators are based on modelled estimates from national surveys such as the Health Survey for England. The 2015 profile reports estimates from 2013 for adult smoking and physical activity and for 2012 for adult obesity. These three indicators have been included in each health profile since 2007.
The estimated proportion of adults smoking was 29% in the 2007 profile, higher (although not significantly) than England at 26%. By the 2015 profile this had fallen to 16.6% in Bournemouth, slightly lower than the England average (18.4%), but again this was not statistically significant.

Adults in Bournemouth appeared to be more physically active than the average for England in 2007. But the difference between the local and national rate was not statistically significant. The same pattern was seen in the 2015 profile, with no statistical difference in the estimated percentage of physically active adults in Bournemouth (57.3%) compared to England (56%). The way this indicator was calculated changed in the 2013 profiles, so there is only one year that can be compared directly – i.e. 2012 where Bournemouth estimates were better than for England.

The proportion of adults estimated to be obese in Bournemouth in 2007 was lower than for England (18% v. 22%). But, by the time the 2015 profile was published, the estimated local and national rates were similar (21% v. 23%). Changes in the way this indicator was calculated mean no direct comparison can be made with previous years.

f. Disease and poor health

Over time, a number of changes have been made to some of the indicators included in the health profiles that look at disease and poor health. As a result, it may not be possible to identify trends between the two time periods. The performance of a local indicator relative to the national average may be identified.

In 2007, data for claimants of benefits and allowances for mental or behavioural disorders were used as an indicator of mental health and wellbeing whereas, in 2015, hospital stays for self-harm were used as an indicator. In both 2007 and 2015, the indicators used show that mental health and wellbeing was significantly worse in Bournemouth than in England as a whole.

The definition of the indicator relating to alcohol misuse has also changed significantly since 2007 so no direct comparison can be made between the 2007 and 2015 profiles. However, every profile until 2015 has shown the rate of hospital stays for alcohol related harm was significantly higher than the national average. The 2015 profile suggests a slight fall in the rate so that Bournemouth is now similar to England, but this should continue to be a key focus for Bournemouth to make sure any improvement is sustained.

Similarly, drug misuse has remained a problem in Bournemouth between 2007 and 2015, with the rate of drug misuse being significantly higher in Bournemouth than in England as a whole. For example, data for 2011/12 for the prevalence of crack or opiate misuse - used in the 2015 profiles - show that, in that year, the rate in Bournemouth was 15.2 per 1,000 people aged 15-64 compared with 8.4 per 1,000 nationally.

Another indicator that was significantly worse locally than in England as a whole in both 2007 and 2015 was the rate of hip fracture in people aged 65 and over. In addition, although an indicator for sexual health was not included until the 2012 profile, the rate of sexually transmitted infections has shown a consistently high level of diagnoses in Bournemouth compared to the England average.
g. Life expectancy and causes of death

Trends in life expectancy and the major causes of death have been described above. It is worth noting two additional indicators – infant mortality and road injuries and deaths.

Figures for infant mortality have been below the average for England since 2007, although for most periods this has not reached statistical significance.

The rate of road injuries and deaths in Bournemouth was significantly lower than the England average in 2007. Although the rate had fallen in Bournemouth by 2015, the fall was not as marked as in the rest of England. As a result, the local rate is now higher than the England average (45.2 v. 39.7 per 100,000, [2011-13 data]).

h. Summary

- The health indicators for Bournemouth have remained fairly stable during this period. Where there have been changes, these are often in line with changes to health indicators nationally.

- The past progress on cardiovascular disease early deaths has not been maintained, and it is a concern that this now appears to be rising in males. This is more than likely affecting life expectancy, which is not rising as quickly in males as it was compared with England. The gap in life expectancy particularly for males in Bournemouth is a concern as it is widening over this period.

