NHS Grampian

# Health Intelligence

## Health and Wellbeing Compendium

**Grampian Health and Wellbeing Compendium V - October 2016**

**Contents**

## 0.1 Summary

The population of Grampian in 2015 was estimated to be 587,820, an increase of 1.5% on the previous year. A greater proportion of Grampian residents belong to a minority ethnic group compared to Scotland as a whole.

The health of people in Grampian was generally better than the Scottish average. Life expectancy for men and women living in Grampian was above the Scottish average, while suicide rates in Grampian were lower than the Scottish rate.

### Health Inequalities

Life expectancy was 8 years lower for men and 5 years lower for women living in the most deprived areas of Grampian than in the least deprived areas.

### Child Health

Levels of teenage pregnancy were comparable with Scotland. Fewer pregnant women (19%) tried to stop smoking using NHS smoking cessation services than the Scottish average (28%).

By 12 months of age, over 95% of children in Grampian were vaccinated and protected against serious childhood infections.

The percentage of five year olds with healthy teeth (72%) was higher than the Scottish average (70%). Lower levels of good dental health were found in more deprived areas. The percentage of obese six year olds in Grampian (9.9%) is just above the Scottish average (9.8%). Around one in three boys and girls in Grampian are not meeting the recommended levels of physical activity.

Rates of injury in children under five have fallen consistently since 2000, however, there were parts of Grampian where the recorded rate of injury was higher than comparable areas in Scotland.

### Adult Health

The percentage of adults who smoke (21%), or drink alcohol in a way that could harm their health (19%) in Grampian was comparable with the rest of Scotland. The rate of hospital stays as a result of alcohol related harm in Grampian decreased since 2008, and was slightly lower than the Scottish average, but the high level of alcohol harm in Scotland makes for a low comparator benchmark.

Measures of mental wellbeing were comparable with those of Scotland at a whole.

The number of new cases of cancer registered in NHS Grampian has increased since 1990, mainly due to improvements in cancer detection and an ageing population.

Cardiovascular disease was a leading cause of premature mortality in Grampian, though mortality rates have declined over the past 10 years due to a reduction in smoking levels in the population and improved treatment.

## Definitions

### Datazone[1]

The datazone is the key small-area statistical geography in Scotland. Scottish Neighbourhood Statistics has introduced, for the first time, a common, stable and consistent, small-area geography called datazones. The datazone geography covers the whole of Scotland and nests within local authority boundaries. Datazones are groups of 2001 Census output areas and have populations of between 500 and 1,000 household residents. Where possible, they have been made to respect physical boundaries and natural communities. They have a regular shape and, as far as possible, contain households with similar social characteristics.

### Intermediate Zone[1]

Not all statistics are suitable for release at the datazone level because of the sensitive nature of the statistics, or for reasons of reliability, and it was apparent that a statistical geography between datazone and local authority was required. The intermediate zones are aggregations of datazones within local authorities and contain between 2,500 and 6,000 people.

There are 128 intermediate zones in Grampian.

### School Cluster

There are 37 primary school clusters in Grampian, each feeding one academy. In Aberdeen City and Moray they are called associated school groups, and in Aberdeenshire they are called community school networks.

### Key to traffic lights

| | |
|---|---|
| R | Worse than Scotland by more than 5% |
| A | Worse than Scotland but within 5% |
| G | Better than or equal to Scotland |

1 Scottish Government (2005) Scottish Neighbourhood Statistics Guide available from http://www.scotland.gov.uk/publications/2005/02/20697/52626 (accessed 28/9/2016)

2 NHS Grampian (2013) Health Intelligence using SIMD scores and ranks available from http://simd.scotland.gov.uk/publication-2012/download-simd-2012-data/ (accessed 28/9/2016)

## 1 Grampian Demographical Information

This section provides selected information to help describe the current population of Grampian. Several of the indicators in the compendium relate to the health of specific age groups. Gender is often a significant factor in morbidity and mortality.

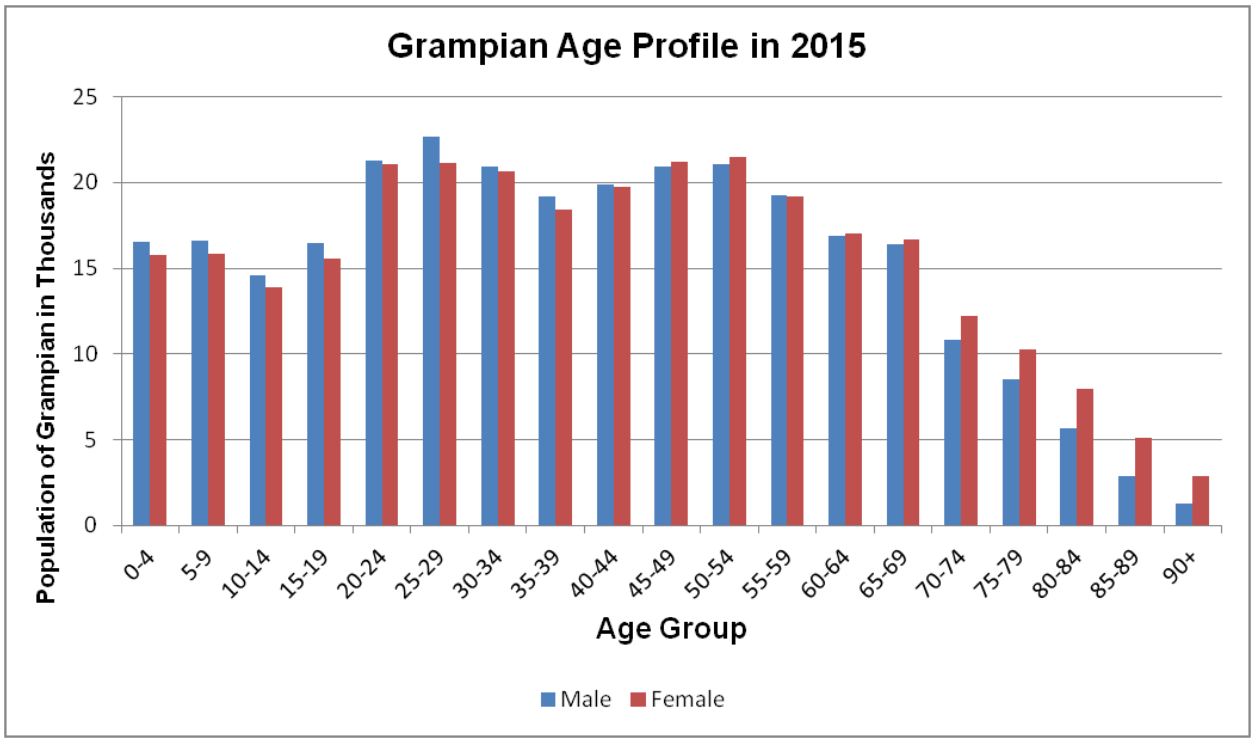
The ethnic composition of Grampian is relevant here for a number of reasons, including: the potential for public health messages to be less effective due to language and cultural differences, leading to marginalisation of hard to reach groups; differences in genetic-disposition to disease; and the possibility of different patterns of use of health services, due to differences in cultural norms.

National insurance registrations provide another window on the changing nature of the population, with more detail on European immigrants than can be gleaned from the 2011 census.

The 2011 census has provided the opportunity to analyse self-reported disability by deprivation, and infer from this some of the challenges ahead for NHS Grampian.

### 1.1 Age and Gender Profile

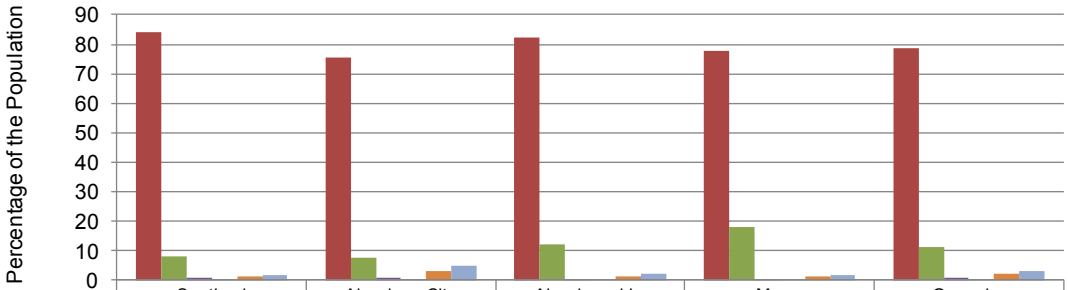
The population of Grampian is estimated[1] to be 587,820. One in six residents are under 15 years, and one in six are over 64 years. One in eight are between 15 and 24 years, and over half of the population is aged between 25 and 64 years. The figure below shows that males out-number females in the age groups up to 44 years, and the situation is reversed in the older age groups from 60 years upwards.



## 1.2 Ethnic Composition

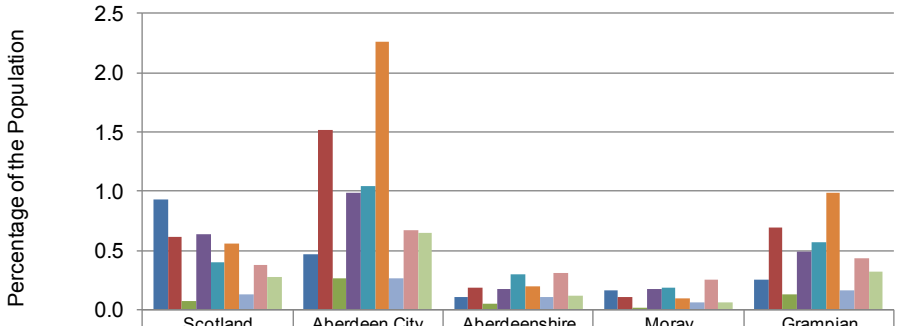
The proportion of the population reported[2] as belonging to a minority ethnic group varies by Local Authority in Scotland. The highest figures are in the four Local Authorities with the large cities: Glasgow City (12%), City of Edinburgh, Aberdeen City (8%) and Dundee City (6%). This compares to less than 2% for both Aberdeenshire and Moray. The two charts below give the detailed breakdown by each ethnic group.

**White Ethnic Groups as a Percentage of the Population for Scotland, Grampian and Council Areas, 2011**




| | Scotland | Aberdeen City | Aberdeenshire | Moray | Grampian |
|---|---|---|---|---|---|
| White: Scottish | 84.0 | 75.3 | 82.2 | 77.7 | 78.7 |
| White: Other British | 7.9 | 7.6 | 12.3 | 18.0 | 11.4 |
| White: Irish | 1.0 | 1.0 | 0.5 | 0.5 | 0.7 |
| White: Gypsy/Traveller | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| White: Polish | 1.2 | 3.2 | 1.2 | 1.1 | 1.9 |
| Other White | 1.9 | 4.7 | 2.2 | 1.6 | 3.1 |

**Non-White Ethnic Groups as a Percentage of the Population for Scotland, Grampian and Council Areas, 2011**



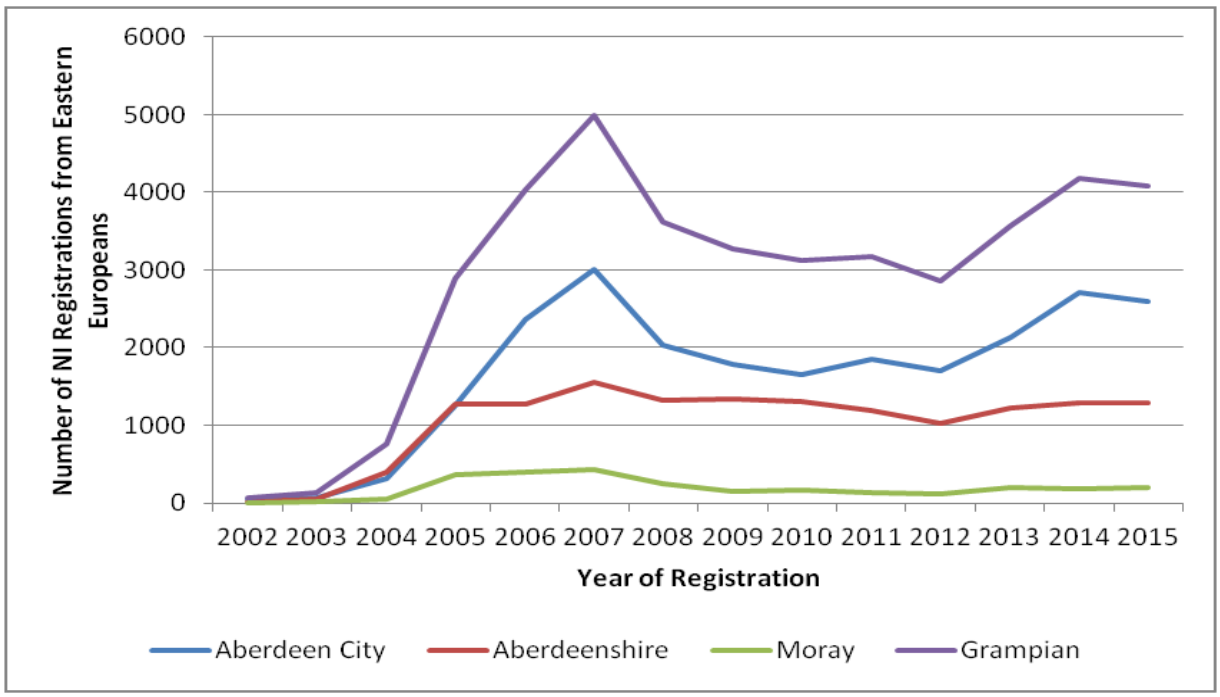

| | Scotland | Aberdeen City | Aberdeenshire | Moray | Grampian |
|---|---|---|---|---|---|
| Pakistani, Pakistani Scottish or Pakistani British | 0.9 | 0.5 | 0.1 | 0.2 | 0.3 |
| Indian, Indian Scottish or Indian British | 0.6 | 1.5 | 0.2 | 0.1 | 0.7 |
| Bangladeshi, Bangladeshi Scottish or Bangladeshi British | 0.1 | 0.3 | 0.1 | 0.0 | 0.1 |
| Chinese, Chinese Scottish or Chinese British | 0.6 | 1.0 | 0.2 | 0.2 | 0.5 |
| Other Asian | 0.4 | 1.0 | 0.3 | 0.2 | 0.6 |
| African | 0.6 | 2.3 | 0.2 | 0.1 | 1.0 |
| Caribbean or Black | 0.1 | 0.3 | 0.1 | 0.1 | 0.2 |
| Mixed or multiple ethnic groups | 0.4 | 0.7 | 0.3 | 0.2 | 0.4 |
| Other ethnic groups | 0.3 | 0.6 | 0.1 | 0.1 | 0.3 |

The percentage change in ethnic composition since 2001 was greatest in the African population in Aberdeen City (a 6-fold increase), whilst Aberdeenshire saw the greatest change in the "Other Asian" population (more than 6-fold increase), and

Moray saw a more than 3-fold increase the “Other Asian” population, the greatest change here.

From 2002 to a peak in 2007 there has also been a significant rise in the population of Eastern Europeans living and working in Grampian[3] (see chart below). Of these, the greatest numbers of new National Insurance Registrations from all overseas countries were from Polish citizens. The proportion of registrations in 2002 in Grampian, from Eastern Europeans, was 5% rising to 56% in 2015.

Aberdeen City has the largest number of registrations in Grampian. In 2002, there were 56 registrations from Eastern Europeans. In 2015 there were 2,590.



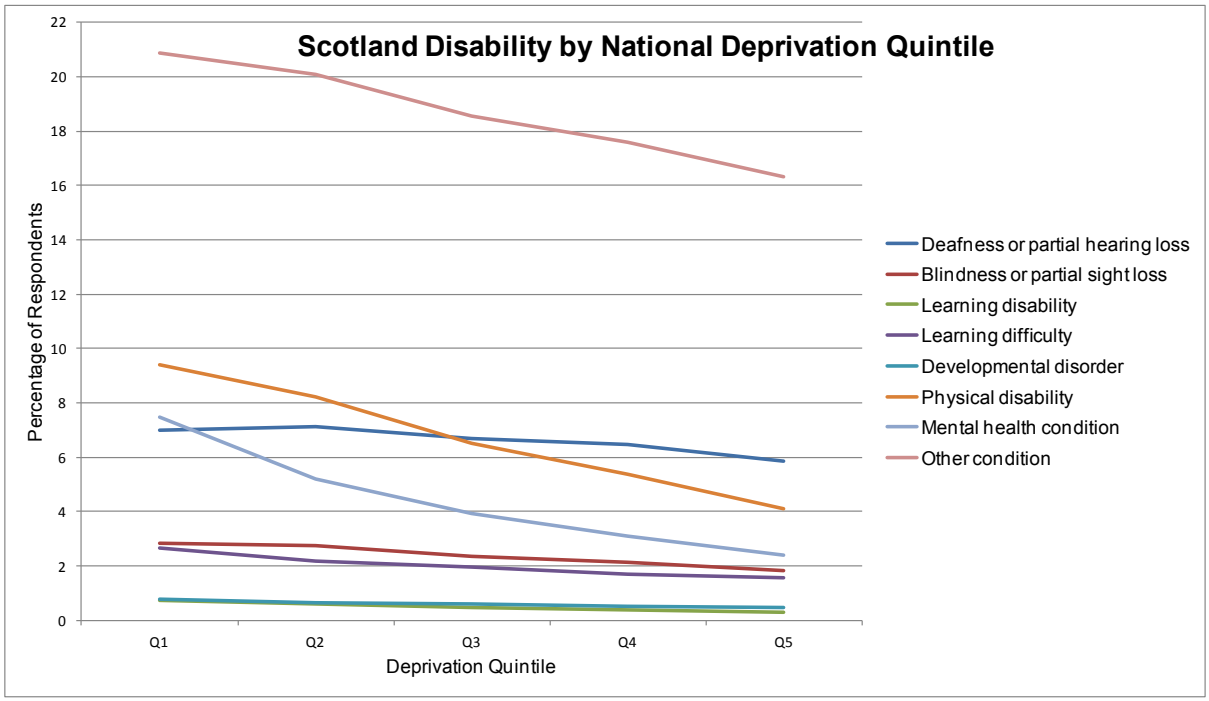
## 1.3 Disability

The 2011 census[2] asked all residents the following question:

"Do you have any of the following conditions which have lasted, or are expected to last, at least 12 months? Tick all that apply.

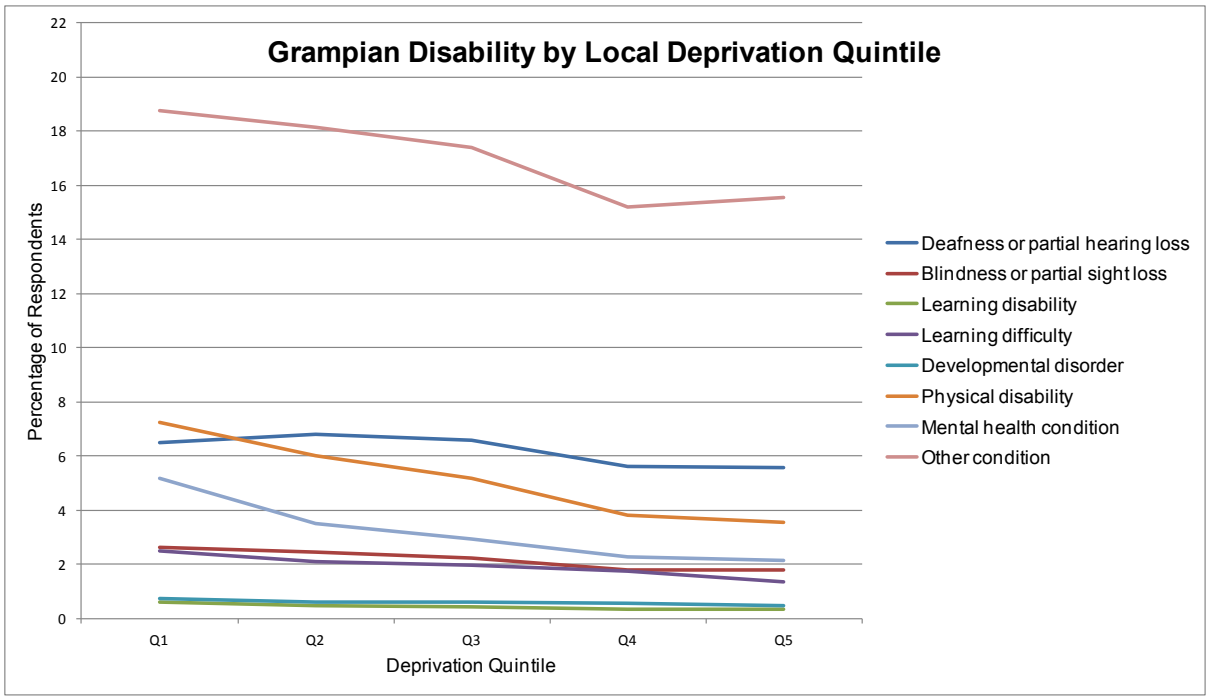
Deafness or partial hearing loss
Blindness or partial sight loss
Learning disability (for example, Down's Syndrome)
Learning difficulty (for example, dyslexia)
Developmental disorder (for example, Autistic Spectrum Disorder or Asperger's Syndrome)
Physical disability
Mental health condition
Long term illness, disease or condition
Other condition, please write in."

The responses of residents in Grampian and in each local authority area within Grampian have been analysed by deprivation quintile for the health board and each local authority respectively, where quintile 1 is the most deprived 20%, and quintile 5 is the least deprived 20%. The five figures below display the results for each local authority, for Grampian and for Scotland. They appear to display a fairly similar pattern.

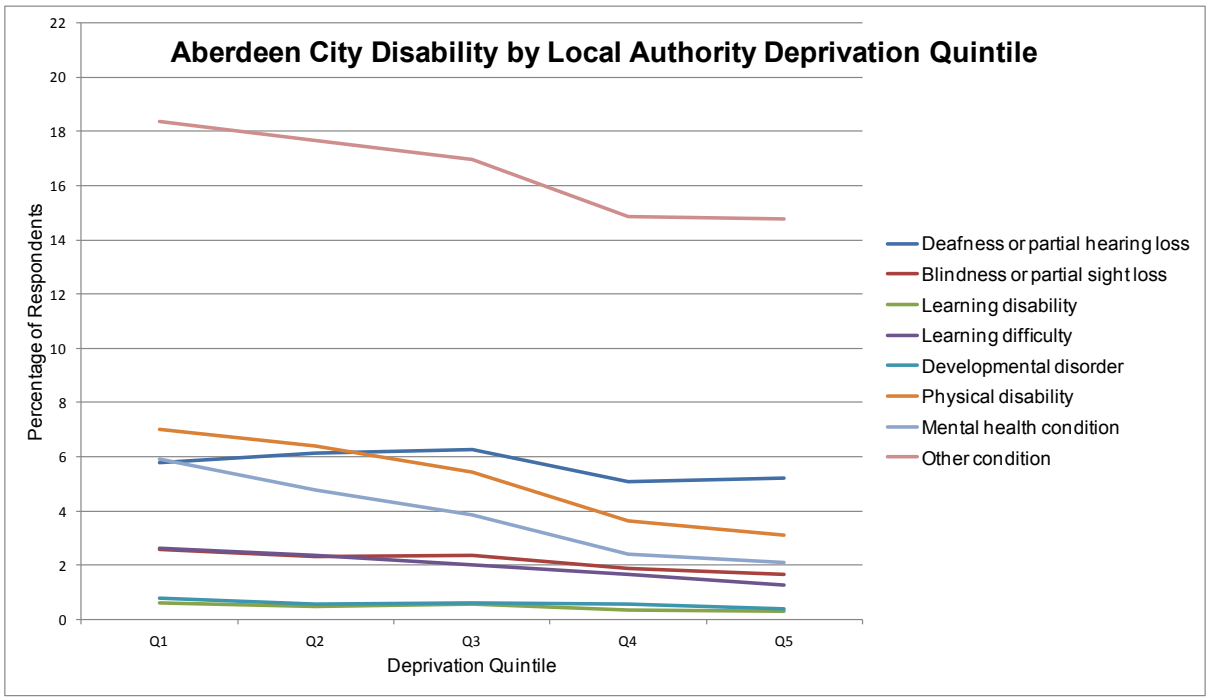



A linear regression has been performed on each line in the Grampian chart (not shown). In each case a negative correlation was found. The strength of the correlation ranges from 0.68 for deafness and partial hearing loss, and 0.88 for mental health condition up to 0.97 for both physical disability and learning difficulty. The figures quoted represent the degree to which the variation in disability is accounted for by the level of deprivation, where 1.0 would represent a perfect

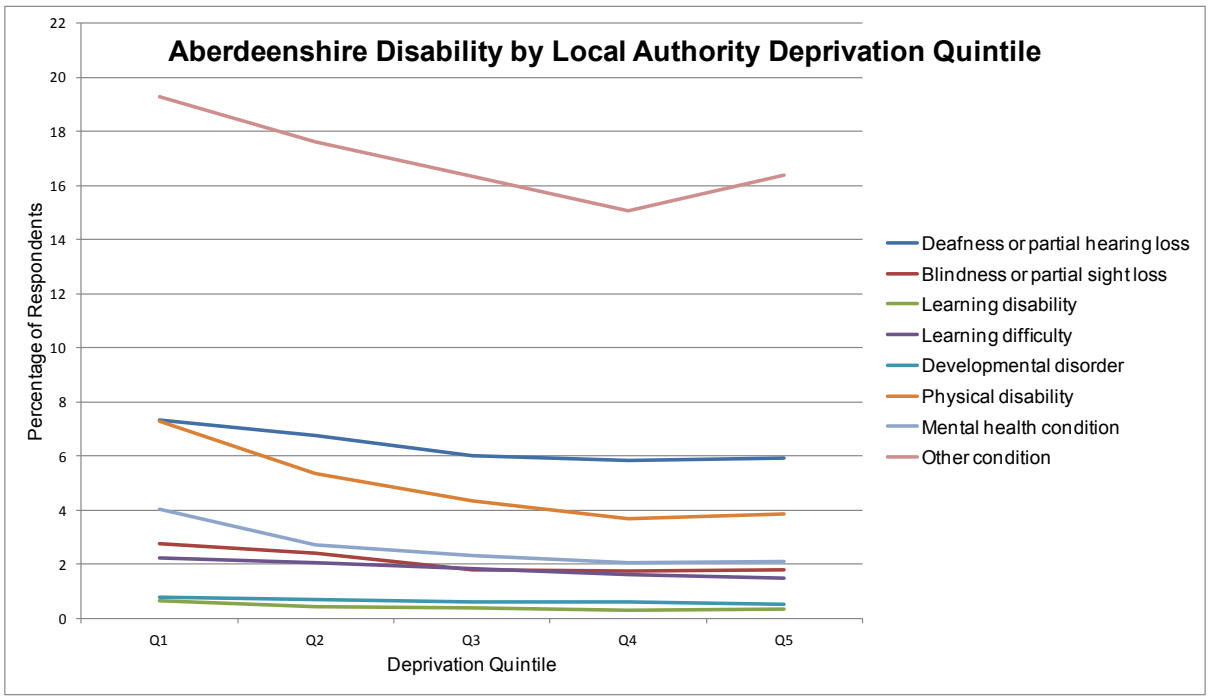
correlation of all points falling on a straight line (but it does not prove a causal link). Seven out of eight disabilities have a correlation coefficient of 0.88 or above, which indicates a very strong relationship between disability and deprivation in Grampian.



