



**The Report of the Director of Public Health**  
**December 2016**

## **FOREWORD**

It is a great privilege to present my first report as Director of Public Health in Fife. I have a hard act to follow. Dr. Eddie Coyle retired in 2015. We also said goodbye to Graham Ball, Consultant in Dental Public Health in 2016.

The remaining team has had worked hard to maintain an integrated public health function which both responds to incidents day or night and provides a strategic approach to health promotion, reducing inequalities and supporting health service re-design and transformation.

In this report, I have tried to provide continuity with the past whilst introducing some new ideas to support health and care become more sustainable for the future.

I commend this report to you.

**Dr Margaret Hannah FFPH, FRCP**  
Director of Public Health  
December 2016

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## INTRODUCTION

We are entering turbulent times as a society. Uncertainty, volatility and major global disruptions are likely to have an impact on people's lives in Fife for the foreseeable future. We hear every day about new economic, political, social and environmental challenges – reductions in public spending, Brexit, welfare reforms and climate change all have public health implications. With so much flux we will need to be nimble on our feet and resourceful particularly as our challenges become more complex and inter-connected. We require a high level of co-ordination, discernment, innovation, preparedness and communication. NHS Fife's public health department has a key role in leading this and thus safeguarding and improving the population's health.

As in previous years, this annual report provides an overview of the health of the population, demographics, patterns of deprivation, health-related behaviours and the main causes of mortality and morbidity. This is only a summary chapter. There has been more detailed work generating profiles for the Fife H&SCP Strategic Plan, the Clinical Strategy for NHS Fife, and the annual Pharmaceutical Care Services report. In addition, Fife is fortunate to have a KnowFife dataset which allows open access to a range of key health and social data. A new co-ordinator has been appointed to manage this important asset and will contribute to new locality profiles being prepared for partner agencies.

Headlines from this chapter are that mortality rates are falling overall, but there is a widening gap between rates in the most deprived areas of Fife compared to the least deprived areas. This gap is not as wide for the incidence and prevalence of disease suggesting the difference lies in poorer survival rates from cancer and heart disease in people living in more deprived areas.

Fife has a boost sample to the Scottish Health Survey allowing us to compare lifestyle behaviours with the national average. Further analysis is taking place on the detail but currently we have a mixed picture in terms of progress on lifestyle behaviours. Smoking rates are falling but still above the Scottish average. Physical activity is higher than the national average but obesity is also higher. There is clearly more work to be done.

The Director of Public Health has the Executive Lead for health improvement and reducing health inequalities on behalf of NHS Fife. Much of this work is in partnership in particular, the Fife Health and Wellbeing Alliance which reports directly to Fife Partnership. In 2016, work has focused on implementing the Fairer Health Strategy for Fife and delivering recommendations from the report of the Fairer Fife Commission (*Fairness Matters*). In addition, concerted effort is helping the NHS become a health promoting health service, making a difference with every contact that staff have with patients. A chapter in this report provides an update on this work.

The ageing population remains a key driver for changes in health and social care. This year's report highlights policy efforts to address this and examines important issues around death and dying. The chapter reflects on the public health contribution to local healthcare re-design, not least NHS Fife's Clinical Strategy. The conclusion points to a public health approach which addresses these challenges through co-producing solutions with communities themselves.

Public health contributes to many aspects of health service delivery. This includes assessing the effectiveness of healthcare interventions such as screening programmes (bowel, breast and cervical cancer, aortic aneurysm, diabetic retinopathy) and undertaking local evaluations such as Hospital at Home. Further details of this work are beyond the scope of this year's annual report but are available in related reports on request.

Shifting the culture of care is a key part of this effort and aims to nurture transformation of health and social care. The Fife Shine Project is one such example described in this report. It began with a commitment by a small group of staff across agencies “to help older people thrive, not just survive, in their own homes”. It sounds simple, but in practice it has involved a huge culture shift for staff, patients and their families.

This culture shift is part of a wider debate public health has been supporting around kindness, recognising that relationships lie at the heart of health. You cannot be healthy alone. This report provides some details around this work.

We are fortunate in Fife to host a specialist dental public health function for the South East and Tayside (SEAT) region and manage the evaluation of Childsmile - a flagship national dental public health programme. The Co-Director of this programme was based in our department for many years. With his retirement it seems fitting to highlight in this report some of the major achievements in dental public health in Fife over the twenty years he worked here.

As the world changes, the need for innovation grows. For public health, this requires revisiting previous assumptions about underlying causes of ill health and how we respond to them, scanning for evidence of more promising approaches and introducing the new in the presence of the old.

One example derives from evidence of the impact of adverse childhood experiences (ACEs) on population health, advances in psychological understandings of trauma and what we can do to recover. Putting these insights together offers fresh approaches to addressing adverse health-related behaviours and support more effectively self management of chronic conditions as we now know these often have their origins in adverse childhoods. It is early days, but practitioners and clinicians across services and sectors are learning how to be more trauma-informed.

The final section of this report provides a brief summary of work in health protection. Each day, the public health department liaises with NHS colleagues - in laboratories, in primary, secondary and tertiary care, locally and regionally – wherever Fife residents receive healthcare. We also rely heavily on work of colleagues from other agencies to achieve our goals. In particular, we are indebted to colleagues in Fife Council Environmental Health for their tireless efforts both in supporting public health investigations but also in their work on inspection and regulation. This quiet and often invisible work safeguards the food we eat, the air we breathe, the buildings we work and live in and the goods and services that we trade. Without this important prevention work, the public health department would have many more incidents to address.

We also acknowledge the contribution of agencies such as Health Protection Scotland (HPS), Scottish Water, Scottish Environmental Protection Agency, Food Standards Agency for Scotland, Police Scotland and Animal Health and thank them for their support and collaboration when we have complex incidents and situations to manage. For example, public health worked with Police Scotland, Fife Council and Transport Scotland during the closure of the Forth Road Bridge acting as a conduit for communications between the NHS and other agencies. We attended meetings of Fife’s Local Resilience Partnership and the East of Scotland Regional Resilience Partnership – the first time this group has had to be set up in response to an incident.

In another example this year, the department responded to avian flu in a poultry farm by working closely with Animal Health and Health Protection Scotland to assess human exposures and provide prophylactic anti-viral treatment. This close working can only

happen through clear response plans, good relationships with key people across agencies and is supported by a statutory framework laid down in the Public Health etc. (Scotland) Act 2008. The Joint Health Protection Plan which was revised this year provides further detail of these arrangements.

Public Health is constantly evolving to mitigate and adapt to new threats and opportunities for the health of the population. It is a team effort. A special thanks is owed to all those working in the department and their close associates in other services and agencies who all help to safeguard, improve and innovate to maximise health gain in Fife.

## PUBLIC HEALTH INTELLIGENCE

This chapter provides an overview of population health and the determinants of health and wellbeing in Fife making best use of the data sources we have available to us. Understanding our population; its size and structure, patterns of births, deaths and diseases and determinants of health and wellbeing including life circumstances and health behaviours, provides the basis for improving health and wellbeing, reducing health inequalities and ensuring our services take account of the health needs of the population.

In this chapter we can only provide an overview of the numbers and trends for some of the key issues and highlight indicators of health inequality as set out in Fife's Health Inequality Strategy[1] but further detail on these issues and others are available through specific reports and profiles and by using the information in the KnowFife Dataset.<sup>a</sup>

### Population

The population of Fife continues to grow with an estimated 368,080 individuals living in Fife at June 2015. This represents an increase of 830 persons since June 2014 which as an annual growth rate of 0.2% is slightly less than the national annual growth rate of 0.5% [2].

The median age of Fife residents is 43 years. 17% of the Fife population are children (0-15), 63% are of working age (16-64) and 20% are aged 65 and over. There are currently 31,220 persons aged 75 and over living in Fife, 8.5% of the total population.

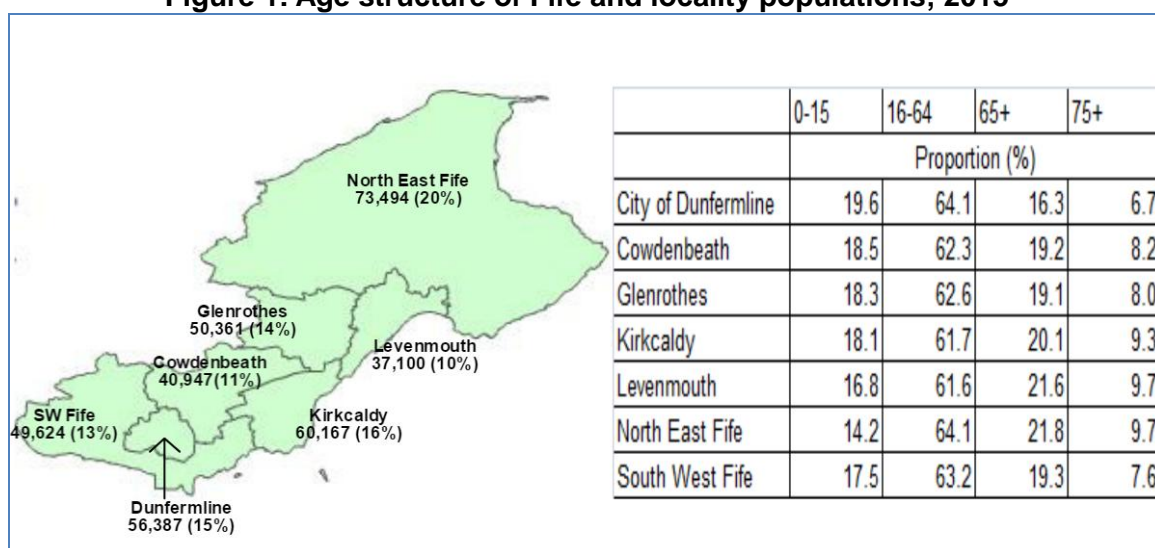
Seven localities have been created in Fife for the organisation and delivery of services within the Health and Social Care Partnership. Figure 1 shows the distribution of population of Fife across the seven locality areas. North East Fife locality has the highest proportion of the Fife population at 20% (73,494 persons) and Levenmouth locality the lowest (10%, 37,100 persons).

Variations in population age structure can be seen across the seven localities. Three of Fife's seven localities have higher proportions of their population aged 65 and over compared to Fife; Kirkcaldy (20.1%), Levenmouth (21.6%) and North East Fife with 21.8%. In contrast, Dunfermline's older population is significantly less than Fife at 16.3% and its proportion of children is the highest of all seven localities at 19.6% [2].

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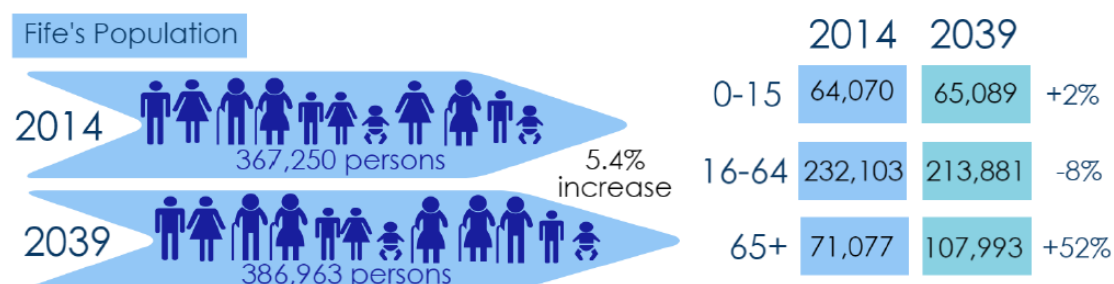
<sup>a</sup> Report/Profiles/Infographics are available in the Resources Section and information in Data Picker.

