States of Guernsey
Public Health Services



2013–15

Health Profile for Guernsey and Alderney

READER INFORMATION

Title	Health Profile for Guernsey and Alderney, 2013–2015.
Document Purpose and key uses	Purpose: comparative profile of health indicators for Guernsey, UK and Jersey. Uses: evidence base for assessment of need and priority setting of Public Health activity; to sensitise practitioners and decision-makers to emerging and continuing issues of success or concern.
Publication date	November 2016.
ISBN number	978-1-899905-18-8
Target audience	Public; States of Guernsey officers and members of the Committee *for* Health & Social Care.
Circulation list	Corporate Management Team and Committee *for* Health & Social Care; Data and Analysis Services (States of Guernsey); health professionals; media representatives.
Data sources	See acknowledgements.
Reporting frequency	Three-yearly.

AMENDMENT HISTORY

Officer	Amendment date and detail
J Cataroche	Data compilation, analysis and draft narrative.
C Osborough	Data analysis, compilation and quality checking.
M Clarke & J Birbeck	Agreement on comparable island data for Jersey.
S Bridgman	Comment, supervision, direction, review, edit and sign-off of full report.
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Embargo/confidentiality	Embargoed until 00:01 24/11/2016.

Acknowledgements

For contributions to this report, and for the provision of raw data thanks are extended to staff at: The Offices of HM Greffier (Guernsey and Alderney), the Office *of the* Committee *for* Health and Social Care, States of Guernsey Data and Analysis Services, Guernsey Meteorological Office, the partners and staff of Guernsey's Primary Care Practice Groups and The Medical Specialist Group. Thanks also go to Jill Birbeck and Marguerite Clarke of Jersey's Public Health Statistics Unit.

Cover image: www.shutterstock.com

Graphics were created in-house by Public Health Services staff using royalty-free public-domain clip art downloads from www.clker.com

How to cite this report

Public Health Services, States of Guernsey. *Health Profile for Guernsey and Alderney 2013–2015.* Guernsey

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Comment from Guernsey's Medical Officer of Health

This document, the third Guernsey and Alderney Health Profile, builds on the previous versions, and provides more up-to data analysis covering the years 2013–15. As part of my Medical Officer of Health role I highlight some issues raised by the report.

Infant deaths and still-births remain low, and while uncommon are tragic events. There is still some room for improvement.[1] Our total fertility rate at 1.6 is below that required for population replacement, and one of the lowest in the world.[2] Breastfeeding rates remain low, but are probably even lower than previously estimated given recently discovered data quality issues. It is hoped that the implementation of the first breastfeeding strategy approved by the States in 2016 will improve the situation over the coming years. A remarkable drop in conceptions in under 18 women between 2008 and 2015, mirrored in other British jurisdictions, has seen rates decrease to less than half what they were. However Guernsey rates are still internationally high and twice those of Jersey so further improvement is possible and needed. Our rates of chlamydia detection remain unsatisfactory, and it is hoped will be reversed if a developing sexual health strategy is agreed and implemented. Terminations are required by law to be notified to the Medical Officer of Health. Local rates are much lower than any English region, half that of London and have been stable since 2008.

The life-expectancy of Guernsey and Alderney residents, calculated from current age-specific death rates, has steadily increased so that the average for men is now 81.3 years and for women 84.8 years. This represents increases of 7.1% and 5.2% respectively between 1996 and 2004. Men now aged 65 have an expected further life of 19.7 years, and women 22.1 years, and would be expected on average to live to 85 years and 87 years respectively. Guernsey's life-expectancy in 1901 is likely to be similar to England's which was 45 years for men and 49 years for women[3]. The remarkable increase in life-expectancy in the Bailiwick, as other parts of the Western World, has exceeded all predictions, and shows no sign yet of halting, creating uncertainty for planners. While, life expectancy (LE) is an estimate of average expected life span, healthy life expectancy (HLE) is a relatively

[1] 115th Bailiwick of Guernsey, Medical Officer of Health Report.
[2] CIA. Fertility Rates, https://www.cia.gov/library/publications/the-world-factbook/rankorder/2127rank.html, accessed 17th Nov 2016.
[3] Kings Fund. https://www.kingsfund.org.uk/time-to-think-differently/trends/demography/life-expectancy, accessed 17th Nov 2016.

recent measurement of the estimate of the years of life that will be spent in good health. This is important as regards the likely need for services and resources in the future to maintain our quality of life.[4] Based on UK estimates, while over half the remaining life from age 65 years can be expected to be in good health this increase in life is accompanied by an expansion of morbidity (the number of years in "Not Good" health), as for both males and females there were larger increases in LE compared with HLE[5]. The implication of this are the likely need for more health and social care services to meet the increase in needs that can be anticipated. We can also anticipate more ill health at a population level simply from the increasing average age of our population as the "baby boomer" generation ages (Figure 2).

Positively, Guernsey, along with Jersey, has low age-standardised death rates compared to other English jurisdictions. Of the average 548 deaths a year, disease of the circulatory system (31%), cancers (29%), and respiratory disease (13%) were the top three leading broad causes of death. Another way of considering the burden of disease on a population is to consider the years of life lost (under 75 years), or working years of life lost (under 65 years). By these measures accidents, suicide and undermined injury and chronic liver disease join circulatory system (largely coronary heart disease and stroke), cancer and respiratory disease, as leading causes of years of life lost, because these causes are seen on average in younger people. Lung cancer is by far the most common cause of cancer death, and the third most important cause of years of life lost in our population.

The vast majority of lung cancers are caused by tobacco smoking. Of deaths in individuals aged over 35 years, 16% were attributable to tobacco smoking, slightly down from 17% in the last report. It is anticipated that with the reduction in smoking prevalence over the last two to three decades, the percentage of deaths attributable to smoking will gradually decrease. However, with the most recent lifestyle survey in 2013 showing that 13% of respondents identified themselves as current smokers and 35% as ex-smokers, tobacco smoking will continue to be an important cause of premature death and ill health for our population for decades to come. We must therefore not be complacent and keep up strenuous efforts to support our

[4] SoG. Policy and Resource Plan. https://www.gov.gg/article/156403/First-phase-of-Policy--Resource-Plan-published accessed 17th Nov 2016.
[5] Office of National Statistics. Healthy Life Expectancy at Birth and age 65y http://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/healthylifeexpectancyatbirthandage65byuppertierlocalauthorityandareadeprivation/england2012to2014 , accessed 17th Nov 2016.

citizens to not start tobacco smoking in the first place, to stay an ex-smoker, or to help give up through implementation of the tobacco control strategy approved in 2015.

While it is good news that the prevalence of tobacco smoking is decreasing, it is disappointing news that the prevalence of obesity has increased over the last few decades, such that internationally and in Guernsey obesity is judged to be close to tobacco smoking as a cause of preventable death and ill health. Data from the robust local child measurement survey show that one in six, year one children (age 5 or 6 years) and one in three, year six children (age 9 or 10 years) are overweight or obese. From self-reported data in the lifestyle survey in 2013, about half adults were overweight or obese. Alongside these physical data, only just over a fifth of adults reported eating the recommended five or more portions of fruit or vegetables a day, and only a third of adults recommended physical activity levels. Although a protective factor for obesity, physical activity levels have a very positive impact on improving health and risk of future disease independently. Major effort will be required at scale to reverse these issues. It is hoped that implementation of the new Healthy Weight Strategy agreed by the States in 2016 will help many more people in our community maintain and regain a healthy weight, but significantly reversing the trend in obesity is likely to take many years.

Alcoholic drinks are also a major issue with over a quarter of adults exceeding low risk consumption and 20% binge drinking. Alcohol related deaths tend to disproportionately affect younger people and cause around 10% of years of working life lost from premature death (under 65 years) in the Bailiwick. Alcohol is, of course, a cancer causing chemical with no safe levels, risk simply varying with the quantity drunk.

Uptake of early childhood immunisations remains good at over 95%. Uptake of seasonal flu immunisation for adults and at risk groups remains below that of England and below the WHO target of 75%.

The Public Health Intelligence team have compiled some very helpful figures to help our population monitor health and prioritise areas for further action. However, there remain significant gaps in our understanding of local health statistics such as in screening and disease prevalence that it would be helpful to fill in the future.

Dr Stephen Bridgman, Medical Officer of Health, November 2016.

Glossary and abbreviations

95% CI LL	95% Confidence Interval Lower Level (see also Statistical Definitions)
95% CI UL	95% Confidence Interval Upper Level (see also Statistical Definitions)
AKA	Also Known As
Alderney MMH	Alderney Mignot Memorial Hospital
ASH	Action on Smoking and Health
ASR	Age-standardised rate (see also Statistical Definitions)
AUDIT	Alcohol Use Disorders Identification Test
Bailiwick	Unless otherwise stated, the term 'Bailiwick', where used in this report, refers to Guernsey, Alderney and the smaller islands of Herm and Jethou, but excludes Sark.
BMI	Body Mass Index
COPD	Chronic Obstructive Pulmonary Disease
DCSF	Department for Children, Schools and Families
DH	Department of Health
Dmft	Decayed, missing or filled teeth
E&W	England and Wales
ESP	European Standard Population

EWM	Excess Winter Mortality
'Flu	Influenza
GFR	General Fertility Rate
GP	General Practitioner
Gsy/Ald	Guernsey/Alderney; indicating a joint result using pooled data from both islands
GUM	Genitourinary Medicine
HIV	Human Immunodeficiency Virus
HLE	Healthy Life Expectancy
HPV	Human Papilloma Virus
HSC	Committee *for* Health and Social Care
HSCIC	Health and Social Care Information Centre
ICD-10	International Statistical Classification of Diseases and Related Health Problems, 10th Revision
KEVII	King Edward VII Hospital
NB	*Nota Bene*, meaning "note well" or "take note"
NHS	National Health Service
NHSP	National Healthy Schools Programme

ONS	Office for National Statistics
PEH	Princess Elizabeth Hospital
PHOF	Public Health Outcomes Framework (a Public Health England data tool which sets out a vision for public health, desired outcomes and indicators that enable an understanding of how well public health is being improved and protected)
PSHE	Personal, Social and Health Education
SAFs	Smoking-attributable fractions
SoG	States of Guernsey
STIs	Sexually Transmitted Infections
TFR	Total Fertility Rate
UK	United Kingdom
WEMWBS	Warwick-Edinburgh Mental Wellbeing Scale
WHO	World Health Organisation
YLL/YWLL	Years of Life Lost/Years of Working Life Lost (see also Statistical Definitions)

Introduction

Welcome to this report which has been produced by the Health Intelligence Unit, Public Health Services, as an update to the *Health Profile for Guernsey and Alderney 2010–12*.

This report incorporates data covering the period 2013 to 2015 (or the most recent available) and it is structured around selected health indicators, an indicator being a quantifiable characteristic that describes a particular aspect of population health. Together the indicators provide a snapshot of the overall health of the local population.

As in previous profiles this update is produced with the aims of:

- Celebrating areas of success
- Identifying areas for improvement (notably through comparison with other relevant jurisdictions)
- Supplying the States of Guernsey and Alderney and their departments with information they require for decision-making and strategic planning

Indicators have been selected to give a balance across a range of important health areas. Selection has been on the basis of availability of local and comparison data and relevance to existing States of Guernsey strategies. Additionally selection has been made with reference to published indicators of: The Department of Health (including the Public Health Outcomes Framework); The Health and Social Care Information Centre (replacing the former National Compendium dataset of the National Centre for Health Outcomes Development); Public Health England (including the regional Health Profiles) and the Office for National Statistics.

Where possible, comparisons have been drawn between indicator values reported in previous profiles and those reported here for 2013–2015, in order to examine changes over time.

It is important to note that this Profile aims only to provide the facts about various aspects of population health. It does not seek to answer ***why*** the figures are as they are, nor ***what*** should be done about them, though these will be important questions for consideration in other forums.