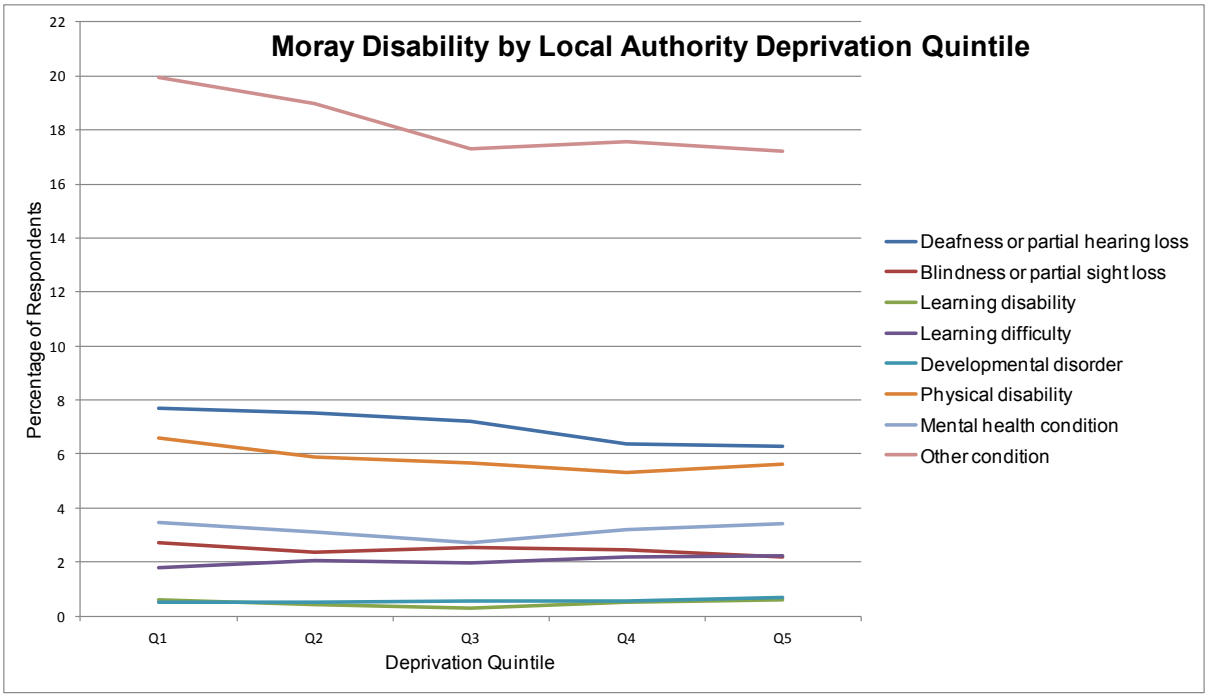

In Aberdeen City the strength of the correlation ranges from 0.42 for deafness and partial hearing loss, to 0.99 for learning difficulty. Five out of eight disabilities have a correlation coefficient of 0.9 or above, which indicates a strong relationship between disability and deprivation in Aberdeen City.



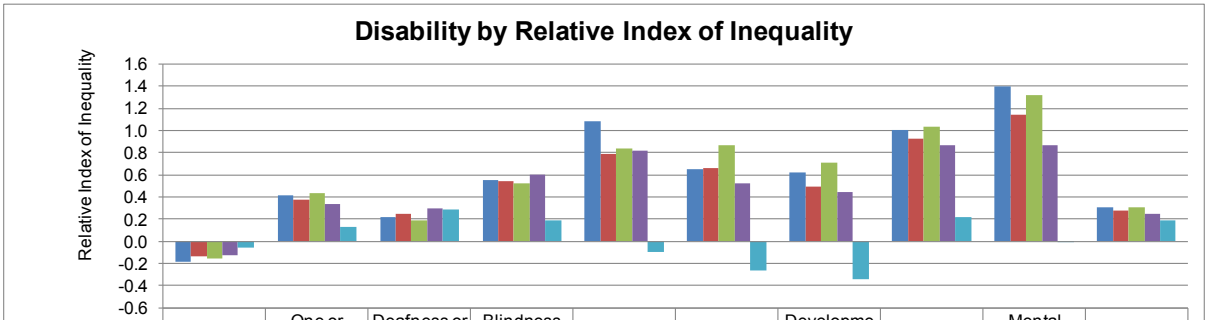
In Aberdeenshire the strength of the correlation ranges from 0.69 for learning disability and other condition, up to 0.94 for developmental disorder and 0.99 for learning difficulty. Two out of eight disabilities have a correlation coefficient of 0.9 or above, and a further two over 0.8 indicates a strong relationship between disability and deprivation in Aberdeenshire (but less strong than Aberdeen City).




In Moray the strength of the correlation ranges from 0.01 or less (i.e. no correlation at all) for mental health condition and learning disability, to above 0.9 for deafness or partial hearing loss. A further three disabilities have correlations of over 0.8 (learning difficulty, developmental disorder and other condition). This constitutes a mixed picture with a strong relationship between disability and deprivation for four out of eight disabilities, and no relationship for two disabilities.




To explore the consequences of the strong relationship between disability and deprivation, the deprivation gradient for each disability in each area, has been calculated using the relative index of inequality[4] (RII), and is given in the figure below. The RII uses the gradient of the best fit linear regression, against deprivation, and is divided by the average disability percentage for the area concerned. By dividing by the average, the index becomes relative and is not sensitive to the magnitude of the prevalence, thereby allowing the less prevalent disabilities to be compared directly to the more prevalent disabilities.




| | No condition | One or more conditions | Deafness or partial hearing loss | Blindness or partial sight loss | Learning disability | Learning difficulty | Developmental disorder | Physical disability | Mental health condition | Other condition |
|---|---|---|---|---|---|---|---|---|---|---|
| Scotland | -0.18 | 0.42 | 0.22 | 0.56 | 1.08 | 0.65 | 0.62 | 1.00 | 1.40 | 0.31 |
| Grampian | -0.14 | 0.37 | 0.24 | 0.55 | 0.79 | 0.66 | 0.49 | 0.93 | 1.15 | 0.27 |
| Aberdeen City | -0.16 | 0.43 | 0.19 | 0.52 | 0.84 | 0.86 | 0.71 | 1.03 | 1.32 | 0.31 |
| Aberdeenshire | -0.12 | 0.33 | 0.30 | 0.60 | 0.82 | 0.52 | 0.44 | 0.87 | 0.87 | 0.25 |
| Moray | -0.05 | 0.13 | 0.29 | 0.19 | -0.09 | -0.27 | -0.34 | 0.22 | 0.00 | 0.19 |

The interpretation of the RII is as follows, taking the example of mental health condition (which has the highest RII of any disability for each area, except Moray):

- in Scotland, the gap between most deprived 20% and the least deprived 20% is 1.4 times the average percentage reporting a mental health condition, with reported prevalence increasing with deprivation.

- in Grampian the gap between the most deprived 20% and the least deprived 20% is 1.15 times the average percentage reporting a mental health condition, again with reported prevalence increasing with deprivation.

- in Aberdeen City the gap between the most deprived 20% and the least deprived 20% is 1.32 times the average percentage reporting a mental health condition, again with reported prevalence increasing with deprivation.

- in Aberdeenshire the gap between the most deprived 20% and the least deprived 20% is 0.87 times the average percentage reporting a mental health condition, again with reported prevalence increasing with deprivation.

- in Moray, no deprivation gradient was found, so no relationship can be inferred.

The disabilities with the second and third highest RII are physical disability and learning disability, respectively. So, for example:

- in Aberdeen City the gap between the most deprived 20% and the least deprived 20% is 1.03 times the average percentage reporting a physical disability, again with reported prevalence increasing with deprivation.

With the exception of "deafness or partial hearing loss" and "blindness or partial sight loss", Aberdeen City always has the highest RII of the local authorities.

With the exception of "deafness or partial hearing loss", Moray has the smallest deprivation gradient across all disabilities, and in three disabilities, shows an inverse relationship between deprivation and disability.


1. National Records of Scotland (2016) Mid- year 2015 population estimate available from http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-year-population-estimates/population-estimates-time-series-data (accessed 28/9/2016)
2. Scotland's Census 2011 at www.scotlandscensus.gov.uk (accessed 2/7/2014) tables KS201SC and 2001 Census at www.scrol.gov.uk (accessed 2/7/2014) tables UV10 with appropriate permissions.
3. Department for Work and Pensions (2016) Stat-Xplore available at https://stat-xplore.dwp.gov.uk/ (accessed 28/9/2016)
4. ScotPHO (2007) Measuring Socio-Economic Inequalities in Health: A Practical Guide http://www.scotpho.org.uk/downloads/scotphoreports/scotpho071009_measuringinequalities_rep.pdf (accessed 28/9/2016)

## 2.1 Male Life Expectancy

Summary for NHS Grampian

In Grampian, males born between 2012 and 2014 have an average life expectancy of 78.3 years[1], which is above the Scottish average.

In Aberdeen, which has the lowest life expectancy of the three Grampian council areas, male life expectancy at birth is just below the Scottish average at 76.8 years, and places Aberdeen at rank 23 of the 32 council areas across Scotland.

For boys in the 20% most deprived areas of Grampian born since 2009, life expectancy at birth is 7.7 years less than for those in the 20% least deprived areas of Grampian[2].

The trend in life expectancy from 1981 to 2014 continues to increase for males in Aberdeenshire and Moray, but, for the first time, not for residents of Aberdeen City. Since 1981 life expectancy has been consistently better than the Scottish average for males in Aberdeenshire and Moray, this was also the case in Aberdeen City until 2014.

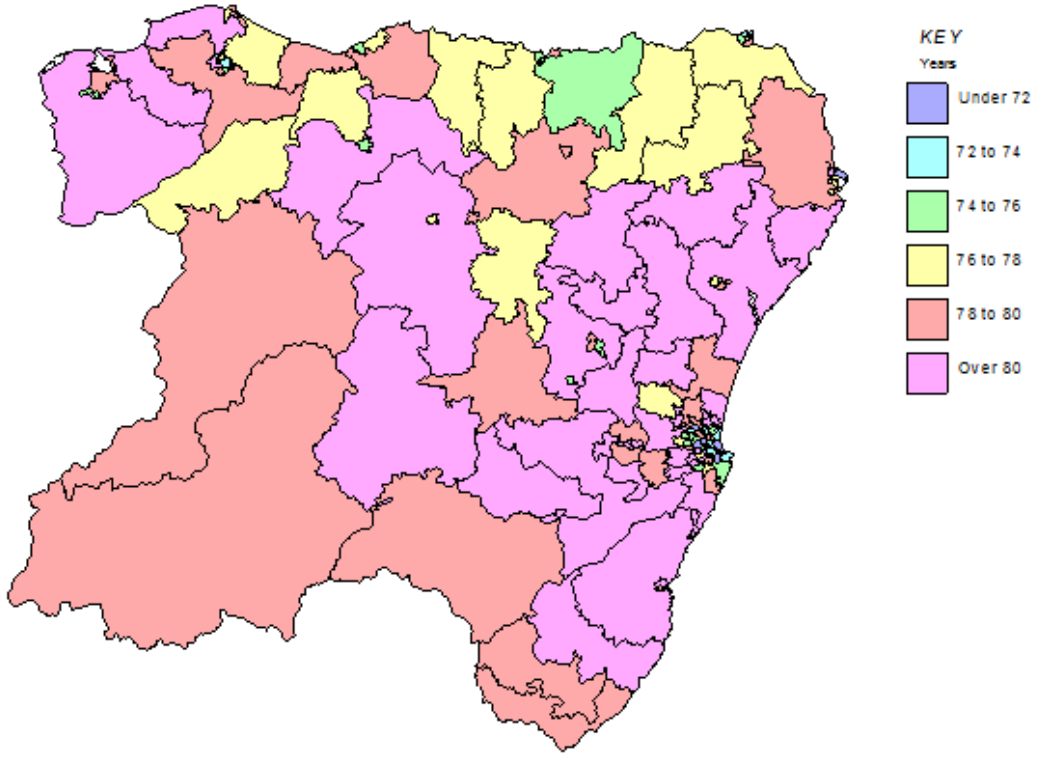
Indicator Definition

Life expectancy at birth for males in years.

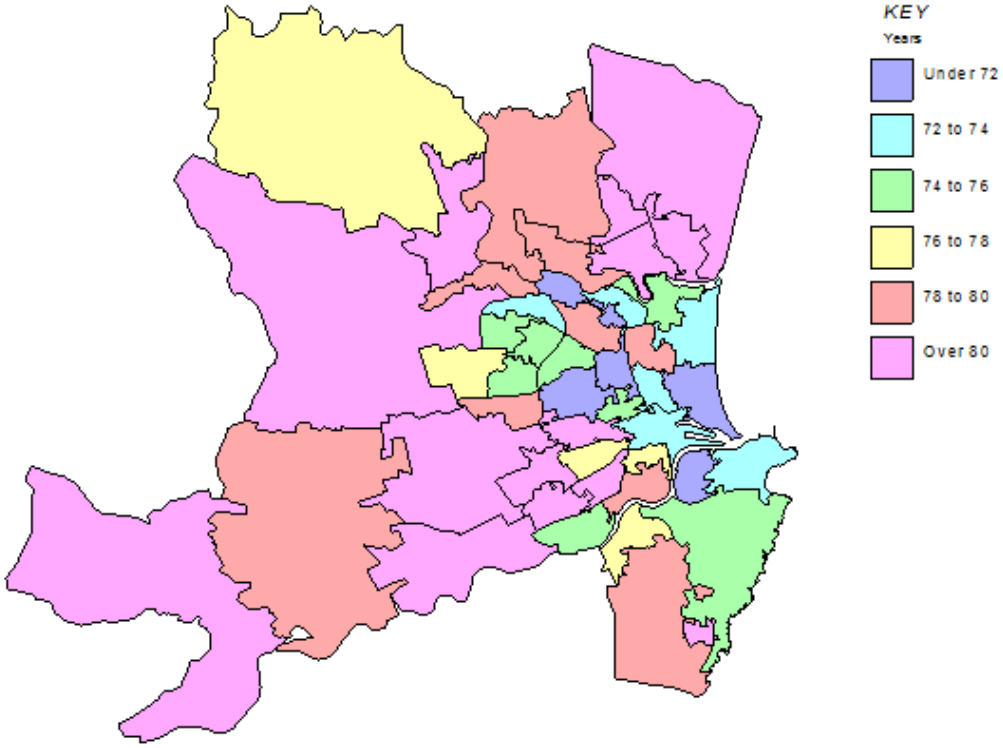
Rationale

All cause mortality is a fundamental and probably the oldest measure of the health status of a population. Differences in levels of all-cause mortality reflect health inequalities between different population groups, e.g. between genders, social classes and ethnic groups. Life expectancy at birth is chosen as the preferred summary measure of all cause mortality as it quantifies the differences between areas in units (years of life) that are more readily understood and meaningful to the audience.

Male Life Expectancy in Grampian (2009-13) by Intermediate Zone




Male Life Expectancy in Aberdeen City (2009-13) by Intermediate Zone
(From 2015 Health & Wellbeing Profiles)



**Male Life Expectancy (2009-13) by Intermediate Zone[3]**

| Council Area | Male L.E. (years) | Traffic Light | Intermediate Zone Name |
|---|---|---|---|
| Scotland | 76.6 | - | Scotland – All Intermediate Zones |
| Aberdeen City | 77.1 | G | Aberdeen City – All Intermediate Zones |
| | 71.8 | R | Ashgrove |
| | 81.8 | G | Balgownie and Donmouth East |
| | 80.1 | G | Balgownie and Donmouth West |
| | 80.8 | G | Braeside, Mannofield, Broomhill and Seafield East |
| | 84.9 | G | Braeside, Mannofield, Broomhill and Seafield North |
| | 81.2 | G | Braeside, Mannofield, Broomhill and Seafield South |
| | 81.1 | G | Bucksburn North |
| | 78.5 | G | Bucksburn South |
| | 73.5 | A | City Centre |
| | 75.2 | A | Cove North |
| | 81 | G | Cove South |
| | 80.1 | G | Culter |
| | 81.5 | G | Cults, Bieldside and Milltimber East |
| | 78.6 | G | Cults, Bieldside and Milltimber West |
| | 74.6 | A | Cummings Park |
| | 78.1 | G | Danestone |
| | 80.5 | G | Denmore |
| | 76.6 | G | Dyce |
| | 76.6 | G | Ferryhill North |
| | 79.3 | G | Ferryhill South |
| | 78.2 | G | Froghall, Powis and Sunnybank |
| | 74.3 | A | Garthdee |
| | 72.7 | A | George Street |
| | 70.2 | R | Hanover |
| | 80.6 | G | Hazlehead |
| | 73.2 | A | Heathryfold and Middlefield |
| | 78.7 | G | Hilton |
| | 77.4 | G | Kincorth, Leggart and Nigg North |
| | 78.3 | G | Kincorth, Leggart and Nigg South |
| | 80.4 | G | Kingswells |
| | 74.8 | A | Mastrick |
| | 70 | R | Midstocket |
| | 75.7 | A | Northfield |
| | 74.3 | A | Old Aberdeen |
| | 80.5 | G | Oldmachar East |
| | 79.5 | G | Oldmachar West |
| | 75.5 | A | Rosemount |
| | 72.4 | A | Seaton |
| | 77.3 | G | Sheddocksley |

| Council Area | Male L.E. (years) | Traffic Light | Intermediate Zone Name |
|---|---|---|---|
| Aberdeen City | 75.2 | A | Stockethill |
| | 78.9 | G | Summerhill |
| | 73.7 | A | Tillydrone |
| | 72.2 | A | Torry East |
| | 70.2 | R | Torry West |
| | 82.7 | G | West End North |
| | 78 | G | West End South |
| | 68.2 | R | Woodside |
| Aberdeenshire | 78.9 | G | Aberdeenshire – All Intermediate Zones |
| | 77.7 | G | Aberchirder and Whitehills |
| | 79.9 | G | Aboyne and South Deeside |
| | 80.1 | G | Auchnagatt |
| | 79 | G | Auchterless and Monquhitter |
| | 79.9 | G | Balmedie and Potterton |
| | 82.7 | G | Banchory |
| | 80.5 | G | Banchory-Devenick and Findon |
| | 74.4 | A | Banff |
| | 80.5 | G | Barrahill |
| | 83.2 | G | Clashindarroch |
| | 81.8 | G | Crathes and Torphins |
| | 80.7 | G | Cromar and Kildrummy |
| | 80.1 | G | Cruden |
| | 78 | G | Deer and Mormond |
| | 80.7 | G | Dunecht, Durris and Drumoak |
| | 83.5 | G | Durno-Chapel of Garioch |
| | 78.1 | G | East Cairngorms |
| | 78.9 | G | Ellon East |
| | 77.1 | G | Ellon West |
| | 80.9 | G | Fetteresso, Netherley and Catter |
| | 76.5 | A | Fraserburgh Central-Academy |
| | 72.4 | A | Fraserburgh Harbour and Broadsea |
| | 74.7 | A | Fraserburgh Lochpots |
| | 79.5 | G | Fraserburgh Smiddyhill |
| | 85.3 | G | Fyvie-Rothie |
| | 76 | A | Gardenstown and King Edward |
| | 84.1 | G | Garlogie and Elrick |
| | 79.5 | G | Howe of Alford |
| | 76.8 | G | Huntly |
| | 76.7 | G | Insch, Oyne and Ythanwells |
| | 79.7 | G | Inverurie North |
| | 75.2 | A | Inverurie South |
| | 76 | A | Kemnay |

| Council Area | Male L.E. (years) | Traffic Light | Intermediate Zone Name |
|---|---|---|---|
| Aberdeenshire | 81.6 | G | Kintore and Blackburn |
| | 78.3 | G | Longside and Rattray |
| | 79.3 | G | Macduff |
| | 78.2 | G | Mearns and Laurencekirk |
| | 80.4 | G | Mearns North and Inverbervie |
| | 79.3 | G | Mearns South and Benholm |
| | 78.3 | G | Mintlaw |
| | 76.8 | G | New Pitsligo |
| | 81.3 | G | Newmachar and Fintray |
| | 82.9 | G | Newtonhill |
| | 76.5 | A | Peterhead Bay |
| | 71.1 | R | Peterhead Harbour |
| | 77.8 | G | Peterhead Links |
| | 81.6 | G | Peterhead Ugieside |
| | 81.2 | G | Portlethen |
| | 77.5 | G | Portsoy, Fordyce and Cornhill |
| | 77.1 | G | Rosehearty and Strathbeg |
| | 80.1 | G | Stonehaven North |
| | 78.7 | G | Stonehaven South |
| | 79.2 | G | Turriff |
| | 81.5 | G | Westhill Central |
| | 78.9 | G | Westhill North and South |
| | 82.9 | G | Ythanside |
| | 81.1 | G | Ythsie |
| Moray | 77.4 | G | Moray – All Intermediate Zones |
| | 76.2 | A | Buckie Central East |
| | 75.4 | A | Buckie West and Mains of Buckie |
| | 80.6 | G | Burghead, Roseisle and Laich |
| | 78.1 | G | Cullen, Portknockie, Findochty, Drybridge and Berryhillock |
| | 77.7 | G | Elgin Bishopmill East and Ladyhill |
| | 73.7 | A | Elgin Bishopmill West and Newfield |
| | 73.6 | A | Elgin Cathedral to Ashgrove and Pinefield |
| | 81.4 | G | Elgin Central West |
| | 83.8 | G | Findhorn, Kinloss and Pluscarden Valley |
| | 76.4 | A | Fochabers, Aultmore, Clochan and Ordiquish |
| | 78.3 | G | Forres Central East and seaward |
| | 75.7 | A | Forres South West and Mannachie |
| | 78.7 | G | Heldon West, Fogwatt to Inchberry |
| | 74.8 | A | Keith and Fife Keith |
| | 77.3 | G | Lhanbryde, Urquhart, Pitgavney and seaward |
| | 78.3 | G | Lossiemouth East and Seatown |
| | 77.7 | G | Lossiemouth West |

| Council Area | Male L.E. (years) | Traffic Light | Intermediate Zone Name |
|---|---|---|---|
| Moray | 78.5 | G | Mosstodloch, Portgordon and seaward |
| | 75.9 | A | New Elgin East |
| | 78.4 | G | New Elgin West |
| | 77.4 | G | North Speyside |
| | 81.8 | G | Rafford, Dallas, Dyke to Dava |
| | 81.1 | G | Rural Keith and Strathisla |
| | 78.9 | G | South Speyside and the Cabrach |

Key to traffic lights:

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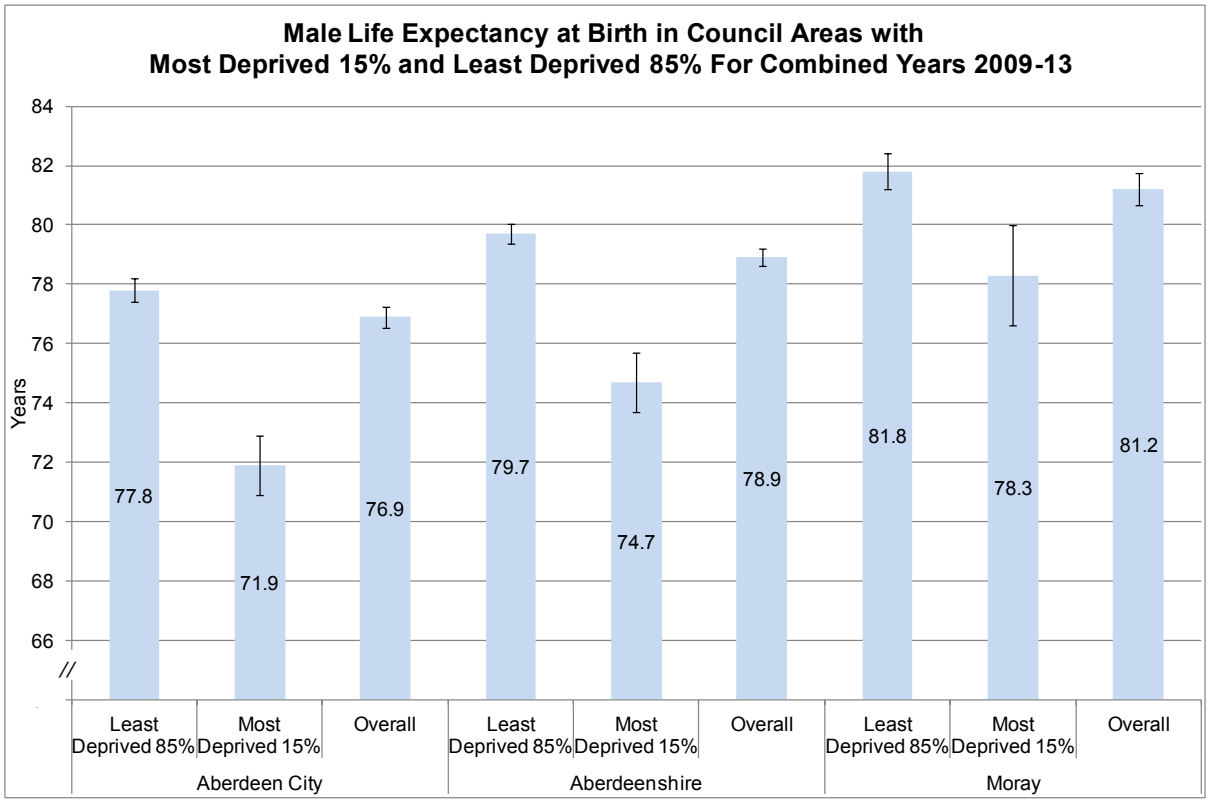
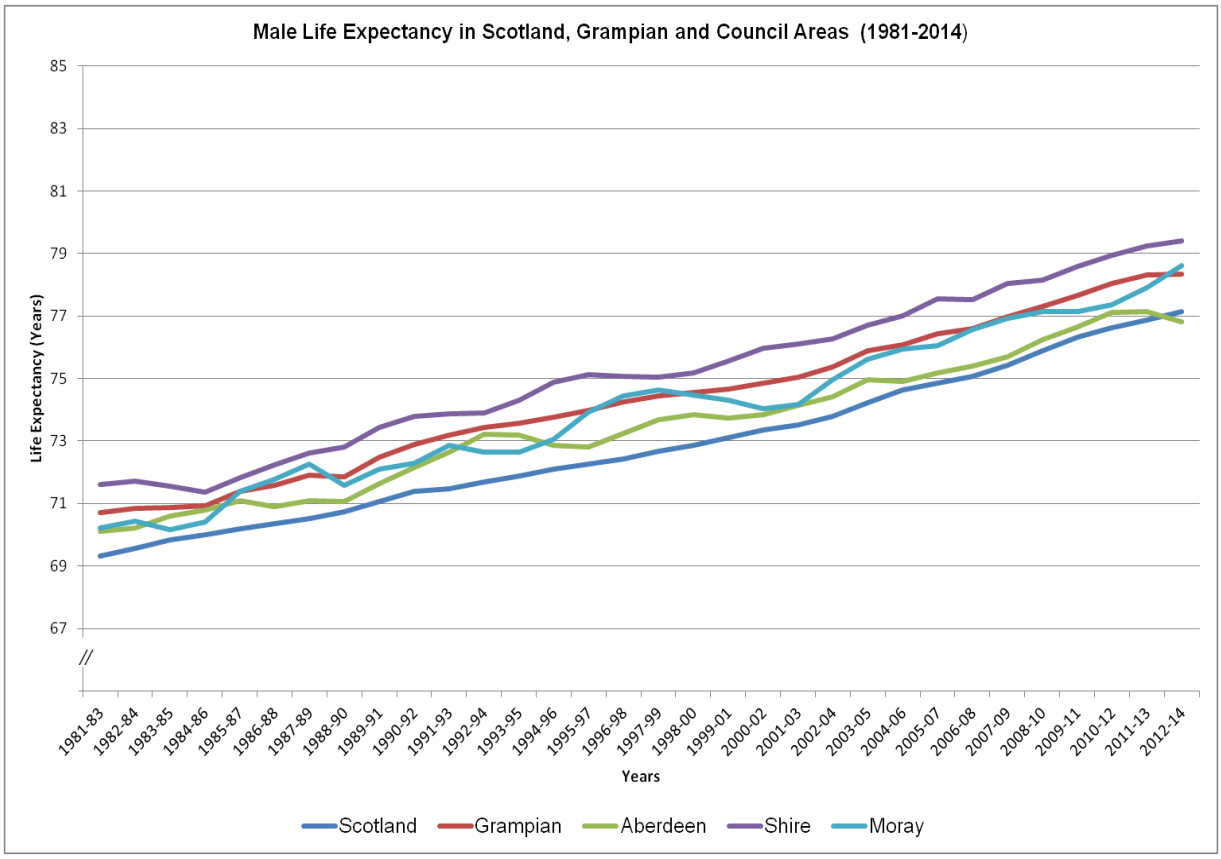
| R | Worse than Scotland by more than 5% |
| A | Worse than Scotland but within 5% |
| G | Better than or equal to Scotland |




95% confidence intervals have been drawn for each category. For each council area the confidence intervals for the 15% most and 85% least deprived do not overlap, which indicates that the difference between the most and least deprived is significant at the 5% level.