- Alcohol-related harm remains an important health issue, although there has been some improvement relative to the England average in the most recent profile. This should remain a continued focus to make sure any improvement is sustained.
### Figure 16: Bournemouth health profile indicators

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Deprivation</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>Statutory homelessness</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
</tr>
<tr>
<td>GCSEs (5A*-C)</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Violent crime</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Carbon emissions</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Income deprivation</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ecological footprint</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Long term unemployment</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Smoking in pregnancy</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Breastfeeding initiation</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Physically active children</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
</tr>
<tr>
<td>u18 conceptions</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Tooth decay (age 5)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Alcohol-specific hospital stays (u18s)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Adults who smoke</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>Healthy eating adults</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
</tr>
<tr>
<td>Physically active adults</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Increasing &amp; higher risk drinking</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Excess weight in adults</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Feeling in poor health</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>Hospital stays due to alcohol</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
</tr>
<tr>
<td>Drug misuse</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>People with diabetes</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Children’s tooth decay</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Acute STIs</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>u15s not in good health</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
</tr>
<tr>
<td>Incapacity benefits for mental illness</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>New cases of TB</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Over 65s not in good health</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Incidence of malignant melanoma</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Hospital stays for self harm</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Life expectancy - male</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>Deaths from smoking</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
<td>Amber</td>
</tr>
<tr>
<td>Early deaths - heart disease &amp; stroke</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Early deaths - cancer</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
</tr>
<tr>
<td>Road injuries &amp; deaths/KSI*</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
</tr>
<tr>
<td>Excess winter deaths</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Suicide rate</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* KSI from 2014 onwards

Where cell is blank, indicator not included that year

N/A entered where no national comparison made that year

RAG relates to comparison against England

Red (dark grey) = worse
Amber (light grey) = similar
Green (mid grey) = better
3. Poole

a. Deprivation and inequality indicators

In 2010, five (out of 91) Lower Super Output Areas (LSOA), which is a geographical area defined by Office for National Statistics with between 400 and 1200 households, in Poole were among the 20% most deprived in England (one more than in 2007).

These LSOAs are located in the wards of Hamworthy West, Poole Town, Alderney and Newtown. Overall, Poole is not a council with from widespread deprivation. Just under 28% of the population lives in areas classified as being in the 40% of areas most deprived in England, with just under 4.5% being in the most deprived national 20%.

Life expectancy as measured in the 2007 profile in Poole was above the average for England for both men and women. It remained above the national average in 2015. The gap in life expectancy between least and most deprived communities was largely unchanged between the 2007 and 2015 Profiles, at between seven and eight years for men and six and seven years for women.

b. Trends in rates of early deaths from heart disease and cancer

There has been consistent measurement of changes in rates of early deaths due to the two biggest causes of death in populations: cardiovascular disease and cancer.

The 2015 profile showed that early deaths (under 75 years) from heart disease and stroke have fallen continuously in Poole for ten years (2002-04 to 2011-13), matching the national trend. During the period, the local under-75 cardiovascular disease mortality rate has stayed below the England rate. The 2015 profile shows that the rate was 57 deaths per 100,000 in Poole compared with 78 per 100,000 across England.

The rate of early deaths from cancer has been below the national rate and falling in line with the national trend, but in the 2015 profile it appears this trend may be changing, with an apparent rise in 2011-13 to 134 per 100,000, and now only doing as well as the England average, not better.

c. Community indicators

Between the 2007 and 2015 profiles there was little change in the overall picture for those indicators summarising some of the wider determinants of health in Poole relative to England. Each of the child poverty, statutory homelessness, violent crime and long term unemployment indicators has shown Poole to do consistently better than the figures for England. Changes in the way most of these indicators have been measured across the whole period mean that it is not possible to compare figures published in 2007 with those in the 2015 profiles, although the limited trend data that is available suggests rates are continuing to improve.