As in previous years, close collaboration between public health staff in Guernsey and Jersey has allowed the publication of this Profile to coincide with the simultaneous release of a *Health Profile for Jersey*, covering much of the same ground.

Notes on methods

- The *Health Profile for Guernsey and Alderney 2013–2015* was compiled retrospectively during 2016. Comparison data have not, in all cases, been available up to the end of 2015 due to publication timetables for National and International datasets where time lags of eighteen months are not uncommon. Where it has not been possible to compare the same time periods across different jurisdictions data for the nearest years (i.e. the most up-to-date comparison data available) has been used.
- Rates detailed in this report are most frequently three-year average rates for the period 2013–2015 where figures for the three individual years 2013, 2014 and 2015 have been combined to minimise the effects of random year-to-year fluctuations. Such fluctuations can be a particular problem for small populations, like those of Guernsey and Alderney, which experience relatively few health events of a given type each calendar year.
- As far as possible, established, published methodologies have been followed in the calculation of local indicator values. Where it has been necessary to adapt standard methods, or where definitions differ, details are given in indicator-specific 'Notes' sections.
- A re-coding exercise carried out in 2011 by the Office for National Statistics on cause of death information for local residents who died since 2001 means that cause of death information published before 2012 may not be reliable and should be treated with caution. Similarly, minor inconsistencies may exist in the total number of resident deaths reported in this or previous Health Profiles and pre-2012 publications, owing to recent improvements in the transfer of death data between the Office of HM Greffier (Guernsey) and the Health Intelligence Unit, Public Health Services.
- Unless otherwise stated values, rates or figures given for Jersey for any of the years covered by this profile (2013–2015 inclusive) are taken from the *Jersey Health Profile 2016.*
- One key source of data for this profile has been *The Sixth Guernsey Healthy Lifestyle Survey 2013.* In this survey 1196 islanders aged 18+ from Guernsey, Alderney and the smaller Bailiwick Islands responded to a postal questionnaire that was sent to 2500 households. Respondents answered questions on their lifestyle, general health and use of health services.

- This report adopts the colour theme for the Office *of the* Committee *for* Health & Social Care [R:G:B = 50:138:171]. This contrasts to some previous Public Health Services reports where Guernsey data has been represented in green.
- Values shown in tables are rounded to one decimal place. The same values, where discussed in the narrative, may be presented to two decimal places.

Statistical definitions

ASR Rates reported in this Profile are most often 'age-standardised rates'

Age standardisation adjusts crude rates to take into account how many old or young people are in the population of interest. When rates are age-standardised, we can be sure that differences in the rates over time or between geographical areas do not simply reflect variations in the age structure of the populations. The 2013 European Standard Population (ESP) has been used to calculate the standardised rates given throughout this report; hence the rates could equally be described as 'European Age Standardised Rates' — the terminology adopted by other data providers.

The 2013 ESP replaces the 1976 ESP which had been used in both previous Health Profiles for Guernsey and Alderney and in all national publications released prior to the start of the financial year 2014/15. **Readers should be aware that age-standardised rates calculated using the 1976 ESP will not be comparable with those calculated using the 2013 ESP owing to differences in the age structures of the two standard populations.**

95% CI 95% Confidence Interval

The 95% confidence interval is used as a way of quantifying the uncertainty of an estimate. Because of our small population numbers, rates or percentage estimates over short periods of time are sensitive to random fluctuations in numbers of events. We cannot know for sure that our estimate of the percentage or rate is spot on, but there is a 95% probability that the true value will fall somewhere between the 95% LL ('lower level') and the 95% UL ('upper level') of confidence. Where confidence intervals for two estimates are available these can be examined to gauge the statistical significance of the difference in estimates. Non-overlapping confidence intervals signify that estimates are likely to be significantly different. Overlapping confidence intervals, by contrast, suggest that true values of the two estimates may be the same.

CHAPTER 1: Demography

Population

Table 1: Bailiwick population by island of residence, age and sex, 2015.

	Guernsey		Alderney				
AGE GROUP	Females	Males	Females	Males	TOTAL FEMALES	TOTAL MALES	TOTAL PERSONS
0-4	1584	1683	30	24	1614	1707	3321
5-9	1499	1706	29	23	1528	1729	3257
10-14	1503	1553	39	40	1542	1593	3135
15-19	1693	1782	33	38	1726	1820	3546
20-24	1909	2061	44	43	1953	2104	4057
25-29	1909	2005	55	42	1964	2047	4011
30-34	1924	2040	43	39	1967	2079	4046
35-39	1864	1844	35	36	1899	1880	3779
40-44	2247	2167	48	53	2295	2220	4515
45-49	2565	2393	76	61	2641	2454	5095
50-54	2478	2426	78	89	2556	2515	5071
55-59	2162	2179	80	78	2242	2257	4499
60-64	1863	1895	96	92	1959	1987	3946
65-69	1941	1830	132	102	2073	1932	4005
70-74	1260	1216	62	71	1322	1287	2609
75-79	1182	1053	55	62	1237	1115	2352
80-84	934	655	52	48	986	703	1689
85+	1067	540	62	30	1129	570	1699
TOTAL	31584	31028	1049	971	32633	31999	64632

Source: States of Guernsey Data and Analysis Services.

In 2015 the resident population of Guernsey was estimated to be 62,612 and the resident population of Alderney 2,020, giving a total for the two islands of 64,632[6].

Population pyramids provide a visual illustration of how a region's population is distributed across different age groups. The shape of the pyramid relates to birth rate and life expectancy. In a population with a high birth rate and low life expectancy we would expect to see a short, triangle-shaped pyramid. Where there is a falling birth rate and high life expectancy, the pyramid is taller and has straighter sides with a shape more like a barrel. This second shape is what we see when we create a pyramid of the combined population of Guernsey and Alderney (Figure 1). The pyramid is roughly symmetrical up to and including age band 60–64 years, indicating an equal number of men and women. Higher up than this it becomes narrower on the right relative to the left, reflecting the increased survivorship of women over men in the older age categories.

The main population bulge in this combined pyramid is currently in ages 40–69 years. As this cohort ages, and assuming no increase in birth rate, the pyramid is expected to move towards the inverted triangle shape that is typical of ageing populations with low birth rates. This projected change in shape will alter the ratio of working to non-working residents (known as the dependency ratio) and will have important Public Health consequences through the increased occurrence of the conditions that most commonly affect older people.

The individual population pyramids for Guernsey and Alderney (Figures 2 and 3) reveal that Alderney's population is ahead of Guernsey's in its progress towards the inverted-triangle shape of an ageing population. This tells us that increased demand for services for older people is likely to come sooner from Alderney than it will from Guernsey.

Further reports and information on the population of Guernsey, including projections, can be found at https://www.gov.gg/population

[6] Point estimate at 31st March 2015.

Figure 1: Population pyramid for Guernsey and Alderney, 2015.

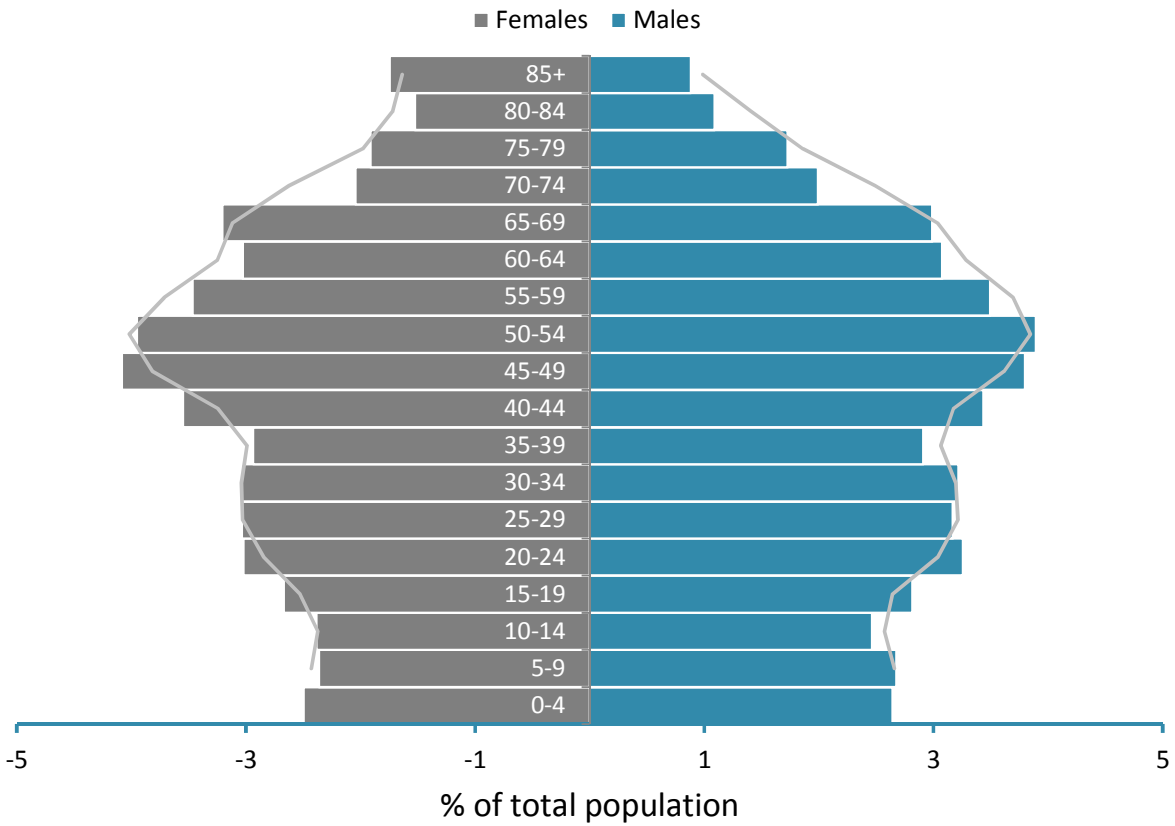


Figure 2: Population pyramid for Guernsey, 2015.