**Figure 1: Age structure of Fife and locality populations; 2015**



Source: KnowFife Dataset

The 2014-based population projections estimate that Fife's overall population will increase by 31,769 (5.4%), from 367,250 in 2014 to 386,963 in 2039. A 2% increase is projected in the number of younger Fife residents aged 0 to 15 (2%). The largest increases will be seen in persons aged 75 and over. By 2039 the number of persons aged 75 and over is projected to be 28,000 more than in 2014, a rise of 91% which contributes to an increase in the population aged 65 and over of 52% in the same time period. Increases however will not be seen across all age groups. In the next 25 years it is estimated that there will be an overall net reduction of 8% in the population aged 16-64.



## Births

In 2015 there were 3,755 live births registered in Fife. This was 134 fewer births than in 2014 and the lowest number of live births since 2004 [3]. Fife continues to have higher General Fertility Rates than Scotland, 55.3 per 1000 women aged 15-44 years compared to 53.2 per 1000 women in 2015, a consistent trend since 2001.

Among Fife births in 2015; 3.3% were to mothers aged 40 and over, 15% to mothers aged 35-39, and 5% to mothers aged less than 20 years old. The proportion of babies born to mothers under the age of 20 years is the lowest in the 25 year period 1991 to 2015. Whilst the majority of babies are born to mothers aged 25-34 (58% in 2015 and 57% in 1991), there has been a significant rise in percentage of babies born to mothers aged 30-34 (in 1991 20%, compared to 28% in 2015).



Of the live singleton babies born in Fife during 2014/15, 5.6% were born with a low birthweight.<sup>b</sup> Monitoring the proportion of low birthweight babies born in Fife and in areas of most and least deprivation across Fife is one of the long term indicators of health inequalities reported by the Fife Health and Wellbeing Alliance.

Of concern is the fact that in 2014/15 the percentage of low birthweight babies in the most deprived quintile (SIMD 12) was the highest it has been since 2007/08. By comparison the percentage of low birthweight babies in the least deprived quintile has remained low. As such the current gap between the most and least deprived populations is the widest it has been since 2007/08 with the current percentage of low birthweight babies in the most deprived quintile being nearly three times that in the least deprived.

<b>Fife's Health Inequality Strategy: Indicator of Health Inequalities</b>				
	Fife	Most Deprived	Least Deprived	Relative Gap
% LBW babies	5.6%	8.1%	2.8%	2.9

## Deaths

### All causes

During 2015 there were 4,027 deaths of Fife residents. Fife continues to have lower rates of death (all causes all ages) than Scotland with a rate of 1,151 per 100,000 population compared to 1,177 per 100,000 population in 2015 [4].<sup>c</sup>

1,453 deaths were to Fife residents aged under 75 years which corresponded to 36% of the total number of deaths in 2015. This included 675 deaths to residents younger than 65 years and 123 among those aged 15-44 years [5]. Rates of premature death among those aged under 75 years have fluctuated year on year but the overall trend in the last 10 years has been downwards with an overall 13% reduction between 2006 and 2015. Rates in Fife have also been consistently lower than the national average (Table 1).

Despite decreasing premature mortality rates in Fife a relationship between increased deprivation and higher mortality rates persists. For all those aged under 75 years the relative gap in premature mortality rates between those living in the most and least deprived areas is currently 2.8 and has fluctuated between 2.1 and 2.8 in the previous five years. Among those aged 15-44 years the gap between the most and least deprived is wider at 4.0. Mortality rates in 15-44 year olds have improved between 2008-10 (indicator baseline year) and 2013-15 across Fife in both the most and least deprived areas (Chart 1). However, the rate of improvement in the least deprived areas has been much greater, a 30% reduction compared to 3%. Thus the gap between the two was larger in 2013-15 than in 2008-10 when rates in the most deprived areas were 2.9 times greater than those in the least deprived.

There were an average of 24 deaths each year to persons aged 18 and under in Fife during 2013-15 [4]. Annual rates of death per 1000 population in this age group have fluctuated over the last five years and are currently 0.35 per 1000 population slightly higher than the national rate of 0.28 per 1000 population.<sup>d</sup>

<sup>b</sup> Low birth weight (LBW) is defined as being a live singleton birth of any gestation where the baby weighs less than 2,500grams. Most and least deprived areas based on SIMD12 quintiles.

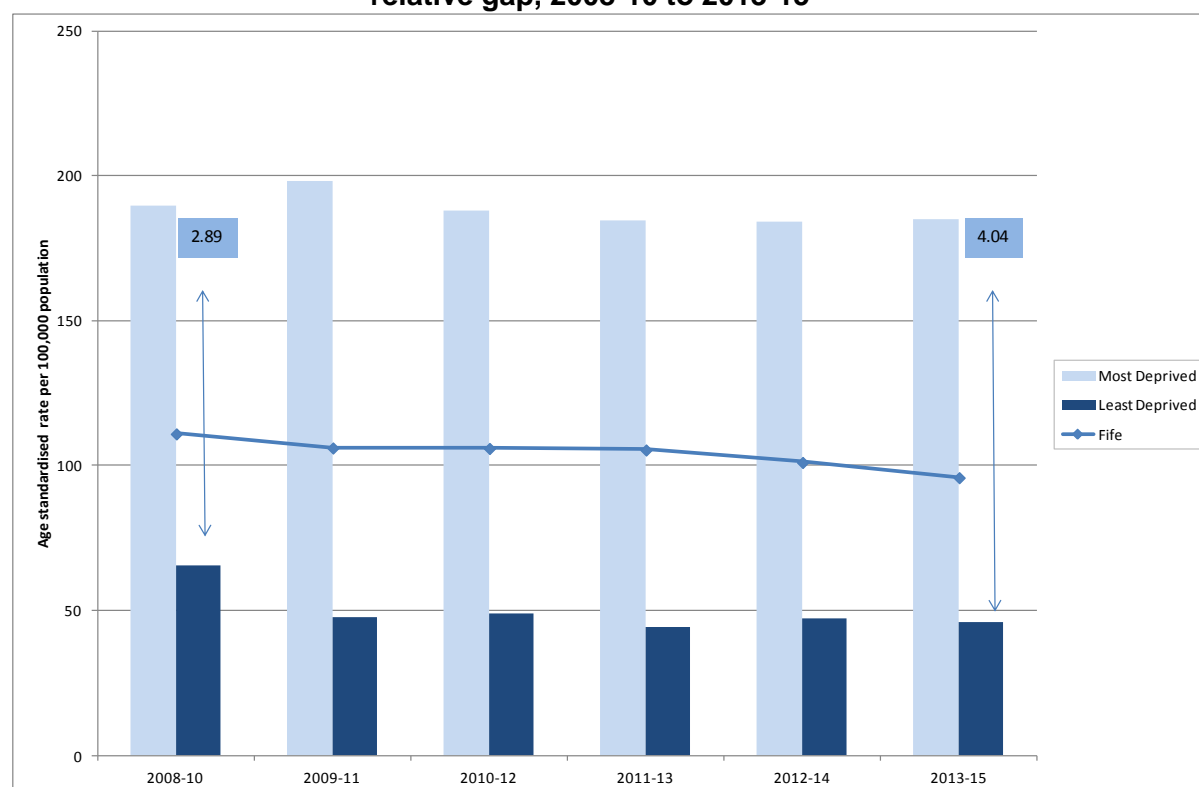
<sup>c</sup> All rates for mortality, admissions and cancer registrations are age standardised unless stated otherwise.

<sup>d</sup> These are crude rates per 1000 population

**Table 1: Mortality rates by age group; Fife and Scotland 2011-2015**

	2011	2012	2013	2014	2015
All ages: Fife <sup>c</sup>	1145.4	1153.2	1142.9	1028.6	1151.0
All ages: Scotland <sup>c</sup>	1164.2	1173.4	1152.3	1116.9	1177.3
Under 75s: Fife <sup>c</sup>	417.6	413.3	412.9	385.8	422.5
Under 75s Scotland <sup>c</sup>	456.1	445.3	437.5	423.2	440.5
18 and under: Fife <sup>d</sup>	0.30	0.52	0.26	0.34	0.35
18 and under: Scotland <sup>d</sup>	0.36	0.34	0.31	0.31	0.28

Source: NRS Scotland/Information Services NHS Fife

**Chart 1: Mortality in ages 15-44; Fife & SIMD 12 most/least deprived areas with relative gap, 2008-10 to 2013-15**

Source: Information Services NHS Fife

**Fife's Health Inequality Strategy: Indicator of Health Inequalities**

	Fife	Most Deprived	Least Deprived	Relative Gap
Under 75s mortality <sup>c</sup>	422	677	244	2.8
15-44 mortality <sup>c</sup>	96.1	185.1	45.8	4.0

**Causes of death**

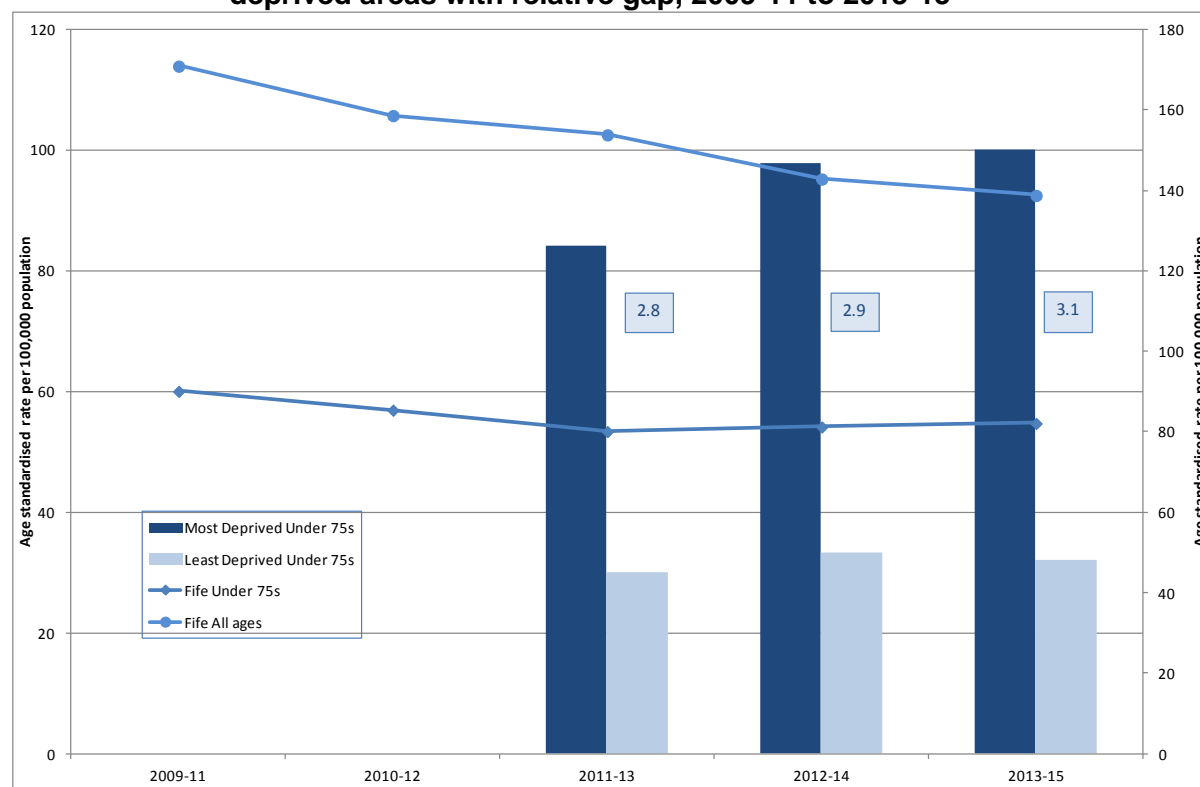
Cancer was the leading cause of death among Fife residents in 2015 accounting for 1,102 deaths, 27% of the total number of deaths. Deaths from cancer are far more common in older people; half of all cancer deaths were in persons aged 75 and over. Rates of premature death from cancer are at their lowest level since 2009-11 but inequalities persist. Rates in the residents of the most deprived areas were almost double (1.8 times) those in the least deprived areas in 2013-15 [5].