1 National Records of Scotland (2015) Life Expectancy for Areas in Scotland, 2012-2014 http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/life-expectancy/life-expectancy-in-scottish-areas/2012-2014/list-of-tables (accessed 28/9/2016)

2 ScotPHO(2015) Deprivation Profiles https://scotpho.nhsnss.scot.nhs.uk/scotpho/homeAction.do (accessed 28/9/2016)

3 ScotPHO Health & Wellbeing Profiles (2015) Life Expectancy in Intermediate Zones, 2009-2013 https://scotpho.nhsnss.scot.nhs.uk/scotpho/homeAction.do (accessed 28/9/2016)

## 2.2 Female Life Expectancy at Birth

Summary for NHS Grampian

In Grampian, girls born between 2012 and 2014, have an average life expectancy of 81.8 years[1], which is above the Scottish average. In Aberdeen, life expectancy at birth is 81.1 years for women, the same as the Scottish average, and places Aberdeen at rank 19 of the 32 council areas across Scotland.

For girls in the 20% most deprived areas of Grampian born since 2009, life expectancy at birth is 4.4 years less than those in the 20% least deprived areas of Grampian.[2]

The trend in life expectancy from 1981 to 2014 continues to increase for females in Aberdeenshire and Moray, but, for the first time, not for female residents of Aberdeen City. Since 1981 life expectancy has been consistently better than the Scottish average for females in Aberdeenshire and Moray, this was also the case with Aberdeen City until 2014.

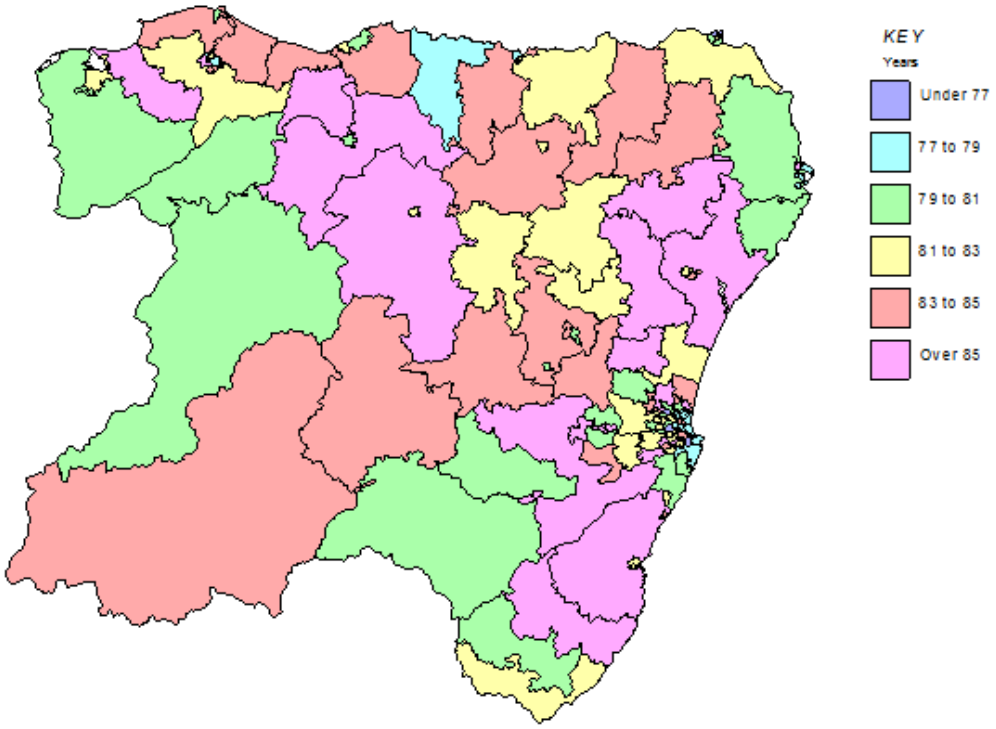
Indicator Definition

Life expectancy at birth for females in years.

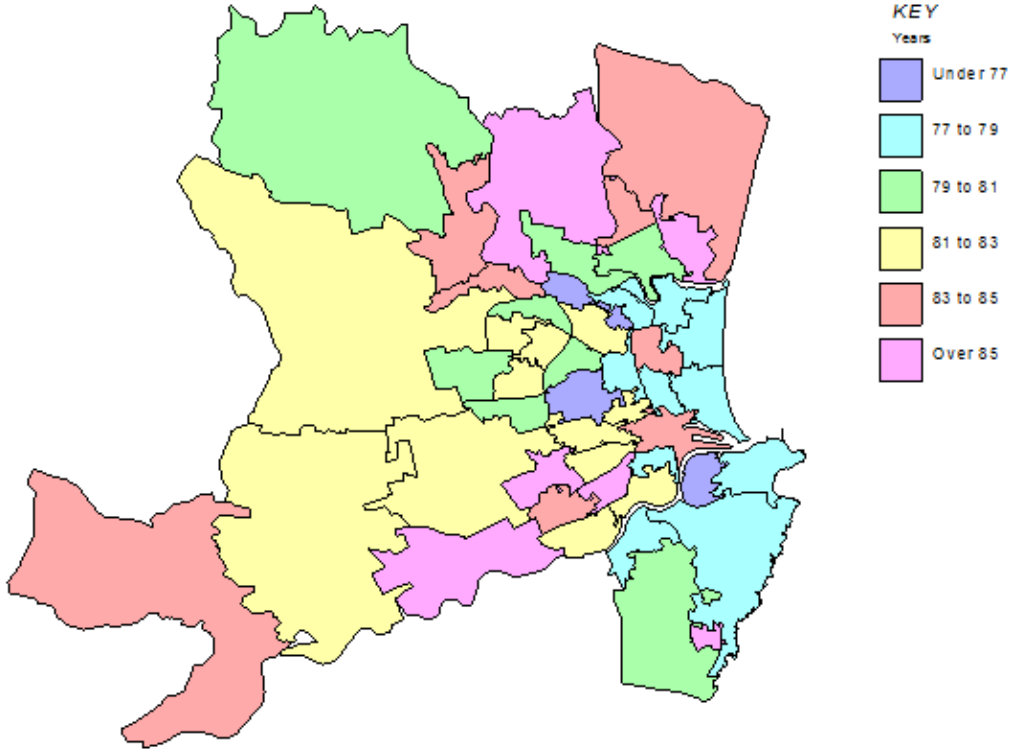
Rationale

All cause mortality is a fundamental and probably the oldest measure of the health status of a population. Differences in levels of all-cause mortality reflect health inequalities between different population groups, e.g. between genders, social classes and ethnic groups. Life expectancy at birth is chosen as the preferred summary measure of all cause mortality as it quantifies the differences between areas in units (years of life) that are more readily understood and meaningful to the audience.

Female Life Expectancy in Grampian (2009-13) by Intermediate Zone




Female Life Expectancy in Aberdeen City (2009-13) by Intermediate Zone
(From 2015 Health & Wellbeing Profiles)



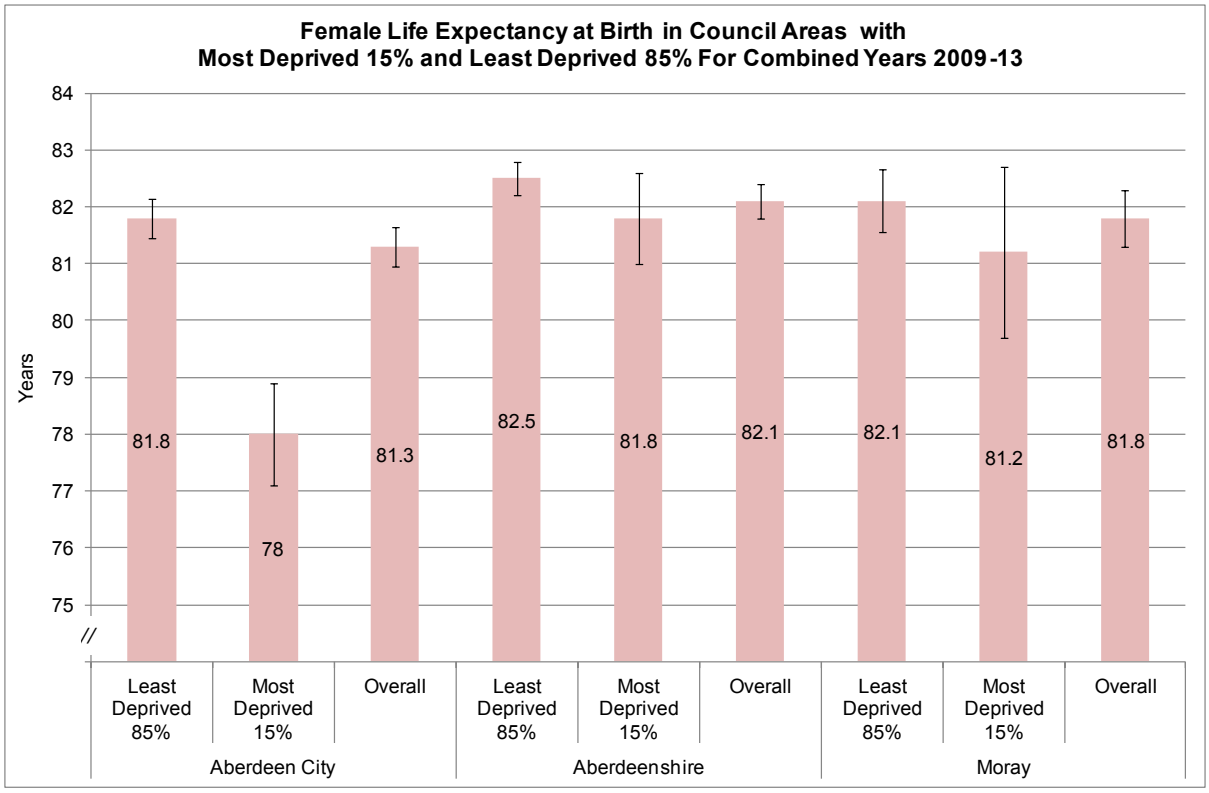
**Female Life Expectancy (2009-13) by Intermediate Zone[3]**

| Council Area | Female L.E. (years) | Traffic Light | Intermediate Zone Name |
|---|---|---|---|
| Scotland | 80.8 | - | Scotland – All Intermediate Zones |
| Aberdeen City | 81.2 | G | Aberdeen City – All Intermediate Zones |
| | 77.5 | A | Ashgrove |
| | 87 | G | Balgownie and Donmouth East |
| | 80.4 | A | Balgownie and Donmouth West |
| | 85.1 | G | Braeside, Mannofield, Broomhill and Seafield East |
| | 85.2 | G | Braeside, Mannofield, Broomhill and Seafield North |
| | 84.1 | G | Braeside, Mannofield, Broomhill and Seafield South |
| | 84.8 | G | Bucksburn North |
| | 84.7 | G | Bucksburn South |
| | 83.3 | G | City Centre |
| | 78.5 | A | Cove North |
| | 85.7 | G | Cove South |
| | 83.2 | G | Culter |
| | 85.4 | G | Cults, Bieldside and Milltimber East |
| | 82.9 | G | Cults, Bieldside and Milltimber West |
| | 81.9 | G | Cummings Park |
| | 81 | G | Danestone |
| | 84.9 | G | Denmore |
| | 81 | G | Dyce |
| | 78 | A | Ferryhill North |
| | 81.8 | G | Ferryhill South |
| | 83.2 | G | Froghall, Powis and Sunnybank |
| | 81.1 | G | Garthdee |
| | 78 | A | George Street |
| | 79 | A | Hanover |
| | 82.6 | G | Hazlehead |
| | 79.5 | A | Heathryfold and Middlefield |
| | 82.4 | G | Hilton |
| | 78.8 | A | Kincorth, Leggart and Nigg North |
| | 80.8 | G | Kincorth, Leggart and Nigg South |
| | 81.8 | G | Kingswells |
| | 82.9 | G | Mastrick |
| | 75 | R | Midstocket |
| | 82.7 | G | Northfield |
| | 77.9 | A | Old Aberdeen |
| | 83.4 | G | Oldmachar East |
| | 86.1 | G | Oldmachar West |
| | 82.9 | G | Rosemount |
| | 77.1 | A | Seaton |
| | 80.0 | A | Sheddocksley |

| Council Area | Female L.E. (years) | Traffic Light | Intermediate Zone Name |
|---|---|---|---|
| Aberdeen City | 80.3 | A | Stockethill |
| | 80.8 | G | Summerhill |
| | 78.8 | A | Tillydrone |
| | 78.8 | A | Torry East |
| | 75.9 | A | Torry West |
| | 82.7 | G | West End North |
| | 82.5 | G | West End South |
| | 74.9 | R | Woodside |
| Aberdeenshire | 82.1 | G | Aberdeenshire – All Intermediate Zones |
| | 84.7 | G | Aberchirder and Whitehills |
| | 80.9 | G | Aboyne and South Deeside |
| | 90.9 | G | Auchnagatt |
| | 83.3 | G | Auchterless and Monquhitter |
| | 81.8 | G | Balmedie and Potterton |
| | 85.8 | G | Banchory |
| | 80.2 | A | Banchory-Devenick and Findon |
| | 78.1 | A | Banff |
| | 81.8 | G | Barrahill |
| | 89.1 | G | Clashindarroch |
| | 80.9 | G | Crathes and Torphins |
| | 83.5 | G | Cromar and Kildrummy |
| | 79.7 | A | Cruden |
| | 84.4 | G | Deer and Mormond |
| | 86.2 | G | Dunecht, Durris and Drumoak |
| | 84.9 | G | Durno-Chapel of Garioch |
| | 84.3 | G | East Cairngorms |
| | 84.8 | G | Ellon East |
| | 82.9 | G | Ellon West |
| | 85.6 | G | Fetteresso Netherley and Catter |
| | 81.8 | G | Fraserburgh Central-Academy |
| | 75 | R | Fraserburgh Harbour and Broadsea |
| | 80 | A | Fraserburgh Lochpots |
| | 80.3 | A | Fraserburgh Smiddyhill |
| | 82.9 | G | Fyvie-Rothie |
| | 82 | G | Gardenstown and King Edward |
| | 91.4 | G | Garlogie and Elrick |
| | 84.5 | G | Howe of Alford |
| | 82.2 | G | Huntly |
| | 81.2 | G | Insch, Oyne and Ythanwells |
| | 84.4 | G | Inverurie North |
| | 80.3 | A | Inverurie South |
| | 80.2 | A | Kemnay |

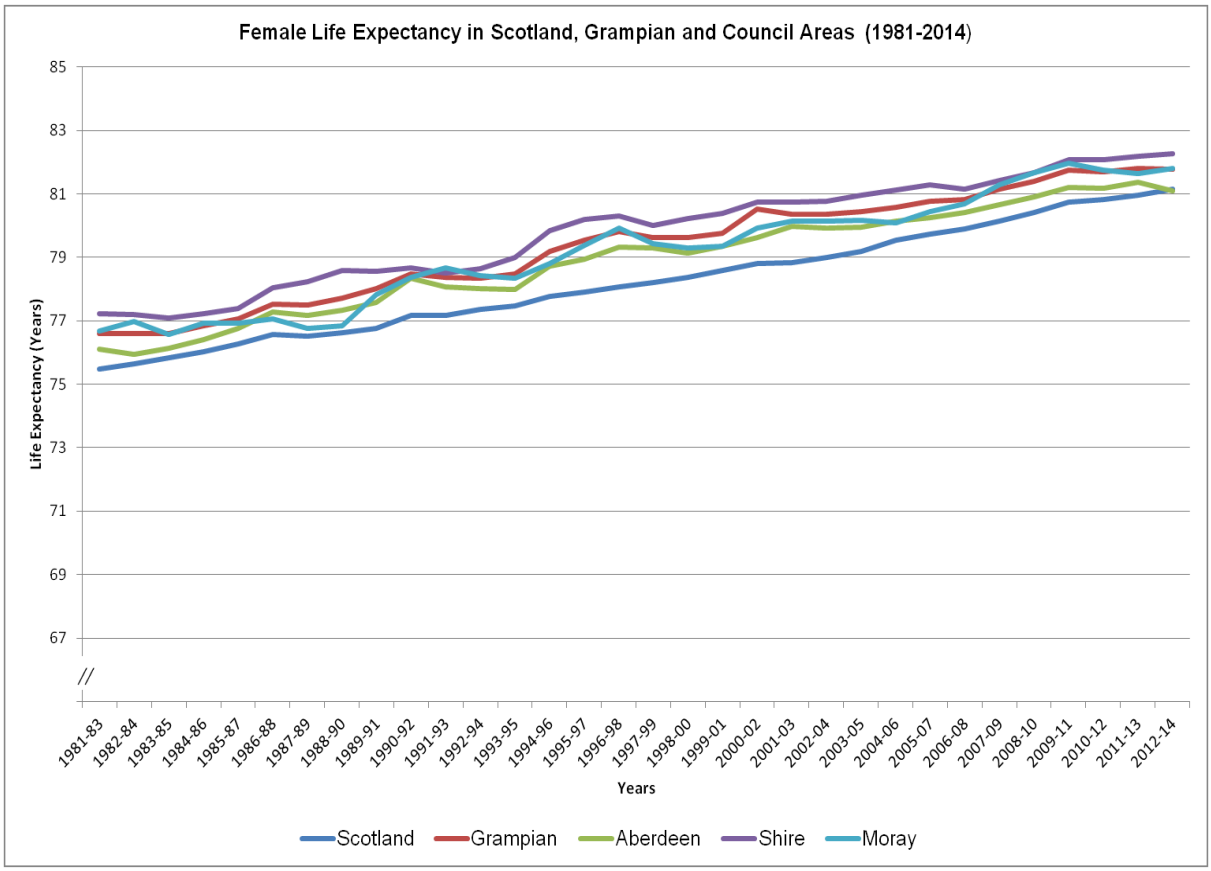
| Council Area | Female L.E. (years) | Traffic Light | Intermediate Zone Name |
|---|---|---|---|
| Aberdeenshire | 84.9 | G | Kintore and Blackburn |
| | 80.4 | A | Longside and Rattray |
| | 84.4 | G | Macduff |
| | 80.4 | A | Mearns and Laurencekirk |
| | 85.7 | G | Mearns North and Inverbervie |
| | 82.8 | G | Mearns South and Benholm |
| | 86.4 | G | Mintlaw |
| | 83.6 | G | New Pitsligo |
| | 85.6 | G | Newmachar and Fintray |
| | 83.9 | G | Newtonhill |
| | 79.1 | A | Peterhead Bay |
| | 77.3 | A | Peterhead Harbour |
| | 79 | A | Peterhead Links |
| | 85.1 | G | Peterhead Ugieside |
| | 81.5 | G | Portlethen |
| | 77.7 | A | Portsoy, Fordyce and Cornhill |
| | 82.4 | G | Rosehearty and Strathbeg |
| | 81.9 | G | Stonehaven North |
| | 81.6 | G | Stonehaven South |
| | 81.3 | G | Turriff |
| | 86.2 | G | Westhill Central |
| | 79.5 | A | Westhill North and South |
| | 87.7 | G | Ythanside |
| | 86 | G | Ythsie |
| Moray | 81.7 | G | Moray – All Intermediate Zones |
| | 81 | G | Buckie Central East |
| | 81.3 | G | Buckie West and Mains of Buckie |
| | 84.6 | G | Burghead, Roseisle and Laich |
| | 83.1 | G | Cullen, Portknockie, Findochty, Drybridge and Berryhillock |
| | 81.2 | G | Elgin Bishopmill East and Ladyhill |
| | 79 | A | Elgin Bishopmill West and Newfield |
| | 78.6 | A | Elgin Cathedral to Ashgrove and Pinefield |
| | 86.7 | G | Elgin Central West |
| | 88.7 | G | Findhorn, Kinloss and Pluscarden Valley |
| | 85.4 | G | Fochabers, Aultmore, Clochan and Ordiquish |
| | 82.1 | G | Forres Central East and seaward |
| | 79.3 | A | Forres South West and Mannachie |
| | 81.7 | G | Heldon West, Fogwatt to Inchberry |
| | 81 | G | Keith and Fife Keith |
| | 84.2 | G | Lhanbryde, Urquhart, Pitgavney and seaward |
| | 83.4 | G | Lossiemouth East and Seatown |
| | 80.7 | A | Lossiemouth West |

| Council Area | Female L.E. (years) | Traffic Light | Intermediate Zone Name |
|---|---|---|---|
| | 84.2 | G | Mosstodloch, Portgordon and seaward |
| | 83.7 | G | New Elgin East |
| | 84.3 | G | New Elgin West |
| | 80.9 | G | North Speyside |
| | 80.2 | A | Rafford, Dallas, Dyke to Dava |
| | 87.4 | G | Rural Keith and Strathisla |
| | 80.3 | A | South Speyside and the Cabrach |




For both Aberdeenshire and Moray, the confidence intervals for the 15% most and 85% least deprived overlap, which indicates that the difference between the most and least deprived is not significant at the 5% level in these council areas.

For Aberdeen City the confidence intervals for the 15% most and 85% least deprived do not overlap, which indicates that the difference between the most and least deprived is significant at the 5% level.





1. National Records of Scotland (2015) Life Expectancy for Areas in Scotland, 2012-2014 http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/life-expectancy/life-expectancy-in-scottish-areas/2012-2014/list-of-tables (accessed 28/9/2016)

2. ScotPHO(2015) Deprivation Profiles https://scotpho.nhsnss.scot.nhs.uk/scotpho/homeAction.do (accessed 28/9/2016)

3. ScotPHO Health & Wellbeing Profiles (2015) Life Expectancy in Intermediate Zones, 2009-2013 http://www.scotpho.org.uk/comparative-health/profiles/online-profiles-tool (accessed 28/9/2016)

## 3.1 Primary Prevention - Cancer Incidence

Summary

Grampian trends[1] show an increase in the number of new cancer registrations from 1990 in males and females with some yearly fluctuations. This general increase can largely be explained by an ageing population and improvements in detection. After standardising for changes in population age over time, cancer rates in men are observed to decrease, in part reflecting a peak of smoking in men during the 1970s. The most common cancers diagnosed in Grampian are lung, colorectal, breast and prostate tumours. Over the five year period 2010 to 2014 (Table 1)[1], the age and sex-adjusted incidence for all cancers, lung cancer, and breast cancer (females) in Grampian was lower than the Scotland-level comparator.

Rationale

Cancer is one of the three biggest killers in Grampian[2]. Scotland is significantly below the European mean for lung, colorectal and breast cancers, and is positioned in the 3rd and 4th quartiles of the European countries for relative survival. For lung cancer, only Wales and Bulgaria have lower survival rates.[3]

The number of new cases of cancer is predicted to rise by 33% between 2008-2012 and 2023-2027, mainly as a result of the population growing older.[4]

Indicator Definitions

- Cancer registrations (count) by gender and single year
- European Age-Standardised Cancer Rate (EASR) per 100,000 population by gender and single year calculated using the European Standard Population that was revised in 2013 (ESP2013) and is not comparable to ESP1976
- Age and sex standardised Incidence Ratios
- ICD-10 Codes C00-C96 excluding C44

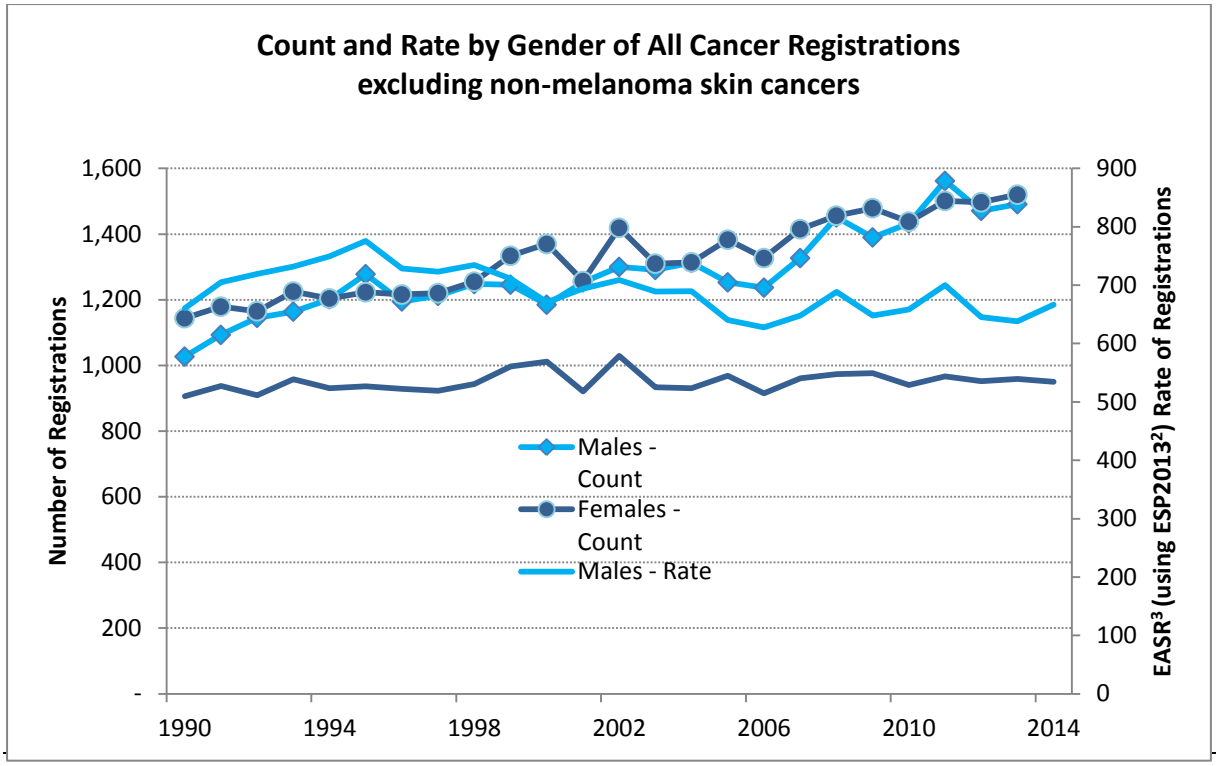

Count and Rate by Gender of All Cancer Registrations
excluding non-melanoma skin cancers
Number of Registrations
EASR[3] (using ESP2013[2]) Rate of Registrations
1,600
1,400
1,200
1,000
800
600
400
200
-
900
800
700
600
500
400
300
200
100
0
1990
1994
1998
2002
2006
2010
2014
Males - Count
Females - Count
Males - Rate

Table 1. Grampian resident population - annual incidence (count) and Standardised Incidence Ratios compared to Scotland level

| Cancer Site / Tumour Group | Annual Registrations (count) | | | | | Standardised Incidence Ratio (SIR) | | |
|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 5 yr period 2010-2014 | Lower 95% CI | Upper 95% CI |
| **All cancers** excluding non-melanoma skin cancer ICD-10 C00-C96 excluding C44 | 2871 | 3063 | 2968 | 3011 | 3122 | 92.3 | 90.9 | 93.8 |
| **Trachea, bronchus and lung** ICD-10 C33-C34 | 396 | 407 | 373 | 420 | 460 | 76.2 | 73.0 | 79.6 |
| **Colorectal cancer** ICD-10 C18-C20 | 378 | 408 | 395 | 339 | 346 | 91.8 | 87.7 | 96.0 |
| **Breast ( Females )** ICD-10 C50 | 444 | 419 | 438 | 449 | 437 | 92.6 | 88.7 | 96.5 |
| **Prostate** ICD-10 C61 | 310 | 360 | 362 | 376 | 352 | 106.1 | 101.2 | 111.2 |

When comparing a small numbers of observed events or individuals, apparent differences between areas may be due to random variation. The standardised incidence ratios (SIR) shown, summarise the occurrence of new cancer cases diagnosed in Grampian over a five year period relative to a Scotland-level comparator (with a value of 100), and a 95% confidence interval range is used to quantify the imprecision in the summary estimate.