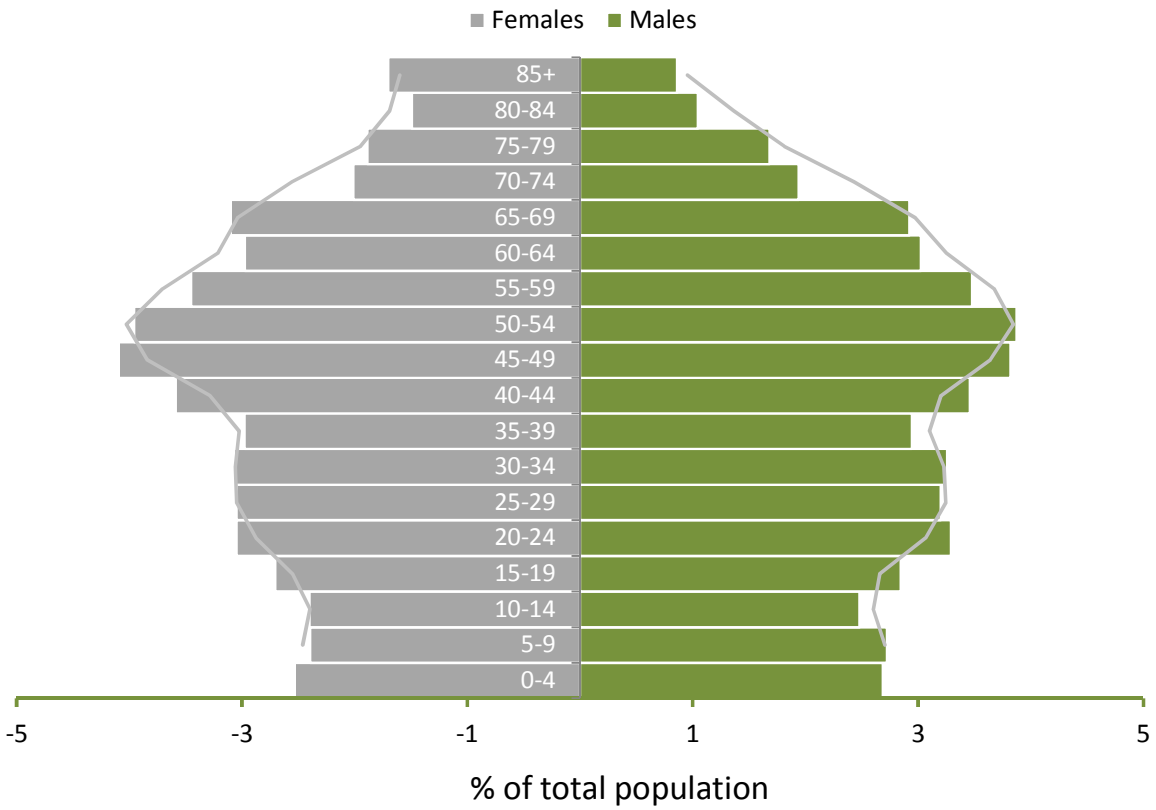
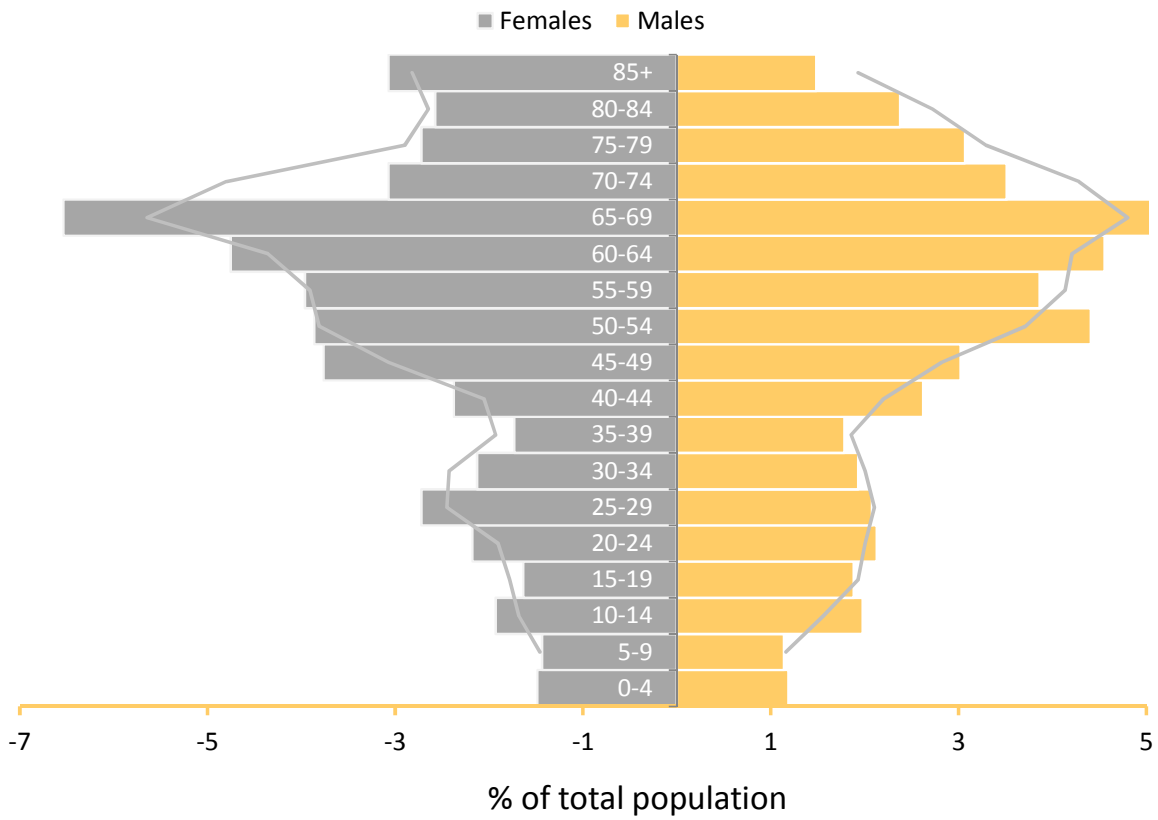


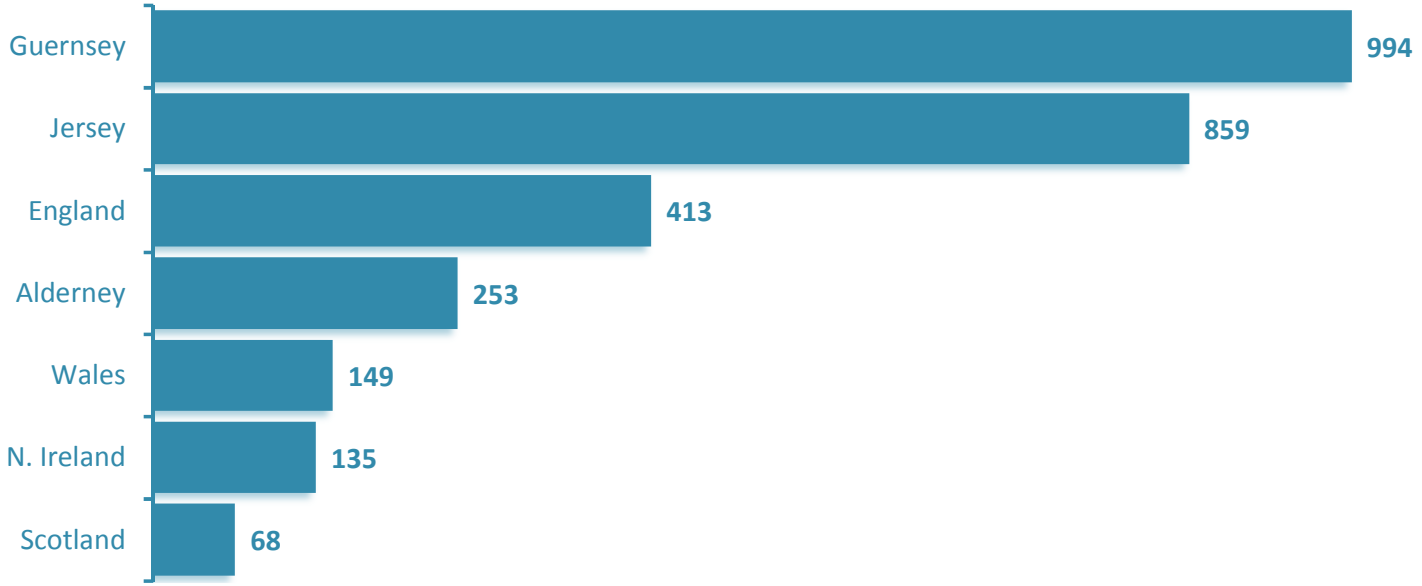
Figure 3*: *Population pyramid for Alderney, 2015.



Population Density

Guernsey has an area of 63km^2 (Guernsey Facts and Figures 2013, 84) while Alderney has an area of 8km^2 (www.alderney.gov.gg). The population densities for the islands were therefore 994 people per square kilometre and 253 people per square kilometre, respectively.

Figure 4: Population density (per km^2), 2015, Channel Islands and UK countries compared.



Source UK data: http://webarchive.nationalarchives.gov.uk/20160105160709/http://ons.gov.uk/ons/guide-method/compendiums/compendium-of-uk-statistics/population-and-migration/index.html [Accessed 08/07/16].

Both Guernsey and Jersey have population densities that are more than double the population density of England which, itself, has the highest population density of the UK countries.

CHAPTER 2: Fertility, Infant and Child Health

Birth Rate

Crude birth rate — the annual number of births per 1,000 population

The average number of live birth registrations in Guernsey and Alderney was 622 per year during 2013-15 with modest year-on-year reductions over that period. The three-year average birth rate was 9.6 births per 1,000 population. This is similar to the crude birth rate for Jersey in 2015 of 10.0 per 1,000[7] and lower than the England and Wales rate in 2014 of 12.1 per 1,000[8].

Table 2: Guernsey and Alderney birth rate, 2013–15.

Year	Live birth registrations	Population	Crude birth rate per 1,000
2013	661	64,812	10.2
2014	621	64,724	9.6
2015	584	64,632	9.0
2013-15	1866	194,168	9.6

Sources: Data and Analysis Services (Guernsey and Alderney Population); Guernsey and Alderney Greffe (live birth registrations).

NB. The window for registering a birth is 30 days. A birth registration may therefore fall in a different year to the year of birth for births occurring late in the calendar year. Birth registration figures used in this report differ slightly from the birth figures published in the Annual Electronic Census Reports produced by Policy Council owing to differing source data, see https://www.gov.gg/CHttpHandler.ashx?id=100170&p=0

[7] Jersey Public Health Statistics Unit.

[8] ONS Birth Summary Tables, England and Wales, 2014 [Accessed from https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/bulletins/birthsummarytablesenglandandwales/2015-07-15 on 20-10-16].

General Fertility Rate

General Fertility Rate (GFR) — the number of live births per 1,000 females of childbearing age (15–44).

The GFR for Guernsey and Alderney over the period 2013–2015 was 51.6 per 1,000 — a rate that was similar to the Jersey GFR for the same period. Both island groups had GFRs that were significantly lower than the most recently available rates (2014) for England and Wales and the English Regions — see Table 3.

Table 3: Comparison of General Fertility Rates, Channel Islands 2013–15 and English Regions 2014.

	GFR per 1,000 female population aged 15-44	95% CI (LL)	95% CI (UL)
West Midlands	64.1	63.7	64.6
East of England	64.1	63.7	64.6
London	63.3	63.0	63.6
North West	62.5	62.1	62.9
England	62.2	62.1	62.4
England and Wales	62.1	61.9	62.2
Yorkshire and the Humber	61.9	61.4	62.4
South East	61.4	61.1	61.8
East Midlands	60.7	60.2	61.2
South West	60.5	60.1	61.0
North East	57.6	57.0	58.3
Gsy/Ald 2013-15	51.6	49.3	54.0
Jersey 2013-15	51.5	49.8	53.3

Sources: Guernsey and Alderney Greffe; Data and Analysis Unit Population Bulletins; ONS Birth Summary Tables, England and Wales, 2014; HSCIC P00427.

Total Fertility Rate

Total Fertility Rate (TFR) is defined as the average number of children that would be born to a woman who experienced the current age-specific fertility rates throughout her childbearing years (15-44 years). TFR is used as an estimate of whether a population is replacing itself or not. In Western countries a TFR of about 2.1 is required to maintain long term population levels assuming no migration.

The TFR for Guernsey and Alderney over the period 2013–2015 was 1.56. A similar value — 1.5 — was recorded for Jersey. These Channel Islands rates remains below the level required for population replacement and below the rates reported for England and Wales and all English Government Office Regions during the nearest comparable period (2014), where the average was 1.83.

TFR for Guernsey and Alderney has undergone a small but non-significant decrease since the last reporting period (2010–2012) where the rate was 1.58 (95% CI 1.43 to 1.76).

Table 4: Comparison of total fertility rates, Channel Islands 2013–15 and English Regions 2014.

	TFR	95% CI (LL)	95% CI (UL)
West Midlands	1.9	1.9	1.9
East of England	1.9	1.9	1.9
South East	1.9	1.9	1.9
North West	1.9	1.9	1.9
South West	1.9	1.8	1.9
Yorkshire and the Humber	1.9	1.8	1.9
East Midlands	1.8	1.8	1.9
England and Wales	1.8	1.8	1.8

England	1.8	1.8	1.8
North East	1.7	1.7	1.7
London	1.7	1.7	1.7
Gsy/Ald 2013-2015	1.6	1.4	1.7
Jersey 2013-2015	1.5	1.4	1.6

Table 5, below, shows the most recent global estimate of Total Fertility Rate by income bracket. This shows that the Channel Islands rates are lower than the average rates recorded among high and upper middle income countries of 1.7 and 1.9.

Table 5: WHO global average total fertility rates for 2013.