Lung cancer was the most common form of cancer death among both males and females accounting for 309 deaths (158 males and 151 females), 28% of all cancer deaths [6]. Breast cancer was the second most common cause of cancer death among women (56 deaths) and prostate cancer remained the second most common cancer death among men (71 deaths) in 2015.

As in previous years heart disease was the second most common cause of death among Fife residents in 2015 [5]. Coronary heart disease (CHD) was the cause of 504 deaths of Fife residents in 2015. A further 124 Fife residents died from other forms of heart disease. Since 2009-11 there has been a decreasing rate of death from CHD among Fife residents of all ages but rates among those aged under 75 years, whilst lower, have not decreased as much (Chart 2).

Rates of death from CHD among residents of the most deprived areas were almost twice (1.8 times) those among the least deprived areas rising to more than three times (3.1) as great for residents aged under 75 years, 100.2 per 100,000 population compared to 32.1 per 100,000 population in 2013-15 (Chart 2).

**Chart 2: CHD Mortality; all ages Fife & under 75s Fife and SIMD 16 most/least deprived areas with relative gap, 2009-11 to 2013-15**

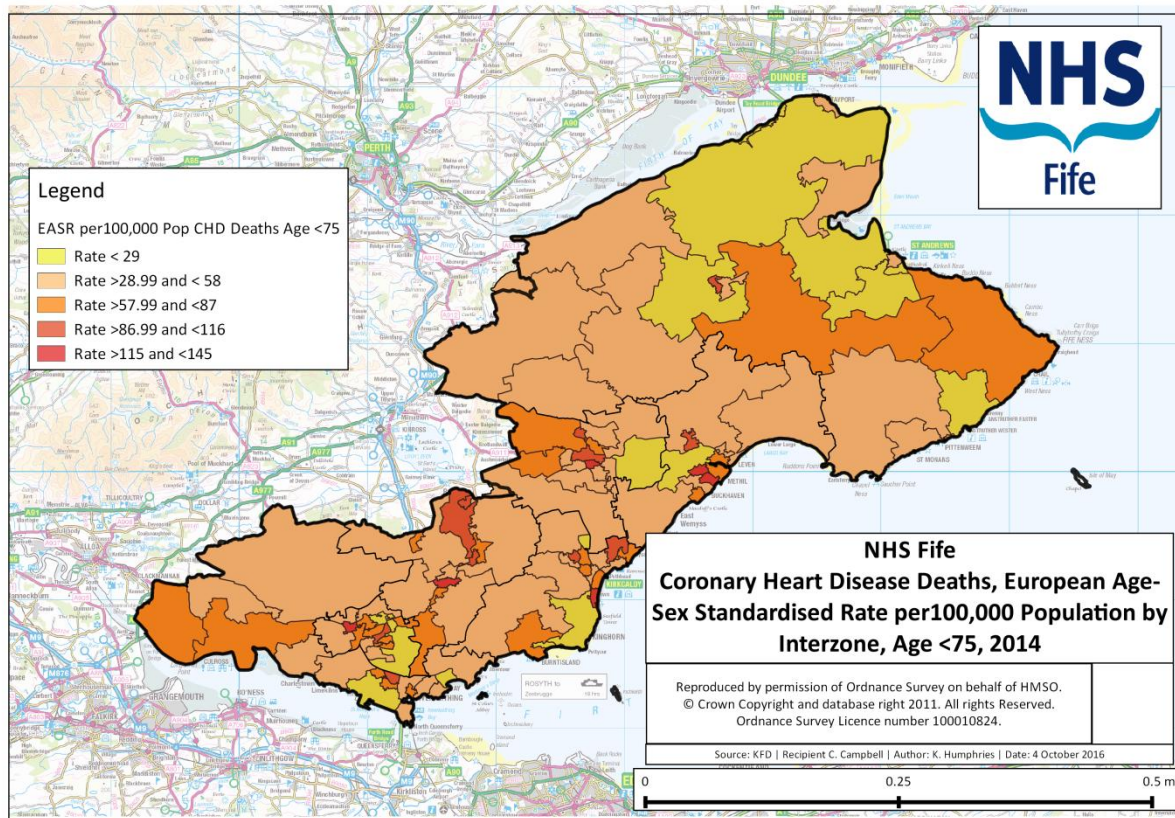


\*SIMD16 data only available back to 2011 at present

Source: Information Services NHS Fife

Further variations in premature CHD mortality can be seen in Figure 2 which shows that the three year average age-sex standardised rates in some areas of Fife were more than double the Fife average of 54.2 per 100,000 population in 2013-15 with rates varying from less than 30 per 100,000 population to more than 100 per 100,000 population [7]. Of the deaths to those in the 15-44 age group a greater proportion are from external causes such as accidents and intentional self-harm than in the population as a whole [5]. 25% of deaths in 2013-15 in this age group were as a result of an accident (including road traffic accidents) compared to 3% across all ages. 23% of deaths in this age group were as a result of suicide, which is a crude rate of 23.2 per 100,000 population aged 15-44 compared to the Fife rate (all ages) of 15.2 per 100,000 population. Cancer is the third biggest cause of death in this age group accounting for 15% of all deaths.

**Figure 2: Early deaths from CHD; Fife 2001 Interzones 2013-15**



Source: ScotPHO Health & Wellbeing Profiles

There were on average 53 deaths as a result of suicide each year in Fife during 2011-15 using the 2011 WHO classification.<sup>e</sup> Numbers and rates of suicide have declined in Fife since 1996-2000 but as Table 2 shows, there is a marked difference in the rates among males and females [8].

**Table 2: Deaths from suicide in Fife; five year average age-sex standardised rates and number**

	1996-2000	2001-2005	2006-2010	2011-2015	
Males - ASR	24.6	22.5	22.9	19.8	
Females - ASR	7.7	8.5	4.8	6.8	
Persons - ASR	16.1	15.5	13.8	13.3	
Persons - five year average number	54	53	48	47	53
	Old	Old	Old	Old	New

Source: NRS

<sup>e</sup> In 2011 the classification of deaths was amended in Scotland in line with changes in World Health Organization coding rules. The new coding rules classify drug abuse deaths due to acute intoxication, previously classified under mental and behavioural disorders due to psychoactive substance use, as poisoning. Where the intent is undetermined, these are recorded as death by undetermined intent and included in the suicide statistics.

## Coronary Heart Disease

There were 1,156 incident cases of CHD in Fife in 2014/15, the lowest number in the last 10 years and a lower rate than the national average, 330 per 100,000 population compared to 374.9.<sup>f</sup>

Prevalence of CHD among adults in Scotland (as measured by an 'ever having angina or a heart attack confirmed by a doctor' in respondents to Scottish Health Survey) is currently 6%, 5% among women and 7% among men [9].

There were 2,707 discharges from hospital of Fife residents following a diagnosis of CHD during 2014/15 [10]. More than two thirds (68%) of these discharges were men and the same proportion of these discharges involved residents aged 75 years and under. Rates of CHD discharges continue to decrease, the rate in 2014/15 was the lowest rate in the last 10 years in Fife.

Monitoring the first admissions to hospital with CHD as primary diagnosis among Fife residents aged under 75 years is one of the indicators we use to monitor health inequalities. Between 2007/8 and 2014/15 the rate of first CHD admissions fell overall and in both the most and least deprived areas. A 10% reduction was observed in rates in residents from the most deprived areas compared to an 11% reduction in the least deprived areas. As such the inequality gap of 1.4 between the most and least deprived remained the same in 2014/15 as it was in 2007/08.

## Cancer

There were 2,226 new cancer registrations among Fife residents in 2014, a lower rate of new cancer registrations than Scotland, 617 per 100,000 population compared to 633. Lung cancer continues to account for the greatest number of new cancer registrations among men (206) followed by prostate cancer (198). Breast cancer was the most commonly diagnosed cancer among women (306) and then lung cancer with 163 new registrations. These cancers accounted for 40% of all new cancer registrations among men and 42% among women.

Almost two thirds of new cancer registrations (1,433) in 2014 were to Fife residents aged under 75 years. Rates have fluctuated year on year since 2007 in Fife and both the most and least deprived areas. Current rates of 418 per 100,000 population across Fife and 455 and 412 in the most and least deprived areas are amongst the lowest in that time period. As such the relative inequality gap between the most and least deprived was 1.1.

## Diabetes

Almost 21,000 Fife residents were known to be living with diabetes (recorded on the diabetes register) at the end of 2015, representing a crude prevalence of 5.7% of the total population of Fife and an age adjusted prevalence of 5.5%. The age adjusted prevalence was the fourth highest of the 14 Health Board areas in Scotland and slightly higher than the 5.3% reported nationally. Increasing prevalence of diabetes is being seen across Scotland and is thought to be a real increase and not an artefact of better recording. Reasons for this include an increasing older population, increasing incidence of Type 1 diabetes particularly among children and better survival rates for people with diabetes [11]. Of those living with diabetes in Fife 54% were aged 65 and over and 90% had Type 2 diabetes. 58% of those with Type 2 diabetes were obese and a further 31% were overweight.

<sup>f</sup> Incidence of CHD defined as new hospital cases excluding those with similar previous admissions within 10 years plus deaths with no hospital admission

<b>Fife's Health Inequality Strategy: Indicator of Health Inequalities</b>				
	Fife	Most Deprived	Least Deprived	Relative Gap
1 <sup>st</sup> CHD admission <sup>c</sup>	169	208	148	1.4
Under 75s cancer registrations <sup>c</sup>	422	457	431	1.1
Diabetes prevalence	5.5%	6.4%	4.1%	1.6

### **Health Behaviours; findings from Scottish Health Survey 2012-15**

Health behaviours such as smoking, diet, physical activity and alcohol are all the focus of strategies at a national and local level to improve Fife and Scotland's health and wellbeing. A poor diet or lack of physical activity, alcohol misuse and smoking can contribute directly or indirectly to many of the conditions (acute and long term) discussed in this report, the use of our health services and mortality figures. Information on health behaviours is collected via the Scottish Health Survey across Scotland. Detailed findings are available for Fife and areas within Fife every four years and we are now in a fortunate position to have data from 2008-11 and 2012-15. A summary of the Fife 2012-15 results are given here with further detailed and themed reports due to be published shortly.

### **Smoking**

Reductions in the number of smokers have been seen since the introduction of the ban on smoking in public places in 2006. The latest figures from the Scottish Health Survey showed that 24% of adults in Fife and 22% in Scotland reported they were current smokers over the four-year period 2012-2015 [12] compared to 26% and 25% in 2008-11 [13].



The greater prevalence of smoking amongst men continues to be seen with a quarter of men compared to 22% of women reporting current smoking status in 2012-15. Fife had the third highest smoking prevalence rates of all NHS boards behind Tayside and Greater Glasgow and Clyde.

## Alcohol Consumption

New guidelines on alcohol consumption were published in 2016 and included the recommendation that men and women should drink no more than 14 units of alcohol per week [14]. In Fife men were more likely than women to be drinkers and to drink beyond sensible levels. Double the proportion of men compared to women reported drinking beyond the guideline amount of 14 units per week (Table 3). The proportion of men and women combined exceeding weekly guidelines in Fife was at 25% slightly lower than the national average of 26% [12,13]. It is not yet possible to compare recent findings to previous consumption data for the new guidelines for both men and women but in 2008-11 18% of women drank more than 14 units and 28% of men drank more than 21 units. Further in-depth analysis of the alcohol consumption data and trends over time will be presented separately.