One indicator where Poole has seen a change between 2007 and 2015 in its performance relative to England is in the proportion of children attaining 5 A* to C grades at GCSE. Between the 2007 and 2010 profiles, the local figure was significantly better than the national figure. From 2011 onwards it was similar to the national average. The 2015 profile showed that the proportion of children attaining 5 A* to C
grades at GCSE in Poole was the same as in England as a whole (both 56.8%, 2013/14 data). Again, due to a change in the way the data is calculated, the 2013/14 figures are not directly comparable with earlier years.

d. Children and young people’s health

From 2008, the profiles included a number of indicators specifically focused on children and young people’s health.

**Smoking in pregnancy** in Poole was similar to England in both 2008 (15.5% v 16.1%) and 2015 (12.3% v. 12%, 2013/14 data). But due to a change in how the data is calculated, figures are not directly comparable with 2012/13 and previous years.

The 2008 profile showed that the proportion of reception year children who were obese in Poole was similar to the proportion for England at about 10%. The 2015 profile reported obesity data for year six pupils rather than reception year pupils. Other sources show that there has been no statistically significant change in either reception year or year six obesity rates in Poole since 2007. The latest available data (2013/14) for reception year pupils show local and national rates are similar. The obesity rate for year six pupils in Poole is lower than the national average.

**Teenage pregnancy rates** in Poole in the 2008 profile were significantly lower than the England average. Since then rates have fallen, but have mostly been similar to the England average. From 2014, the profiles have used data for single year periods rather than three-year periods, with the latest reported data still showing similar figures for Poole and England (21 and 24 per 1,000 15-17 year old women respectively).

e. Adult lifestyle indicators

These indicators are based on modelled estimates from national surveys such as the Health Survey for England. The 2015 profile reports estimates from 2013 for adult smoking and physical activity and for 2012 for adult obesity. These three indicators have been included in each health profile since 2007.

In the 2007 profile the estimated proportion of adults smoking was 24%, lower (although not significantly) than England at 26%. By the 2015 profile this had fallen to 20.2% in Poole, slightly higher than the England average (18.4%), but again this was not statistically significant.

Adults in Poole appeared to be more likely to be **physically active** than the average for England in 2007. The difference between the local and national rates was not statistically significant, and this continued until the 2015 profile. For 2015, the profile showed higher levels of physical activity in Poole (62% v. 56%). The way this indicator was calculated changed in the 2013 profiles, so there is only one year that can be compared directly.

The proportion of adults estimated to be **obese** in Poole in 2007 was lower than for England (19% v. 22%). By the time the 2015 profile was published, the estimated local and national rates were similar (20% v. 23%). Changes in the way this indicator was calculated mean no direct comparison can be made with previous years.
f. Disease and poor health

Over time, a number of changes have been made to some of the indicators included in the health profiles that look at disease and poor health. As a result, it may not be possible to identify trends between the two time periods. The performance of a local indicator relative to the national average may be identified.

In 2007, data for claimants of benefits and allowances for mental or behavioural disorders were used as an indicator of mental health and wellbeing whereas, for the 2010 to 2015 profiles, hospital stays for self-harm were used as an indicator. Between 2007 and 2012, the indicators used show that mental health and wellbeing was significantly better in Poole than in England as a whole. By 2015, it was significantly worse than the national average.

The definition of the indicator relating to alcohol misuse has also changed significantly since 2007 so no direct comparison can be made between the 2007 and 2015 profiles. The level of alcohol misuse in Poole relative to England as a whole has improved since 2007 – in 2007 it was significantly worse than the national average but from 2009 onwards it was significantly better than England.

The level of drug misuse in Poole relative to England as a whole has improved since 2007 – in 2007 it was no different from the national average but from 2009 onwards Poole has seen better levels than England. In the 2015 profile the prevalence of crack or opiate misuse in Poole was 5.7 per 1,000 people aged 15-64 (England 8.4 per 1,000, 2011/12 data).