Income bracket	Mean TFR
Low income	4
Lower middle income	2.9
Upper middle income	1.9
High income	1.7

Source: *World Health Statistics 2015*. P159 http://apps.who.int/iris/bitstream/10665/170250/1/9789240694439_eng.pdf?ua=1&ua=1 [Accessed 12-07-16]

Stillbirth Rate

Stillbirth rate is defined as the number of stillbirths per 1,000 live and stillbirths. A stillbirth is the birth after the 24th week of gestation of a baby that has died *in utero* (in the womb) — *Stillbirth (Definition) Act 1992*[9].

[9] This UK Act can be found at: http://www.legislation.gov.uk/ukpga/1992/29/pdfs/ukpga_19920029_en.pdf [Accessed 14-11-16].

In the ten years to 2015 the average number of stillbirth registrations per year in Guernsey and Alderney was 2.5 and the stillbirth rate over the period 2013–2015 was 2.1 per 1,000, a figure which is lower — but not significantly different from — the 2010–2012 rate of 3.6 per 1,000. The Jersey rate for 2013–2015 was similar to the Guernsey/Alderney rate, at 3.0 per 1,000. Both Channel Island rates are lower than the most recent comparison data for England and Wales and the English regions, but the confidence intervals around the local estimates are wide and the differences cannot be said to be significant.

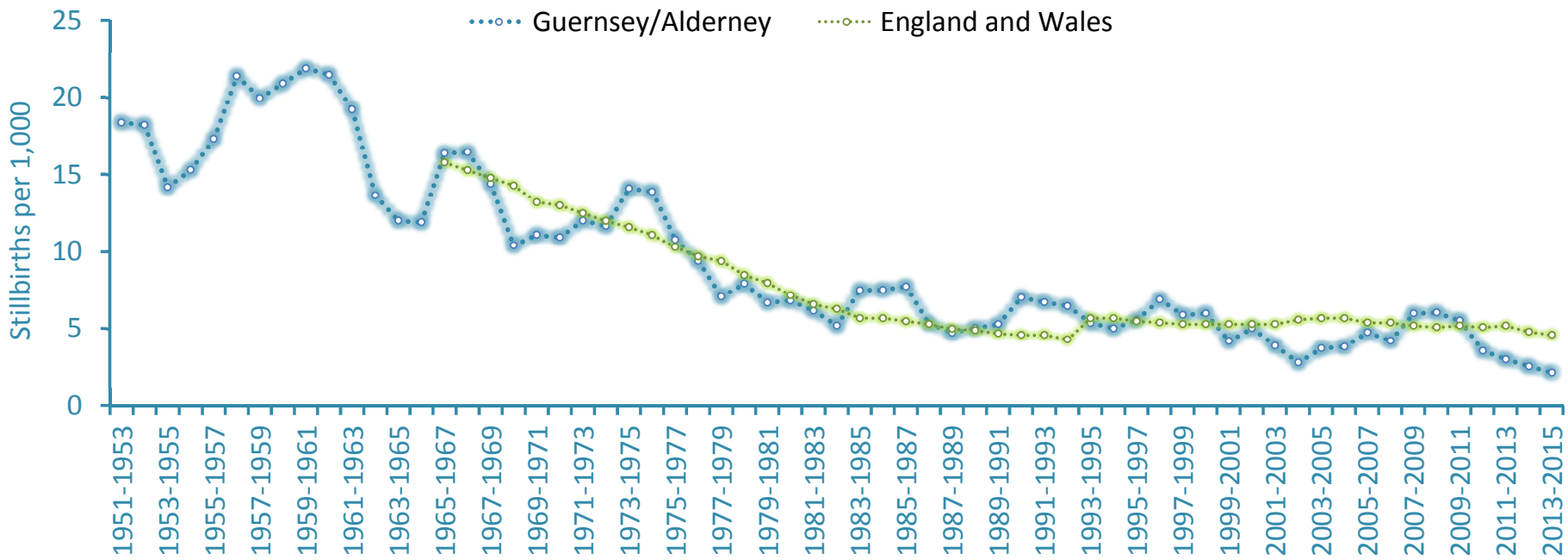
Table 6: Comparison of stillbirth rates, Channel Islands 2013–15 and English Regions 2014.

	Stillbirth rate per 1,000	95%CI (LL)	95%CI (UL)
Yorkshire and the Humber	5.0	4.5	5.6
West Midlands	5.0	4.5	5.5
London	4.8	4.5	5.2
North West	4.8	4.4	5.3
England and Wales	4.6	4.5	4.8
England	4.6	4.4	4.8
East Midlands	4.4	3.9	5.0
South East	4.4	4.0	4.8
North East	4.3	3.6	5.2
East of England	4.0	3.6	4.5
South West	4.0	3.6	4.6
Jersey 2013-15	3.0	1.5	5.7
Gsy/Ald 2013-15	2.1	0.6	5.5

Sources: Guernsey and Alderney Greffe registrations; HSCIC P00467 datasheet 2014.

Figure 5 shows that in Guernsey/Alderney as in England and Wales the rate of stillbirths has decreased over time, and now fluctuates at or just below the level of approximately 5 per 1,000 births.

Figure 5: Secular trend in stillbirth rates, Guernsey/Alderney and England and Wales, 1951 to 2015.



Sources: Greffe registrations. Pre-2006 may be Guernsey only, excluding Alderney (if any). England and Wales comparison data: ONS *Stillbirth rates 1965-2010*, 12 April 2013 and *Birth Summary Tables, England and Wales 2014* [www.ons.gov.uk].

Infant Mortality Rate

Infant mortality rate is defined as the number of deaths under the age of one (not including stillbirths) per 1,000 live births.

On average there has been 1 infant death each year in the 10 years to 2015, ranging from 0 to 3 in any given year. The infant mortality rate for Guernsey and Alderney in the period 2013 to 2015 was 2.7 per 1,000 and the Jersey rate was 1.3 per 1,000.

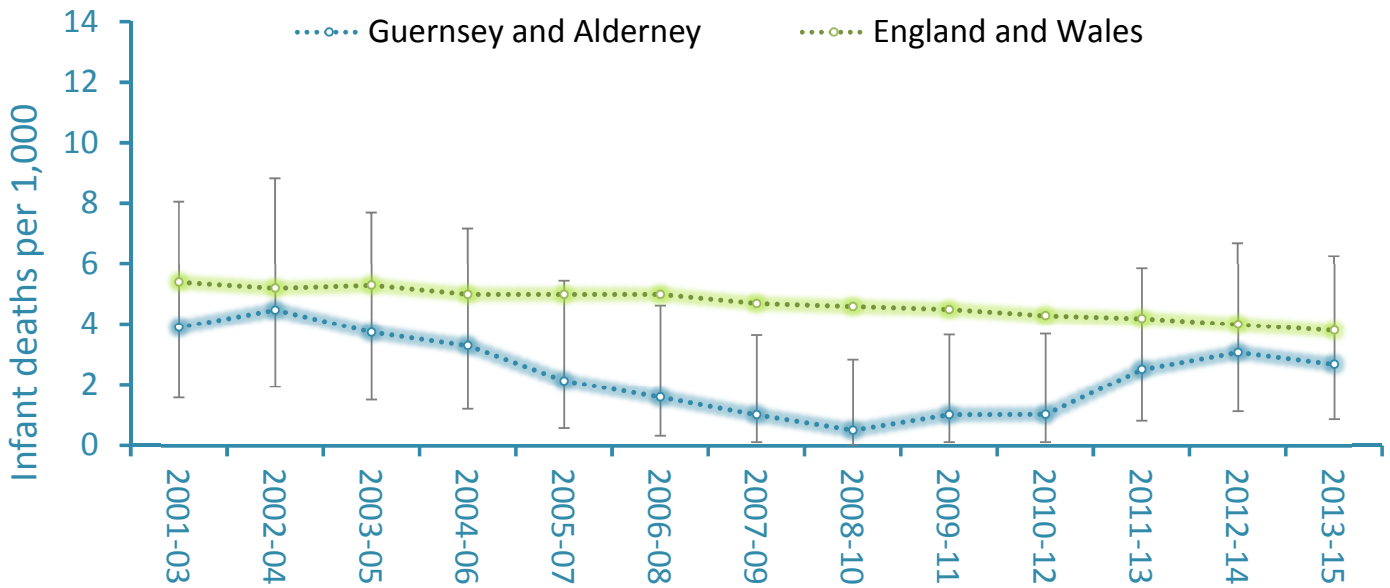
The rates for the two Channel Island groups cannot be said to be significantly different to one another, however both are lower than the most recent comparison rate for England and Wales — 3.8 per 1,000.

Table 7: Comparison of infant mortality rates, Channel Islands 2013–15 and English Regions 2014.

	Infant death per 1,000	95%CI (LL)	95% CI (UL)
West Midlands	5.5	5.0	6.1
North West	4.3	3.9	4.8
East Midlands	4.3	3.8	4.9
North East	4.2	3.5	5.0
Yorkshire and the Humber	4.0	3.6	4.5
England	3.9	3.7	4.0
England and Wales	3.8	3.7	4.0
East of England	3.6	3.2	4.1
South West	3.3	2.9	3.8
South East	3.3	2.9	3.6
London	3.1	2.8	3.4
Gsy/Ald 2013-15 **on-island only**	2.7	0.9	6.3
Jersey 2013-15	1.3	0.5	3.5

Sources: HSCIC P00724.

Figure 6: Secular trend in infant mortality rates, Guernsey/Alderney and England and Wales.



Source: Child Mortality in England and Wales, 2014 [www.ons.gov.uk; xls 635.9KB].

Low Birth Weight Rate

Low birth weight rate is the percentage of all live and stillborn infants with a stated birth weight where the birth weight was less than 2,500 grams.

Weight at birth was recorded for 99% of live and stillborn babies in Guernsey and Alderney during 2013–2015. Of these, just over 5% of babies fell below the low birth weight threshold of 2,500 grams (5lb, 8oz). A modest but significant difference is seen between this local figure and the England and Wales figure for 2014, which is higher at 7.4%. The delivery in England of babies predisposed to have a low weight at birth may be one factor influencing the relatively low local figure.

A comparison for Jersey is not included due to the difference in the calculation of rates between the islands. Low birth weight data for Jersey can be found in the *Jersey Health Profile 2016*.

Table 8: Comparison of low birth weight rate, Guernsey/Alderney 2013–15 and English Regions 2014.

	LBW %	95%CI (LL)	95%CI (UL)
West Midlands	8.6	8.3	8.8
London	7.7	7.5	7.8
Yorkshire and the Humber	7.9	7.7	8.1
North East	8.0	7.7	8.3
East Midlands	7.3	7.1	7.6
England and Wales	7.4	7.3	7.4
England	7.4	7.3	7.4
North West	7.4	7.2	7.6
East of England	7.1	6.9	7.3
South East	6.6	6.4	6.8
South West	6.2	6.0	6.4
Gsy/Ald 2013-2015	5.1	4.2	6.2

Source: HSCIC P00455 Low birth weight births: percent, annual (Excel file 04 J090PC).

Breastfeeding Initiation

EXPERIMENTAL DATA

During 2013-15 there were 1830 maternities in Guernsey and Alderney and initial feeding type was recorded for 1816 of these (99%). 1465 women are recorded to have given breast milk either exclusively or in combination with formula milk — a breastfeeding initiation percentage of 80%. The Guernsey and Alderney figure is significantly higher than the England average of

74.1% (95% CI 74.0 to 74.2%) for the same period however readers are advised to treat the local figure with caution and to note the data quality comment below.