**Table 3: Weekly drinking levels by gender; Fife residents 2012-15**

	Non drinker	Up to 14 units	Beyond 14 units
Men	14%	53%	34%
Women	18%	65%	16%

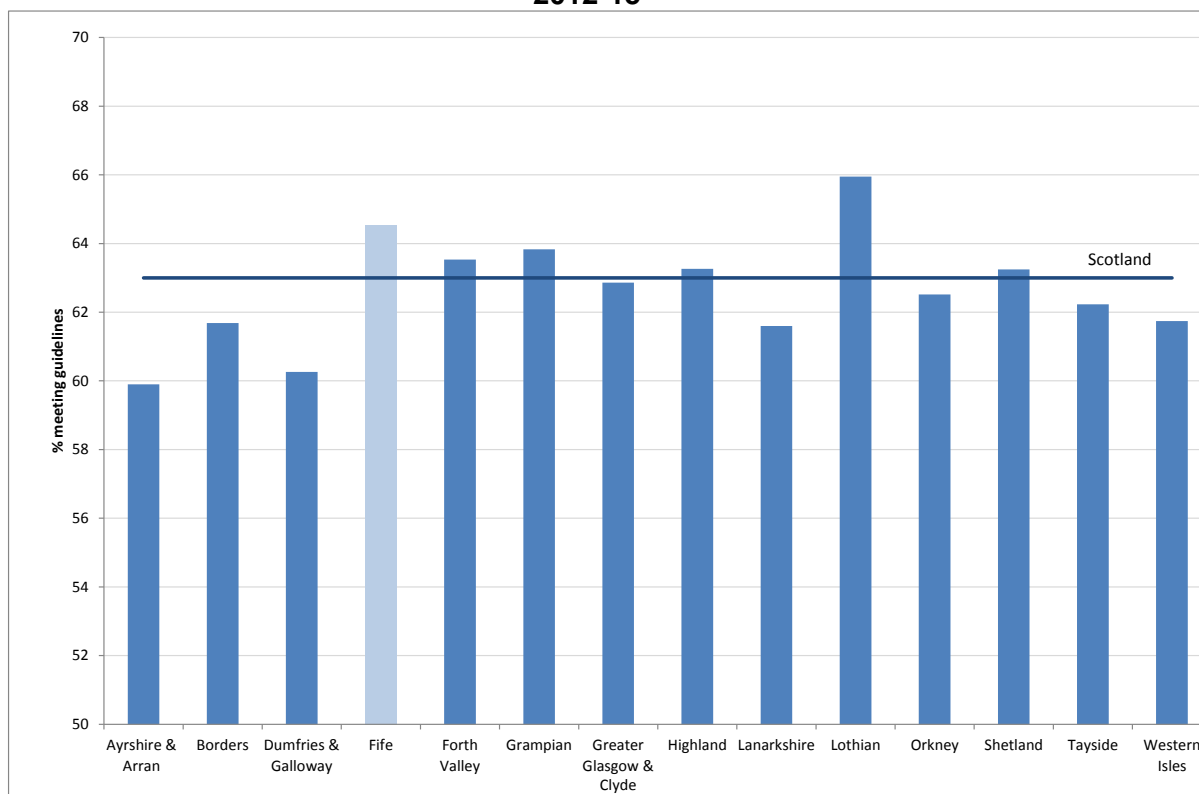
Source: Scottish Health Survey Results 2012-15

## Physical Activity

The 2011 guidelines on physical activity stated that adults should achieve 150 minutes of moderately intensive activity (in bouts of 10 minutes or more) per week or 75 minutes of vigorous activity spread over a week [15]. Unlike the previous guidelines there is no specific stipulation on how many days this should be achieved (although 30 minutes per days for 5 days is still suggested as a way to meet recommended level). Further age specific guidance was also published and we will be able to look at this more closely in future reports together with trends over time.

65% of adults in Fife met the new physical activity guidelines with men being more likely to do so than women, 71% compared to 59% [12,13]. The next most frequently reported category of physical activity was 'very low', defined as less than 30 minutes of moderate activity or less than 15 minutes of vigorous activity or an equivalent combination of these in a week, which was reported by 19% of men and 22% of women. Of the NHS board areas Fife had the second highest proportion of adults meeting the guidelines (Chart 3).

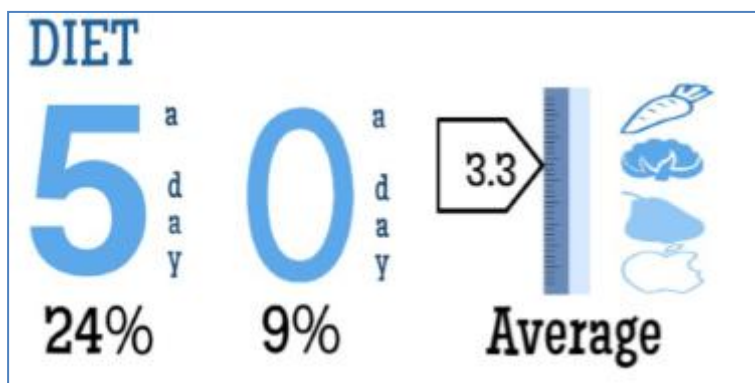
**Chart 3: Adults meeting physical activity guidelines; NHS Boards and Scotland 2012-15**



Source: Scottish Health Survey Results 2012-15

### Healthy Weight and Diet

24% of adults in Fife consumed the recommended 5 portions of fruit and vegetables per day in 2012-2015, with greater proportions of women (26%) reporting this than men (21%) [12,13]. These figures were higher than reported nationally where 21% of adults met the recommendation but was the same proportion as reported in 2008-11. Consumption of no portions of fruit and vegetables in the day prior to completing the survey was reported by 9% of adults in Fife. On average adults in Fife consumed 3.3 portions per day with men consuming 3.2 portions per day and women 3.5 portions [12,13].



There has been little change in the proportion of adults consuming the recommended level of daily fruit and vegetable consumption in Scotland since 2003. Proportions have

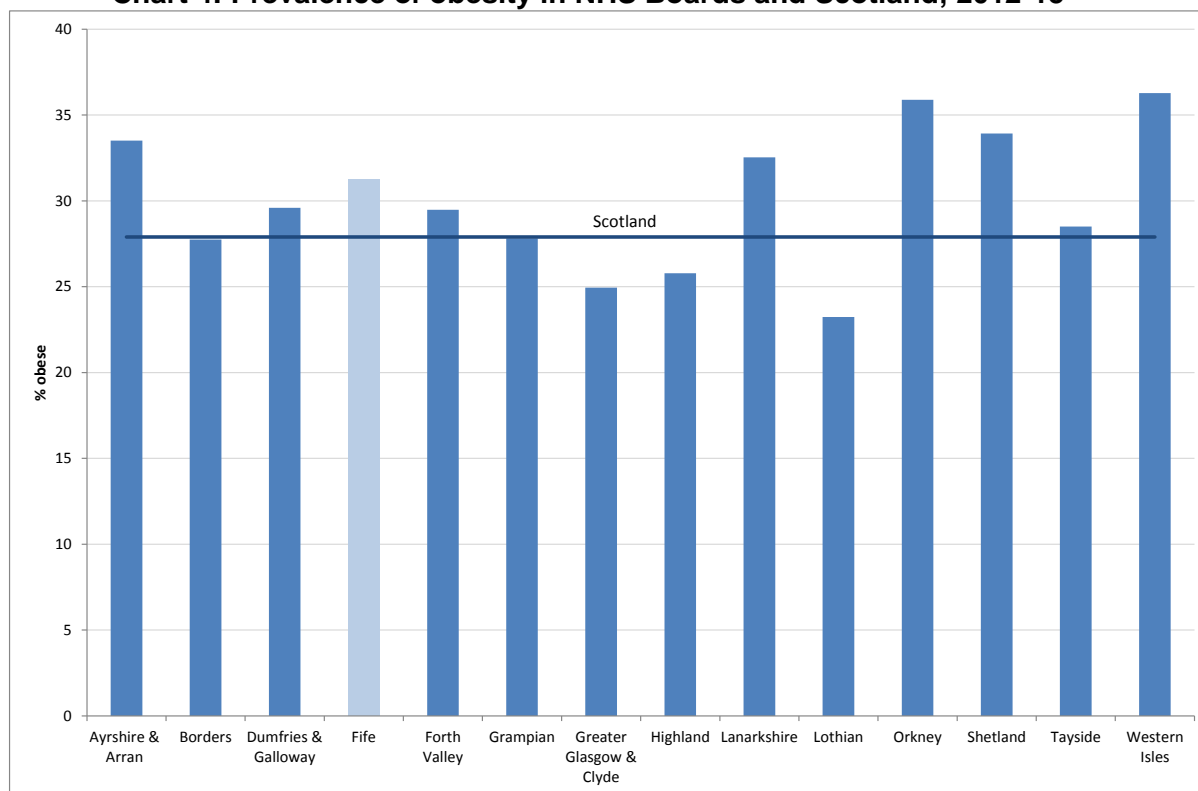


fluctuated slightly year on year but were also 21% in 2003 with a similar pattern being seen nationally in the number of mean portions consumed, 3.1 in 2003 and 3.1 in 2015 [16].

Obesity and being overweight is a result of energy intake from food and drink consumption exceeding the energy requirements of the body over a prolonged period which results in an accumulation of excess body fat. Body Mass Index (BMI) is commonly used as a measure of obesity with a BMI of over 30 categorised as obese and between 25 and 30 as overweight [16].

The figures from the Scottish Health Survey 2012-2015 showed that majority of men (71%) and women (61%) in the Fife sample had a BMI which exceeded the normal weight range so were classed as overweight or obese. In Fife 30% of males and 32% of females were obese compared to 27% of male and 29% of female Scottish respondents [12,13]. The prevalence of obesity in adults in Fife (31%) was significantly higher than the national average (28%) and the sixth highest of all health board areas (Chart 4) [12,13]. There has been little change in the prevalence of obesity in Fife since 2008-11 when 29% of men and 32% of women were obese which mirrors national trends of levels of obesity which have remained fairly constant between 2008 to 2015 [16].

**Chart 4: Prevalence of obesity in NHS Boards and Scotland; 2012-15**



**Source: Scottish Health Survey 2012-15**

## HEALTH IMPROVEMENT & HEALTH INEQUALITIES IN FIFE

The health and wellbeing of the Fife population is improving overall with people in general living longer, healthier lives. However, the gap between the health of people living in the most and least disadvantaged circumstances in Fife remains persistent. For example in the most disadvantaged areas of Fife compared to the least deprived areas:

- Deaths in 15-44 year olds are 4 times higher
- Older people are more likely to have emergency admissions to hospital
- Hospital admissions due to alcohol are 6 times higher
- Life expectancy is less for both men (8 years) and women (7 years)
- Hospital admissions due to accidents for under 16s is almost double

Health inequalities result from the fundamental, unequal distribution of income, resources and power, which create differences in living and working conditions, opportunities for education and employment. While fundamental causes lie in the structure of society and the distribution of wealth, there are ways of working we can adopt locally, which can mitigate the impact of wider health inequalities within our communities.

Fife Health and Wellbeing Alliance (FHWA) has the strategic lead for reducing health inequalities and improving health in Fife. After a period of consultation and development FHWA launched a new health inequalities strategy for Fife in October 2015. Fairer Health for Fife 2015-2020 promotes evidence-based ways of working to reduce health inequalities across community planning organisations in Fife [17].

The plan takes a 3 themed approach to reducing health inequalities:

- Changing the way organisations work
- Supporting healthier lives for individuals and families
- Creating healthier places and communities

Fairer Health for Fife has also identified 6 key outcomes for reducing health inequalities across Fife. These are based on evidence around early intervention, strengthening protective factors for health and wellbeing and tailoring services and action to suit people's life circumstances.

The 6 outcomes are:

1. Vulnerable pregnant women, children, young people and families have reduced risk of poor health outcomes;
2. People experiencing difficult life circumstances have more skills, strengths, opportunities and support to improve their health and wellbeing;
3. Older people have more opportunities and support to maintain their health and wellbeing and to take an active part in community life;
4. Communities develop local initiatives which create supportive social networks, increase participation in community activity and improve health and wellbeing;
5. Neighbourhoods have safe, accessible outdoor and community spaces to enhance their health and wellbeing;
6. Organisations have an increased focus on creating equal opportunity for good health and provide services and support in ways most likely to reduce health inequalities.