1. ISD (2016) Data Tables of Cancer Incidence in Scotland from http://www.isdscotland.org/Health-Topics/Cancer/Publications/data-tables.asp?id=1449#1449 (accessed 28/9/2016)
2. National Records of Scotland (2016) Causes of Death Table 6.3 from http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/vital-events-reference-tables/2015/section-6-deaths-causes (accessed 21/9/2016)
3. The Lancet (2014) Cancer survival in Europe 1999—2007 by country and age: results of EUROCARE-5—a population-based study from https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S1470204513705461?returnurl=null&referrer=null (with appropriate login)(accessed 28/9/2016)
4. ISD (2016) Cancer Incidence Projections Scotland 2013-2027 from https://isdscotland.scot.nhs.uk/Health-Topics/Cancer/Publications/2015-08-18/2015-08-18-Cancer-Incidence-Projections-Report.pdf?24731081725 (accessed 28/9/2016)

### 3.2 Secondary Prevention - Early Stage 1 Disease at Diagnosis

Summary

Grampian has a smaller proportion of patients diagnosed with breast, colorectal and lung cancer at the earliest stage, compared to Scotland as a whole (Table 2). The rate of relative improvement between the baseline and year 4 in Grampian is -0.6%, compared to Scotland at 8% (Table 3). Both are below the Local Delivery Plan standard of 25%, showing that the standard has not been met in its final year.

The Grampian percentage of Stage Not Known has reduced for breast cancer (from 22.5% to 20.3%), lung cancer (from 6.9% to 6%) and colorectal cancer (from 14.6% to 12.7%) since the baseline year.

Rationale

The national Detect Cancer Early (DCE) programme was formally launched in February 2012, to improve five-year survival for people in Scotland diagnosed with cancer. The NHS Scotland-level delivery target is to increase the proportion of people diagnosed and treated in the first stage of breast, colorectal and lung cancer by 25% by 2014/ 2015.

Indicator Definitions

Proportion of people with stage 1 disease at diagnosis. The 2010 and 2011 data were combined to get more stable baseline figures, and then compared to year 1 (2011 and 2012 combined), year 2 (2012 and 2013 combined), year 3 (2013 and 2014 combined) and year 4 (2014 and 2015 combined).

Table 2. DCE Staging Data Year 4 for Stage 1 and Stage Not Known

| **Year 4, (2014 & 2015 Combined)** | **Scotland Level** | | | **NHS Grampian (NHSG) by residence** | | |
|---|---|---|---|---|---|---|
| | **Stage 1 Number** | **Stage 1 %** | **Stage Not Known %** | **Stage 1 Number** | **Stage 1 %** | **Stage Not Known %** |
| **Breast Cancer** | 3481 | 40.5% | 3.0% | 287 | 35.9% | 20.3% |
| **Colorectal Cancer** | 1018 | 15.4% | 9.8% | 73 | 10.9% | 12.7% |
| **Lung Cancer** | 1709 | 17.9% | 4.8% | 98 | 12.1% | 6.0% |
| **DCE Combined** | 6208 | 25.1% | 5.5% | 458 | 20.1% | 13% |

Table 3. Staging Performance and Relative Percentage Change from Baseline to Years 1 to 4.

| Area of Residence | Scotland | | | NOSCAN | | | NHS Grampian | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number | % | % Change from Baseline | Number | % | % Change from Baseline | Number | % | % Change from Baseline |
| **Baseline** | 5550 | 23.2% | | 1299 | 22.2% | | 438 | 20.2% | |
| **Year 1** | 5906 | 24.0% | 3.5% | 1307 | 22.2% | 0.2% | 456 | 20.8% | 3.0% |
| **Year 2** | 6020 | 24.3% | 5.0% | 1344 | 22.5% | 1.7% | 460 | 21.3% | 5.4% |
| **Year 3** | 6143 | 24.7% | 6.7% | 1336 | 22.5% | 1.5% | 448 | 20.2% | 0.1% |
| **Year 4** | 6208 | 25.1% | 8.0% | 1332 | 22.0% | -0.7% | 458 | 20.1% | -0.6% |

## Data Caveats

It has been acknowledged[1] that the variation in the percentage of Stage 1 cancers diagnosed may reflect, at least in part, variation in the percentage of 'Stage Not Known', both at cancer-type and Health Board level.

The Stage 1 percentage can vary because of a number of other factors including the presence and uptake of national screening programmes.

Lung cancer - possible local factors may include a low lung cancer incidence relative to Scotland level, and a lower prevalence of severe respiratory and cardiac disease in Grampian which may result in a smaller number of 'opportunistic' chest x-ray diagnoses of early stage disease.

Colorectal cancer - the number of detected cancers is likely to decrease with subsequent bowel screening rounds (2 year screening cycle length), as pre-malignant adenomas can be detected and removed following a positive screening test. Uptake for bowel cancer screening is amongst the highest in Scotland (the second highest of the mainland boards for the two years to October 2015).[2]

Breast cancer - a large proportion of NHS Grampian breast cancer cases are coded as stage "not known" at diagnosis. Clinical staging, required for the ISD staging protocol, is not routinely recorded at multidisciplinary team meetings as other more valid prognostic indicators are used by local clinicians. Uptake for breast screening is amongst the highest in Scotland (the highest of the mainland boards for the three years to March 2015).[3]

1 ISD (2016) Detecting Cancer Early Staging Data Baseline and Year 4 available from http://www.isdscotland.org/Health-Topics/Cancer (accessed 21/9/2016)

2 ISD (2016) Bowel Screening by Health Board http://www.isdscotland.org/Health-Topics/Cancer/Bowel-Screening/ (accessed 21/9/2016)

3 ISD (2016) Breast Screening by Health Board http://www.isdscotland.org/Health-Topics/Cancer/Breast-Screening/ (accessed 21/9/2016)

### 3.3 Premature Deaths (under 75) from Cancer

Summary

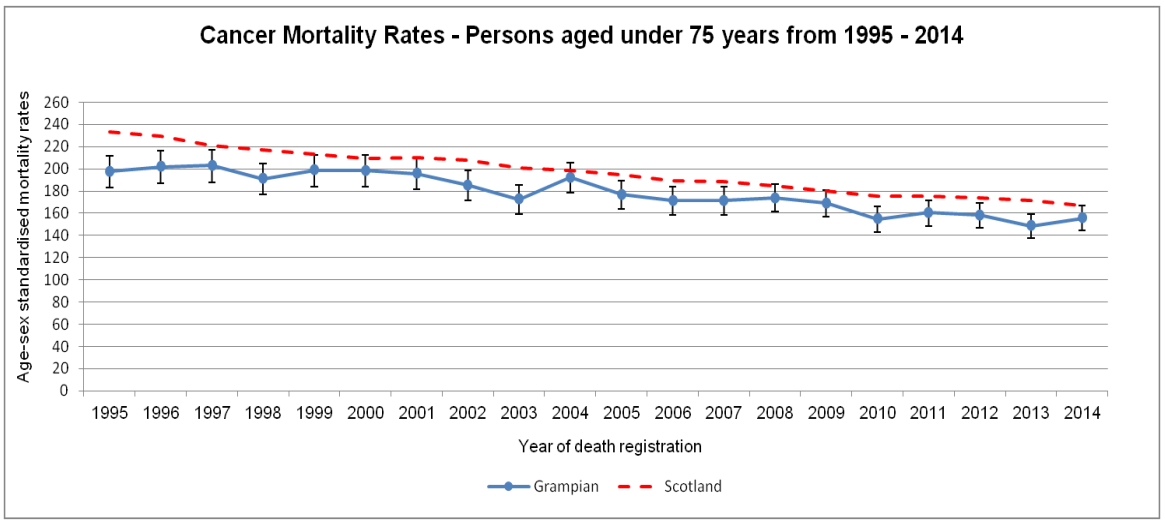
There has been a gradual decline in premature death rates from cancer in Grampian[1].

Rationale

Cancer is one of the three biggest killers in Grampian, accounting for 28% of all deaths in Grampian in 2015.[2] It is well-recognised that deprivation is associated with cancer mortality: between 2010 and 2014, mortality rates were over two-thirds higher in the most deprived compared with the least deprived areas of Scotland.[3]

Indicator Definition

European age-sex standardised rate per 100,000 population of all cancer types including non-melanoma skin cancer (ICD-10 C00-C97), by year of death registration.




1 ISD (2015) Cancer Statistics Premature Deaths Under 75 available from http://www.isdscotland.org/Health-Topics/Cancer/Cancer-Statistics/All-Types-of-Cancer/ (accessed 21/9/2016)

2 National Records of Scotland (2016) Causes of Death Table 6.3 from http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/general-publications/vital-events-reference-tables/2015/section-6-deaths-causes (accessed 21/9/2016)

3 ISD (2015) Cancer Mortality Report available at https://www.isdscotland.org/Health-Topics/Cancer/Publications/2015-11-17/2015-11-17-CancerMortality-Report.pdf?42902773619 (accessed 21/9/2016)

## 4.1 Premature deaths (under 75) from Coronary Heart Disease and Stroke

Summary

The long term decline in premature deaths from coronary heart disease (CHD) and stroke has been sustained in Grampian over the past 10 years[1]. Such premature deaths tend to be more common among men than women, but this gender gap in relation to CHD has narrowed over time.

The average rate of decline in premature deaths from CHD has been greatest in men at 6 per 100,000 per year, compared to 2 per 100,000 per year for women.

The average rate of decline in premature deaths from stroke is at least three times slower for both men and women than the decline in premature deaths from CHD.

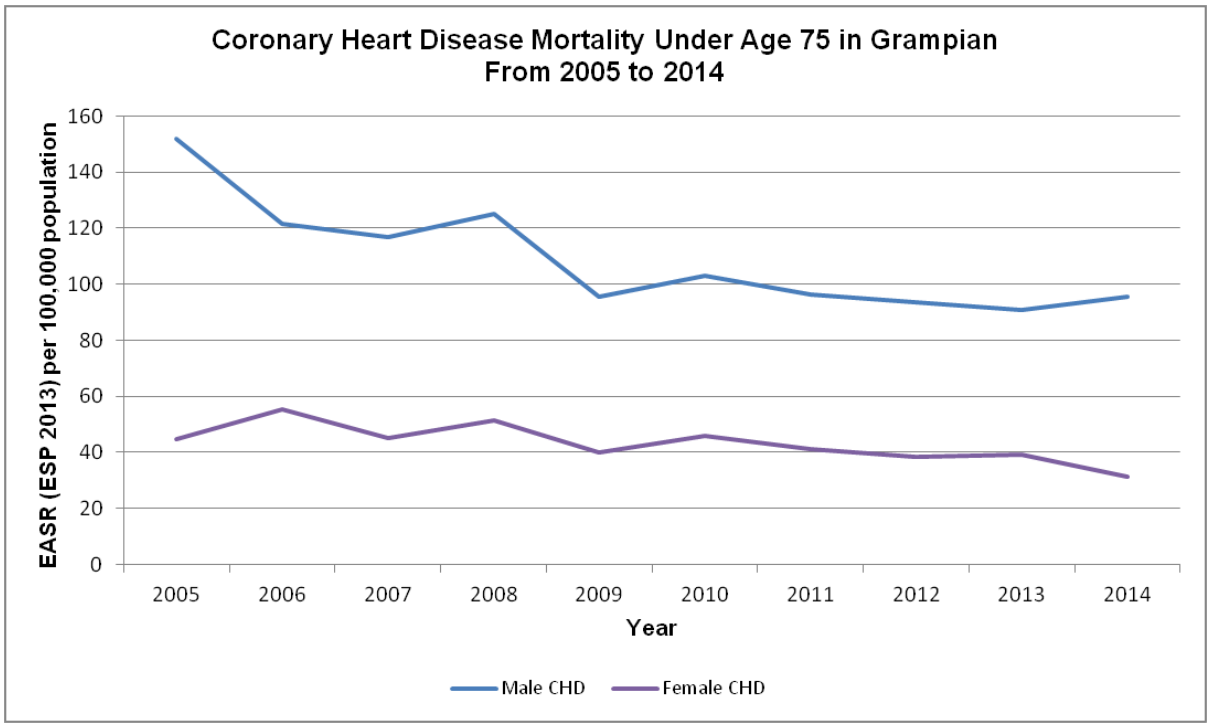
The observed decline in deaths from CHD and stroke is attributable to a combination of reduced levels of smoking in the population, improvements in the acute interventional care of myocardial infarction (MI) and stroke, and improved secondary prevention (with aspirin, statins, beta-blockers, ACE inhibitors and the control of blood pressure) in primary care.

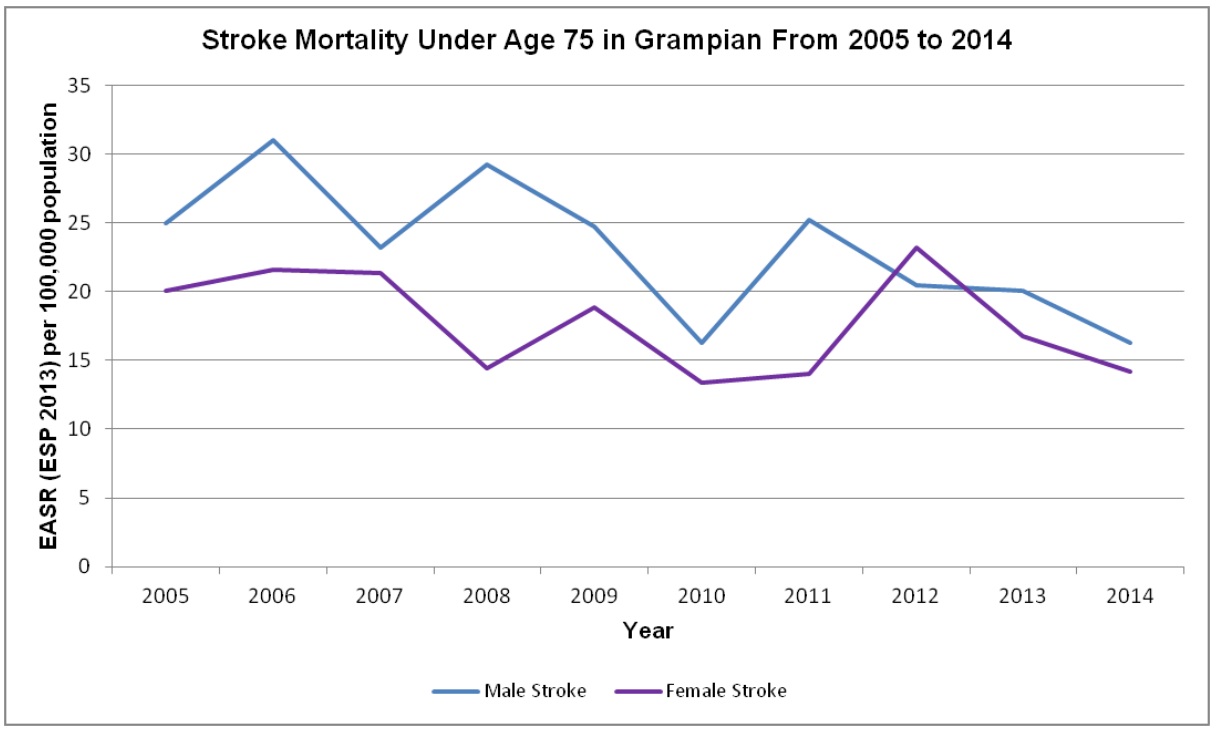
Indicator Definition

Trends in European age-sex standardised mortality rates (age under 75) from CHD and stroke.

Rationale

Scotland has the highest rates of premature mortality in the UK, as well as significant inequalities in premature mortality within Scotland. Reducing premature mortality is one of the Scottish Government's national indicators[2]. Cardiovascular disease is one of the big killer diseases.




1 ISD (2016) Deaths CHD and Stroke available at http://www.isdscotland.org/Health-Topics/Deaths/ (accessed 21/9/2016)

2 Scottish Government (2016) Scotland Performs National Indicators available at http://www.scotland.gov.uk/About/Performance/scotPerforms/indicator/mortality (accessed 21/9/2016)

## 5.1 Smoking Prevalence

Summary for NHS Grampian

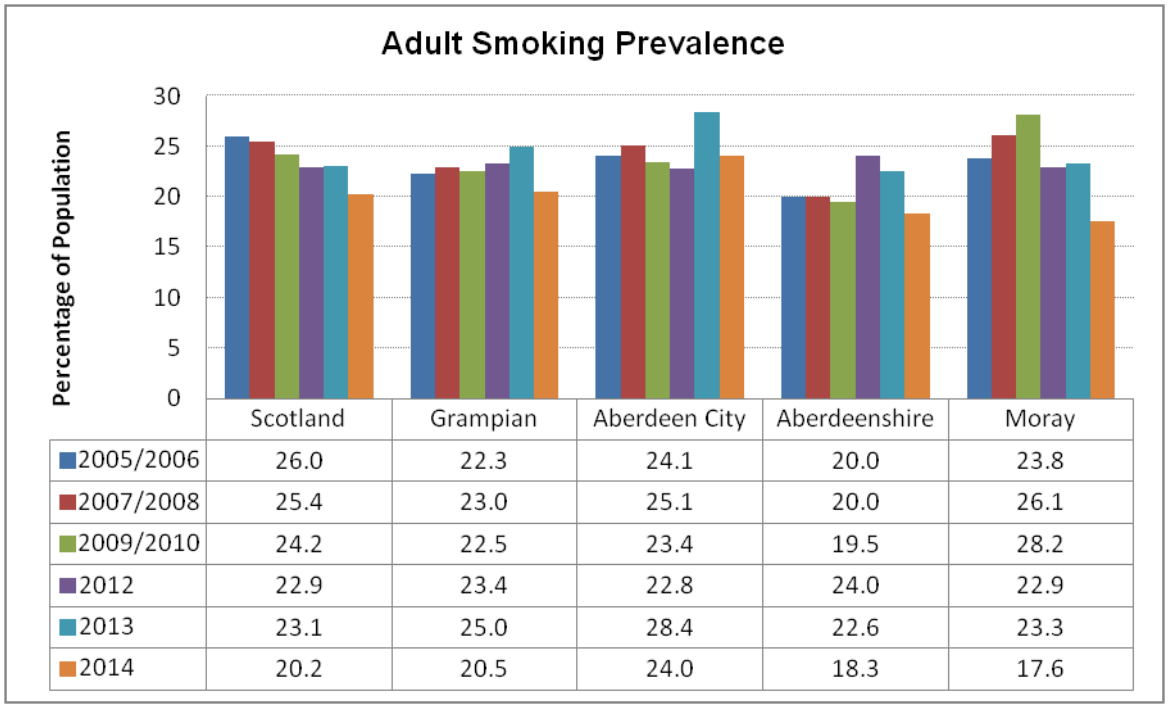
Smoking prevalence in Grampian has not been significantly different from Scotland since 2009. There is more fluctuation year on year at local authority level, due to small sample sizes.

Indicator Definition

For the Scottish Household Survey[1], adults aged 16 and over were asked "Do you smoke cigarettes nowadays?"

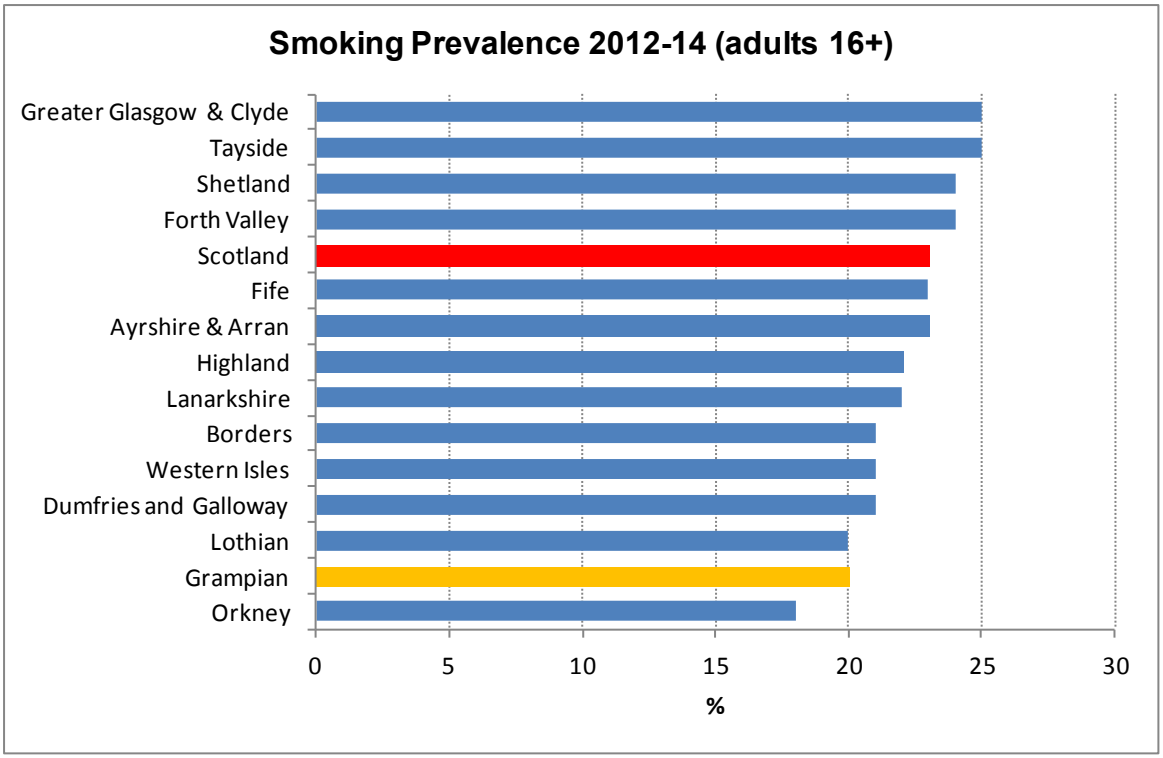
Rationale

Smoking is the most important preventable cause of ill-health and premature death in Scotland[2], with approximately 13,000 smoking-related deaths in 2009, (over 1,000 in Grampian) and an estimated 24.1% of premature deaths in Scotland. Smoking is also a major contributor to health inequalities, with some of the highest rates of smoking and smoking-related diseases found in the most disadvantaged communities.




| | Scotland | Grampian | Aberdeen City | Aberdeenshire | Moray |
|---|---|---|---|---|---|
| 2005/2006 | 26.0 | 22.3 | 24.1 | 20.0 | 23.8 |
| 2007/2008 | 25.4 | 23.0 | 25.1 | 20.0 | 26.1 |
| 2009/2010 | 24.2 | 22.5 | 23.4 | 19.5 | 28.2 |
| 2012 | 22.9 | 23.4 | 22.8 | 24.0 | 22.9 |
| 2013 | 23.1 | 25.0 | 28.4 | 22.6 | 23.3 |
| 2014 | 20.2 | 20.5 | 24.0 | 18.3 | 17.6 |

The chart below shows the Grampian prevalence compared to other health boards and Scotland from the Scottish Health Survey[4], with rates ranging from 18% to 25%.





1. Scottish Government (2015) Scottish Household Survey local authority tables 2014 available from http://www.scotland.gov.uk/Topics/Statistics/16002/PublicationAnnual (accessed 28/9/2016)

2. ScotPHO (2011) Smoking Ready Reckoner available from http://www.scotpho.org.uk/publications/reports-and-papers/868-smoking-ready-reckoner (accessed 28/9/2016)

3. ScotPHO (2015) Health and Wellbeing profiles available at http://www.scotpho.org.uk/comparative-health/profiles/online-profiles-tool (accessed 28/9/2016)

4. UK Data Service (2016) Scottish Health Survey 2012-14 data on obesity prevalence available from www.ukdataservice.ac.uk (with appropriate permission) (accessed 28/9/2016)

## 5.2 Reach of Smoking Cessation

Summary

The quit attempts made in Grampian in 2014 as a percentage of estimated adult smokers is 5.9% and is below the Scottish rate of 7.2%. The estimated percentage of pregnant smokers in Grampian attempting to quit using NHS cessation services in 2014 is 18.8% and is below the Scottish rate of 28.1%[1]. On this indicator NHS Grampian is at red, with three mainland boards performing less well.

Indicator Definition

Number of quit attempts made or quit dates set in 2014, as a percentage of adult smokers estimated from the Scottish Household Survey 2013.

Estimated percentage of pregnant smokers attempting to quit using NHS cessation services. SMR02 data for year ending March 2013 for numbers of pregnant smokers as the denominator.

Rationale

Whilst NHS Grampian has the sixth highest quit rate (self reported at one month) of all the mainland boards[1], there is concern at the relatively low percentage of quit attempts when expressed as a percentage of total smokers in Grampian.

| Health Board Area | Quit attempts made as a Percentage of adult smokers | | RAG 2014 |
|---|---|---|---|
| | 2013 | 2014 | |
| Ayrshire & Arran | 7.9% | 6.0% | R |
| Borders | 9.3% | 6.8% | A |
| Dumfries & Galloway | 12.7% | 7.7% | G |
| Fife | 9.5% | 6.3% | R |
| Forth Valley | 8.7% | 5.7% | R |
| Grampian | 8.1% | 5.9% | R |
| Greater Glasgow & Clyde | 12.7% | 8.9% | G |
| Highland | 8.3% | 6.0% | R |
| Lanarkshire | 13.2% | 8.6% | G |
| Lothian | 9.7% | 6.8% | A |
| Orkney | 4.0% | 3.6% | R |
| Shetland | 7.3% | 5.3% | R |
| Tayside | 10.7% | 6.7% | R |
| Western Isles | 3.6% | 3.3% | R |
| **Scotland** | **10.4%** | **7.2%** | |

| Health Board Area | Percentage of pregnant smokers attempting to quit using NHS cessation services | | RAG 2014 |
|---|---|---|---|
| | 2013 | 2014 | |
| Ayrshire & Arran | 13.7% | 13.3% | R |
| Borders | 27.1% | 42.2% | G |
| Dumfries & Galloway | 44.5% | 35.2% | G |
| Fife | 15.0% | 15.6% | R |
| Forth Valley | 18.8% | 17.2% | R |
| Grampian | 20.0% | 18.8% | R |
| Greater Glasgow & Clyde | 38.9% | 33.8% | G |
| Highland | 30.9% | 38.1% | G |
| Lanarkshire | 35.8% | 38.9% | G |
| Lothian | 28.5% | 35.5% | G |
| Orkney | 19.0% | 28.6% | G |
| Shetland | 28.6% | 28.6% | G |
| Tayside | 34.9% | 21.3% | R |
| Western Isles | 11.8% | 20.6% | R |
| **Scotland** | **28.8%** | **28.1%** | |

1 ISD (2015) NHS Smoking Cessation Services (Scotland) available at https://isdscotland.scot.nhs.uk/Health-Topics/Public-Health/Publications/2015-06-30/2015-06-30-SmokingCessation-Report.pdf?53210085631 (accessed 21/9/2016)

## 6.1 Drinking Prevalence from Scottish Health Survey

Summary

In recent years the Scottish Health Survey[1] findings on harmful and hazardous weekly drinkers tends to indicate that Grampian adults are no better or worse than the rest of Scotland, with a calculated prevalence in Grampian of 19% and 20% in Scotland in 2014. There is a marked difference between consumption in men and women: the average prevalence for the combined years 2012-2014 is 22% for men and 18% for women in Grampian.

Indicator Definition

| | Hazardous | Harmful (including dependent) |
|---|---|---|
| Men | 22-49 units per week | 50+ units per week |
| Women | 15-34 units per week | 35+ units per week |

The percentage of adults exceeding advised sensible limits for alcohol consumption which are (at the time of the survey) up to 14 units per week for women and up to 21 units per week for men, with 2 alcohol-free days each week.