BREASTFEEDING INITIATION INDICATOR - DATA QUALITY COMMENT

In 2015 a data validity concern was raised in respect of the data definition for 'breastfeeding on delivery ' recorded by Maternity Services, which forms the basis for the 'breastfeeding initiation' indicator. Specifically in a number of cases it was suspected that mothers' intended, rather than actual, method of feeding was being recorded with reference to antenatal notes. Since 1st May 2016 system improvements and staff training have brought recording into line with the national specification so that 'breastfeeding initiation' now reflects feeding practices observed within the first 48hrs after birth. A report for Q2 2016 covering the period April to June 2016, based on a data system extract supplemented by a manual audit of patient notes, recorded that breastfeeding was initiated by 63% of mothers. This most recent result suggests that breastfeeding initiation may be at a much lower level than previously estimated. Published initiation figures predating May 2016 should therefore be treated with caution.

Breastfeeding Continuation

In Jersey in 2015 around one in three (35%) of mothers were exclusively breastfeeding by the time their baby was 6 to 8 weeks old. A further 18% were giving some breast milk in combination with infant formula giving a total of 53% who were partially or totally breastfed. These figures appear quite consistent as in the recently published *Jersey Births and Breastfeeding Profile 2016*, it was stated that 54% of infants born over the period of 2013-2015 were either partially (16%) or exclusively breastfed (38%).

As in previous years there are currently no available data for continuation of breastfeeding in Guernsey and Alderney. A Breastfeeding Strategy for the islands was agreed by the States of Guernsey in 2016. One of the earliest tasks for those implementing this strategy will be to agree one or more preferred indicator of breastfeeding continuation and to begin to gather and publish data to an agreed timetable.

Tooth Decay in children aged five years (Guernsey-only indicator)

For the period 2013–2015 the most up-to-date data on dental health in school-aged children were those obtained in the 2011 Dental Health Survey carried out by the Children's Dental Service in both Private and States schools. Results from the 2011 survey are summarised below and can be read in full in the *Health Profile for Guernsey and Alderney 2010-12* [https://www.gov.gg/publichealthinfo]. Results from the 2016 Dental Survey will be published in a future Profile.

EXPERIENCE OF DENTAL DECAY

In 2011 there were significantly more children who were free from obvious dental decay than those who had at least one decayed, missing (due to decay) or filled tooth: 81% without decay compared to 19% with decay. This was true for each of the schools surveyed but with a large amount of variation from school to school. A range of 0% to 40% was observed meaning that at one school there were no children with evidence of current or previous decay while at another 40% of children had evidence of current or previous decay.

SEVERITY OF DENTAL DECAY

Severity of dental decay in children is measured using the 'dmft' value, where dmft stands for 'decayed, missing (due to decay) or filled teeth'. Across all island primary schools the average number of decayed, missing or filled teeth (dmft) per child was 0.60. This compared favourably to the England average for 2011–2012 of 0.94 and was comparable with the lowest observed dmft values in the English regions, but, again, this average masked school-specific local variation in the range 0 to 1.41.

Compared to the previous Dental Health Survey undertaken in Guernsey in 2008 a 25% deterioration was observed in overall dmft value; dmft increased from 0.48 in 2008 to 0.6 in 2011.

Whereas the average dmft among all children was found to be 0.60 we know that the entire burden of dental decay was concentrated within just 19% of children. For the children who *did* have experience of dental decay the average dmft was 3.13.

This tells us that dental health was polarised between many children who had no evident dental decay and a minority who had, on average, just over three decayed teeth each (out of a normal total of 20 teeth at age five).

CARE INDEX

The care index is normally used to demonstrate dental health need. Nationally this is defined as the proportion of teeth with caries (cavities) which have been filled, as a proportion of the total number of decayed, missing and filled teeth, expressed as a percentage (ft/dmft*100). However, this calculation assumes that all or most missing teeth are missing due to loss caused by untreated dental decay. In Guernsey the vast majority of missing teeth will indicate extractions performed in the treatment of dental decay. As a result a care index specific to Guernsey was calculated as: (ft+mt)/dmft*100.

Results from the 2011 survey revealed care indices which varied across the schools in the range 8.9% to 100%. On average the care index was 36.7% which indicates that only just over one in three decayed teeth had been treated at the time of the survey.

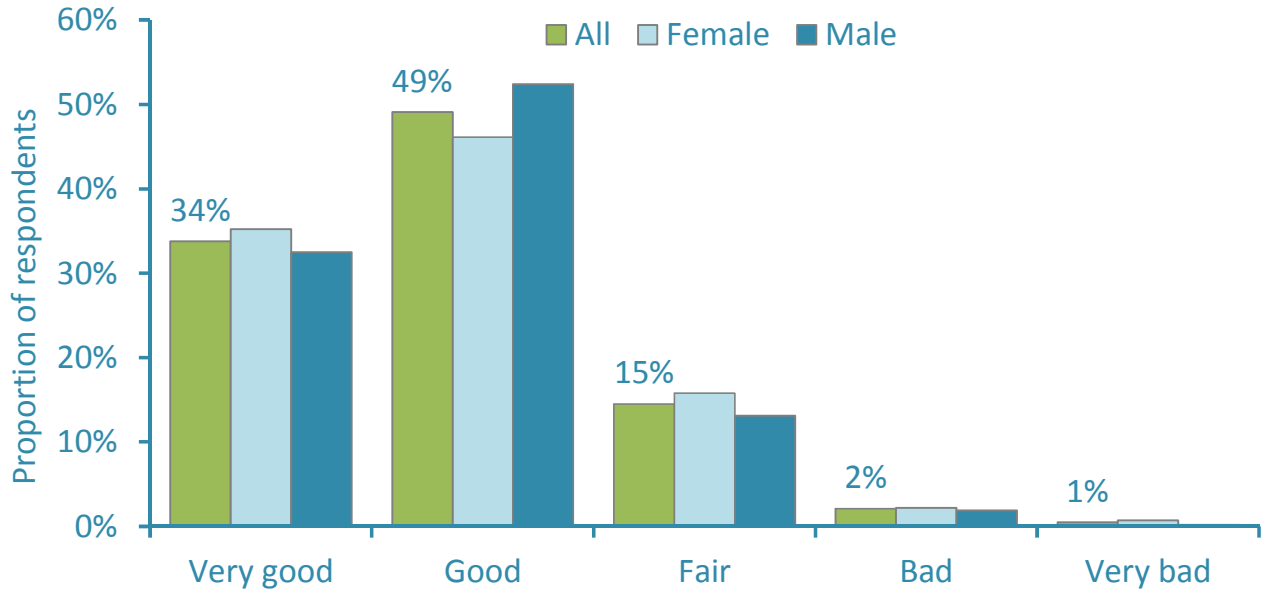
CHAPTER 3: Self-perceived Health and Life Expectancy

Self-perceived health score

Respondents to the *Sixth Guernsey Healthy Lifestyle Survey 2013* were asked how they rated their health in general with response options 'very good', 'good', 'fair', 'bad' or 'very bad'. Over 80% of respondents rated their health as 'good' or 'very good' with less than 3% describing their health as 'bad' or 'very bad' — this implies a good-to-very-good level of self-perceived health among respondents and is very similar to the finding of the Fifth Lifestyle Survey, conducted in 2008.

The proportion of respondents reporting 'good' or 'very good' health decreased with age but increased with household income. No marked differences were seen in how men rated their health compared to women.

Figure 7: Self-rated health by sex of respondent.



In the same survey respondents were asked whether they had ever been told by their doctor that they had one or more of a range of different health conditions[10]. Almost two-thirds of adults reported being told that they had one or more of the conditions listed, the most commonly reported ones being high blood pressure, excess weight, high cholesterol and depression.

Taken together with the self-reported health figures, these findings suggest that although long-term conditions are relatively common, they need not automatically cause people to define their health as poor. This observation is consistent with a growing body of literature which proposes that 'a state of complete well-being' may no longer be a necessary prerequisite for health (as per the current WHO definition, formulated in 1948) since people still report that they can have good health when they are able to adapt and self-manage in the face of social, physical or emotional challenges (Huber et al., 2011).

Life expectancy

Life expectancy at birth is defined as the number of years a newborn baby could expect to live should it experience an area's current age-specific mortality rates throughout its lifetime. Similarly, life expectancy at, for example, 65, is a measure of how long a person of that age could expect to live if they were to experience the current age and sex specific mortality rates of individuals older than themselves, for a given area.

Overall life expectancy at birth for Guernsey and Alderney residents for the period 2013–2015 was 83.1 years; 81.3 years for males and 84.8 years for females. Life expectancy at 65 was 21.0 years overall; 19.7 years for males and 22.1 years for females.

[10] Conditions listed in the questionnaire were: respiratory diseases; high blood pressure; coronary heart disease or heart attack; angina; stroke; cancer; excess weight or obesity; high cholesterol; diabetes; digestive diseases; liver disease and depression.

Table 9: Life expectancy at birth and age 65 for males and females, Guernsey and Alderney 2013–15.

		Life expectancy	
		Birth	Age 65
Persons	Expectation	83.1	21.0
	95% CI LL	82.5	20.6
	95% CI UL	83.7	21.5
Males	Expectation	81.3	19.7
	95% CI LL	80.5	19.1
	95% CI UL	82.2	20.3
Females	Expectation	84.8	22.1
	95% CI LL	84.0	21.5
	95% CI UL	85.6	22.8

For the most recent reporting period in which figures were available for England and Wales and Guernsey/Alderney (2012–2014) life expectancy at birth for Guernsey and Alderney residents was slightly higher than the England average for both males and females, and is in line with estimates for Jersey and for London, Southern and Eastern regions of England; the regions where life expectancy is highest.

Table 10: Comparison of life expectancy at birth and age 65 between the Channel Islands and English Regions, 2012–14.

	Males	
	Birth	Age 65
England	79.6	18.8
Wales	78.5	18.2
ENGLISH REGIONS		
Gsy/Ald	81.3	19.7
Jersey	81.1	19.9
South East	80.5	19.3
East of England	80.4	19.3
London	80.3	19.2
South West	80.2	19.3
East Midlands	79.4	18.6
West Midlands	78.9	18.5
Yorkshire and the Humber	78.7	18.2
North West	78.1	18.0
North East	78.0	17.9

	Females	
	Birth	Age 65
England	83.2	21.2
Wales	82.4	20.6
ENGLISH REGIONS		
Jersey	85.3	22.8
Gsy/Ald	84.8	22.1
London	84.2	21.9
South East	84.0	21.7
South West	83.9	21.8
East of England	83.8	21.6
East Midlands	83.0	21.1
West Midlands	82.9	21.1
Yorkshire and the Humber	82.4	20.6
North West	81.9	20.3
North East	81.7	20.0