In addition, the level of recorded diabetes in Poole relative to England as a whole has improved since 2007 – from 2007 to 2013 it was significantly worse than the national average but from 2014 it was similar to the England average.

g. Life expectancy and causes of death

Trends in life expectancy and the major causes of death have been described above. It is worth noting two extra indicators – infant mortality and road injuries and deaths.

Figures for infant mortality have mostly been below the average for England since 2007, although statistically it remains similar to England.

The rate of road injuries and deaths in Poole was significantly lower than the England average in 2007. Although the rate had fallen in Poole by 2015, the fall was not as marked as in England. As a result, the local rate is similar to the England average (42.2 v. 39.7 per 100,000, based on 2011-13 data).

3.8 Summary

- The health indicators for Poole have remained fairly stable during this period of comparison, and overall the picture is one of good health. Where there have been changes, these are often in line with changes to health indicators nationally.

- Of concern is the change in early cancer deaths from better than England to the same as England, as this may indicate a levelling off of past progress in this area. Further work will be needed to understand this in more detail.
- Hospital stays for self-harm is a particular issue and has worsened in the last few years compared with England.

**Figure 17: Poole health profile indicators**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Deprivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child poverty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statutory homelessness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GCSEs (5A*-C)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent crime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carbon emissions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income deprivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ecological footprint</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long term unemployment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking in pregnancy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breastfeeding initiation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obese children</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physically active children</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>u18 conceptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tooth decay (age 5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol-specific hospital stays (u18s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults who smoke</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Binge drinking adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Healthy eating adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physically active adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obese adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing &amp; higher risk drinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess weight in adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling in poor health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital stays due to alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug misuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People with diabetes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children’s tooth decay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute STIs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older people - hip fracture ages 65 &amp; over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>u15s not in good health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incapacity benefits for mental illness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New cases of TB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 55s not in good health</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence of malignant melanoma</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital stays for self harm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life expectancy - male</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life expectancy - female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths from smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early deaths - heart disease &amp; stroke</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early deaths - cancer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Road injuries &amp; deaths/KSI*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excess winter deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide rate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*RAG relates to comparison against England*

Red (dark grey) = worse

Amber (light grey) = similar

Green (mid grey) = better

n/a entered where no national comparison made that year
4. Dorset

a. Deprivation and inequality indicators

Overall, Dorset is not a council suffering with widespread deprivation.

In 2010, only 5% of lower super output areas (LSOAs) (13 out of 247) in Dorset were among the 20% most deprived in England, three more than in 2007.

Of these, 10 were in Weymouth and Portland, two were in West Dorset and one was in Christchurch. In contrast, 61 LSOAs (25% of the total) were among the 20% least deprived in England. Of these, the largest number (35) was in East Dorset.

Life expectancy as measured in the 2007 profile in Dorset was above the average for England for both men and women. It remained above the national average in the 2015 profile. The gap in male life expectancy between the least and most deprived communities within Dorset was largely unchanged between the 2007 and 2015 profiles at six years. For women the gap appears to have risen from four to six years.

b. Trends in rates of early deaths from heart disease and cancer

There has been consistent measurement of changes in rates of early deaths due to the two biggest causes of death in populations: cardiovascular disease and cancer.

The 2015 profile shows that early deaths (under 75 years) from cardiovascular disease has fallen continuously in Dorset for ten years, matching the national trend. Throughout that period, the Dorset rate was consistently below the rate for England. The latest data in the 2015 profile (for 2011-13) show that the rate was 52 deaths per 100,000 in Dorset compared with 78 per 100,000 in England.