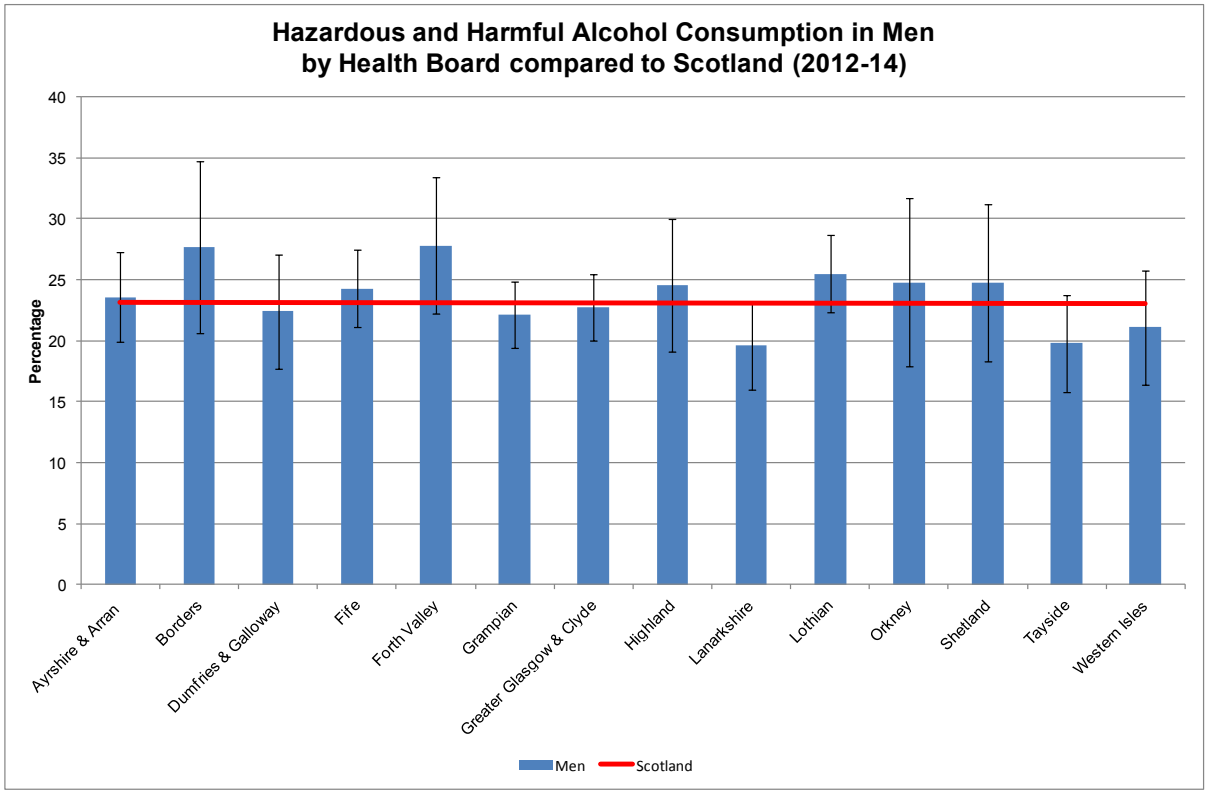
Rationale

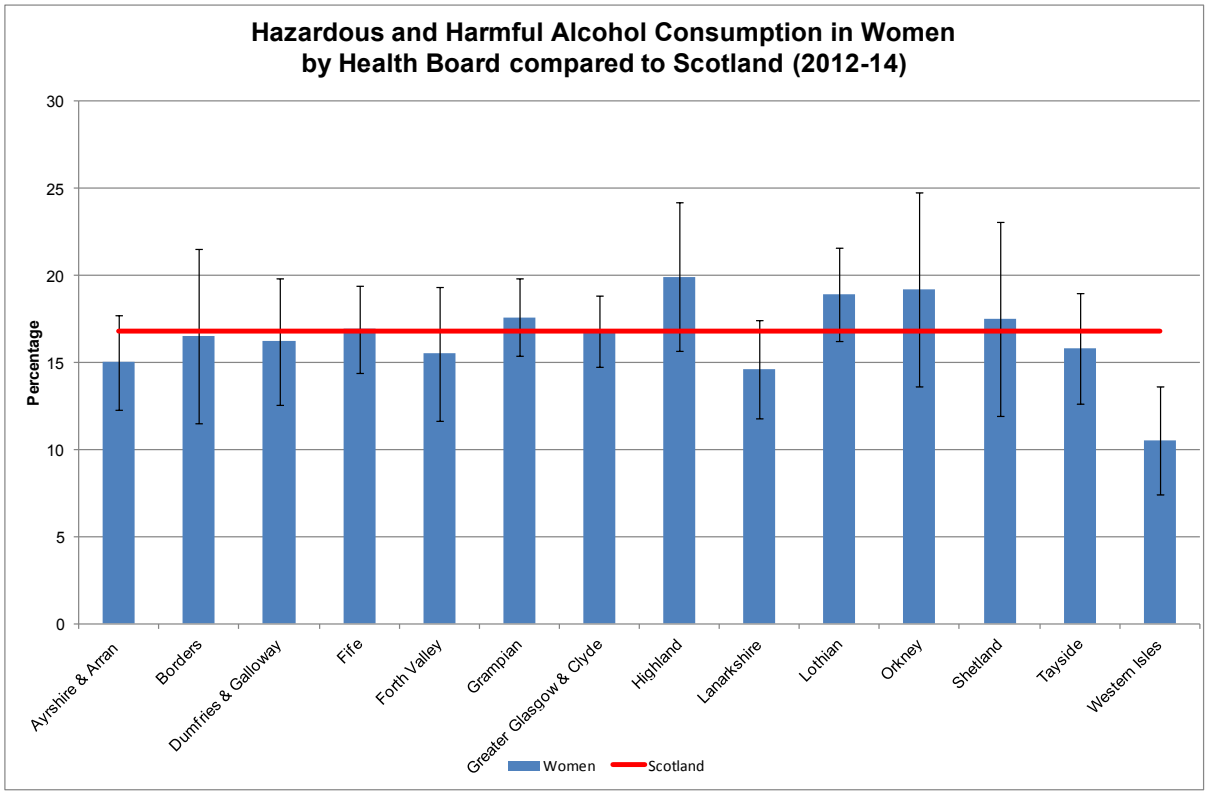
Alcohol consumption in the UK has risen since the 1930s and more than doubled since 1950, with the rise most notable from the early 1990s to 2003.[2,3]

Men and women who consume alcohol above sensible drinking levels are described as either “hazardous” drinkers, meaning their drinking may cause harm in the future, or “harmful drinkers”, meaning that their drinking is at a level that is already causing physical, social or psychological harm.

It has been estimated that 62,000 men and 43,000 women in Grampian are either hazardous or harmful drinkers.[4]

The charts below show the percentage of men and women in Grampian exceeding the sensible weekly limits, compared to other health boards, with 95% confidence intervals, and Scotland, for the combined years 2012-2014.[1]



1. UK Data Service (2015) Scottish Health Survey obesity prevalence available from www.ukdataservice.ac.uk (with appropriate permission).

2. Theall KP et al. The Neighbourhood Alcohol Environment and Alcohol Related Morbidity. Alcohol and Alcoholism, 2009;44: 491-99. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2800249/ (accessed 28/9/16)

3. Alcohol Focus Scotland (AFS)/Scottish Health Action on Alcohol Problems (SHAAP), 2011. *Rethinking Alcohol Licensing*: http://www.badp.scot.nhs.uk/__data/assets/pdf_file/0020/13655/RethinkAlcLicensFinpdf.pdf (accessed 28/9/2016)

4. NHS Grampian Substance Misuse Group (2014) Health Needs Assessment Alcohol and illicit drug use available from http://www.hi-netgrampian.org/wp-content/uploads/2015/02/Alcohol-and-Illicit-Drug-Use-Health-Needs-Assessment.pdf (accessed 28/9/2016)

## 6.2 Alcohol Brief Interventions

Summary

For year ending March 2016 Grampian exceeded its annual target of 6658 by 14%. GPs delivered 69% of the target, with genito-urinary medicine (GUM) delivering 16%, accident and emergency (A&E) 2% and 26% delivered in wider settings including Drug and Alcohol Partnerships, HealthPoints and Keep Well clinics.

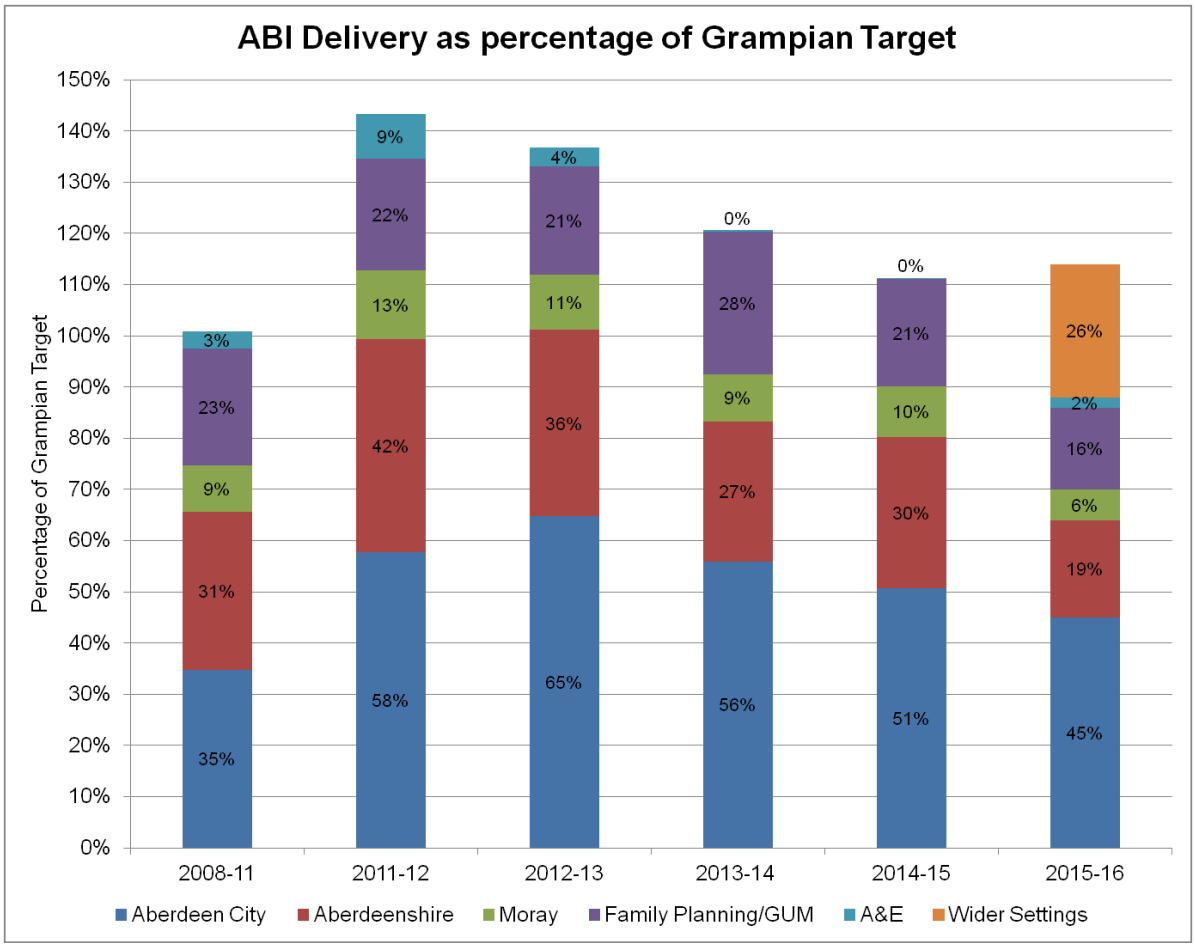
Based on Scottish estimates, a potential £1.3 million saving could be achieved by NHS Grampian in the first year if a 10% overall reduction in the average alcohol consumption could be achieved. This saving could amount to an estimated £19 million if the reduction in consumption was maintained over 10 years.[1]

Indicator Definition

Screening patients using the setting-appropriate screening tool and appropriate alcohol brief intervention, in line with SIGN 74 guidelines.

Rationale

There is a known association between alcohol consumption and health and wellbeing, with increasing consumption associated with over fifty health conditions (physical and mental) and a range of negative social, legal, and economic outcomes. Brief interventions in primary and secondary care are effective at reducing alcohol consumption and associated harms. The inclusion of opportunistic delivery of brief interventions as a HEAT target was in recognition that alcohol is now a significant enough social problem to warrant being put to the top of the clinical agenda.[2,3]





1 Dr Harry Burns (2011) Impact of health behaviours and health interventions on demand for and cost of NHS services Scottish Government Finance Committee Inquiry into preventative spending from http://archive.scottish.parliament.uk/s3/committees/finance/inquiries/preventative/cmo.pdf (accessed 28/9/2016)

2 Kaner, EFS., Dickinson, HO., Beyer, FR. Et al. (2007) *Effectiveness of brief alcohol interventions in primary care populations.* The Cochrane library http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004148.pub3/abstract (accessed 28/9/2016)

3 McQueen, J., Howe, TE., Allan, L. et al (2011) *Brief interventions for heavy alcohol users admitted to general hospital wards.* The Cochrane Library. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD005191.pub3/abstract (accessed 28/9/2016)

## 6.3 Directly Attributable Alcohol Related Hospital Admissions

Summary

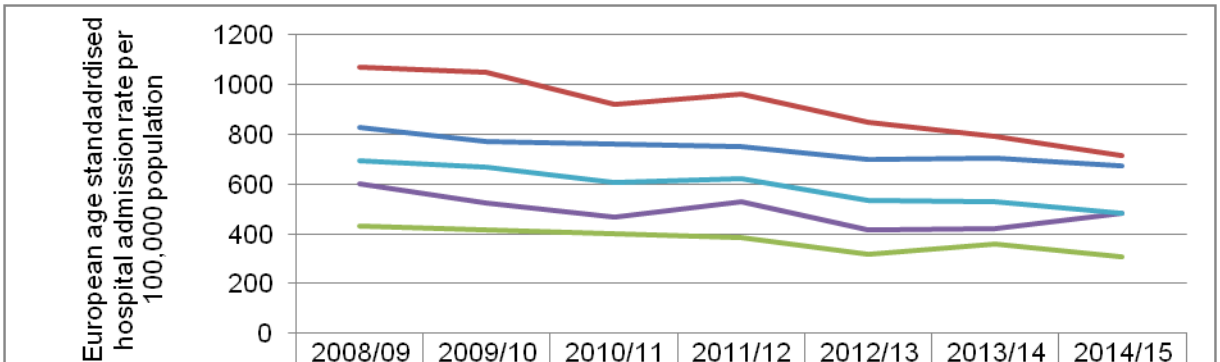
There has been an overall decrease in the rate of alcohol-related admissions to general acute hospitals in Grampian over the seven year period from 2008/09 to 2014/15 reflecting the national trend. Throughout the seven year period Aberdeen City has continued to have a higher rate of alcohol-related admissions compared to Scotland (713 per 100,000 in 2014/15 compared to 672 per 100,000 for Scotland).[1]

Indicator Definition

General acute inpatient and day case admissions with an alcohol-related diagnosis in any position. Diagnoses of conditions known to be a direct consequence of alcohol consumption.

Rationale

The acute or long term effects of excessive alcohol consumption are a major cause of avoidable hospital admissions. The short term effects of interventions aimed at reducing alcohol misuse may be monitored using more proximate measures (i.e. alcohol intake and surveys of drinking habits). However, it is important to be able to demonstrate that successful interventions ultimately impact on health.




| | 2008/09 | 2009/10 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 |
|---|---|---|---|---|---|---|---|
| Scotland | 828 | 772 | 760 | 750 | 699 | 706 | 672 |
| Aberdeen City | 1071 | 1051 | 923 | 960 | 849 | 794 | 713 |
| Aberdeenshire | 432 | 415 | 401 | 387 | 320 | 361 | 307 |
| Moray | 602 | 522 | 468 | 527 | 417 | 422 | 485 |
| Grampian | 696 | 669 | 604 | 621 | 532 | 531 | 485 |

1 ScotPHO Alcohol Profile Tool available at: http://www.scotpho.org.uk/comparative-health/profiles/online-profiles-tool (accessed 28/9/2016)

## 7.1 Child Obesity in Primary 1

Summary

In 2014/15 just under one in ten children in Grampian were found to be obese[1] (9.9%), just above the Scottish obesity level (9.8%), and seventh out of all health boards. This is a reduction from the previous year and brings Grampian much closer to the Scottish level. Two of the three council areas are now above Scotland with Moray at the highest (10%) followed by Aberdeen City (9.9%) and then Aberdeenshire with the same rate as Scotland (9.8%).

A review[2] of the information collected through annual school monitoring over 40 years commissioned through Aberdeen University, indicates a dramatic increase in obesity levels over a twenty year period between 1978 and 1998. For children born in 2000 onwards there has been a reducing trend.

From nationally collated[1] statistics, after an increase last year all three council areas and therefore Grampian have followed the decrease seen in the Scotland level.

For the six years 2009/10 to 2014/15 combined, the obesity level in most school clusters is not significantly different from Scotland.[4] There are just two clusters in Aberdeen City, three in Aberdeenshire and one in Moray that have significantly higher obesity levels than Scotland. Meanwhile, the number of clusters with significantly lower obesity levels than Scotland are: one in Aberdeen City, seven in Aberdeenshire and one in Moray.

Indicator Definition

Height and weight measurements taken of children aged around 6 years. Obesity including morbid obesity determined by epidemiological measurement: greater than or equal to the 95th centile of the reference population. All categories are given in the table below.

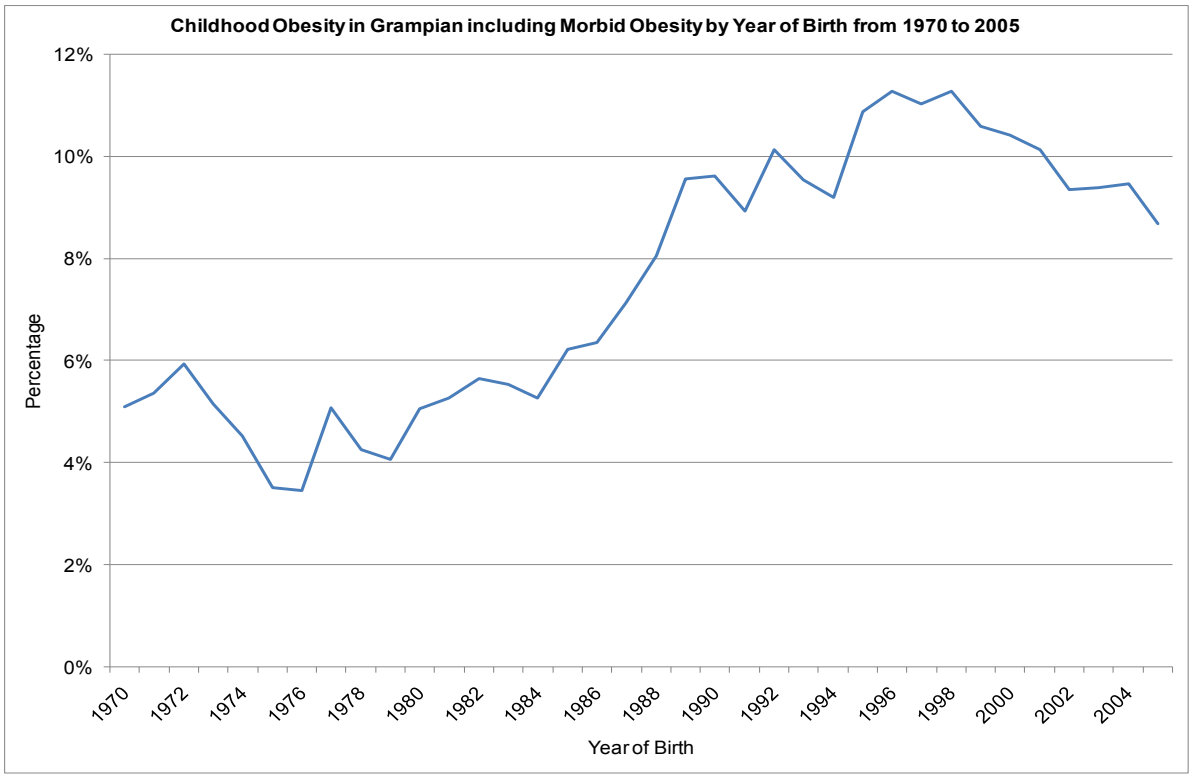
| Category | Definition |
|---|---|
| Underweight | less than or equal to the 2nd centile |
| Healthy Weight | Greater than the 2nd centile and less than the 85th centile |
| Overweight | greater than or equal to 85th centile and less than the 95th centile |
| Obese | greater than or equal to 95th centile |

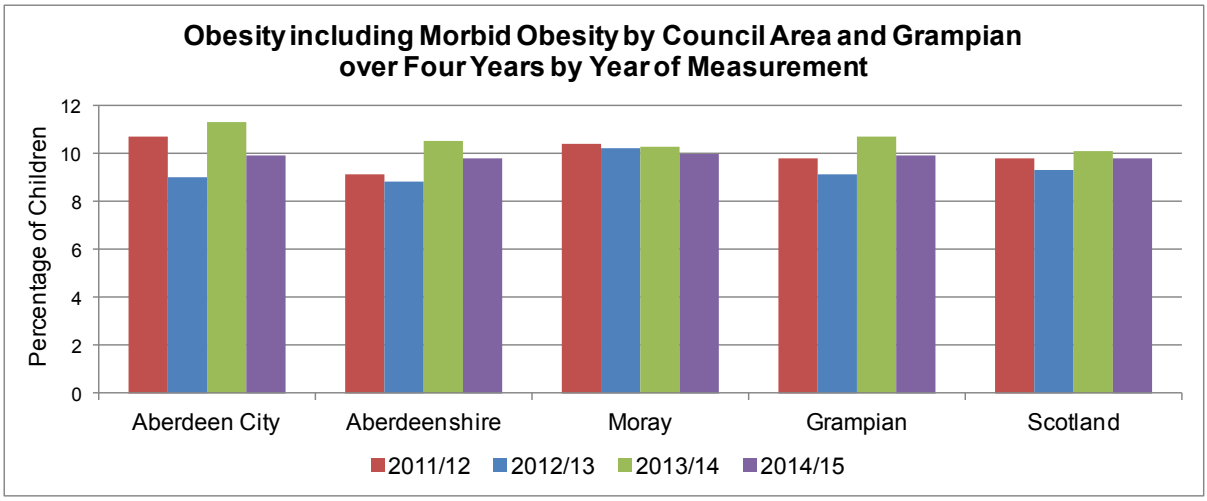
Rationale

Obesity is a continuing, major public health challenge in Grampian. There is a well-understood association between raised obesity levels and the most deprived areas.[1]

Direct healthcare costs to the NHS in Scotland as a result of obesity were an estimated £191 million in 2007-08 and the total cost to Scotland was in excess of £457 million.[3]

| Health Board | RAG | Percentage of Obese Children in P1 in 2014/2015 |
|---|---|---|
| NHS Scotland | | 9.8% |
| NHS Ayrshire & Arran | A | 10.9% |
| NHS Borders | G | 9.4% |
| NHS Dumfries & Galloway | A | 11.6% |
| NHS Fife | A | 10.7% |
| NHS Forth Valley | G | 8.7% |
| NHS Grampian | A | 9.9% |
| NHS Greater Glasgow & Clyde | G | 8.7% |
| NHS Highland | A | 10.6% |
| NHS Lanarkshire | G | 9.2% |
| NHS Lothian | G | 9.7% |
| NHS Orkney | G | 8.0% |
| NHS Shetland | A | 13.9% |
| NHS Tayside | A | 11.0% |
| NHS Western Isles | A | 12.7% |







1 ISD (2016) Primary 1 Body Mass Index (BMI) Statistics: School Year 2014/15 Available at: https://isdscotland.scot.nhs.uk/Health-Topics/Child-Health/Publications/2016-02-16/2016-02-16-P1-BMI-Statistics-Publication-2014-15-Report.pdf?8127993346 (accessed 28/9/2016)

2 Turner S., Smith S., Craig L., McNeill G (2012). A Study of Trends in childhood Obesity in North East Scotland (STONES). Report submitted to NHS Grampian.

3 Finance Committee Inquiry into preventative spending (2010) Submission from Dr Harry Burns, Chief Medical Officer for Scotland http://archive.scottish.parliament.uk/s3/committees/finance/inquiries/preventative/cmo.pdf (accessed 28/9/2016)

4 ISD (2016) Primary 1 Body Mass Index (BMI) School Cluster Analysis for Combined School Years 2009/10 to 2014/15 (special request, for management information).

## 7.2 Adult Obesity

Summary

Adult obesity affects 13.8% of young adults and increases sharply with age, to 38.1% by the age of 55-64 years. Scottish statistics show a continuous increase with age until we reach the oldest age groups of 75+ when levels fall to below 30%. In each age group, obesity levels are not significantly different in Grampian compared to Scotland as a whole.

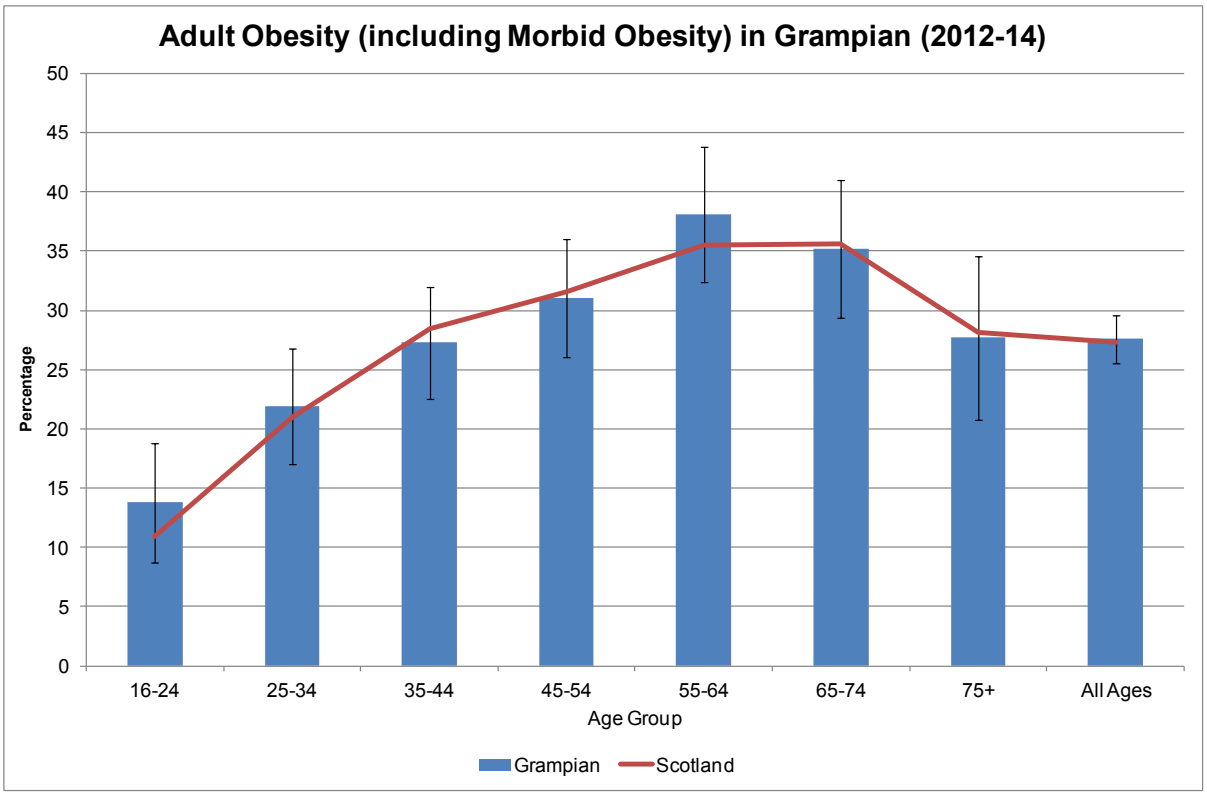
Indicator Definition

The percentage of adults who are obese as measured for the Scottish Health Survey[1] in combined years 2012 to 2014. Obesity is defined as a body mass index (BMI) of greater than or equal to 30kg/$m^2$, where BMI is a person's weight in kilograms divided by the square of their height in metres.