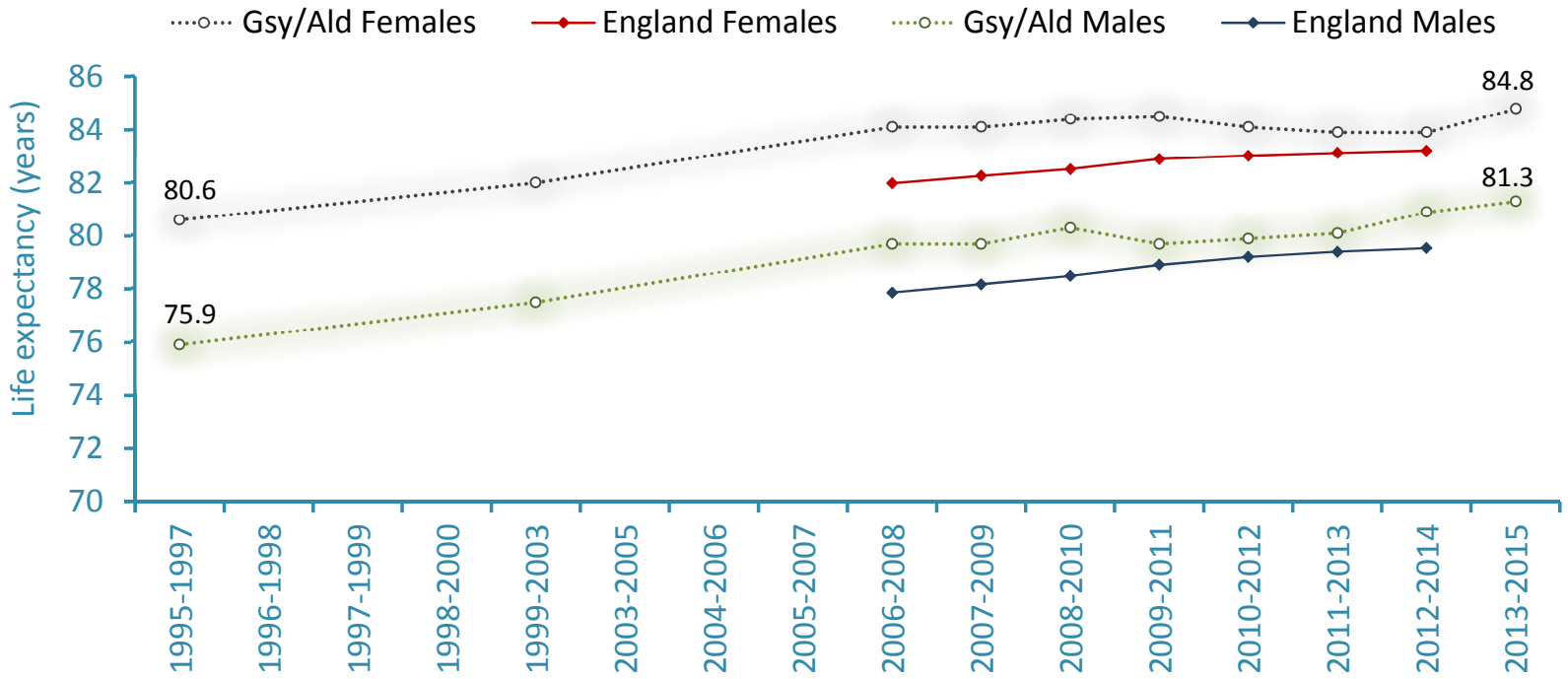
Source: Life Expectancy at Birth and at Age 65 by Local Areas in England and Wales: 2012 to 2014 https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/bulletins/lifeexpectancyatbirthandatage65bylocalareasinenglandandwales/2015-11-04 [Accessed 11-07-16].

CHANGE OVER TIME

Life expectancy estimates for Guernsey/Alderney are available for 1995–1997, 1999–2003 and then yearly as three year rolling averages from 2006. A comparison of these point estimates reveals an increase in life expectancy over time mirroring that seen in England (Figure 8). Between the earliest and the most recent estimate male life expectancy has increased by 5.4 years, or

7.1%, and female life expectancy has increased by 4.2 years, or 5.2%. The gain in life expectancy for males has slightly outpaced the gain for females with the result that there has been a modest lessening in the gender gap in life expectancy over time. A similar lessening of the gender gap has been reported for Jersey over the last decade.

Figure 8: Change in life expectancy over time, Guernsey/Alderney 1995–97 to 2013–15.



Sources: Health Intelligence Unit; Jeffs (2000),6; Jeffs (2005), 43; Life Expectancy at Birth and at Age 65 by Local Areas in England and Wales: 2012 to 2014.

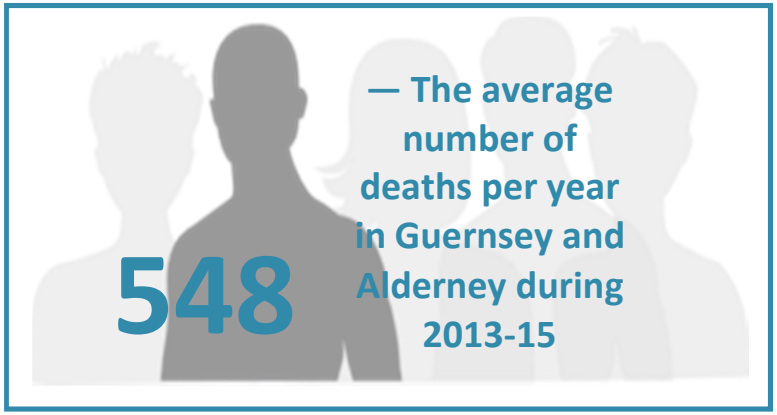
Chapter 4: Burden of disease

All-cause mortality

There were 1643 deaths (excluding still births) registered in Guernsey and Alderney between 2013 and 2015; an average of 548 per year. This equates to a crude rate for the three-year period of 846 per 100,000 and an age-standardised rate of 844 per 100,000. Table 11 shows that this rate was comparable to the death rates of Jersey and was significantly lower than the 2012-14 death rates of all English regions.

Table 11: Age-standardised death rates per 100,000 for the Channel Islands, 2013–15, and English Regions, 2012–14.

	ASR per 100,000	95% CI LL	95% CI UL
North East	1,096.6	1,089.0	1,104.3
North West	1,077.5	1,072.8	1,082.2
Yorkshire & the Humber	1,040.1	1,034.8	1,045.4
West Midlands	997.5	992.5	1,002.5
East Midlands	985.3	979.9	990.8
England & Wales	973.1	971.5	974.6
England	968.7	967.1	970.3
East of England	915.2	910.7	919.8
South West	911.3	906.8	915.8
South East	901.8	898.1	905.5
London	899.1	894.4	903.8
Gsy/Ald	843.7	803.2	885.7
Jersey	842.8	808.5	878.2



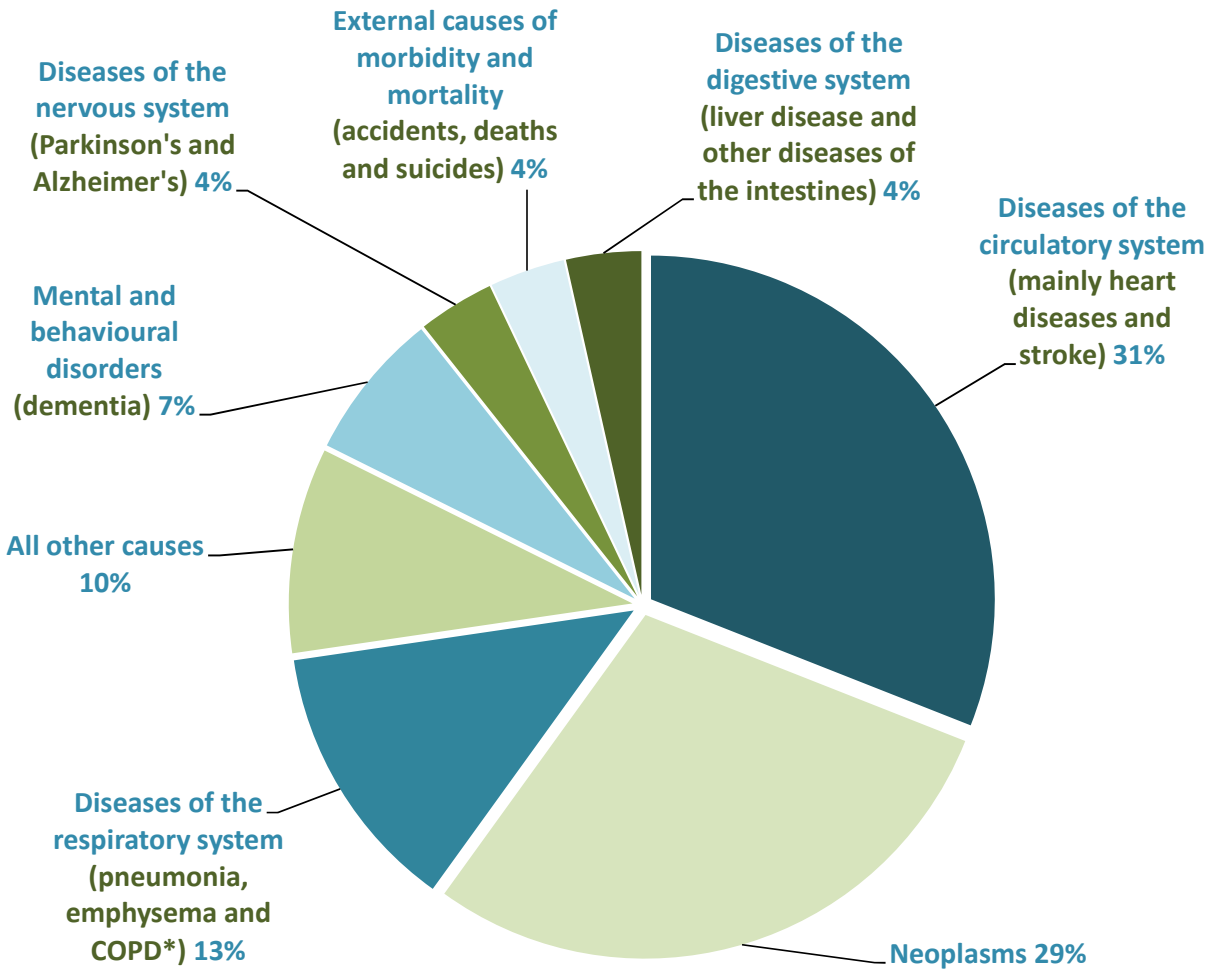
Sources: Guernsey and Alderney Greffe registrations; Data and Analysis Unit population figures; Jersey Public Health Statistics Unit; HSCIC P00339.

Top causes of death

Causes of death are categorised and coded according to the *International Statistical Classification of Diseases and Related Health Problems*, a publication now in its 10th Revision and commonly known as the 'ICD-10'. Comparing the number of deaths across subcategories of the ICD-10 allows the leading causes of death to be determined.

When sorted by the age-standardised rate of deaths the top three leading causes over the three-year period 2013–2015 were circulatory diseases, cancers ('neoplasms') and respiratory diseases: These causes accounted for 31%, 29%, and 13% of deaths respectively. Other leading causes with the proportion of deaths they accounted for are shown in Figure 9, below.

Figure 9: Leading causes of death in Guernsey/Alderney, 2013–15, men and women combined (chapter group level of the ICD-10).



Leading causes of death were the same in Jersey and accounted for similar proportions of all deaths. The only notable difference between the islands was a 5% excess of cancer deaths in Jersey relative to Guernsey and Alderney and a 5% excess of circulatory disease deaths in Guernsey/Alderney relative to Jersey (Table 12).

Table 12: Leading causes of death in Guernsey/Alderney 2013–15 showing proportion of deaths caused, with Jersey comparisons.