In November 2015 the Fairer Fife Commission published its report which set out recommendations across Partner Agencies to address the deep structural challenges that people on low incomes face in Fife [18]. FHWA's strategic approach aligns with the Fairness Matters focus on ways of working that are: open and transparent; data driven and knowledge rich; citizen focused and that support all organisations and the people of Fife to work together to create a Fairer Fife. Fairer Health for Fife 2015-2020 [1] also

highlights the importance of building people's strengths, skills and resources to make choices and use of opportunities and services that are available to them.

These developments create an opportunity for a renewed focus on health inequalities in Fife across community planning partner organisations.

### **Health Promoting Health Service**

Health Promoting Health Service (HPHS) is the concept that every health care contact is a health improvement opportunity and this is central to the quality ambitions of person centredness and effectiveness.

Health and social care staff are in an excellent position to incorporate brief advice and brief interventions into their conversations with patients and show commitment and leadership in early intervention and health promotion activity to positively impact on encouraging people to make healthier choices.

The HPHS programme in Fife is well under way with a range of activity happening around smoking cessation, active travel, prevention of harmful drinking, promotion of breastfeeding, promotion of physical activity amongst other things.

There has been a renewed strategic approach to the delivery of this framework which is now firmly aligned to the NHS Fife Clinical Strategy and the Fife Health and Social Care Strategic Plan where early intervention and prevention feature significantly.

An action plan addressing the core themes has been created with a focus of integrating prevention into clinical care to improve health outcomes. The focus on staff health has been closely aligned to the Well at Work (Healthy Working Lives) programme.

Further progress on this work and the wider public health agenda on smoking, alcohol, diet and exercise will be addressed in future DPH Annual Reports.

### Summary of health inequality indicators for Fife

Indicator	Baseline (2007/08)	Progress to date (2014/15)
Percentage of low birth weight babies by most and least deprived population quintiles and Fife	Fife 5.2 Most deprived quintile 7.4 Least deprived quintile 3.6	Fife 5.6 Most deprived quintile 8.1 Least deprived quintile 2.8
Indicator	Baseline (2007)	Progress to date (2015)
All cause mortality under 75, *DSR per 100,000 population most and least deprived population quintile and Fife	Fife 457 Most deprived quintile 656 Least deprived quintile 262	Fife 437 Most deprived quintile 713 Least deprived quintile 229
Indicator	Baseline (2007)	Progress to date (2014)
All cancer registrations under 75, DSR per 100,000 population most and least deprived population and Fife	Fife 396 Most deprived quintile 471 Least deprived quintile 348	Fife 422 Most deprived quintile 457 Least deprived quintile 431
Indicator	Baseline (2007/08)	Progress to date (2014/15)
Coronary heart disease (first hospital admission among under 75s) per 100,000 population most and least deprived population quintiles and Fife	Fife 207 Most deprived quintile 232 Least deprived quintile 167	Fife 169 Most deprived quintile 208 Least deprived quintile 148
Indicator	Baseline (2007/08)	Progress to date (2014/15)
Alcohol related hospital admissions DSR per 100,000 population most and least deprived population quintiles and Fife	Fife 642 Most deprived quintile 1326 Least deprived quintile 245	Fife 618 Most deprived quintile 1255 Least deprived quintile 254
Indicator	Baseline (2006-08)	Progress to date (2012-14)
Female life expectancy at birth most and least deprived population quintiles and Fife	Fife 80.4 Most deprived quintile 77.7 Least deprived quintile 83.7	Fife 81.5 Most deprived quintile 78.1 Least deprived quintile 84.8
Indicator	Baseline (2006-08)	Progress to date (2012-14)
Male life expectancy at birth most and least deprived population quintiles and Fife	Fife 75.9 Most deprived quintile 71.7 Least deprived quintile 80.3	Fife 77.7 Most deprived quintile 73.3 Least deprived quintile 82.0

## HEALTHCARE PUBLIC HEALTH

The main factor increasing demand for healthcare continues to be the ageing of the population. People are living longer as overall life expectancy is increasing and life expectancy at age 65 is also increasing year by year. By preventing death at a younger age, people are living to a time in their lives where multiple and chronic diseases predominate. As a result, many older people live with health problems for many years and also risk frailty, where they have a reduced capacity to “bounce-back” after illness. Along with overall ageing in the population, there are proportionately fewer young people in our population (setting aside inward migration).

### Key facts

In Fife, the number of persons aged 75 and over is estimated to increase by 93% from 29,600 in 2012 to 57,300 in 2037.

The number of people in Fife reporting that they lived with one or more health conditions increased significantly with age, with 59% of those aged 65-74 and 77% of those aged 75 and over reporting having one or more health conditions.

The number of people in Fife affected by dementia is estimated to increase from 5,900 to over 9,500 in the next 15 years [19]

### Scottish Government Policy

In response to these concerns, Scottish Government has generated a range of new initiatives. In 2011, it set out a ten-year programme for change called “Reshaping Care for Older People” [20]. The key policy objectives in Reshaping Care remain relevant today although given the economic conditions which have emerged since its publication, the eighth one is unlikely to be realised quickly.

1. **Older people are an asset not a burden** – demographic change creates a challenge but these shifts also offer a potential solution in that older people provide far more care and support than they receive.
2. **We need a shift in philosophy, attitudes and approaches** – we need to measure success by how many older people can be enabled to stay independent and well at home and without need for care and support.
3. **We are adding healthy years to life** – we need to push back our concept of older age, with less of a focus on “over 65” years and more on “over 75”.
4. **Supporting and caring for older people is not just a health or social work responsibility** – we all have a role to play: families, neighbours and communities; providers of services like housing, transport, leisure, community safety, education and arts; and also shops, banks and commercial enterprises.
5. **Services should be outcome focused** – they provide personalised care and optimise independence and well-being.
6. **We need to learn from good practice** – there is lots of good practice across Scotland and beyond, but examples tend to be fragmented and narrowly focused.
7. **Now more than ever it is important to align partnership resources to achieve our policy goals** – it is imperative that we demonstrate how all of the £4.5 billion currently spent annually on services for over 65 year olds is used to optimal effect.

8. **Additional funding is needed for care** – while there is scope to improve the ‘care system’ to achieve better outcomes and make efficiencies, the extent of demographic growth will require more resources to sustain current levels of service.

**Source: Reshaping Care for Older People: A Programme for Change 2011-2021**

The Scottish Government subsequently instituted new arrangements for health and social care so that structures could support integration more closely. The Public Bodies (Joint Working) (Scotland) Act 2014 [21] set out a framework for integrating adult health and social care services **“to provide seamless, joined up, high quality health and social care services in order to care for people in their homes, or a homely setting, where it is safe to do so...”**.

In Fife, this responsibility lies with the Fife Health & Social Partnership who set out their vision of “accessible, seamless, quality services and support that is personalised and responsive to the changing needs of individuals designed with and for the people in Fife” in the Strategic Plan for Fife (2016-2019) [22].

This vision will be achieved through five strategic priorities: Prevention and Early Intervention, Integrated and Co-ordinated Care, Improving Mental Health and Wellbeing and Reducing Inequalities. Achieving this in practice will require work to transform services in such a way as to “reduce stays in hospital when people are ready to be discharged, support more people to live as independently as possible in the community and help to keep people active and healthy in their communities for longer” [23].

### **A National Clinical Strategy for Scotland**

The Scottish Government published its National Clinical Strategy in February 2016 [24], setting out its commitment to provide the majority of care at home or in a community setting and enhance the value of healthcare to patients by addressing over-treatment, harm, waste and variation.

The Strategy sets out a framework for the development of health services for the next 15 years. One of the key themes is the development of general practice and primary care alongside the development of hospital networks to deliver specialist services planned at a regional level.

Planning and organisation of care will be based around GP practices (referred to as GP clusters) with new, extended professional roles being developed in community-based expanded, integrated, multi-disciplinary health and social care teams. The Strategy states that any new models of care should be evaluated in order to provide evidence for their impact.

The Strategy also stresses the importance of supporting self-management with an emphasis on prevention, rehabilitation and independence. People should only be admitted to hospital when they cannot be cared for at home or in a community setting. In addition to Government policy, a number of reviews have been published which will shape healthcare in Fife for the future.

### **The Report of the Independent Review of Primary Care Out of Hours Services**

The Report of the Independent Review of Primary Care Out of Hours Services [25] was published in December 2015 and recommends a new model for primary care out of hours and urgent care services. Urgent Care Resource Hubs, networked to local Urgent Care Centres (presently referred to as Primary Care Emergency Centres), will provide urgent care coordination and communication functions **“in order to provide best information about and for the people served in their localities and help deploy the most**

*appropriate services and resources available in order to secure timely and optimal care and support, according to need”.*

The report says that care should be person-centred, intelligence-led, asset-optimised and outcomes focused and delivered by teams that are multidisciplinary and multisectoral (including independent and third sectors). The report also recommended new models of out of hours and urgent care services should be evaluated, highlighting the current lack of relevant published literature and planned service evaluations.

### **Chief Medical Officer’s Annual Report 2014-15: Realistic Medicine**

Scotland’s Chief Medical Officer published her first annual report in January 2016 posing questions on how medicine is currently practiced [26]. She advocated for “Realistic Medicine” where only interventions that provide true value to achieving outcomes that are important to the patient (as agreed between patient (and families) and their clinicians) are provided. This is in response to concerns in recent times that modern medicine may *“have overreached itself and is now causing hidden harm”*.

The report suggests Realistic Medicine can have a role in building personalised approaches to care, improving shared decision making, reducing unwarranted variation in practice and outcomes, reducing harm and waste, managing risk better and creating innovators and improvers in the NHS in Scotland. Clinicians across Scotland have been engaged in conversation with the CMO on the points she raises.

## **WORK IN FIFE**

### **NHS Fife’s Clinical Strategy**

Following an extensive public consultation exercise NHS Fife Board approved its Clinical Strategy in October 2016 [27].

The key themes of the Strategy echo those summarised above namely:

- People will be supported to identify the health and wellbeing outcomes that are important to them and care that is provided will be appropriate, realistic and person-centred.
- There will be greater emphasis on prevention, early intervention and supporting people to be more self-resilient.
- There will be a greater use of community settings to provide care and review/follow up – admission to hospital will only happen when there is no alternative. A Community Hub model providing health, social care and other partnership services delivered by a multi-disciplinary team will be explored.
- Delivery of services will be planned to ensure sustainability, best outcomes and best use of resources. Specialist services will be risk assessed and clinical pathways developed taking into account the most appropriate setting for service delivery (local, regional or national); the health benefits of delivering procedures of low clinical value; the risk of delivering procedures of low volume and unnecessary variation in practice.

## Ageing: implications beyond health and social care services

Late in 2015, people from many different sectors and partnerships came together at a workshop to think more widely about the implications of ageing for all services and strategies, not only health and social care services.

Key themes were:

### Ensuring the ageing population is considered at the strategic level

There was wide agreement between participants that the ageing population needs to be considered at the strategic level for *all services, organisations and partnerships* in order to prepare for Ageing and Fife's changing demographic mix. For example, ageing is also balanced with proportionately fewer young people and changing work patterns, such as later retirement.

### Giving more consideration to Fife's ageing population

Several participants said they would consider how best to ensure Fife's ageing population was incorporated in their own area of work. Discussions covered areas such as employers considering how best to prepare for an ageing work force, encouraging intergenerational involvement in communities.

### Making connections and improve information sharing between partners

Several participants talked about the connections they had established at the event with other organisations and what they would do together to take the ageing population agenda forward.