Rationale

Obesity is a continuing, major public health challenge in Grampian. Direct healthcare costs to the NHS in Scotland as a result of obesity were an estimated £191 million in 2007-08 and the total cost to Scotland was in excess of £457 million.[2]

| Age Band | Grampian Percentage obese (2012 – 2014) | RAG | Scotland Percentage obese (2012 – 2014) |
|---|---|---|---|
| 16-24 | 13.8 | R | 10.9 |
| 25-34 | 21.9 | A | 21.0 |
| 35-44 | 27.3 | G | 28.5 |
| 45-54 | 31.1 | G | 31.6 |
| 55-64 | 38.1 | R | 35.5 |
| 65-74 | 35.2 | G | 35.6 |
| 75+ | 27.7 | G | 28.1 |
| All Ages | 27.6 | A | 27.3 |




1 UK Data Service (2015) Scottish Health Survey obesity prevalence available from www.ukdataservice.ac.uk (with appropriate permission).

2 Finance Committee Inquiry into preventative spending (2010). Submission from Dr Harry Burns, Chief Medical Officer for Scotland http://archive.scottish.parliament.uk/s3/committees/finance/inquiries/preventative/cmo.pdf (accessed 28/9/2016)

## 8.1 Child Activity Levels

Summary

In Grampian in 2014, around two out of three boys and girls appeared to meet the recommended levels of activity. This should be treated with caution, as other studies believe that this is an overestimate (see Data Caveats, below).

Indicator Definition

Parent-reported from the Scottish Health Survey (SHeS).[1] High = meets recommendations of at least 60 minutes of activity on all 7 days in previous week; Medium = 30 to 59 minutes of activity on all 7 days; and Low = lower level of activity.

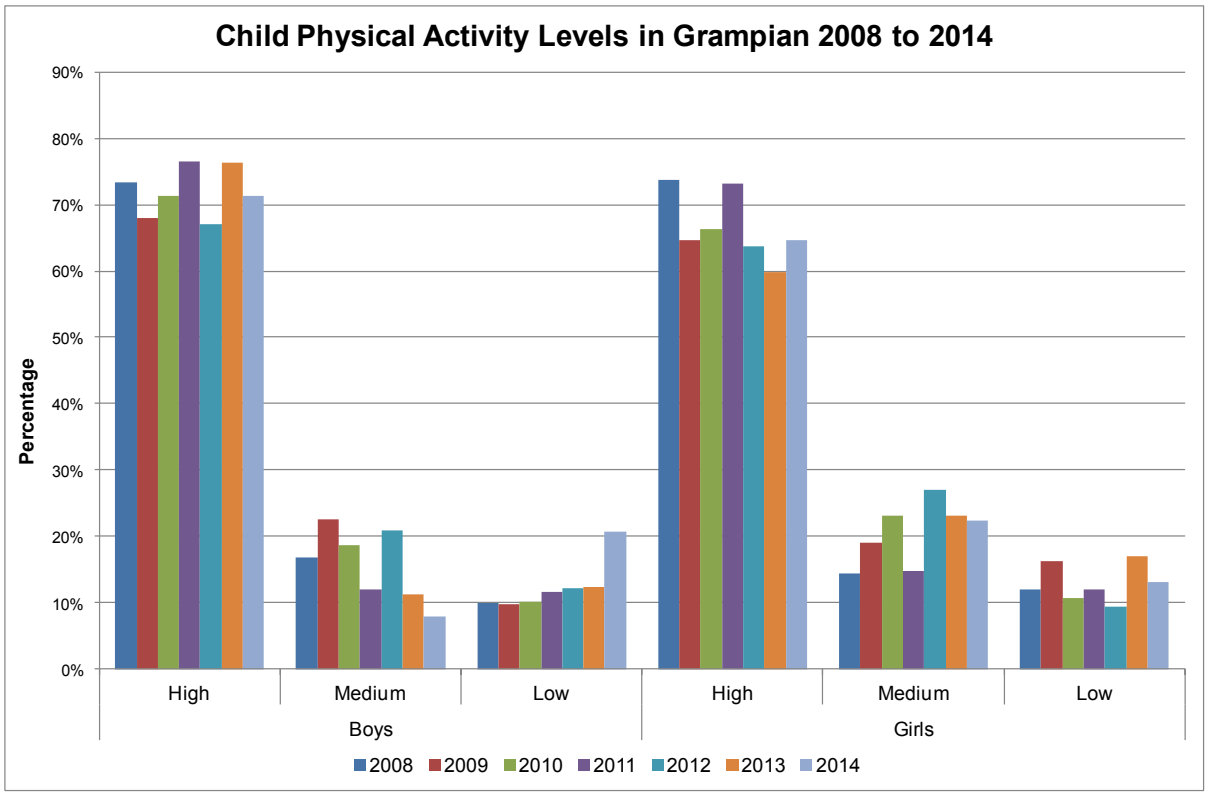
Rationale

Described as 'the best buy in public health', physical activity can improve health and wellbeing and promote independence and quality of life.[2]

Data Caveats

Active Healthy Kids Scotland[3] warn that the SHeS is parent-reported and assumes that all physical activity reported is of least moderate intensity, which they say is unrealistic as most physical activity is of light intensity. Therefore the following tables may overestimate the percentage of "high" and "medium" level activity.

| Activity Level in 2014 | Grampian Boys Percentage meeting the recommended levels of activity | RAG | Scotland Boys Percentage meeting the recommended levels of activity |
|---|---|---|---|
| High | 71.4 | R | 81.5 |
| Medium | 7.9 | R | 10.3 |
| Low | 20.7 | R | 8.1 |
| Activity Level In 2014 | Grampian Girls Percentage meeting the recommended levels of activity | RAG | Scotland Girls Percentage meeting the recommended levels of activity |
| High | 64.7 | R | 70.5 |
| Medium | 22.3 | R | 20.2 |
| Low | 13.1 | R | 9.3 |





1 UK Data Service (2016) Scottish Health Survey 2014 data on physical activity levels available from www.ukdataservice.ac.uk (with appropriate permission).

2 NHS Health Scotland (2009) Five Year Review of 'Let's Make Scotland More Active' - A Strategy for Physical Activity. Edinburgh. Available at http://www.healthscotland.com/uploads/documents/1150-HS%20PA%205yr%20Review%20Final.pdf (accessed 28/9/2016)

3 Active Healthy Kids Scotland (2013) Report Card Long Version available from: http://www.activehealthykidsscotland.co.uk/ (accessed 28/9/2016)

## 8.2 Adult Activity Levels

Summary for NHS Grampian[1]

Adult participation in physical activity at recommended levels declines with increasing age in Scotland. The picture is less clear in Grampian. Men are more likely than women to meet the recommended activity levels in Grampian and Scotland. There is a clear relation between activity levels and household income, with those in higher income households more likely to meet recommended activity levels. The gradient is less apparent for Grampian men than Grampian women.

Indicator Definitions

Recommended level of activity (or high level): to accumulate at least 30 minutes of moderate activity on at least five days of the week, which can be accumulated in bouts of as little as 10 minutes.

Medium level of activity: 30 minutes or more on one to four days per week.

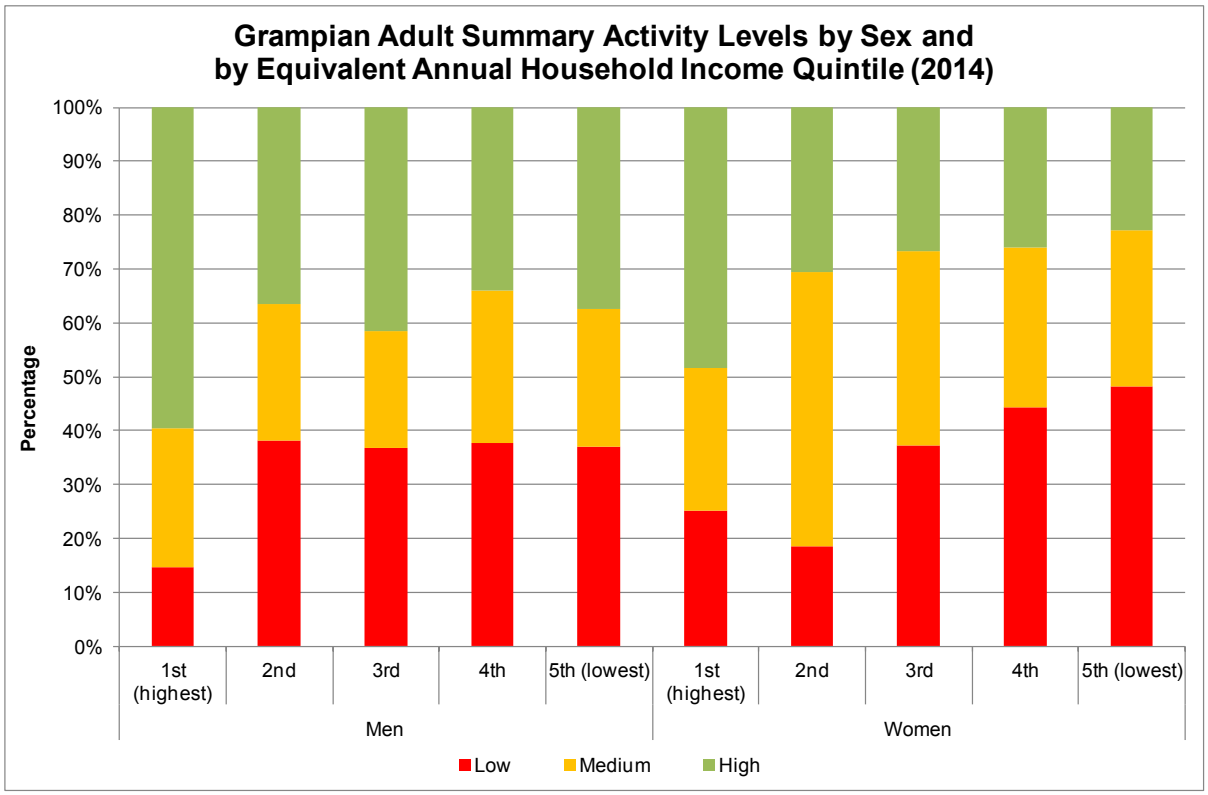
Low level of activity: fewer than 30 minutes of moderate or vigorous activity a week.

Rationale

Described as 'the best buy in public health', physical activity can improve health and wellbeing, promote independence and quality of life.[2]

| Age Band | Grampian Men Percentage engaging in recommended levels of activity (2014) | RAG | Scotland Men Percentage engaging in recommended levels of activity (2014) |
|---|---|---|---|
| 16-24 | 62.7 | G | 62.5 |
| 25-34 | 54.8 | R | 62.6 |
| 35-44 | 41.6 | R | 52.5 |
| 45-54 | 41.2 | A | 42.9 |
| 55-64 | 49.9 | G | 37.0 |
| 65-74 | 19.8 | A | 20.1 |
| 75+ | 3.8 | R | 9.9 |
| All Ages | 44.1 | A | 44.2 |

| Age Band | Grampian Women Percentage engaging in recommended levels of activity (2014) | RAG | Scotland Women Percentage engaging in recommended levels of activity (2014) |
|---|---|---|---|
| 16-24 | 38.1 | R | 44.1 |
| 25-34 | 32.3 | R | 47.2 |
| 35-44 | 45.4 | G | 44.8 |
| 45-54 | 48.8 | G | 40.8 |
| 55-64 | 28.9 | A | 33.2 |
| 65-74 | 10.0 | R | 18.1 |
| 75+ | 6.2 | G | 3.2 |
| All Ages | 31.2 | A | 35.0 |





1 UK Data Service (2016) Scottish Health Survey 2014 data on physical activity levels available from www.ukdataservice.ac.uk (with appropriate permission).

2 NHS Health Scotland (2009) Five Year Review of 'Let's Make Scotland More Active' - A Strategy for Physical Activity. Edinburgh. Available at http://www.healthscotland.com/uploads/documents/1150-HS%20PA%205yr%20Review%20Final.pdf (accessed 28/9/2016)

## 9.0 National Dental Inspection Program

The National Dental Inspection Programme (NDIP) is carried out annually under the auspices of the Scottish Dental Epidemiology Co-ordinating Committee on behalf of NHS Boards.

A detailed inspection of P1 and P7 pupils is conducted on alternate years. The most recent detailed P7 report data available at publication is for 2014-15. The most recent detailed inspection data for P1 is 2013-14[1].

Rationale

Dental decay is almost totally preventable, but is the single most common reason to admit children to hospital in Scotland. Dental health is also widely used as an 'indicative measure' of children's general health. This is because it reflects a key outcome of good parental care during the pre-school period. Children in Scotland have substantially higher levels of recorded decay than other European countries[1].

## 9.1 No Obvious Decay P1 Pupils

Summary

In 2014/15, Grampian continued to deliver a higher percentage of P1 children with no obvious tooth decay (71.5%) than Scotland as a whole (69.5%).

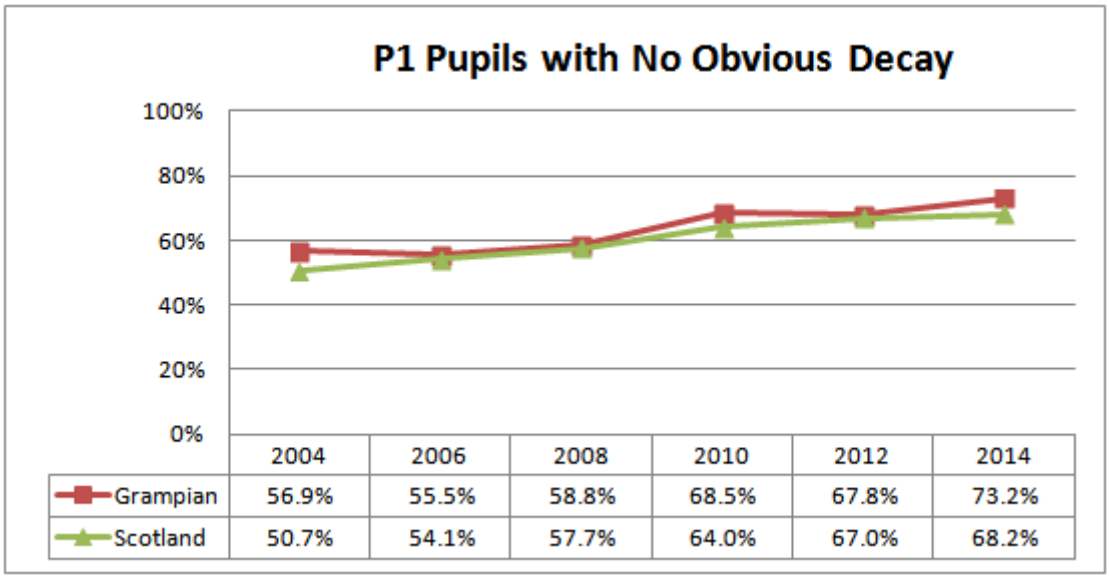
Performance over time is similar to Scotland, both of which have seen sustained improvement since the introduction of the NDIP in 2003[3].

Grampian performance reflects national trends where higher levels of 'no obvious decay' are found in the least deprived areas, and the worst dental health is found in the most deprived areas[3].

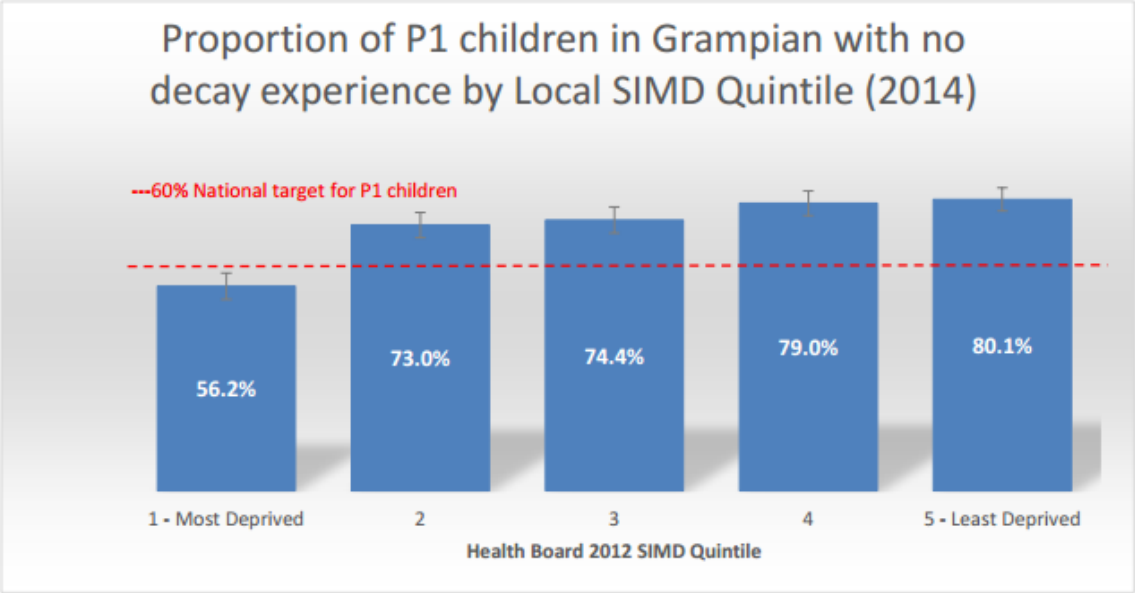
Within Grampian, Aberdeenshire performed strongest with 74.5% of P1 children showing no obvious decay and Moray had 70.7%: both were above the Scottish average. Aberdeen City performance was below the Scottish average with 67.3%.

Indicator Definition

The percentage of P1 children inspected and found on to have "no obvious decay experience" in their primary teeth in the school year 2014/15.




| | 2004 | 2006 | 2008 | 2010 | 2012 | 2014 |
|---|---|---|---|---|---|---|
| Grampian | 56.9% | 55.5% | 58.8% | 68.5% | 67.8% | 73.2% |
| Scotland | 50.7% | 54.1% | 57.7% | 64.0% | 67.0% | 68.2% |




Source – NDIP, ISD

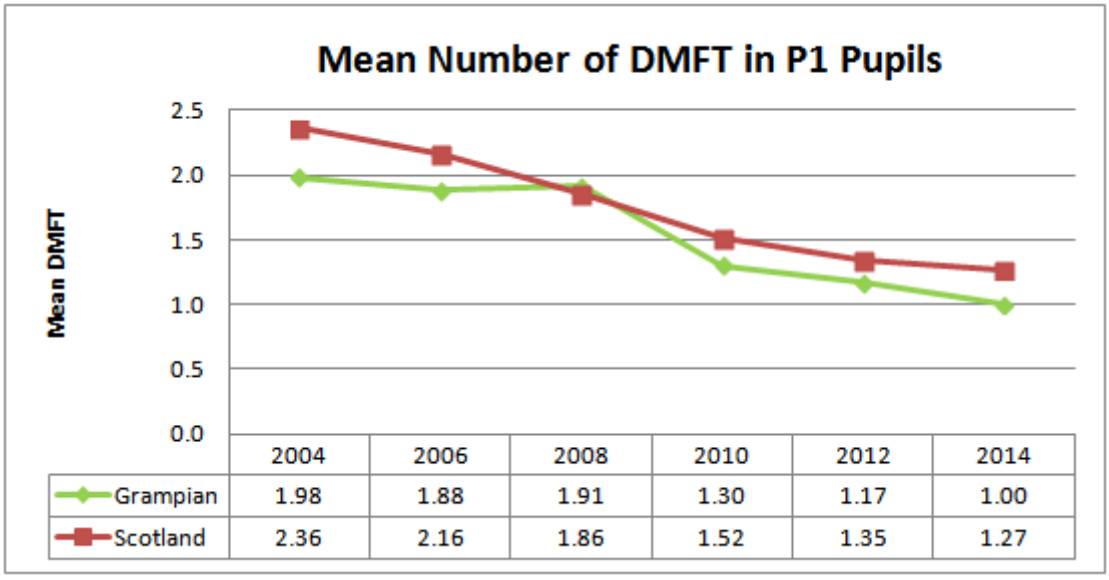
## 9.2 Decayed or Missing or Filled Teeth of P1 Pupils

Summary

Scotland and Grampian have seen a steady decline in mean decayed, missing and filled primary teeth (DMFT) since the introduction of the NDIP in 2003[2]. Grampian P1 children have fewer decayed, missing and filled primary teeth per pupil inspected than Scotland as a whole. In 2013/14, Grampian was the third best performing mainland board.

Indicator Definition

Mean number of decayed, missing and filled primary teeth, found in the 2768 (45.1% sample) pupils during the detailed inspection in the school year 2013/14.




| | 2004 | 2006 | 2008 | 2010 | 2012 | 2014 |
|---|---|---|---|---|---|---|
| Grampian | 1.98 | 1.88 | 1.91 | 1.30 | 1.17 | 1.00 |
| Scotland | 2.36 | 2.16 | 1.86 | 1.52 | 1.35 | 1.27 |

| Health Board | Traffic Light | P1 Mean Number of decayed, missing and filled primary teeth (2013/14) |
|---|---|---|
| Greater Glasgow & Clyde | R | 1.45 |
| Lanarkshire | R | 1.34 |
| Forth Valley | R | 1.33 |
| Lothian | A | 1.31 |
| Tayside | A | 1.30 |
| Ayrshire & Arran | G | 1.27 |
| Western Isles | G | 1.23 |
| Dumfries & Galloway | G | 1.20 |
| Orkney | G | 1.16 |
| Highland | G | 1.12 |
| **Grampian** | **G** | **1.00** |
| Fife | G | 0.97 |
| Borders | G | 0.85 |
| Shetland | G | 0.64 |
| **Scotland** | | **1.27** |

## 9.3 No Obvious Decay P7 Pupils

Summary

Grampian's performance over time is similar to Scotland: both of which have seen a sustained improvement since the introduction of the NDIP in 2003[1].

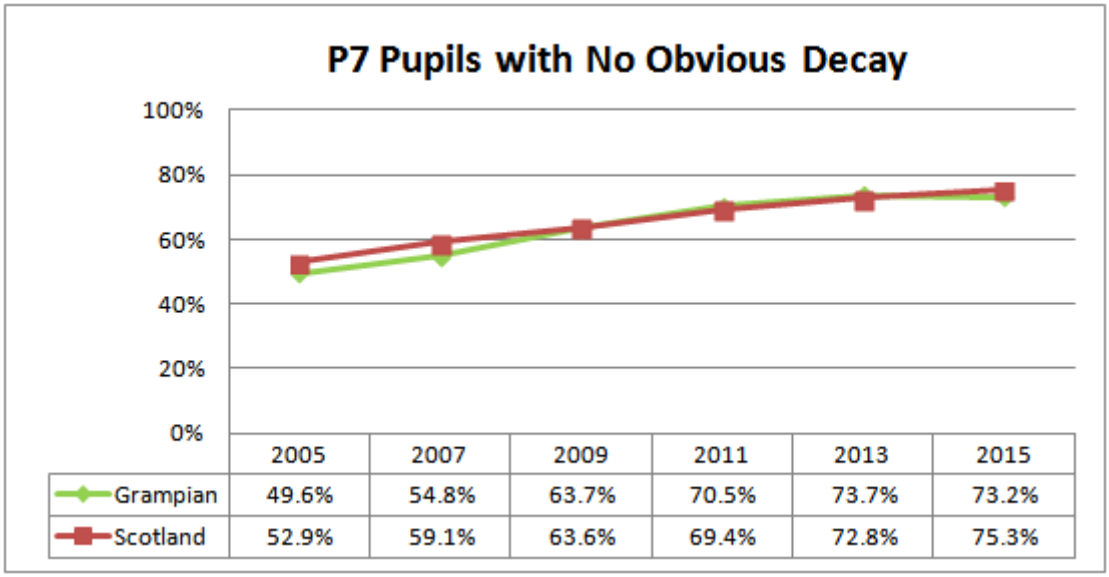
73.2% of P7 children had no obvious decay in Grampian compared to 75.3% across Scotland. Moray recorded 76.8% and was the only partnership to record above the Scottish average. Aberdeen City recorded 71.8% and Aberdeenshire 73.3%.

The proportion of P7 children with no obvious decay in Grampian is not statistically different from the Scottish average, and the oral health of P7 children has appeared relatively stable in Grampian.

At partnership level there has been an improvement in the oral health of P7 children in Aberdeenshire and Moray with the proportion of P7 children with no obvious decay increasing by 2.5% and 4.4% respectively since 2013. In Aberdeen City there has been a drop of 6% in the proportion of P7 children with no obvious decay.

Indicator Definition

The percentage of P7 children inspected in the school year found to have "no obvious decay experience" in their permanent teeth for the school year 2014/15.




| | 2005 | 2007 | 2009 | 2011 | 2013 | 2015 |
|---|---|---|---|---|---|---|
| Grampian | 49.6% | 54.8% | 63.7% | 70.5% | 73.7% | 73.2% |
| Scotland | 52.9% | 59.1% | 63.6% | 69.4% | 72.8% | 75.3% |

## 9.4 Decayed or Missing or Filled Teeth of P7 Pupils

Summary

Scotland and Grampian have seen a steady decline in mean decayed, missing and filled permanent teeth (DMFT) since the introduction of the NDIP in 2003[1]. Despite this, Grampian P7 children have on average slightly more decayed, missing and filled permanent teeth per pupil inspected than Scotland as a whole.

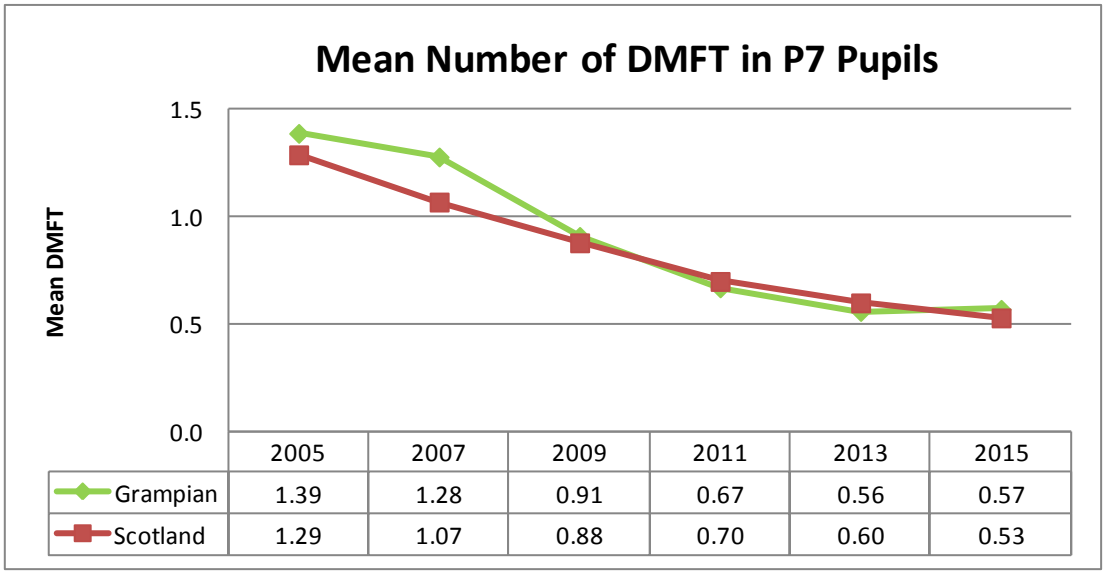
In 2013/14, Grampian was the third worst performing board. This is a marked difference to the strong performance at P1 level.

The mean number of teeth with obvious decay experience, in Grampian, was 0.57 (0.21 decayed, 0.05 missing and 0.31 filled) compared to 0.53 across Scotland (0.18 decayed, 0.07 missing and 0.29 filled).

For those with obvious decay, in Grampian, there was an average of 2.15 decayed missing or filled teeth compared to 2.16 across Scotland.