The 2015 profile shows a similar picture for early deaths due to cancer in Dorset, with a downward trend over ten years, mirroring the national fall, while remaining consistently below the rate for England. The 2011-13 data published in the 2015 profile shows that the rate was 122 per 100,000 in Dorset compared with 144 per 100,000 in England.

c. Community indicators

Between 2007 and 2015 there was little change in the local performance of indicators that summarise some of the factors contributing to health when compared with the England average. All the indicators reported in 2015, including child poverty, statutory homelessness, violent crime and long-term unemployment, were significantly better than the national average, and all but the proportion of children attaining five A* to C grades at GCSE have been consistently better than the England average throughout the whole period.

Changes in the way many of these indicators have been measured across the whole period mean that it is not always possible to compare figures published in 2007 with those in the 2015 profiles. For the proportion of children attaining five A* to C grades at GCSE, the 2015 profile figures cannot be compared to figures reported in the 2013 or 2014 profiles when the proportion in Dorset was low compared to the England average. The latest profile once again shows Dorset performing better than the England average (58.7% compared with 56.8%).
d. Children and young people’s health

From 2008, the profiles included a number of indicators specifically focused on children and young people’s health.

**Smoking in pregnancy** in Dorset was similar to the England average in both the 2008 (17% v 16.1%) and 2015 profiles (12.3% v. 12%, [2013/14 data]). In between these years, Dorset has consistently been higher than the England average, with the 2012/13 figure of 16.7% compared to 12.7% for England. A change in how the data is calculated means that the 2012/13 and 2013/14 figures are not directly comparable, and the 2013/14 figures may not fully reflect the local picture.

The 2008 profile reported on the proportion of reception year children who were obese. In Dorset, this was lower than the proportion for England at about 9% compared with 10%. The 2015 profile reported obesity data for year six pupils rather than reception year pupils. Other sources show that there has been no consistent change in reception year obesity rates in Dorset since 2007, and although there is an apparent increase in year six obesity, mirroring the national trend, this has not yet reached statistical significance. The latest available data (2013/14) for reception year pupils show local and national rates are similar. But the obesity rate for year six pupils in Dorset is, and has consistently been, lower than the national average.

**Teenage pregnancy rates** in Dorset were not published in the 2008 profile. Rates since then have fallen, but the rate of improvement appears to be less than the England average in the last few years. Despite this, Dorset rates remain lower than the England average. From 2014, the profiles have used data for single-year periods rather than three-year periods, with the latest reported data still showing Dorset doing better than the England average (20 v. 24 per 1,000, 2013 data).

e. Adult lifestyle indicators

These indicators are based on modelled estimates from national surveys such as the Health Survey for England. The 2015 profile reports estimates from 2013 for adult smoking and physical activity and for 2012 for adult obesity. These three indicators have been included in each health profile since 2007.

Between 2007 and 2015, the estimated proportion of adults smoking in Dorset was consistently lower than the England average. In the 2007 profile the estimated proportion of adults smoking was 18%, (England average 26%). By 2015, this was estimated as 14.3% in Dorset, below the England average of 18.4%.

In 2007, estimated numbers of adults in Dorset who are physically active were higher than the England average, and this pattern continued up to the 2012 profile. From 2013 onwards, there was a change in the way this indicator was calculated so that the last two years of data cannot be compared directly with earlier years. Figures in these last two years show no statistical difference in the estimated percentage of physically active adults in Dorset (57.3%) compared to the England average (56%).

The proportion of adults estimated to be obese in Dorset was below that for England in both 2007 and 2015, although not significantly (18% v. 22% and 21.5% v. 23% respectively). Changes in the way this indicator was calculated mean no direct comparison can be made with previous years.
f. Disease and poor health

Over time, a number of changes have been made to some of the indicators included in the health profiles that look at disease and poor health. As a result, it may not be possible to identify trends between the two time periods. The performance of a local indicator relative to the national average may be identified.

In 2007, data for claimants of benefits and allowances for mental or behavioural disorders were used as an indicator of mental health and wellbeing whereas, for the 2011 to 2015 profiles, hospital stays for self-harm were used as an indicator.