## Palliative Care

The Scottish Partnership for Palliative Care has worked with award-winning Glasgow based photographer, Colin Gray, to produce a powerful and challenging series of portraits and personal stories illustrating how our communities and families look after each other. *It Takes a Village* explores the idea that as people's health deteriorates, care and support comes in many guises [28]. The focus is on the end of life.

There is an old African proverb – *‘It takes a village to raise a child* – meaning, children need the input and support of their whole community to grow into well-rounded adults. But doesn't it also 'take a village' to support someone who is dying?





*“As a taxi driver you never know who you’re picking up next.*

*She must have been in her 30s, she was very tearful, she’d been visiting her dad at the hospital, she said that he only had another couple of days maybe. She just had to go home and get a shower, she’d be coming back again.*

*Sometimes you get the nice feeling that you’ve helped somebody a little, just by providing an ear. Sometimes people are comforted that real life is going on, the wheels of the taxis are turning and the world goes on, and everything isn’t coming to an end.”*

*Tony, Taxi Driver*

## **Fife SHINE Programme**

This programme (hosted in the Public Health Department) aims to transform the culture of health and social care through working differently with people and their families, connecting them with their communities more effectively and finding new ways to enjoy life. The work was started around a commitment “to help people thrive, not just survive” with long-term conditions and frailty. The programme is aimed at practitioners, irrespective of professional discipline, and helps them develop a set of skills which enable them to focus on what matters most to people, helping people to access both internal and external resources and feel empowered to make the best of their life circumstances. Asking people “What matters to you?”, leads to better experiences of services and also improved health and wellbeing. Adopting this approach is driving a change of culture and contributing to meeting the National Outcomes for Health and Social Care.

Implementation is well established in Fife ICASS teams, is at the heart of Self Directed Support and has spread to a number of other teams, hospital wards and services. Over 500 staff across agencies, including the third sector, have been introduced to the approach. 250 have attended in-depth ‘Good Conversation’ practice development sessions. At a conservative estimate the approach is being used with 15,000 people a year across Fife – just under five percent of the population and people who are likely to be heavy users of services.

Staff report that they are:

- Re-energised and motivated
- More confident in opening up a different kind of conversation
- Getting to the nub of things quicker resulting in fewer or shorter interventions
- Finding it easier to ‘let go’ and discharge patients appropriately
- Enabled to work with people to develop creative responses

Staff also report:

- Improved outcomes for people they care for
- The value of investing just a little extra time vastly outweighs the time taken and saves time in the long run
- The potential for savings through reduction of bed days, reduced number of days at day hospitals, fewer home visits and visits to out-patient services
- This approach is valuable in management roles dealing with HR issues, concerns from patients and their families and in staff supervision.

Over time, we are seeing a mindset shift as illustrated in the table below.

Belief in the past	Belief now
People have to change, not us	We have to change first to facilitate change in others
We need more staff	We do not need more staff but we need to work differently, in a more integrated way and in real partnership with our community
We are trained to provide health and social care but are being asked to provide psycho-spiritual care.	We can't provide health and social care without exploring people's hopes for the future – what matters to them, what gives them joy in their lives, helps them thrive, not just survive.
Only if we are doing something are we providing services.	Good quality conversation is itself of great value and a service to another human being

The SHINE work has been well received at national and international conferences. In particular, the way the practice has been developed and embedded in routine clinical care has been recognised as good practice and published in a range of publications.

## Locality Planning

Fife is a highly diverse region, with large towns, villages and rural areas. Parts of Fife are some of the most affluent in Scotland, others some of the poorest. Future planning has to reflect this diversity and the creation of a single Health and Social Care Partnership for Fife makes it possible. During 2017, Fife Partnership will be updating its Local Outcome Improvement Plan – the new Community Plan. These developments offer Fife the opportunity to work in a more integrated way, using combined datasets and intelligence to support communities to co-design their future with public, private and third sector agencies.

One example of the way locality planning is taking shape in Fife is in the development of Fife's Pharmaceutical Care Services Report [29]. This chapter provides some more detail of that work.

All Health Boards are required to develop and publish the Pharmaceutical Care Service (PCS) report on an annual basis. The primary function of the Pharmaceutical Care Services (PCS) report is to describe the unmet need for pharmaceutical services within the Health Board population and make recommendations for how the Health Board meets these needs.

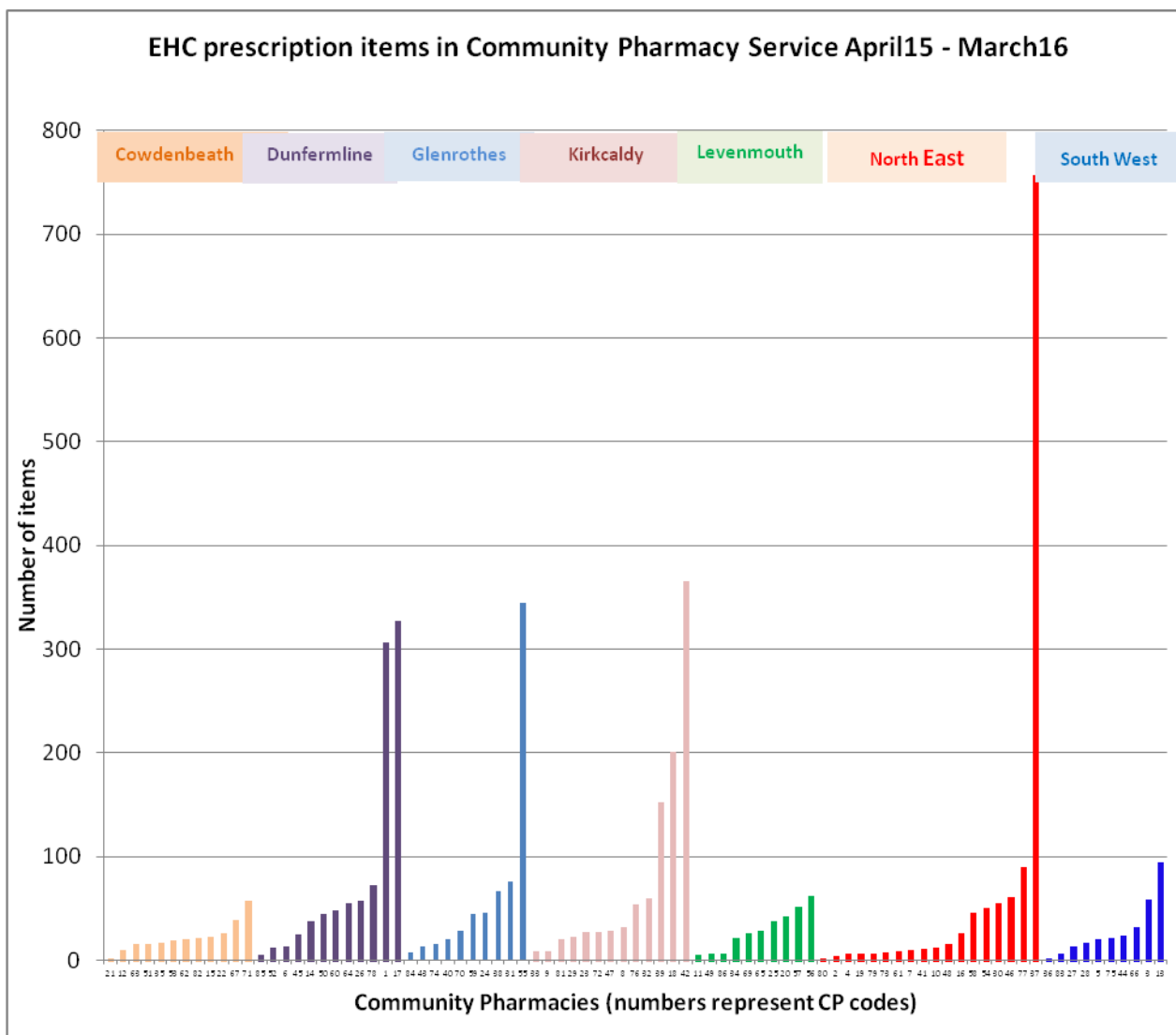
The PCS Report of 2016/17 has included Locality profiles for the first time for each of the seven Localities within the Health & Social Care Partnership (see appendix one of PCS Report). The Levenmouth Locality has more detailed information on the services provided by the community pharmacies in this Locality as an example of how PCS Reports will develop in the future. These Locality profiles used information from the KnowFife dataset e.g. data on population, long-term conditions and deprivation.

**Table from PCS Report 2016/17: Community Pharmacies in NHS Fife  
(February 2016)**

Locality	Population (2011 Census)	Community Pharmacies	Population per Community Pharmacy
Fife	365,198	85	4,296
Levenmouth	36,665	10	3,667
Glenrothes	51,000	10	5,100
NE Fife	73,889	18	4,105
Cowdenbeath	39,347	12	3,279
Dunfermline	54,435	12	4,536
Kirkcaldy	59,752	13	4,596
SW Fife	50,110	10	5,011
Scotland	5,299,900	1253	4,230

Data sent to community pharmacies on their performance in various services is now being sent out in Locality groupings e.g. the Community Pharmacy Stop Smoking Service (CPSSS) & the Sexual Health (Emergency Hormonal Contraception) Service. Such information can be used when planning for future services.

**Figure 7: EHC items supplied via CP service via Localities for Financial Year 15/16**



NHS Fife is also in the process of aligning its seven Community Pharmacy Practitioner Champions to support community pharmacists at the local level. It is hoped that these Pharmacy Champions will be able to work with multi-agencies on future Locality developments.

# ORAL HEALTH: TACKLING THE WORLD'S MOST COMMON DISEASES

## Introduction

Tooth decay (dental caries) and gum disease (periodontal diseases) are two of the commonest diseases in the world, are largely preventable and account for 15 million DALYs (Disability Adjusted Life Years) globally [30]. The burden of disease is not evenly distributed and those from the more deprived populations experience more oral disease but conversely those with least need are the ones who regularly access dental services.

Improvements in oral care and oral health mean more people are retaining their natural teeth but as they age, they can often require more complex care. The key to delivering safe, effective and person-centred dental services for the future includes appropriate skill-mix, establishing enhanced services with appropriate skilled staff and working with the individual patients and their families to improve and maintain good oral health.

## Developments in dental services

Dental public health provides a strategic overview of oral health and plays a key leadership role and working collaboratively with dental services and other health care professionals. The overarching aims are to improve oral health, reduce oral health inequalities and deliver high quality dental services to the population of Fife.

Key achievements in recent years include

- Increased registration with an NHS dental practice of the adult population from 51% in 2001 to 80% in 2010 with 75% of adults engaged in dental care.
- Registration of children over 90% and 88% engaged in dental care.
- Out-of-hours dental care developed first in Fife in 2001 and now accessible throughout Scotland via NHS24.
- New dental premises built and others improved between 2009 and 2011.