Indicator Definition

Mean number of decayed, missing and filled permanent teeth, found in the 2768 (45.1% sample) pupils during the detailed inspection in the school year 2013/14.




| | 2005 | 2007 | 2009 | 2011 | 2013 | 2015 |
|---|---|---|---|---|---|---|
| Grampian | 1.39 | 1.28 | 0.91 | 0.67 | 0.56 | 0.57 |
| Scotland | 1.29 | 1.07 | 0.88 | 0.70 | 0.60 | 0.53 |

| Health Board | Traffic Light | P7 Mean Number of decayed, missing and filled permanent teeth (2014/15) |
|---|---|---|
| Lanarkshire | R | 0.80 |
| Greater Glasgow & Clyde | R | 0.62 |
| **Grampian** | R | 0.57 |
| Forth Valley | A | 0.54 |
| Dumfries & Galloway | A | 0.54 |
| Orkney | G | 0.54 |
| Lothian | G | 0.48 |
| Fife | G | 0.46 |
| Tayside | G | 0.44 |
| Shetland | G | 0.42 |
| Ayrshire & Arran | G | 0.40 |
| Western Isles | G | 0.38 |
| Highland | G | 0.37 |
| Borders | G | 0.30 |
| **Scotland** | | 0.53 |


1 ISD Dental Health Publications Repository
http://www.isdscotland.org/Health-Topics/Dental-Care/Publications/index.asp

2 NHS Dental Plan 2016-2022
http://www.nhsgrampian.org/grampianfoi/files/Draft_NHS_Grampian_Dental_Plan_2016-2022.pdf

3 Scottish Government (2013) Dental Health available at:
http://www.scotland.gov.uk/Topics/Sta\tistics/Browse/Health/TrendDentalHealth

## 10. Mental Health

### 10.1 Positive Mental Health: Mean adult score on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)

Summary

The average WEMWBS score for a three year combined period (2012-14) for adults in Grampian was 50.7 (50.1 for Scotland). The average scores for Grampian men and women were not significantly different to Scotland.[1]

Indicator Definition

The mean WEMWBS score for a survey population pooled across 4 years.

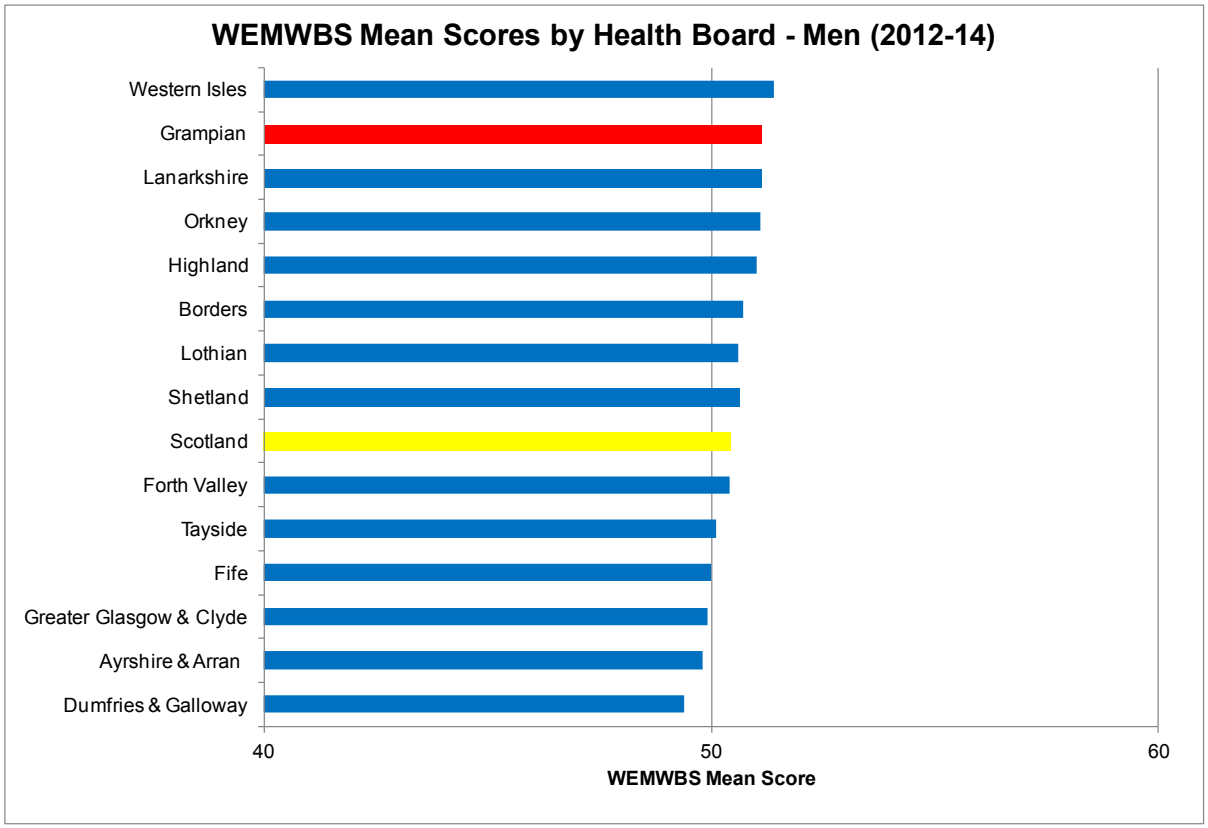
WEMWBS is used within the Scottish Health Survey to measure wellbeing, and the mean WEMWBS score is used to monitor the national indicator 'improve mental health.' The score can range between 14 and 70. Mental wellbeing scores can be interpreted as follows: a score of 0-32 = very low, 32-40 = below average, 40-59 = average, 59-70 = above average. Therefore, the higher the score, the better the reported wellbeing.

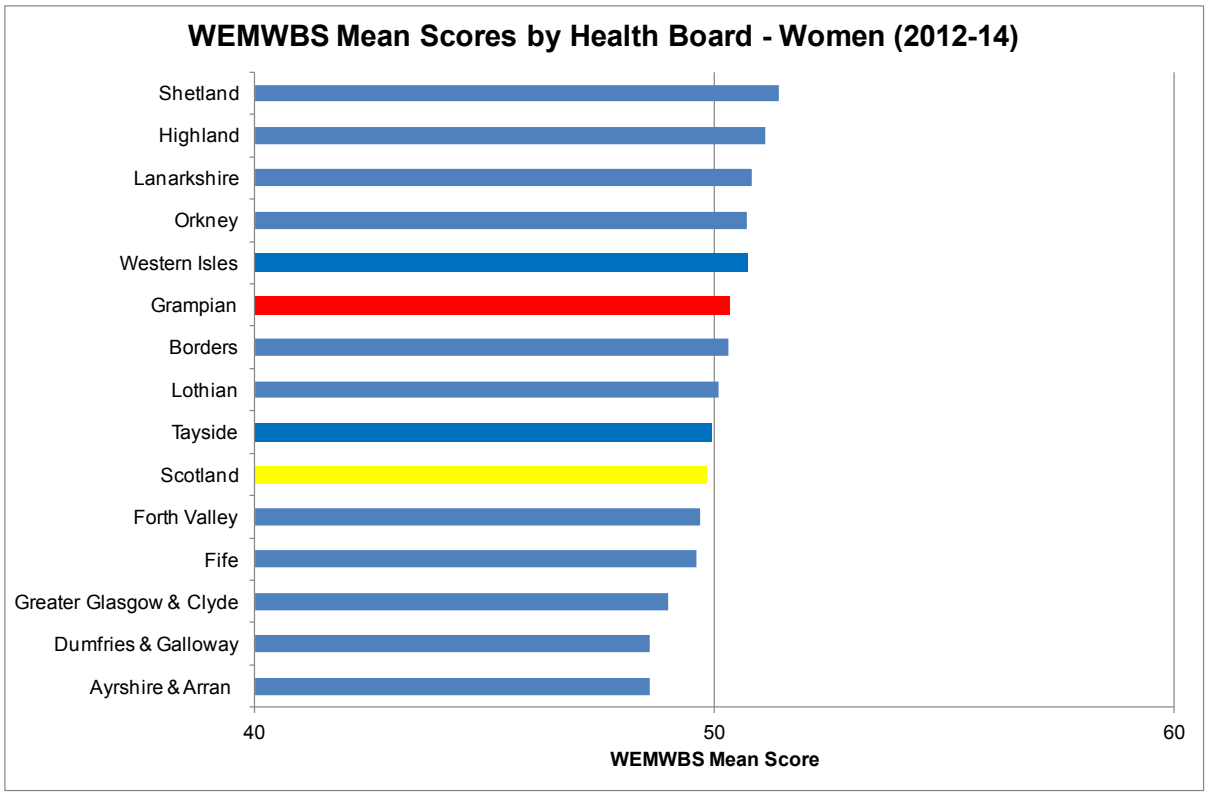
Rationale

Mental wellbeing is a national priority and can be a key factor in determining physical wellbeing. Mental wellbeing can influence, as well as be influenced by, a range of social circumstances such as employment, participation within the community and relationships. There are a number of factors at individual, community and structural level that relate to mental wellbeing and having a sense of control over life situations.[2]

Mental wellbeing can be a key factor in determining physical wellbeing. In Scotland, men who assessed their general health as 'bad' or 'very bad' were six times more likely to have low wellbeing; women were five times more likely.[3]

| NHS Board | Mean Score for Men (2012 – 2014) | RAG | Mean Score for Women (2012 – 2014) | RAG |
|---|---|---|---|---|
| Ayrshire & Arran | 49.8 | A | 48.6 | A |
| Borders | 50.7 | G | 50.3 | G |
| Dumfries & Galloway | 49.4 | A | 48.6 | A |
| Fife | 50.0 | A | 49.6 | A |
| Forth Valley | 50.4 | G | 49.7 | A |
| Grampian | 51.1 | G | 50.3 | G |
| Greater Glasgow & Clyde | 49.9 | A | 49.0 | A |
| Highland | 51.0 | G | 51.1 | G |
| Lanarkshire | 51.1 | G | 50.8 | G |
| Lothian | 50.6 | G | 50.1 | G |
| Orkney | 51.1 | G | 50.7 | G |
| Shetland | 50.6 | G | 51.4 | G |
| Tayside | 50.1 | G | 49.9 | G |
| Western Isles | 51.4 | G | 50.7 | G |
| Scotland | 50.4 | | 49.8 | |







1. Scottish Government (2016) Scottish Health Survey Health Board Analysis 2012-2014 Available from: http://www.gov.scot/Publications/2016/03/6320/downloads (accessed 28/9/2016)

2. Scottish Government (2013) *Scotland Performs*. Available at http://www.scotland.gov.uk/About/Performance/scotPerforms/indicator/wellbeing (accessed 28/9/2016)

3. Scottish Government (2012) Scottish Health Survey 2011 Volume 1 - Adults http://www.scotland.gov.uk/Publications/2012/09/7854 (pp 21-22) (accessed 28/9/2016)

## 10.2 Suicide

Summary

The Grampian age-sex standardised suicide rate[1] (of 12.8 per 100,000 population) for 2011-15 is significantly lower than the Scottish rate of 13.7. Aberdeenshire is one of six council areas[2] with a significantly lower rate than the Scottish rate.

The declining trend in suicide rates in recent years appears to be continuing in Scotland[3] and Grampian.[1]

Suicide rates in Scotland are strongly related to deprivation level, however this difference or inequality has decreased between 2001-05 and 2011-15[3].

The pattern over time for Grampian and Aberdeen City are matched in so far as the peak occurred in 1996-2000 with a reduction for each period since then. In Aberdeenshire the peak occurred in 1986-90 and then the pattern follows Grampian and Aberdeen City. For Moray the peak occurred between 2001 and 2005 and it is the only area to record an increase in the most recent period.

Indicator Definition

The following International Statistical Classification of Diseases and Related Health Problems (ICD) codes:

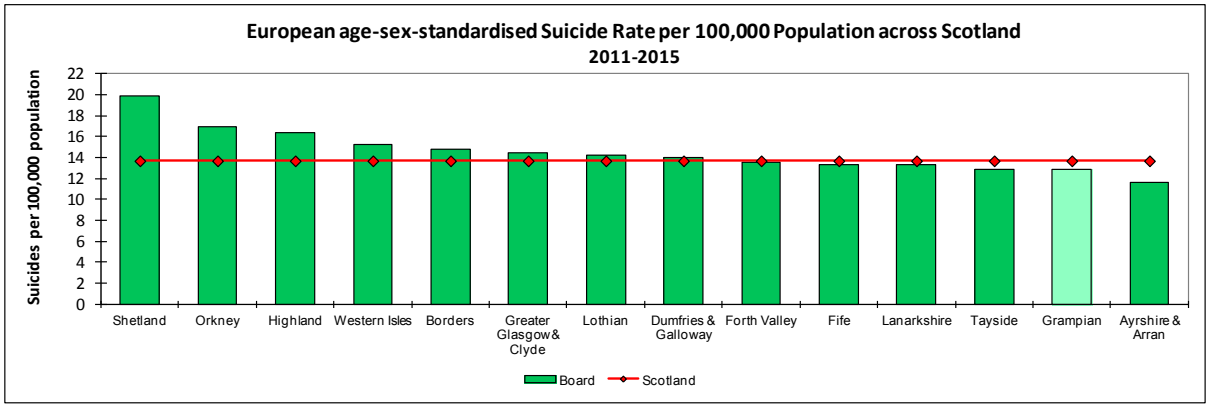
- intentional self-harm (ICD-9 codes E950-959; ICD-10 codes X60-X84 plus Y87.0, which is for sequelae of intentional self-harm); and
- events of undetermined intent (ICD-9 codes E980-989; ICD-10 codes Y10-Y34 plus Y87.2, which is for sequelae of events of undetermined intent).

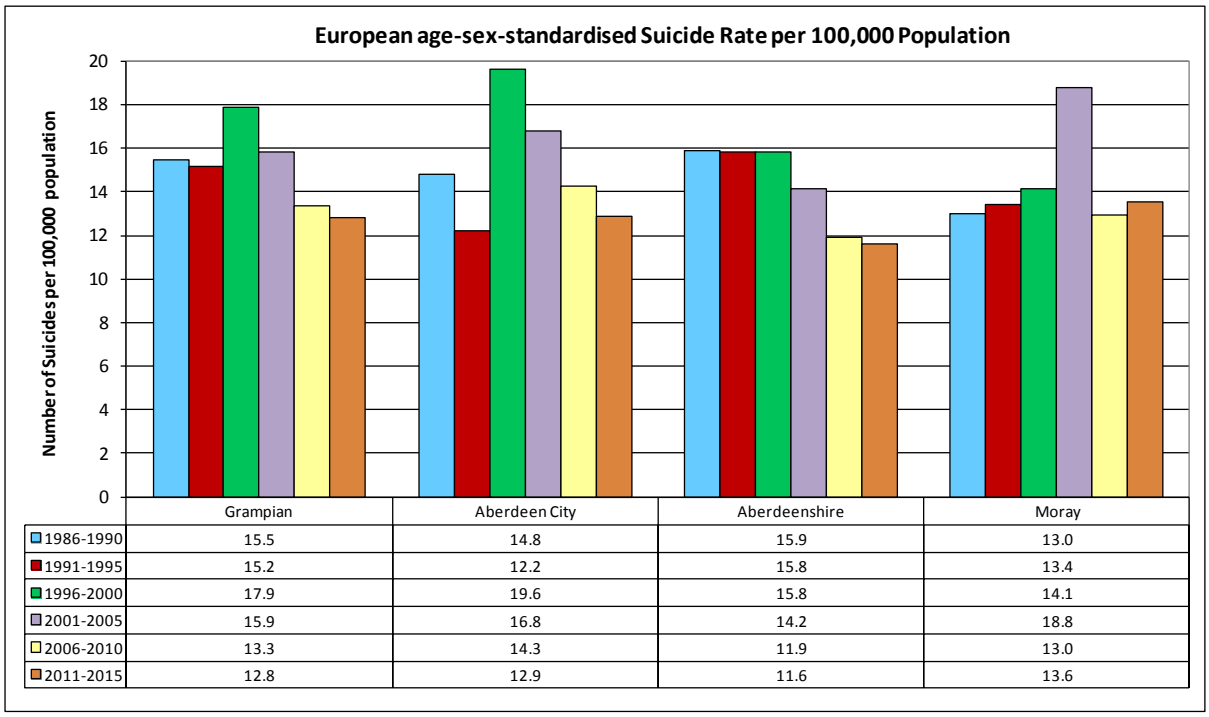
Rationale

Suicide is a leading cause of death in Scotland among people aged 15-34 years. In 2014, suicide accounted for 24% of all male deaths in this age group (117 out of 487 deaths), and 21% of all female deaths (53 out of 252 deaths).[4]

Many factors put individuals at risk of suicide, with four key groups of risk factors identified[4]:

- risks and pressures within society, including poverty and inequalities, access to methods of suicide, prevalence of alcohol problems and substance misuse, and changing trends in society such as marital breakdown
- risks and pressures within communities, including neighbourhood deprivation, social exclusion, isolation, and inadequate access to local services
- risks and pressures for individuals, including sociodemographic characteristics, previous deliberate self-harm, lack of care, treatment and support towards recovery from serious mental illness, loss (e.g. bereavement or divorce), and experience of abuse
- quality of response from services, including insufficient identification of those at risk.




| | Grampian | Aberdeen City | Aberdeenshire | Moray |
|---|---|---|---|---|
| 1986-1990 | 15.5 | 14.8 | 15.9 | 13.0 |
| 1991-1995 | 15.2 | 12.2 | 15.8 | 13.4 |
| 1996-2000 | 17.9 | 19.6 | 15.8 | 14.1 |
| 2001-2005 | 15.9 | 16.8 | 14.2 | 18.8 |
| 2006-2010 | 13.3 | 14.3 | 11.9 | 13.0 |
| 2011-2015 | 12.8 | 12.9 | 11.6 | 13.6 |

*the 2011-2015 rate is calculated using the old coding rules to allow consistent comparison over time.


1. ScotPHO (2016) Suicide Health Board Overview available at http://www.scotpho.org.uk/health-wellbeing-and-disease/suicide/data/nhs-board (accessed 28/9/2016)

2. ScotPHO (2016) Suicide Local Authority Overview available at http://www.scotpho.org.uk/health-wellbeing-and-disease/suicide/data/local-authority (accessed 28/9/2016)

3. ScotPHO (2016) Suicide Key Points http://www.scotpho.org.uk/health-wellbeing-and-disease/suicide/key-points (accessed 28/9/2016)

4. ScotPHO (2016) Introduction http://www.scotpho.org.uk/health-wellbeing-and-disease/suicide/introduction (accessed 28/9/2016)

# 11. Sexual Health

## 11.1 Teenage Pregnancy under 16 years

Summary

During 2014, the annual rate of pregnancy among young women aged 13-15 years in Grampian was 4.2 per 1,000, equal to the Scottish average[1]. Aberdeen City continues to have the highest rate of under-16 pregnancy of the three council areas in Grampian.

Indicator Definition

The annual rate of teenage pregnancy in the under-16 age group per 1,000 females aged 13-15 years, including abortions, live births and still births.

Rationale

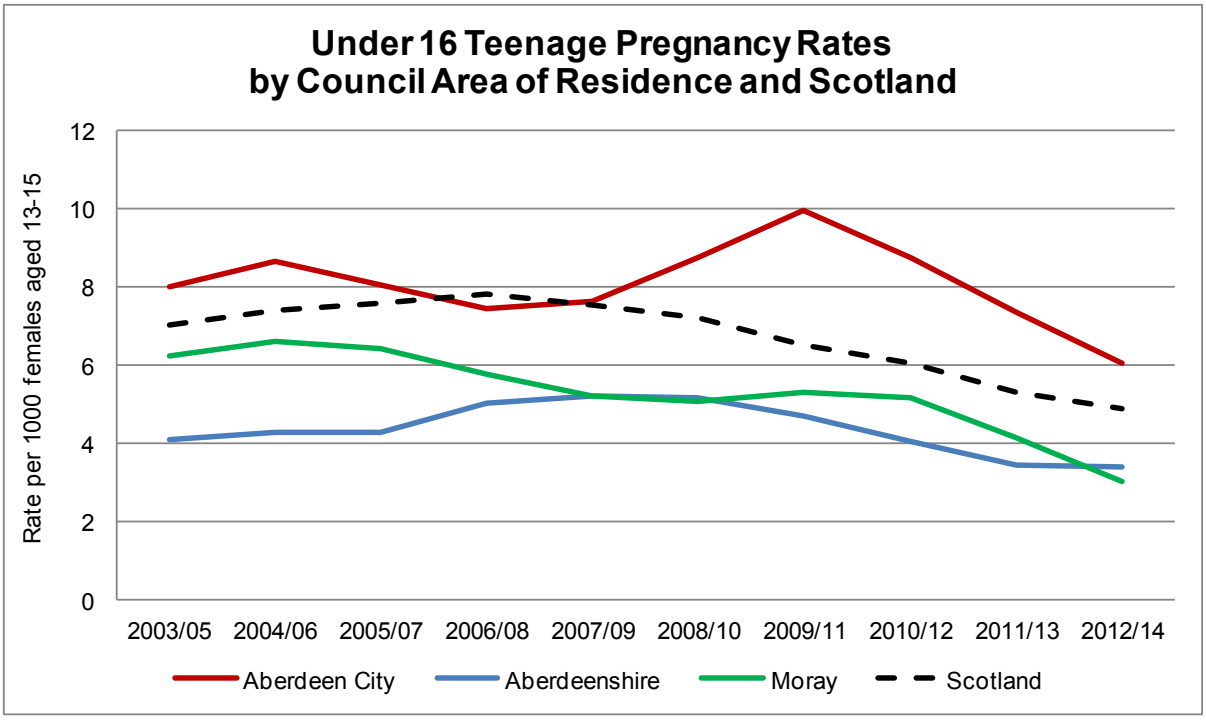
Reproductive trends are inextricably linked with socioeconomic development at both individual and societal levels. Adverse sexual health outcomes have clear associations with deprivation, mirroring the situation for many other health outcomes.[2]

Scotland has one of the highest teenage pregnancy rates in Europe. There is a national target to reduce teenage pregnancy rates, with particular emphasis placed on reducing pregnancies in the under-16 age group.

| Health Board Area* | Under-16 pregnancy rate per 1,000 women aged 13-15 years | | |
|---|---|---|---|
| | 2013 | 2014 | RAG 2014 |
| Ayrshire & Arran | 4.4 | 3.5 | G |
| Borders | 5.8 | * | |
| Dumfries & Galloway | * | 4.5 | R |
| Fife | 4.4 | 4.6 | R |
| Forth Valley | 5.7 | 3.7 | G |
| Grampian | 4.1 | 4.2 | G |
| Greater Glasgow & Clyde | 4.7 | 4.0 | G |
| Highland | 4.2 | 3.1 | G |
| Lanarkshire | 4.8 | 4.8 | R |
| Lothian | 5.3 | 4.5 | R |
| Tayside | 5.7 | 5.8 | R |
| **Scotland** | **4.7** | **4.2** | |

*Source: NRS registered births and stillbirths & Notifications (to the Chief Medical Officer for Scotland) of abortions performed under the Abortion Act 1967.*

* Data suppressed by ISD for the island boards, Borders Health Board (2014) and Dumfries & Galloway (2013) due to small numbers.





1 NHS National Services Scotland 2016 Teenage Pregnancy year ending 31st December 2014 https://isdscotland.scot.nhs.uk/Health-Topics/Sexual-Health/Publications/2016-07-05/2016-07-05-TeenPreg-Report.pdf (accessed 28/9/2016)

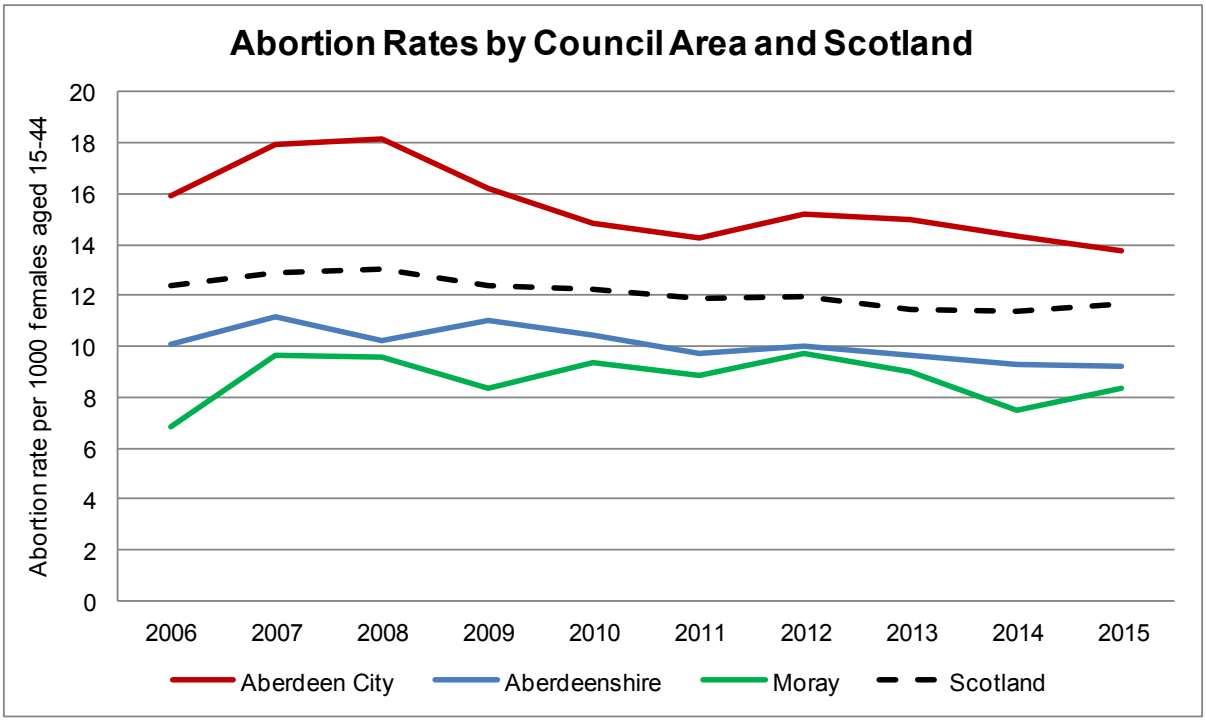
2 NHS Grampian (2014) Director of Public Health Annual Report 2013-14 available from http://nhsgintranet.grampian.scot.nhs.uk/depts/PublicHealth/Public%20Health%20Documents/DPH_Annual-Report2013-14.pdf (accessed 28/9/2016)

3 Scottish Government (2005) Respect and responsibility: Strategy and Action Plan for Improving Sexual Health Available from: http://www.scotland.gov.uk/Publications/2005/01/20603/content (accessed 28/9/2016)

## 11.2 Abortion and Repeat Abortion

Summary - Abortion

Between 2006 and 2015 the rate of abortion in Grampian has been relatively stable: around 12 cases per 1,000 women aged 15-44 years.[1] The rate in Aberdeen City (13.8 in 2015) has been consistently higher than the Scottish average (11.0 in 2015), while the rates in Aberdeenshire (9.2) and Moray (8.4) have been consistently lower than the Scottish average.




| Health Board Area | Abortion rate per 1,000 women aged 15-44 years | | |
|---|---|---|---|
| | 2014 | 2015 | RAG 2015 |
| Ayrshire & Arran | 10.9 | 11.4 | G |
| Borders | 8.5 | 7.9 | G |
| Dumfries & Galloway | 10.1 | 9.9 | G |
| Fife | 11.3 | 12.4 | A |
| Forth Valley | 11.2 | 11.1 | G |
| Grampian | 11.1 | 11.2 | G |
| Greater Glasgow & Clyde | 10.6 | 11.7 | G |
| Highland | 9.1 | 9.6 | G |
| Orkney, Shetland & Western Isles | 4.6 | 4.4 | G |
| Lanarkshire | 10.6 | 10.7 | G |
| Lothian | 12.1 | 13.0 | R |
| Tayside | 13.0 | 13.9 | R |
| **Scotland** | **11.0** | **11.6** | |

*Source: Notifications (to the Chief Medical Officer for Scotland) of abortions performed under the Abortion Act 1967, ISD*

Summary – Repeat Abortion

In 2015, for the first time since 2004, the percentage of abortions that are repeat abortions was lower in Grampian than in Scotland as a whole (30.7% compared with 31.3%).[1] This is a marked improvement on 2014, when Grampian experienced the highest percentage (35.3%) of repeat abortions in Scotland.