Between 2007 and 2012, the indicators used show that mental health and wellbeing was significantly better in Dorset than in England as a whole. By 2015, it was significantly worse than the national average.

For alcohol misuse the definition of the indicator has also changed significantly since 2007 so no direct comparison can be made between the 2007 and 2015 profiles. During the period, alcohol misuse in Dorset has remained significantly lower than the England average.

The level of drug misuse in Dorset relative to the England average has improved since 2007. In 2007, it was no different from the national average but from 2009 onwards it was better. In the 2015 profile the prevalence of crack or opiate misuse in Dorset was 5.6 per 1,000 people aged 15-64 compared with 8.4 per 1,000 nationally.

The level of recorded diabetes in Dorset relative to the England average has improved since 2007. From 2007 to 2010, it was significantly worse than the national average but from 2011 it was similar to the England average.

An indicator for sexual health was not included until the 2012 profile. Initially Dorset was showing a lower rate than the England average, but in the 2015 profile the rate of new STI diagnoses was worse than the England rate (888 v. 832 per 100,000, based on 2013 data).

g. Life expectancy and causes of death

Trends in life expectancy and the major causes of death have been described above. It is worth noting two additional indicators – infant mortality and road injuries and deaths.

Figures for infant mortality have been below the average for England since 2007, although statistically it remains similar to the England average.

The rate of road injuries and deaths in Dorset has fallen between the 2007 and 2015 profiles (from 70.4 per 100,000 to 51.7). Despite this fall Dorset has consistently been higher than the England average in every profile.

4.8 Summary

- The health indicators for Dorset have remained fairly stable during this period of comparison, and overall the picture is one of good health. Where there have been changes, these are often in line with changes to health indicators nationally.
- One particular area of concern is smoking in pregnancy; although figures look better it is likely they are not a true reflection of Dorset’s figures.

- Hospital stays for self-harm is also a particular issue and has worsened in the last few years compared with England.

- It should however be emphasised that for many of these indicators there are significant differences between District Council areas, e.g. CVD, smoking rate.

**Figure 18: Dorset health profile indicators**
APPENDIX

Appendix 1: List of figures

Part One: Cardiovascular Disease in Bournemouth, Poole and Dorset

Figure 1: Under 75 mortality from cardiovascular disease (CVD)
Figure 2: Contributing factors to the reduction in CHD deaths, for the years 1981-2000
Figure 3: Trends in under-75 mortality from cardiovascular disease (CVD)
Figure 4: Projected premature deaths from CVD in Bournemouth
Figure 5: Taking a life course approach to cardiovascular risk
Figure 6: Rates of excess weight or obesity in reception (age 5-6) (2013/14)
Figure 7: Estimated rates of regular smoking at age 15
Figure 8: Prevalence rates of diabetes and hypertension within GP registered adult population
Figure 9: Health check uptake by practice showing variation across Dorset
Figure 10: Binge drinking in over 16s
Figure 11: Proportion of adults playing sport at least once a week
Figure 12: Measures of particulate matter (PM$_{2.5}$) across Bournemouth, Poole and Dorset
Figure 13: Recorded versus expected rates of diabetes, stroke, coronary heart disease and hypertension at GP practices in Bournemouth, Poole and Dorset
Figure 14: Treatment targets for diabetes – proportion on disease register who are successfully managed (including exceptions)
Figure 15: Expected count of PCIs by lower tier local authority based on national age-specific rates, 2012/13

Part Two: Health Profile Indicators 2007-2015

Figure 16: Bournemouth health profile indicators
Figure 17: Poole health profile indicators
Figure 18: Dorset health profile indicators
Appendix 2 (online): Sources of figures

Figure 1: Under 75 mortality from cardiovascular disease (CVD)
Maps and histogram
Indirect standardised mortality rate at middle super output level (MSOA). This equates an expected rate (in this case England) and compares the observed rate as a ratio or percentage. For example, the MSOA containing the area of West Howe in Bournemouth has a rate of CVD mortality that is just over 70% more than the expected for England. The data used to calculate this rate is from ONS death register for calendar year 2008 to 2012 and ICD10 codes (I00 – I99) are used to identify CVD deaths. This rate is age standardised, meaning that difference in the age structure of comparator areas are accounted for.