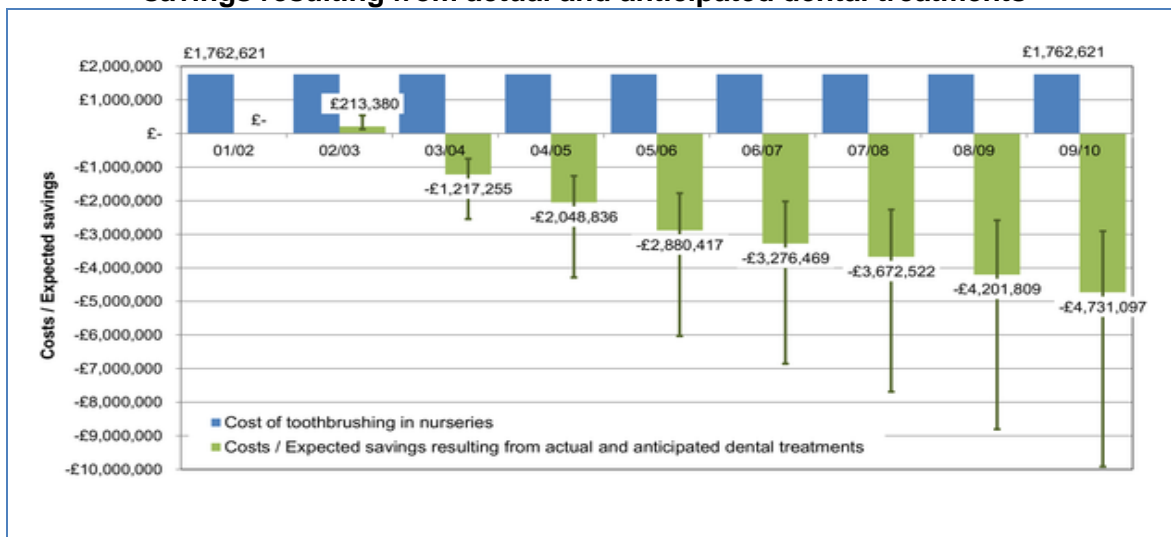
## Oral health improvement

Most dental diseases are preventable and over the past 10 years there has been much investment in evidence-based preventive services. In 2012, the Scottish Government introduced a new fee per item into the payment structure for dental practitioners to encourage them to deliver preventive programmes.

SIGN guidance published in 2014 [31] promotes the delivery of evidence-based preventive dental interventions, including early and routine preventive care, fissure sealants and application of fluoride varnish. These measures are cost-effective in reducing the disease burden and associated burden.

Health improvement programmes will not always result in a reduction of disease quickly and equally; public health initiatives often take years to reap the rewards. Graham Ball was instrumental in establishing *Childsmile* [32], the national oral health improvement programme for children's oral health and was Co-Director of the programme. Research comparing the cost of providing the Scotland-wide nursery toothbrushing programme with NHS dental treatment shows significant cost savings as illustrated in Figure 8 [33]. Cost savings were more than two and a half times the costs of the programme implementation. Another advantage in delivering prevention over treatment is the negative impact on not only the child but their parent/carer in terms of quality of life, work/school hours lost, potentially loss of sleep, increased pain, multiple visits to the dentist, accessing unscheduled care/emergency dental services.

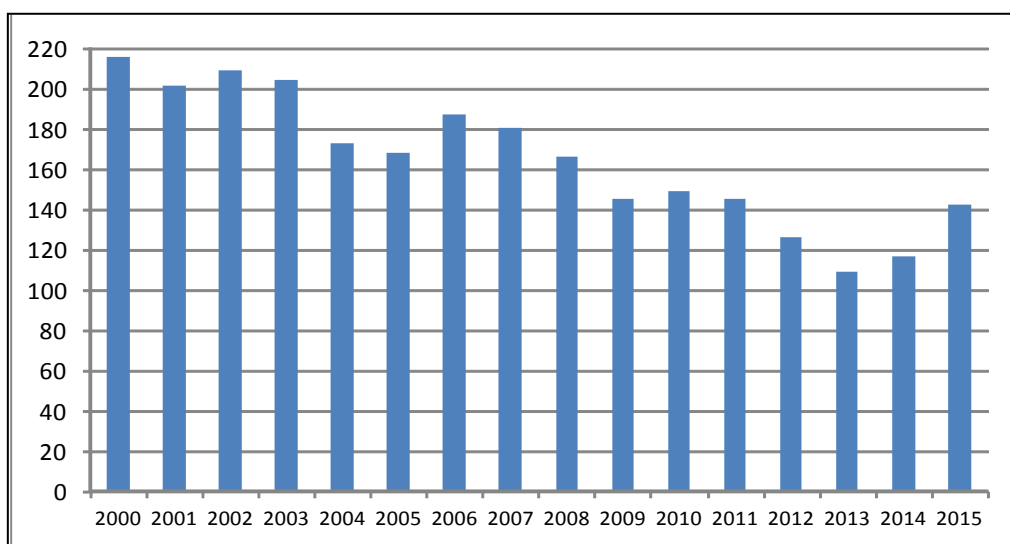
**Figure 8: Annual cost of nursery toothbrushing programme and costs / expected savings resulting from actual and anticipated dental treatments**



While prevention programmes are making a difference; over one fifth of children admitted to hospital for day case surgery are for dental extractions, this equates to over 7000 in Scotland in one year and 1000 in Fife.

The oral health promotion department, within the Public Dental Service is firmly integrated with general health promotion in order to maximize its effect; together working to tackle the risk factors associated with the main chronic non-communicable diseases. A united approach simultaneously helps reduce the incidence of obesity, heart disease, stroke, diabetes, cancer and mental health, as well as oral diseases, and supports a health service that is striving to tackle ill health and reduce mixed messages from healthcare professionals for the general public [34].

**Figure 9: Rates per 10,000 child population for dental general anaesthesia in 0-17 year olds in Fife, 2000-2015**



There are e-health opportunities within Fife to incorporate stop smoking services referrals into primary care dentistry. Up until now dental practices have been giving out small cards with details of the stop smoking services and signposting people to these services. Using SCI-Gateway dental teams can make referrals directly.

## **Oral Health Strategy for the Future**

In September 2016 the Chief Dental Officer launched her consultation on Scotland's Oral Health Plan [35]. There are four main themes focusing on prevention and risk, payments and changes, organisation and management and quality improvement and scrutiny. The document concentrates on primary dental services, where nearly 90% of dental care is carried out. There is a desire to move to a more preventive based approach with the introduction of oral health risk assessments. Emma O'Keefe, a Fife-based Consultant in Dental Public Health, will be working closely with the Scottish Government to help shape the document.

NHS Fife will soon be consulting on its own Oral Health Strategic Plan (2016-2021). The focus of the strategy is to reduce inequalities and target those most in need. Our vision is for patients to have better oral health through evidence-based prevention programmes and dental care provided in a safe clinical environment, and for the whole dental team to continually improve its professional practice, thereby ensuring effective person-centred care is delivered in well maintained, high quality premises.

## GROWING A CULTURE OF KINDNESS IN FIFE

Pressure on NHS and social care staff in Scotland continues to increase, arising from a range of demanding performance targets such as waiting time targets; as well as increasing age, long-term conditions and multiple morbidities. Additionally, the care that patients receive has come into question. The Francis report on the Mid Staffordshire NHS Trust [36] makes the recommendation to seek to build and strengthen a culture of compassionate care within the NHS. Effects on the organisation are represented by increased compassion fatigue experienced by staff, which translates into increased rates of sickness and absenteeism.

In June 2014, the Chair, Chief Executive and Director of Nursing in NHS Fife convened a workshop to explore how the organisation could become more compassionate, mindful and encourage relational practice. The discussion ignited a great deal of enthusiasm for a different culture and a small group of lead professionals were asked to create a “Virtual Faculty” to support its growth across teams and services.

Following discussions with Fife Cultural Trust, a conference called “A Culture of Kindness” took place in May 2015. We were prompted to use this language by a book called *Intelligent Kindness* which describes how the culture of the NHS can be reformed [37].

*“In the light of the present crisis in the culture of our healthcare system, it is particularly important to be able to talk in terms of positive values, to have a clear vision of how we would like to see our organisations function, how we wish to encourage society – and the organizations that serve society - to relate to the sick and vulnerable.”*

From ‘Intelligent Kindness’ by Ballatt & Campling

The conference was attended by over 130 delegates from a wide variety of organisations who had the opportunity to share, learn about, and experience good practice to create a culture of compassionate care in Fife. There were two main themes running through the day: Supporting Staff Self-Care and Caring for others. The conference was opened by NHS Fife Medical Director and a Professor of Nursing at Queen Margaret University. A poet, artist and mental health user gave a powerful description of the importance of kindness in her care. The event gave many people to opportunity to share work they have been doing in the field of compassion, mindfulness and relational practice and for others to get a taste of its value in helping them to help others.

The conference was very well received. In the words of some of the people who attended:

*“Encouraged by meeting so many people from different backgrounds all open to being vulnerable and compassionate”*

*“It is really heartening to know there are a lot of people, working in different ways to bring a more holistic approach to clients”*

*“One of the best conferences I’ve been to... really informative but in a fun and very emotional and moving way too.”*



The Virtual Faculty has become a Culture of Kindness Network and supports work that promotes these understandings. For example:

- Excellence in Care: Person Centred and Professional
- Mindfulness and compassion work
- Trauma-informed care
- Fife Shine Programme



“All too often we underestimate the power of a touch, a smile, a kind word, a listening ear, an honest compliment, or the smallest act of caring, all of which have the potential to turn a life around”

*Leo Buscaglia*

The following section provides more detail of two programmes – the Fife Mindfulness and Compassion Network and Fife Trauma-informed Care Network.

### **Fife Network for Mindfulness & Compassion**

*Mindfulness is... a turning towards life.... To live life as if each moment is important, as if each moment counted and could be worked with, even if it is a moment of pain, sadness, despair or fear”*

Jon Kabat Zinn

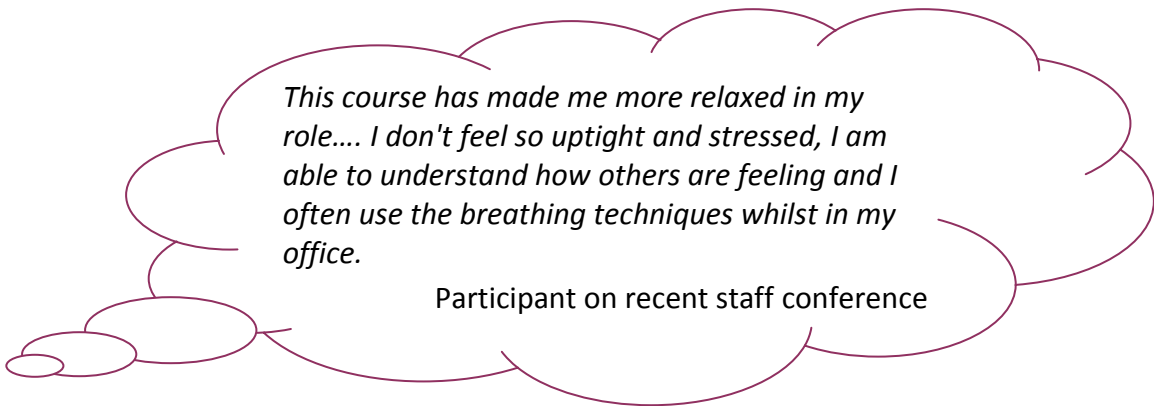
Mindfulness can best be described as the ability to maintain a moment-by-moment awareness of our thoughts, feelings, bodily sensations, and surrounding environment. It is not simply a technique.

There is increasing evidence to show that mindfulness practice produces clinical and social benefits in individuals who practice it, including:

- Improved resilience to the effects of chronic stress
- Greater ability to be present in the moment
- Increased capacity to be compassionate towards others

- Increased capacity to be compassionate towards one self
- Reduced rates of absenteeism arising from stress and burnout

This network, supported by Playfield Institute, NHS Fife, consists of a group of mindfulness facilitators across Fife (NHS, council, non-statutory organisations and independent practitioners) who are currently involved in facilitating numerous courses, workshops and practice sessions. These courses are open to all staff in partner agencies including schools and colleges. Playfield has been commissioned by Scottish Ambulance Service to provide mindfulness training for their staff. Evaluation results from the first course show significant improvements in wellbeing and self-compassion. A Mindfulness course is being offered in NHS Fife Child and Adolescent Mental Health Service and for clients at the Weston Day Hospital and psychology. FEAT (Fife Employment Access Trust) are offering mindfulness classes as part of their work to enable and support individuals with long-standing mental health problems to improve their wellbeing. St Andrews University is involved in evaluating parts of this work.