Indicator Definition

The abortion rate is the rate per 1,000 women per year aged 15 to 44 years inclusive.

Repeat abortion percentage is the percentage of women in a given year who have had a least one previous abortion.

Rationale

Repeat abortion is a growing public health problem and indicates a failure of strategies to prevent unintended pregnancies, including uptake of post-abortion contraceptives. Women who have had one or more repeat abortions are more likely to suffer a premature birth, foetal loss, have a low birth weight baby or an ectopic pregnancy.

| Health Board Area | Percentage of abortions where the woman has had one or more previous abortions | | |
|---|---|---|---|
| | 2014 | 2015 | RAG 2015 |
| Ayrshire & Arran | 32.6 | 36.8 | R |
| Borders | 27.9 | 21.8 | G |
| Dumfries & Galloway | 24.5 | 32.3 | A |
| Fife | 32.7 | 29.1 | G |
| Forth Valley | 29.1 | 32.6 | A |
| Grampian | 35.3 | 30.7 | G |
| Greater Glasgow & Clyde | 30.0 | 30.0 | G |
| Highland | 25.3 | 25.1 | G |
| Orkney, Shetland & Western Isles | 20.0 | 23.1 | G |
| Lanarkshire | 29.0 | 27.1 | G |
| Lothian | 34.8 | 33.6 | R |
| Tayside | 34.3 | 36.5 | R |
| **Scotland** | **31.7** | **31.3** | |

1. ISD (2016) Termination of Pregnancy Statistics http://www.isdscotland.org/Health-Topics/Sexual-Health/Publications/data-tables.asp?id=1655#1655 (accessed 28/9/2016)

## 11.3 Long Acting Reversible Contraceptive Uptake

Summary

During 2014/15, the rate of prescriptions per 1,000 women aged 15-49 years of all very long acting reversible methods of contraception in Grampian was 55.7, above the rate in Scotland (52.8). This was an increase from 52.5 in 2013/14, and places Grampian at fifth highest rate of all mainland boards[1].

Indicator Definition

Rate per 1,000 women aged 15 to 49 years inclusive.

Rationale

Long-acting reversible methods of contraception (LARC) have a lower failure rate than alternative reversible methods (for example, the contraceptive pill or condoms). Current evidence suggest that increased uptake of long-acting methods would reduce unintended pregnancy and be cost-effective for the National Health Service. The Scottish Government strategy and action plan[2] make clear that the full range of contraceptive methods should be available to all patients.

| Health Board Area | Rate in 2013/14 | Rate in 2014/15 | RAG 2014/15 |
|---|---|---|---|
| Ayrshire & Arran | 55.8 | 59.9 | G |
| Borders | 53.9 | 53.3 | G |
| Dumfries & Galloway | 53.9 | 59.5 | G |
| Fife | 47.4 | 49.4 | R |
| Forth Valley | 48.1 | 52.8 | A |
| Grampian | 52.5 | 55.7 | G |
| Greater Glasgow & Clyde | 52.8 | 51.7 | A |
| Highland | 57.0 | 61.6 | G |
| Lanarkshire | 32.9 | 39.6 | R |
| Lothian | 48.4 | 52.0 | A |
| Orkney | 77.0 | 77.0 | G |
| Shetland | 43.3 | 51.4 | A |
| Tayside | 58.8 | 61.0 | G |
| Western Isles | 37.1 | 33.7 | R |
| **Scotland** | **50.2** | **52.8** | |

1. ISD (2015) Long Acting Reversible Contraceptive Key Clinical Indicator available from: https://isdscotland.scot.nhs.uk/Health-Topics/Sexual-Health/Publications/2015-11-03/2015-11-03-LARC-Report.pdf?7406252623 (accessed 28/9/2016)

   This is the first time this publication has used National Sexual Health System (NaSH) data. Previous LARC publications have included data from 'Community Prescribing' and data from central pharmacies. The data from the central pharmacies has been replaced by the NaSH data.

   The main differences between the NaSH data and the central pharmacies data are:

   (i) Central pharmacies provide data on the number of stock items dispensed from their shelves. It is difficult to equate this directly with usage, as there are issues such as stock retention to consider. NaSH provides the number of items which were actually prescribed.

   (ii) NaSH provides information on prescribing at sexual health and family planning clinics. Central pharmacies cover a wider range of locations including the acute sector (obstetrics, gynaecology and post termination services etc) and specialist community clinics (including integrated sexual health, sexual and reproductive health and genitourinary medicine services).

   (iii) Returns from central pharmacies were aggregate returns and it was not possible to equate these to people using the device. NaSH enables the number of people to be calculated.

   Therefore, comparisons of data provided by central pharmacies in previous publications with NaSH are not valid. The numbers reported in this publication from NaSH are considerably lower than the numbers reported in previous publications from central pharmacies for the reasons described previously.

2. Scottish Government (2005) Respect and responsibility: Strategy and Action Plan for Improving Sexual Health available from: http://www.scotland.gov.uk/Publications/2005/01/20603/content (accessed 28/9/2016)

## 12. Immunisation – can now update with full year 2015 (excel files saved)

### 12.1 Primary Immunisation Uptake Rates by 12 months old

**and**

### 12.2 Primary and Booster Immunisation Uptake Rates by 24 months old

Summary

In Grampian in 2015[1], the uptake of vaccination at 12 months of age exceeded 95% for the primary course of DTP/Pol/Hib, MenC and PCV immunisations in Grampian. Uptake for Rotavirus was much lower at 91.0%. All three council areas failed to achieve an immunisation rate of 95% for Rotavirus while Aberdeen City also recorded below 95% for PCV. Uptake of the primary course and booster doses by age 24 months is above 95% in Aberdeenshire for all vaccines.

Indicator Definition

Uptake of vaccination against specific diseases expressed as a percentage of the cohort eligible to be offered vaccination during 2015.

Abbreviations used:

| Abbreviation | Description |
|---|---|
| D | Diptheria |
| T | Tetanus |
| P | Pertussis |
| Pol | Polio |
| Hib | Haemophilus influenza type B |
| MenC | Meningococcal serogroup C conjugate vaccine |
| PVCB | Pneumococcal conjugate vaccine booster |
| MMR1 | Measles, Mumps and Rubella |

Rationale

Immunisation provides effective protection against life-threatening infectious diseases, and is one of the most cost-effective health promoting interventions in existence. It provides individual protection and, if uptakes are high enough, herd immunity, which helps to protect those who are unable to be vaccinated. Herd immunity to a disease is usually considered to be present when 95% of the population have been vaccinated against the condition.

Data Caveats

The low rate of uptake of rotavirus is likely to be due to recording issues.

Evaluation year: 01 January 2015 to 31 December 2015 for children born in 2014

| | % completed course by 12 months | | | |
|---|---|---|---|---|
| | DTP/Pol/Hib | MenC | PCV | Rotavirus |
| Grampian | 96.8% | 97.0% | 96.5% | 91.0% |
| Aberdeen City | 95.3% | 95.8% | 94.9% | 89.3% |
| Aberdeenshire | 97.8% | 97.9% | 97.6% | 92.0% |
| Moray | 98.2% | 98.0% | 97.9% | 93.0% |
| Scotland | 97.2% | 97.5% | 97.1% | 92.9% |

Evaluation year: 01 January 2015 to 31 December 2015 for children born in 2013

| | % completed primary and booster course by 24 months | | | |
|---|---|---|---|---|
| | DTP/Pol/Hib | MMR1 | Hib/MenC | PCVB |
| Grampian | 97.6% | 94.6% | 94.1% | 93.7% |
| Aberdeen City | 96.5% | 92.9% | 91.3% | 91.0% |
| Aberdeenshire | 98.4% | 96.1% | 96.0% | 95.7% |
| Moray | 98.0% | 94.9% | 95.6% | 95.4% |
| Scotland | 97.9% | 95.4% | 95.3% | 95.3% |


1 ISD (2016) Childhood Immunisation available from http://isdscotland.org/Health-Topics/Child-Health/publications/data-tables.asp?id=1299#1299 (accessed 28/9/2016)

2 NHS Grampian (2014) Childhood Immunisation Report for Cross System Performance Review, August 2014.

## 12.3 Vaccination against Human Papilloma Virus

Summary

The uptake and completion of the three dose course of Human Papilloma Virus (HPV) vaccine is high in Grampian, exceeding the overall uptake in Scotland as a whole[1].

Indicator Definition

Uptake of HPV vaccine expressed as a percentage of the cohort of girls eligible to be offered vaccination during their S1 and S2 secondary school year in the 2014/15 academic year.

Rationale

HPV vaccine is the first vaccine to be introduced in the UK aimed at the prevention of cancer. Once young women become sexually active they are at risk of HPV infection and a majority of women will have become infected with one or more strains of this common sexually transmitted virus by their early 20s.

Whilst most overcome the infection naturally, with few untoward effects, a minority of women will remain chronically infected and it is these individuals who are at highest risk of going on to develop cervical cancer in later years.

The HPV vaccine offers effective protection against infection with the strains of HPV that are the major cause of cervical cancer in women. To be most effective, girls need to be vaccinated before they become sexually active and exposed to HPV infection, so vaccination is offered in the S2 secondary school year. The vaccine is given as a three dose course of vaccinations over a period of around six months.

| | S1 | | S2 | | |
|---|---|---|---|---|---|
| | Number in cohort | % uptake of first dose | Number in cohort | % uptake of second dose | % uptake of third dose |
| NHS Grampian | 2706 | 91.2% | 2576 | 94.2% | 85.2% |
| Scotland | 23,234 | 89.0% | 25,837 | 91.4% | 82.7% |

1. ISD (2015) HPV Immunisation Uptake Statistics available from http://www.isdscotland.org/Health-Topics/Child-Health/Publications/data-tables.asp?id=1529#1529 (accessed 5/10/2016)

## 12.4 Seasonal Flu Vaccination

Summary

In autumn 2015, the uptake of flu vaccination[1] amongst Grampian residents aged 65 years and older was 73.2%. This was around 2-3% lower than in previous years and failed to meet the Scottish Government target of 75%. It was much lower (46.3%) amongst residents aged less than 65 years who are at increased risk of complications if they developed flu infection and this represented an even greater drop from previous years when uptake was around 53-56%.

Indicator Definition

Uptake of seasonal flu vaccine during the period from October 2015 to March 2016 expressed as a percentage of those in the eligible cohorts.

Rationale

Annual flu vaccination is offered every autumn to all aged 65 years and older, and to everyone aged from six months to less than 64 years who is at increased risk of having a poor outcome following flu infection because of an underlying medical condition or pregnancy. The flu vaccine offers a valuable degree of protection against this infection, reducing the risk of severe illness and possible hospitalisation in those vaccinated.

The Scottish Government target for flu vaccination uptake is 75% for both:

- people aged 65 years and older
- people at increased clinical risk aged 64 years or less.

| | People at risk | | | |
|---|---|---|---|---|
| Percentage uptake of flu vaccination | NHS Grampian | | Scotland | |
| | Aged 65yrs and older | Aged 64 yrs or less and at increased clinical risk of complications from flu | Aged 65yrs and older | Aged 64 yrs or less and at increased clinical risk of complications from flu |
| 2011/12 | 76.4% | 55.6% | 76.2% | 56.4% |
| 2012/13 | 76.1% | 53.8% | 76.8% | 56.1% |
| 2013/14 | 76.0% | 55.2% | 76.9% | 57.5% |
| 2014/15 | 75.7% | 53.0% | 76.3% | 54.0% |
| 2015/16 | 73.2% | 46.3% | 74.5% | 48.0% |

Flu Vaccination Uptake in people aged 64 years or less by individual clinical risk group

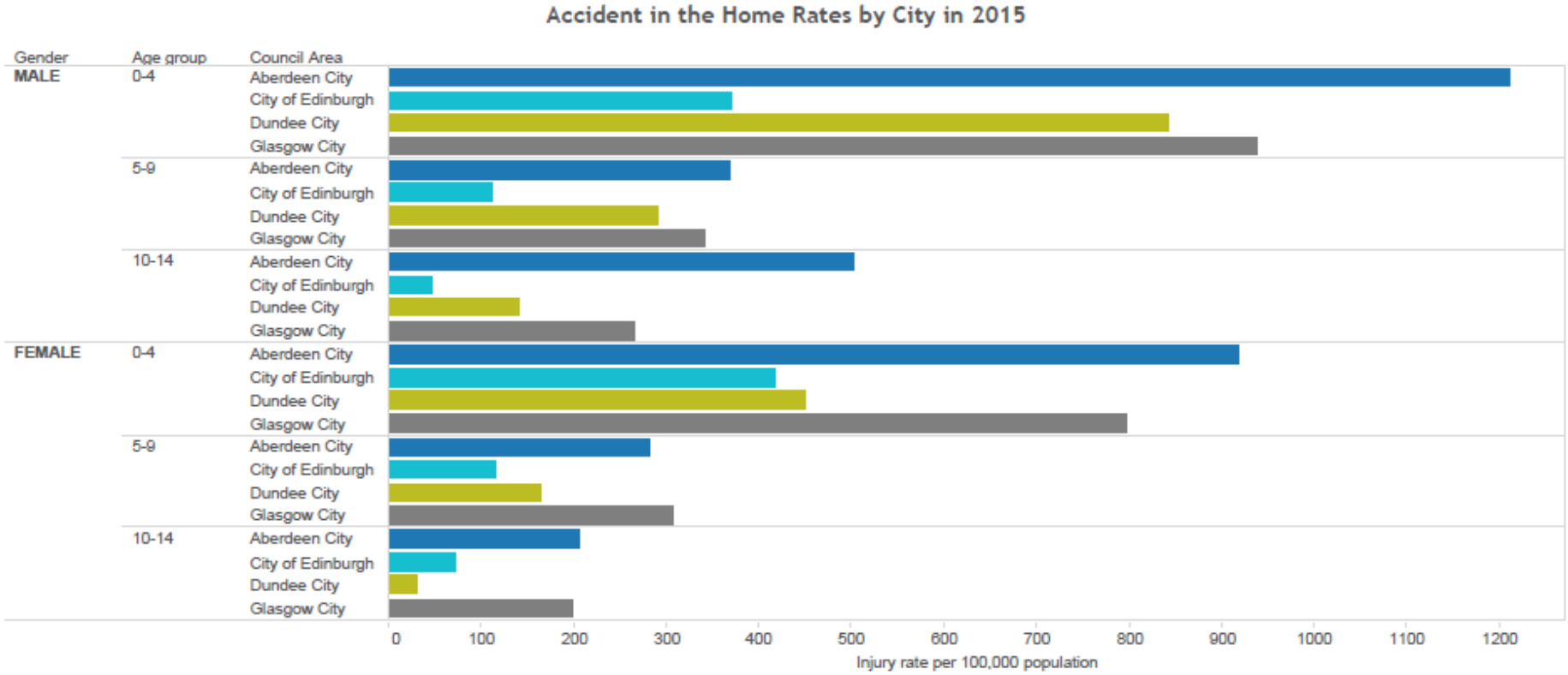
| Clinical Risk Group | Percentage uptake of flu vaccination | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | NHS Grampian | | | | Scotland | | | |
| | 2012/13 | 2013/14 | 2014/15 | 2015/16 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
| Chronic respiratory disease | 53.9% | 54.9% | 52.2% | 49.2% | 55.3% | 56.7% | 52.7% | 50.2% |
| Chronic heart disease | 57.2% | 57.2% | 54.9% | 50.9% | 59.5% | 59.7% | 56.7% | 53.5% |
| Chronic liver disease | 41.1% | 40.8% | 44.5% | 36.6% | 47.6% | 48.3% | 47.4% | 44.4% |
| Chronic neurological disease | 53.5% | 53.1% | 53.0% | 50.3% | 53.8% | 54.9% | 53.7% | 51.4% |
| Diabetes | 65.3% | 66.5% | 64.0% | 60.2% | 68.6% | 69.3% | 67.2% | 64.5% |
| Immunosuppression | 63.1% | 64.6% | 64.9% | 61.1% | 65.8% | 66.5% | 65.2% | 63.1% |
| Pregnancy and at other clinical risk | 65.5% | 62.3% | 62.8% | 55.5% | 68.7% | 65.0% | 65.0% | 61.5% |
| Pregnancy and not at other clinical risk | 45.7% | 42.4% | 43.3% | 40.0% | 52.9% | 47.9% | 49.5% | 49.9% |

1 Health Protection Scotland (2016) Seasonal Flu Vaccine Uptake Reporting Portal available from http:\\fluportal.hps.scot.nhs.uk (with appropriate permissions)

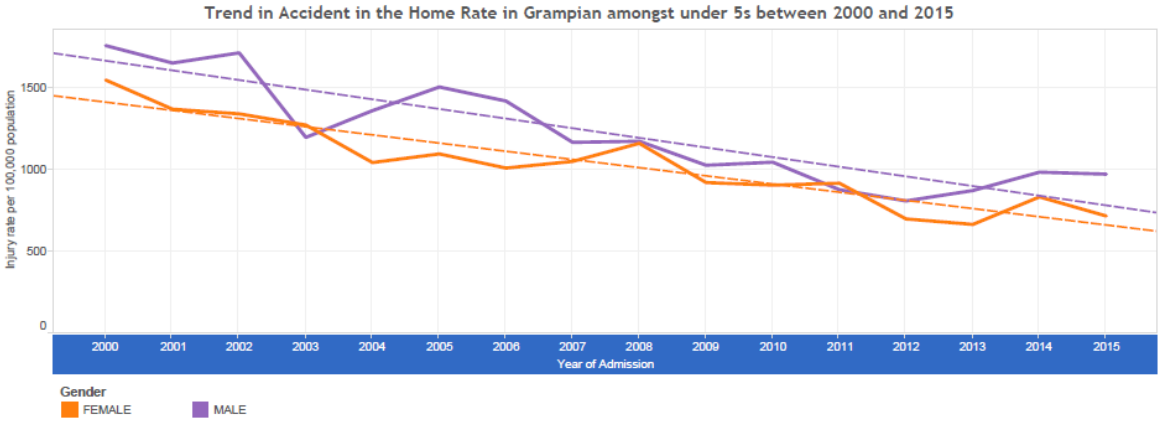
## 13.1 Unintentional Injuries in the Home in the Under 15 Age Group

Summary[1]

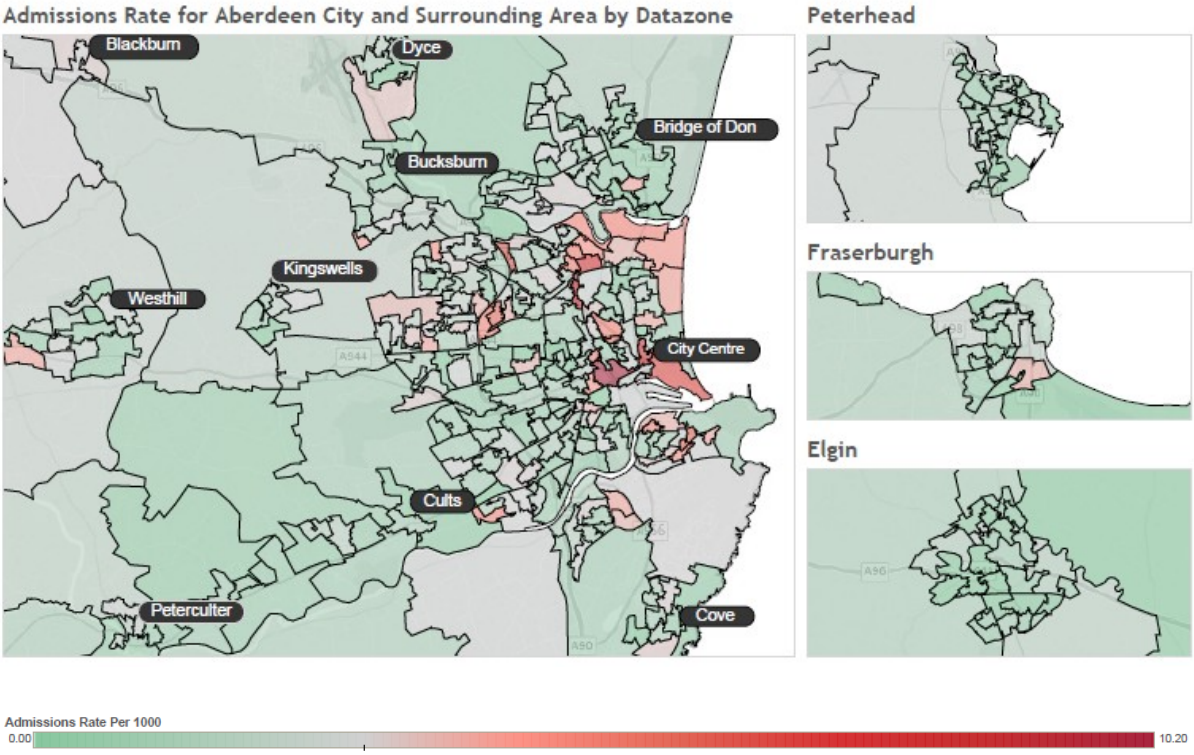
1. Aberdeen City residents have significantly higher admission rates from unintentional injury in the home than residents of other Scottish cities. One in 140 boys and one in 200 girls were admitted to hospital in 2015, following a home accident, and rates of admission were higher for all age/gender groups, except 5-9 year old girls, where Glasgow had the highest admission rate. The difference is most marked amongst under-5's with boys having an admission rate 30% higher than the next highest (Glasgow) and girls an admission rate 15% higher than the next highest (also Glasgow).



2. Since 2000 the rate of admission in the under-5 age group, has dropped by around 60 per 100,000 population per annum and by around 50 per 100,000 population per annum for girls. Each local authority has seen a significant reduction with this greatest in Aberdeen City. No significant trend is evident for the older age groups.

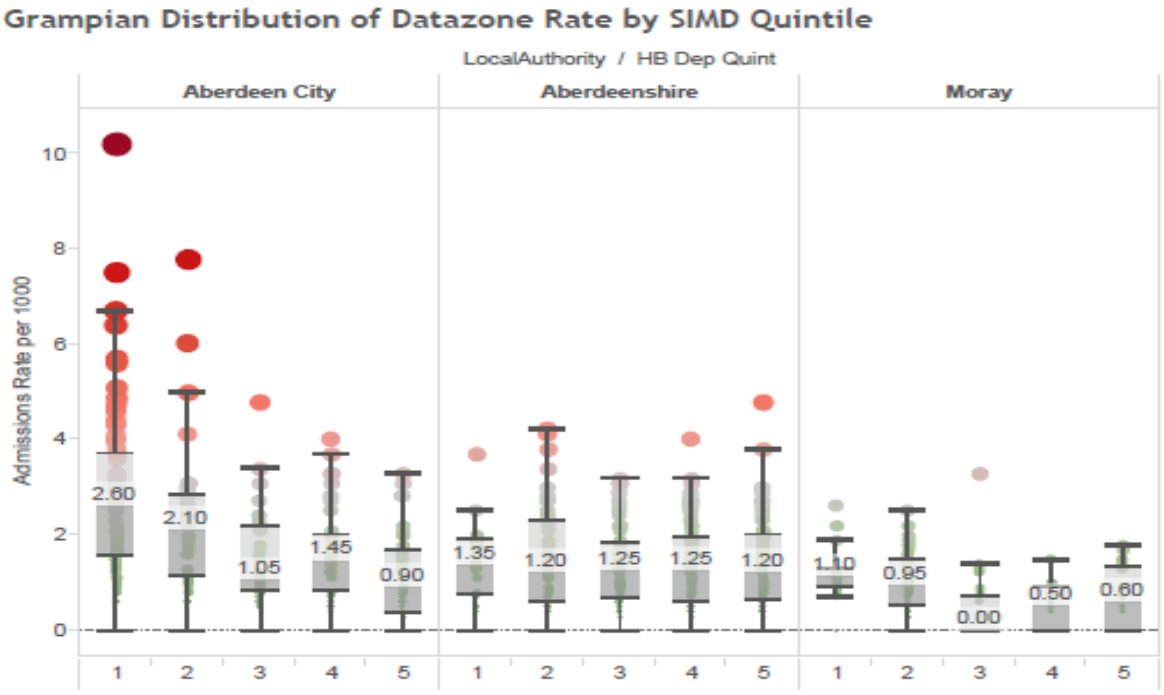



3. Datazones with higher rates of admissions over the period 2011-15 are shown in red in the map below. 88% of all high rate datazones were found in Aberdeen City with very few in rural areas.



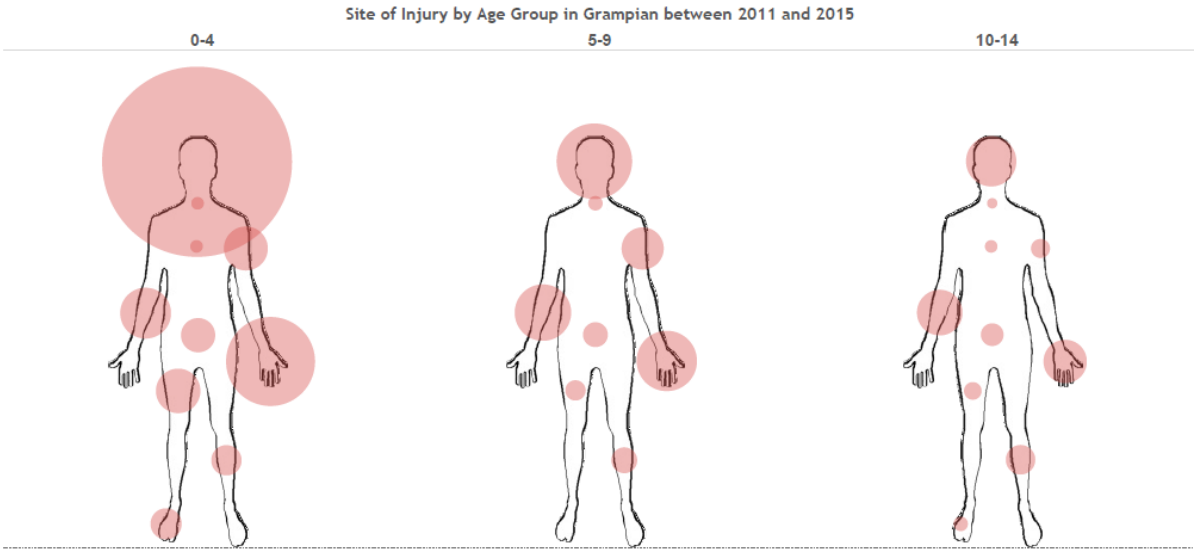

4. In Aberdeen City a child from the most deprived quintile is three times more likely to have an accident in the home than a child from the least deprived

quintile. The differences are less marked in the other two local authorities, especially Aberdeenshire.




5. Falls are the most common cause of injury in each age group followed by exposure to inanimate mechanical forces. Prior to 2006, accidental poisoning was the second most common cause of injury amongst under-5s.

6. The head is the most common part of the body to suffer injury in each age group, accounting for 53% of injuries amongst under-5s, 32% for ages 5-9 and 26% for the 10-14 age group. The second most common part of the body to suffer injury is the wrist/hand for under-5s and 5-9 year olds whereas for the 10-14 age group it is the elbow/forearm.



Indicator Definition

Unintentional Injuries in the home are defined as any admission to hospital where the admission type code has been recorded as ‘33: Patient Injury - Home Incident.’ Site of Injury has been classified based on diagnosis codes.

Rationale

Admission rates, amongst children, due to unintentional injury in the home have long been identified as being much higher in Aberdeen City than in other cities. In addition there is considerable variation in admission rates between deprivation quintiles with more deprived areas seeing a higher volume of admissions.

1 NHS Grampian Health Intelligence (2016) Data Sourced from SMR01 records via ISD’s ACaDMe and ACaDMe Comparative Datamarts.

If you have any queries regarding this publication please contact us at **grampian.infodata@nhs.net**