	All deaths (%)	
Cause	Gsy/Ald	Jersey
Diseases of the circulatory system	31%	26%
Neoplasms	29%	34%
Diseases of the respiratory system	13%	11%
Mental and behavioural disorders	7%	7%
Diseases of the digestive system	4%	5%

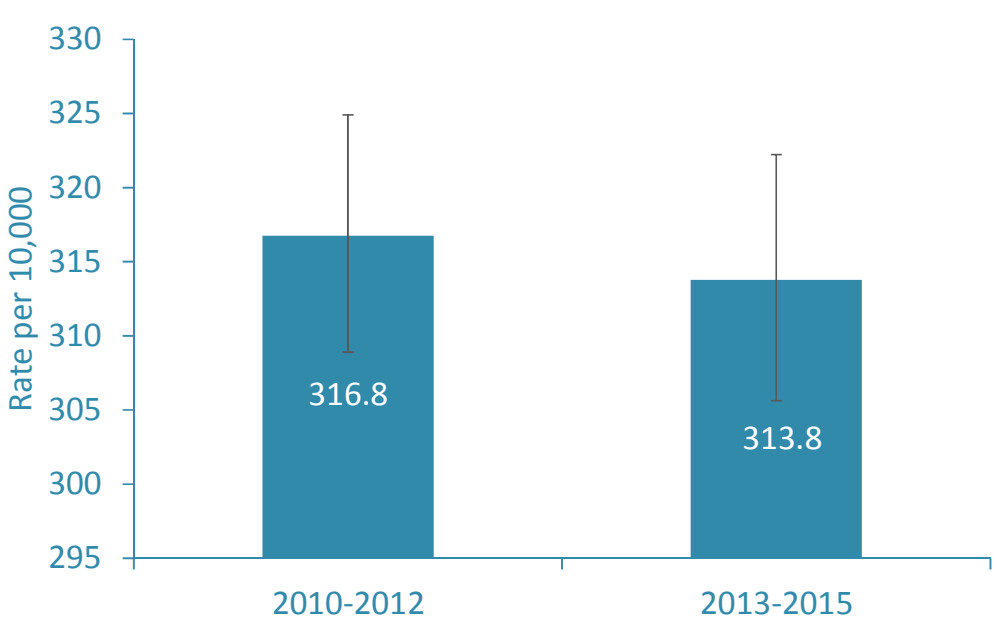
Years of life lost

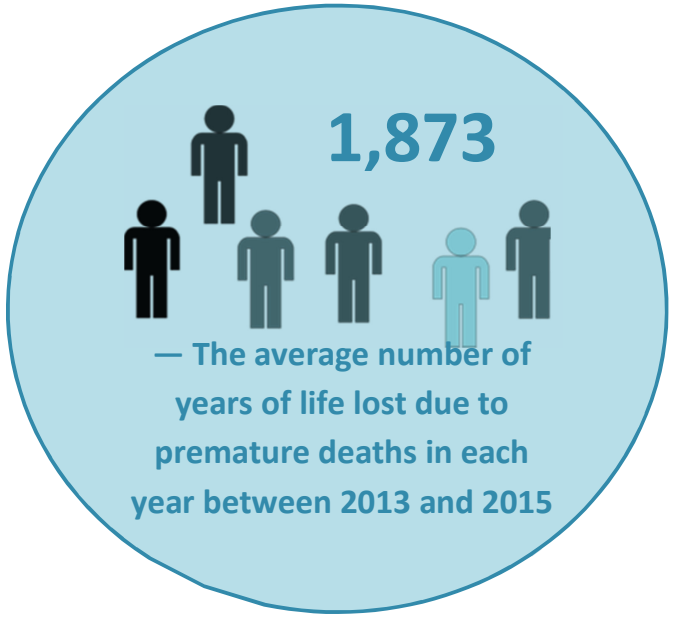
Years of Life Lost (YLL) is a measure of premature mortality which is used to compare the mortality experience of different populations for all causes of death and/or particular causes of death by quantifying the number of years ***not*** lived by individuals who die under a given cut-off age. YLL statistics help health planners to identify areas of concern and prioritise the allocation of resources for the prevention of such deaths. The most frequently used cut-off age is 75, this having been set as an age that everyone can be expected to reach. The age of 65 can also be used to calculate years of working life lost (YWLL) which is a useful indicator of the economic impact of premature deaths (ONS 2013 Mortality Statistics; metadata; HSCIC P00114 purpose statement).

In the period 2013–2015 a total of 5,618 years of life were lost in Guernsey and Alderney prematurely. This equates to an average of 1,873 lost years per year and a rate of 314 per 10,000 population. The rate of lost years was slightly lower in 2013–

2015 than in 2010–2012 (when the rate was 317 per 10,000) but the difference does not reach the level for statistical significance (Figure 10).

Figure 10: Years of life lost due to mortality from all causes (ASR per 10,000 population), Guernsey/Alderney 2010–12 and 2013–15.





The local YLL rate was significantly lower than the latest available rates reported for Jersey, England and Wales, England and all the English regions (Table 13). This was also the case for deaths during 2010-2012.

Table 13: The age-standardised rates of Years of Life Lost for the Channel Islands, 2013–15, and English Regions, 2012–14.

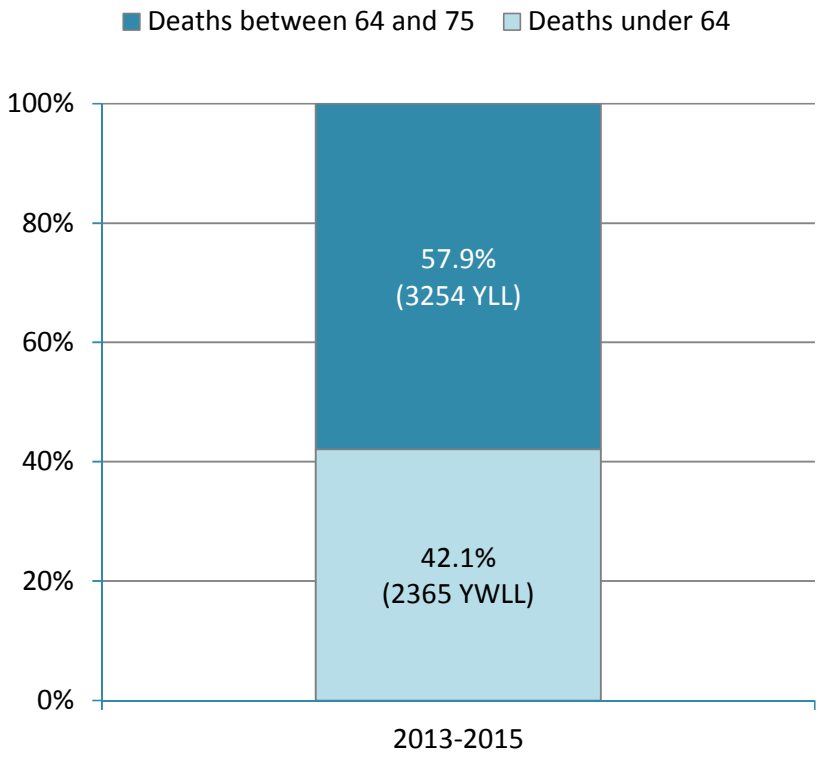
	ASR per 10,000	95% CI LL	95% CI UL
North East	514.8	506.6	523.1
North West	506.5	501.5	511.4
Yorkshire and the Humber	464.1	458.6	469.6
West Midlands	454.8	449.5	460.0
England & Wales	428.0	426.4	429.6
East Midlands	426.3	420.7	432.0
England	424.8	423.2	426.5
South West	396.0	390.9	401.2
Jersey	394.5	387.1	402.1
London	386.7	382.8	390.7
East of England	386.5	381.8	391.3
South East	377.3	373.4	381.1
Gsy/Ald	313.8	305.6	322.2

Sources: Guernsey and Alderney Greffe registrations; Data and Analysis Unit population figures; Jersey Public Health Statistics Unit; HSCIC P00332.

YEARS OF WORKING LIFE LOST (all causes)

Of the total years of life lost in Guernsey and Alderney during 2013–2015, 42% were accrued through deaths among people of working age or younger. The total number of working years of life lost in the three year period 2013–2015 was 2,365, which equates to an average of 788 per year.

Figure 11: Number and proportion of years of life lost in under 75s of working/pre-work age and non-working age, Guernsey/Alderney, 2013–15.



YEARS OF LIFE LOST BY CAUSE OF DEATH

Years of life lost and the proportion that were years of *working* life are shown for fifteen causes of death in Table 14 and Figure 12. It is important to remember that the years-lost totals are influenced to an extent by the overall number of deaths from a particular cause but most strongly by age at death regardless of the overall number. It does not follow, therefore, that the causes accounting for the most lost years are also the ones that cause the most deaths.

Illustrated example: Lung cancer and *suicide and undetermined injury* were two of the highest-ranking contributory causes to the total tally of years of life lost for 2013–2015. Of these two cause groups suicide and undetermined injuries accounted for a similar number of years lost (113 per year compared to 119) despite the fact that lung cancer caused nearly eight times as many deaths per year, on average. The explanation is that suicide and undetermined injury describes a group of causes likely to affect people who are, on average, much younger than those who die from lung cancer. This is reflected in the 'average YLL/YWLL per death' figures in Table 14. Each death from suicide and undetermined injury contributed, on average, 28 years of life lost, 20 of which would be years of working life. Each lung cancer death, by contrast, contributed just five years of life lost on average, only one of which would be a year of working life.

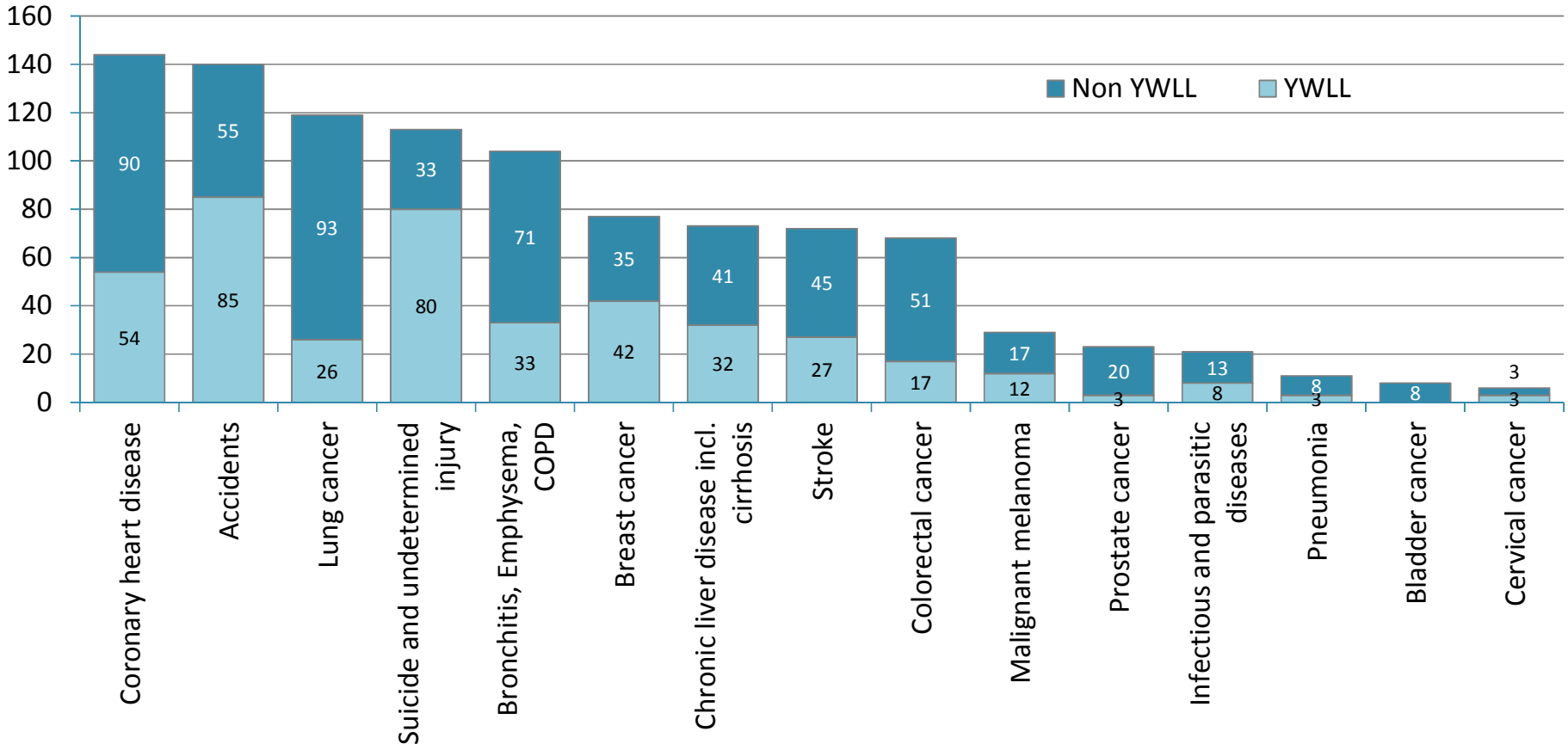
Table 14: Years of life lost by cause in Guernsey/Alderney 2013–15, displayed as average years lost per year to the nearest whole year, sorted high to low.