*This course has made me more relaxed in my role.... I don't feel so uptight and stressed, I am able to understand how others are feeling and I often use the breathing techniques whilst in my office.*

Participant on recent staff conference

## Trauma-informed Care Network

New research indicates the life-long impact of Adverse Childhood Experiences (ACEs), with high levels linked clearly to life expectancy, a wide range of adult pathology, as well as social outcomes [38]. These include abuse and neglect, household stress such as parental substance misuse, intimate partner violence, divorce, mental illness and incarceration. As well as being considered preventable, services can evolve to recognise these factors and respond appropriately. We call this approach “trauma-informed” and there is growing evidence of its effectiveness in improving health outcomes.

Studies show that ACEs are common. The nature of the adverse experience is less important than the number people experience. An ACE “score” of 6+ (i.e. experienced 6 or more of these events in childhood) is associated with a 20 year reduction in life expectancy. An ACE score of 4+ is associated with higher levels of depression, alcohol problems, suicide and self-harm, criminality and many more adverse health and lifestyle behaviours.

## ACES can have lasting effects on....



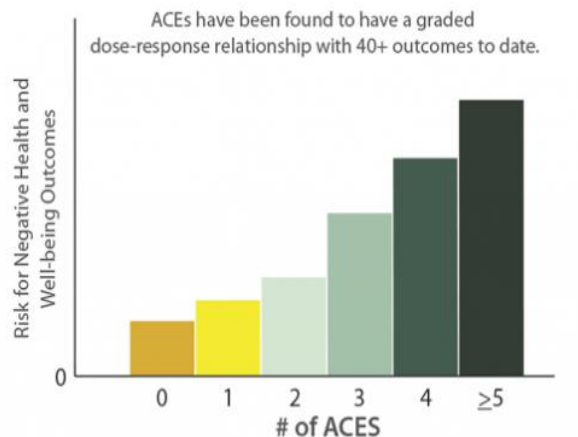
Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)



Behaviors (smoking, alcoholism, drug use)



Life Potential (graduation rates, academic achievement, lost time from work)



\*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.

In June 2016, a conference held in Fife explored the evidence for embracing a trauma-informed approach for health and social care. A wide audience of clinicians and practitioners across health, social care, criminal justice, housing and the third sector attended. Facilitated workshops took place which provided an opportunity to explore ways to change the culture of care and design better models for the future in Fife.

Priorities were identified around:

- Trauma Training
- Better than Well Pathway
- Integrated Working/Community Hub/One-stop Shop
- Culture Shift – Society, Community, Family Change
- Recovery & Reconnection
- Staff Care/Self Care

A working group will continue to develop these themes, fitting in with the Clinical Strategy and Strategic Plan for Health and Social Care.

A small test of change called “Better Than Well” is under way in the Kirkcaldy area to test out a “trauma-informed” model of care with results known early in 2017.

Trauma-informed training is being extended to a wide range of practitioners in Fife as part of a package of work under the Mental Health Innovation Fund.

## HEALTH PROTECTION

Working together, NHS Fife and Fife Council jointly agree health protection (communicable disease and environmental health) priorities, provision and preparedness. This shared approach is described in the co-produced Joint Health Protection Plan (JHPP) in accordance with the statutory duties of territorial Health Boards and their Local Authority partners. The most recent plan was drawn up in 2016 and covers the period 2016-18 [39].

**Overview of Communicable Diseases for 2014-15**

Notifiable/Disease/Organism	2014	2015
Cryptosporidium	33	52
<i>E.coli</i> (non O157 VTEC)	6	12
<i>E.coli</i> O157	32	10
Giardia	0	< 5
Legionellosis	0	0
Listeria	0	0
Lyme Disease	0	0
Measles	< 5	0
Meningococcal Infection	8	< 5
Mumps	9	20
Rubella	0	0
Salmonella	50	52
Shigella	5	7
Tuberculosis	8	13
Whooping Cough (Pertussis)	21	87

Source: NHS Fife HP Zone

The above table gives an overview of the *confirmed* communicable diseases notified to NHS Fife in the years 2014 and 2015. In addition to this the Health Protection Team (HPT) in collaboration with Fife Council and other partner agencies are notified of many more possible and probable cases of communicable diseases that equally require investigation and implementation of control measures.

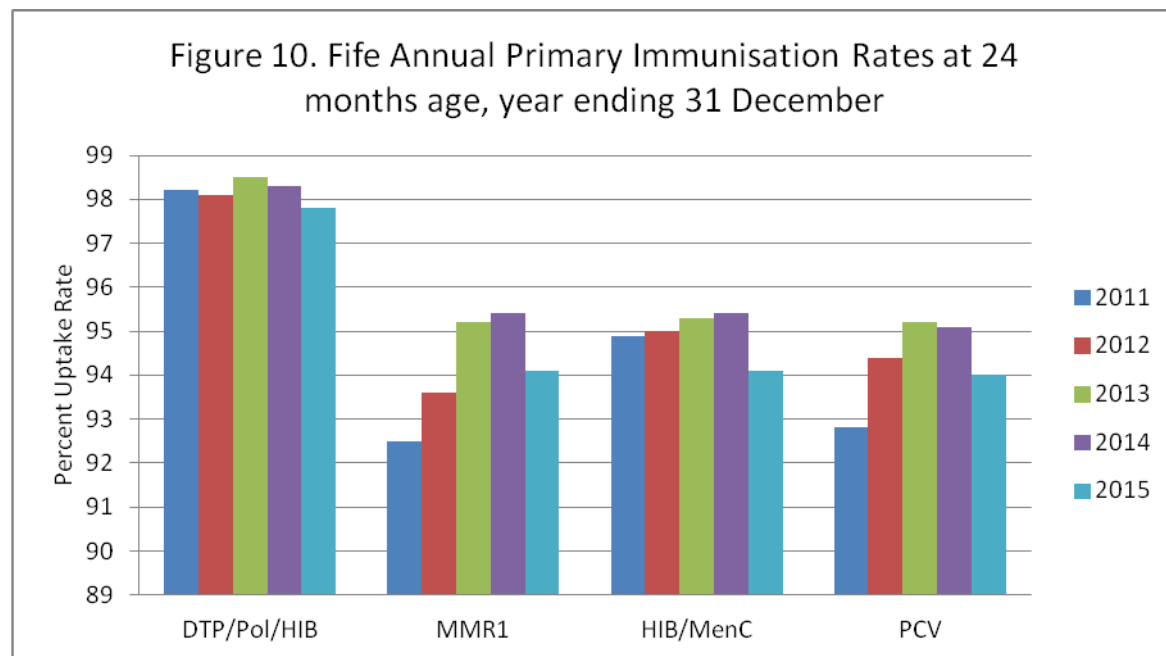
For example, the number of meningococcal infections remain low but each one requires a careful assessment of contacts and provision of antibiotics where indicated. If a case occurs in a university, school or nursery, all students, pupils and staff are informed.

Although only a small proportion of the total public health notifications are for TB, each TB case requires a large input of nursing and public health time to identify contacts and ensure that adherence is maintained during the six months treatment period. The complex nature of TB requires a multidisciplinary approach from TB nurses, clinical teams in primary and secondary care, microbiology and public health. In NHS Fife multidisciplinary TB meetings are held to review all cases.

### Vaccination

Vaccine preventable diseases (for example, whooping cough (pertussis), measles, mumps and rubella) account for a small but significant proportion of notifications in Fife. Each notification and laboratory confirmed case is followed up by the HPT to reduce the likelihood of further cases and offer vaccination if required.

Primary immunisations are a major prevention strategy in the control of communicable disease. Figure 10 shows the uptake rates in Fife from update at 24 months, which includes the first MMR vaccine. It is pleasing to see an improvement in coverage for this vaccine in recent years.



Source: ISD

## Health Protection Planning

In addition to the JHPP, there are three key plans which are reviewed, exercised and updated by NHS Fife on a regular basis. These are: Major Emergency, Pandemic Influenza and Public Health Incident Plans. In 2016, NHS Fife has reconfigured its Resilience Forum and now has two sub-groups – one for acute services and the other for the Health and Social Care Partnership.

There are many other plans to cover specific areas of emergency preparedness and health protection which are reviewed on an on-going basis. These include Control of Major Accident Hazards (COMAH) registered sites and other industrial sites, a few of which are inspected by the local authority under its duties around health and safety. Others are inspected by the Health and Safety Executive.

There is a Community Risk Register which is reviewed annually by the Local Resilience Partnership which comprises Category 1 and 2 responders as defined under the Civil Contingencies Act.

## Local Priorities

Health Protection is a core part of the services delivered by NHS Fife and Fife Council, particularly through Protective Services remits (environmental health, trading standards, animal health & welfare and building standards & public safety). The JHPP recognises that work is undertaken on a daily basis relating to areas of responsibility and service delivery:

- Preventing the spread of communicable diseases in the community;
- Improving standards of food safety;

- Ensuring safe and potable drinking water supplies;
- Improving standards of workplace health and safety standards;
- Ensuring adequate plans are in place to respond to incidents and emergencies;
- Improving standards within the built environment;
- Improving air quality.

## **Incidents for Fife Health Protection 2015/16**

### **Forth Road Bridge Closure – 3<sup>rd</sup>/4<sup>th</sup> December – 23<sup>rd</sup> December 2015**

On the afternoon of the 1<sup>st</sup> December a decision was taken by Transport Scotland to close the southbound carriageway of the Forth Road Bridge (FRB). Following a full inspection the decision was made to close the bridge at midnight on the 3<sup>rd</sup>/4<sup>th</sup> December. It was not known how long the bridge would be closed. This decision resulted in one of the biggest Resilience challenges that NHS Fife has faced in recent times.

To respond to this exceptional incident the Chief Operating Officer for acute services rapidly set up a hospital control team to identify what needed to be done to maintain business as usual to people in Fife needing care and treatment. A regional health team co-ordinated by NHS Lothian and NHS Fife was also set up and the Local Resilience Partnership between all the key agencies in Fife was convened not long afterwards.

The following areas were quickly identified:

- Making sure that staff who lived in Lothian, most of whom drove into work, could actually get to work.
- Ensuring patients who attended hospitals in Edinburgh for specialised treatment such as chemotherapy could make their appointments
- The delivery of radio-isotopes that are regularly brought from Edinburgh to Fife for diagnostic and treatment purposes could still take place.

It was identified early in the closure that service delivery would be an issue especially once the A985 trunk road to the Kincardine Bridge was designated for Heavy Goods Vehicles and Emergency Service Vehicles only.

Solutions were quickly found to all of these issues:

- Buses were organised to shuttle staff from Kirkcaldy Railway Station to and from Victoria Hospital and local accommodation was used, both formal and informal for essential staff to stay overnight when required.
- Special transport arrangements were put in place between the Scottish Ambulance Service and Transport Scotland to allow certain patients to cross the bridge to get their treatment, rather than undertake a very tiring journey via Kincardine Bridge and back.
- A special arrangement was set up which allowed regular delivery across the Forth Road Bridge of the important radio-isotopes.
- Permission was granted for community health staff to access the A985.

The bridge ended up being closed for much longer than expected which produced a number of challenges for staff and for local businesses and organisations. These challenges have been identified from a number of debriefs that took place and lessons have been learned that will help with future responses.

### **Avian Flu in a Poultry Farm in Fife**

Avian flu (H5N1) was identified in a broiler breeder farm near Dunfermline on 2 January 2016. NHS Fife worked with Fife Council, local primary care services, the Animal Public Health Agency (APHA) and Health Protection Scotland to respond to the potential for adverse human health effects. The Public Health Pharmacist worked to ensure sufficient doses of antiviral medication were available to those on the farm and APHA contractors who might have been exposed to the infection. To prevent further risk of the infection, all of the birds on the site were culled and the area fully decontaminated. In the follow up period, no human infections were identified.

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CLIFFORD, Cheryl	Personal Secretary
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WATSON, Lorna	Consultant in Public Health Medicine
WILLIAMS, Nicola	Research Assistant, Childsmile
WOOLLEY, Dorothy	Librarian/Choose Life Co-ordinator
WILSON, Natalie	Personal Secretary



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