MSOAs have an average population of 7,200 people. Labels on the histogram highlight LA priority communities within these MSOAs to highlight inequality in health outcome.

Table
Direct standardised rate of mortality equates an age standardised rate per 100,000 population at LA level between 2001/03 and 2011/13. Due to small numbers, data is grouped into 3 year totals. The data also uses ONS death registers and ICD10 codes (I00 – I99) to identify CVD deaths.

Figure 2: Contributing factors to the reduction in CHD deaths, for the years 1981-2000
Adapted from Unal, Critchley and Capewell

Figure 3: Trends in under 75 mortality from cardiovascular disease (CVD)
Direct standardised rate of mortality equates an age-standardised rate per 100,000 population at LA level between 2001/03 and 2011/13. Due to small numbers, data is grouped into 3-year totals. The data also uses ONS death registers and ICD10 codes (I00 – I99) to identify CVD deaths.

Figure 4: Projected premature deaths from CVD in Bournemouth
From: http://www.publications.parliament.uk/pa/cm201213/cmselect/cmcomloc/694/694we25.htm

Figure 6: Rates of excess weight or obesity in reception (age 5-6) (2013/14)
Derived from NCMP Local Authority Profiles, 2015; and Local Health mapping tool, 2015. Rates of excess weight or obesity in reception is calculated as a percentage of all children. Reception year includes children aged 5 to 6 and the most recent data is for the school year 2013/14.

MSOAs have an average population of 7,200 people. Labels on the histogram highlight LA priority communities within these MSOAs to highlight inequality in health outcome.

Trend data within the table is for the previous seven reporting periods between 2007/08 and 2013/14.
Figure 7: Estimated rates of regular smoking at age 15

Modelled prevalence of young people who are 15 and are regular smokers using data from 2009 to 2012. This is a synthetic estimate which means it is derived from survey data and then applied to local populations. Although well designed surveys have been undertaken locally, and are broadly validating these estimates, we are yet to obtain a complete picture across the whole of Dorset.

Figure 8: Prevalence rates of diabetes and hypertension within GP registered adult population

The percentage of patients aged 17 years and over with diabetes mellitus or hypertension, as recorded on practice disease registers. LSOA level deprivation data (2010) are applied proportionally to practice populations.

Figure 9: Health check uptake by practice showing variation across Dorset

Uptake of health check data at GP practice level is divided by the target population of people aged 40 to 74 on the GP register list to calculate a proportion. Individuals who are already on GP QOF registers are excluded from this calculation. Take up rates national and locally have been around 50% following invite.

Figure 10: Binge drinking in over 16s

Modelled prevalence of people aged 16 and over who drink more than 8 units on the heaviest drinking day in a week for men, and more than 6 units for women. This is a synthetic estimate which means it is derived from survey data (Health Survey for England 2007/8) and then applied to local populations.

Figure 11: Proportion of adults playing sport at least once a week

This data was estimated using Sport England’s Active People Survey for 2012/13. We mapped the percentage of adults (aged 16+) who are active, at moderate intensity, for at least 30 minutes on 3 or more days per week.

Figure 12: Measures of particulate matter (PM$_{2.5}$) across Bournemouth, Poole and Dorset

Figure 13: Recorded versus expected rates of diabetes, stroke, coronary heart disease and hypertension at GP practices in Bournemouth, Poole and Dorset

Reported versus expected prevalence for diabetes (17+). Expected prevalence data are crude age-related benchmarks only and do not take account of ethnicity and deprivation. They are compared with the number of patients on the practice diabetes register. Estimated rates are: persons aged 0-29: 0.34%, persons aged 30-59: 3.66%, persons aged 60+: 14.33%.

The ratio of QOF prevalence of stroke (proportion of patients on the Stroke or Transient Ischaemic Attacks (TIA) Register from all patients on the practice list) divided by the modelled prevalence of stroke (the estimated percentage of people with stroke using a model developed at the Dept of Primary Care and Social Medicine, Imperial College, London), expressed as a percentage.

QOF prevalence of CHD as recorded on the practice CHD register divided by the modelled prevalence of CHD (the estimated proportion of people with coronary heart disease using a model developed at the Dept of Primary Care and Social Medicine, Imperial College, London), expressed as a percentage.
The estimated percentage of people with hypertension. These estimates of the prevalence of hypertension have been calculated using a model developed at the Dept of Primary Care and Social Medicine, Imperial College, London. The model was developed using data from the 2003-2004 Health Surveys for England.

**Figure 14: Treatment targets for diabetes – proportion on disease register who are successfully managed (including exceptions)**

Treatment targets are based on the healthier lives work by Public Health England and include exception rates. The rationale for this is:

“From a public health perspective we are more interested in the actual proportion of patients receiving the intervention, i.e. the proportion of all patients with this condition who were treated.

The HSCIC (QOF FAQs, p.11) states "Percentage of patients receiving the intervention, gives a more accurate indication of the rate of the provision of interventions as the denominator for this measure covers all patients to whom the indicator applies, regardless of exception status."

We consider this to be the better comparable indicator because, while there are very good reasons why a patient might not be treated (such as terminal illness), a generous interpretation of exception rules can also be used to improve practice performance.

The tool is intended to highlight variation and encourage conversation about the causes of variation. We are not suggesting that every practice should, or can, achieve a 100% intervention rate for every indicator - clearly there are patients it would not be desirable to be included - however it is clear that there is unwarranted variation in exception rates and the data is not available for us to make adjustments.”

PHE Healthier Lives, 2015

LSOA level deprivation data (2010) are applied proportionally to practice populations.

**Figure 15: Expected count of PCIs by lower tier local authority based on national age-specific rates, 2012/13**

Taken from PHE (2014), Review of Interventional Cardiology Activity in Dorset.

“Activity rates for PCI and CABG for Dorset, CCG comparators and England were calculated using Hospital Episode Statistics for the financial year 2012/13, as supplied to PHE from the Health and Social Care Information Centre. Data was also extracted for 2010/11 and 2011/12 for PCI data. The HES activity data was extracted as all episodes of care recorded where primary or secondary procedural interventions indicate PCI or CABG (both elective and emergency admission). For PCI this will cover both primary and rescue PCI, as well as elective PCI (OPCS4 codes: K49–K50 and K75).

In order to show representative activity for the residents of local geographies, activity was aggregated according to patient residence (based on their postcode), rather than patient’s GP. Rates were calculated using the latest Office for National Statistics mid-year estimates for 2010, 2011 and 2012, where the year is the best match to the financial year of the HES data. These are available at lower super output area (LSOA), which can be aggregated to both CCG and local authority boundaries.

The expected numbers are not based on either best practice in intervention nor local need variables outside of the age and sex demographic. Ideally we would adjust expected rates using known age-specific prevalence or incidence of ischaemic heart disease to provide a better reflection of the need of the area.
Unfortunately this data is not available at such a small area. Estimates of ischaemic heart disease are available for all ages in Dorset, but these are influenced heavily by the age distribution of the population and we cannot separate out the variability contribution of the non-age and sex related components to provide any additional weighting factors.”

References


2. Bentley (2012). *Public health and local authorities. Communities and local government committee written submission from Professor Chris Bentley.*


6. National Obesity Observatory website. NB household income data is for 2008


11. Ash (2014). *Young people and smoking.*


15. DEFRA (2015). Department for Environment, Food and Rural Affairs website