Cause of Death	YLL	(of which) YWLL	Average YLL per death	Average YWLL per death
Coronary heart disease	144	54	2	1
Accidents	140	85	9	6
Lung cancer	119	26	4	1
Suicide and undetermined injury	113	80	28	20
Bronchitis, Emphysema, COPD	104	33	3	1
Breast cancer	77	42	8	4
Chronic liver disease incl. cirrhosis	73	32	16	7
Stroke	72	27	1	1
Colorectal cancer	68	17	4	1
Malignant melanoma	29	12	10	4
Prostate cancer	23	3	2	0
Infectious and parasitic diseases	21	8	3	1
Pneumonia	11	3	1	0

Bladder cancer	8	0	1	0
Cervical cancer	18	8	4	2

NB. YLL are calculated for ages 1–74, except for suicide and undetermined injury where they are for ages 15–74; YWLL are calculated for ages 1–64, except for suicide and undetermined injury where they are for ages 15–64.

Figure 12: Years of life lost by cause in Guernsey/Alderney 2013–15, shown as average years lost per year to the nearest whole year.



YEARS OF LIFE LOST BY RATE

Years of life lost figures for 2013–2015 were converted to rates per 10,000 for each of the fifteen causes of death shown in Figure 11. Comparisons were then made between the Guernsey and Alderney rates and the rates of England (average of all regions) and the South West region. Local mortality rates were found to be:

Significantly lower than both comparison rates for

- Suicide and undetermined injury
- Accidents
- Lung Cancer
- Coronary Heart Disease
- Breast Cancer
- Colorectal Cancer
- Chronic Liver Disease (incl. cirrhosis)
- Pneumonia
- Bladder Cancer
- Cervical Cancer

Significantly higher than both comparison rates for

- Bronchitis, Emphysema and COPD

and showed **no significant difference** from both comparison rates for:

- Prostate Cancer
- Stroke

- Malignant Melanoma
- Infectious and Parasitic Diseases

For a full table of rates by cause and area see appendix 1.

Rates of death from selected causes

The last section focussed on ***premature*** mortality expressed in the form of years of life lost. In this section we return to ***all-age*** mortality and examine in more detail the number of deaths from selected causes and how those numbers compare to other places when expressed as rates.

We learned that the top causes of death by chapter group of the ICD-10 were cancers, circulatory diseases and respiratory diseases. Table 15, below, gives more information on particular causes within these broad groups and provides figures on deaths from selected other causes. Cause of death codes are detailed in appendix 2.

Table 15: Numbers and rates of death from selected causes, Guernsey/Alderney 2013–15, sorted by ASR (high to low) within each themed group.

Cause of death	Ages	Number of deaths (three-year period)	Average number of deaths per year	ASR per 100,000	95% CI		YLL average per year	YWLL average per year
					LL	UL		
All causes†	all	1643	548	843.7	803.2	885.7	1873	788
CANCERS								
Lung cancer†◊	all	92	31	50.6	40.7	62.2	119	26
Colorectal cancer†◊	all	47	16	24.6	18.0	32.7	68	17

Prostate cancer†◊	all	40	13	52.4	37.3	71.6	23	3
Breast cancer†◊	all	28	9	26.0	17.1	37.8	77	42
Bladder cancer†◊	all	17	6	8.9	5.2	14.3	8	0
Malignant melanoma†◊	all	9	3	4.8	2.2	9.2	29	12
Cervical cancer†◊	all	4	1	3.7	1.0	9.5	6	3
CARDIOVASCULAR DISEASES								
Coronary heart disease†◊	all	197	66	100.9	87.3	116.1	144	54
Stroke†◊	all	155	52	78.9	66.9	92.4	72	27
RESPIRATORY DISEASES								
Bronchitis, Empyhsema, COPD†◊	all	96	32	49.8	40.3	60.9	104	33
Pneumonia†◊	all	58	19	29.3	22.3	37.9	11	3
OTHER SELECTED CAUSES								
Accidents†◊	all	45	15	22.8	16.6	30.5	140	85
Infectious and parasitic diseases†◊	all	19	6	9.8	5.9	15.4	21	8
Alcohol-related deaths❖	all	19	6	9.2	5.5	14.3	128	69
Suicide and undetermined injury†◊	15+	12	4	7.0	3.6	12.3	113	80
Chronic liver disease incl. cirrhosis†◊	all	14	5	6.7	3.6	11.2	73	32
Drug poisoning deaths❖	all	8	3	4.2	1.8	8.3	90	63

†Health and Social Care (NHS) Information Centre Indicator
❖Office for National Statistics Indicator
◊ Comparison of years of life lost shown, Figure 12
Yellow fill indicates sex-specific rates

Preventable deaths

A key focus of England's Public Health Outcomes Framework 2013–2016 (PHOF) is the quantification of preventable, premature mortality which sends out a clear signal of the importance of prevention as well as treatment in reducing avoidable deaths.

Several indicators, developed in conjunction with the Office for National Statistics define firstly the entire burden of mortality from certain broad types of disease and secondly the subset of that burden that could be considered 'preventable'. Preventable mortality includes causes that it is believed could have been avoided through either individual behaviour or public health measures that could have limited an individual's exposure to harmful substances or conditions (DH 2013, 108). In the main preventable deaths relate to deaths in those aged under 75. The exception is 'mortality from (all) causes considered preventable' which takes account of preventable deaths in people of all ages.

In this section premature mortality is examined through the application of selected PHOF definitions to Guernsey and Alderney cause of death data.

Table 16: Numbers and rates of death from PHOF-defined causes, including preventable deaths, Guernsey/Alderney 2013–15.

Cause of death	Ages	Number of deaths (three-year period)	Average number of deaths per year	ASR per 100,000	95% CI		YLL average per year	YWLL average per year
					LL	UL		
All causes considered preventable	all	272	91	145.0	128.1	163.4	1038	453
All cancers	under 75	207	69	122.2	105.9	140.2	739	262
Preventable cancers	*under 75*	*121*	*40*	*73.0*	*60.4*	*87.4*	*403*	*140*
Cardiovascular disease	under 75	83	28	48.9	38.8	60.7	331	127
Preventable cardiovascular disease	*under 75*	*48*	*16*	*28.5*	*20.9*	*37.8*	*192*	*75*
Respiratory disease	under 75	42	14	24.9	17.9	33.7	137	41
Preventable respiratory disease	*under 75*	*31*	*10*	*18.3*	*12.4*	*26.1*	*104*	*33*
Liver disease	under 75	21	7	11.4	7.0	17.4	96	38
Preventable liver disease	*under 75*	*20*	*7*	*10.8*	*6.6*	*16.8*	*90*	*36*

NB. Cause of death definitions and codes are given in appendix 2.

This table contains some important messages. It tells us, for example, that it could have been possible to prevent:

- **58%** of cancer deaths *(for 2010–12 the preventable proportion was 59%)*
- **58%** of cardiovascular disease deaths *(for 2010–12 the preventable proportion was 62%)*
- **74%** of respiratory disease deaths *(for 2010–12 the preventable proportion was 63%),* and
- **95%** of liver disease deaths *(for 2010–12 the preventable proportion was 95%)*

Smoking-attributable deaths

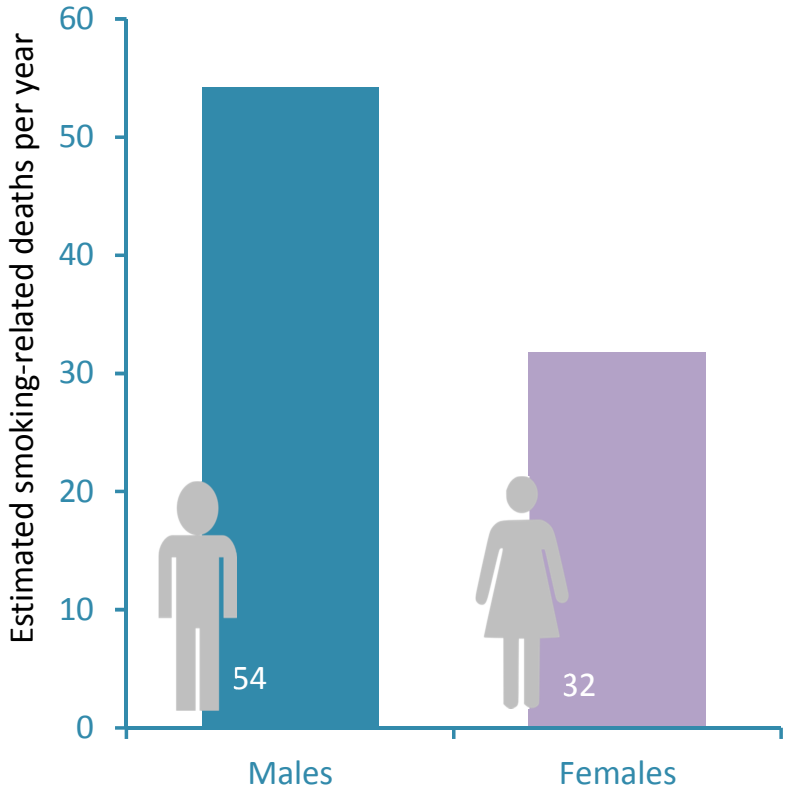
Smoking kills around half of its users[11] and is thus a primary cause of preventable illness and premature death in the UK[12]. It has been proven to confer an elevated risk of deaths from numerous subsidiary causes within the following broad cause of death groups: cancer, cardiovascular disease, respiratory disease, and digestive disease.

In recent years the calculation and application of Smoking Attributable Fractions (SAFs) for several diseases and causes of death where smoking is a contributory factor, has allowed a better estimate of the impact of smoking on health to be made. Following London Health Observatory methodology, published SAFs for fatal conditions were used in conjunction with smoking prevalence data for Guernsey and Alderney to estimate the overall number of local deaths that could reasonably be attributed to smoking (for further information see notes section).

It is estimated that of all deaths to individuals aged 35 and over registered during 2013–2015, 16% were caused by smoking. This equates to 258 over the three-year period, or approximately 86 per year. Smoking-attributable deaths were more common among males than females: there were an estimated 54 male deaths per year compared with 32 female deaths.

[11] WHO Tobacco factsheet No. 339, July 2013, www.who.int.
[12] ASH factsheet on Smoking Statistics — Illness and Death, April 2013, www.ash.org.uk.

Figure 13: Smoking-attributable deaths by sex, Guernsey/Alderney 2013–15.



- Between 2013 and 2015 16% of deaths aged 35+ (a little over one in six) were estimated to be smoking-attributable
- Smoking-attributable deaths are 69% more common in males than in females
- Hence for every 10 smoking-attributable female deaths there were approximately 17 male ones



In total 86 people per year (on average) died from smoking-attributable causes

The breakdown of smoking-attributable deaths by broad cause group is shown below in Table 17 and Figure 14, along with comparison data for Jersey and England. The particular types of contributory cause within the main categories are shown in the pie charts that follow (Figure 15a–c).

Table 17: Smoking-attributable deaths aged 35+ during 2013–15 by cause of death category, sorted by proportion within category, high to low.

	% Smoking-attributable		
Cause (ICD-10 codes)	GSY/ALD 2013–15	England 2014	Jersey 2013–15
All causes (A00-Y99)	**16%**	**17%**	**19%**
Respiratory diseases (J00-J99)	44%	37%	43%
Cancer (C00-C97)	26%	27%	30%
Cardiovascular diseases (I00-I99)	10%	13%	14%
Digestive diseases (K00-K93)	1%	4%	*6%

*2015 only

Sources: Statistics on Smoking 2014, HSCIC (http://digital.nhs.uk/article/2021/Website-Search?productid=21003&q=smoking+attributed+deaths+methodology&topics=13208&sort=Relevance&size=10&page=1&area=both#top); Jersey Smoking Profile 2015 (https://www.gov.je/SiteCollectionDocuments/Health%20and%20wellbeing/R%20Smoking%20Profile%202015%2020160226%20LD.pdf)

Of the three areas compared, Jersey had a greater proportion of smoking- attributable deaths overall but was similar to England in terms of the distribution of smoking- attributable deaths across the different types of disease category. Guernsey and Alderney had the lowest overall proportion of smoking-attributable deaths but had more smoking-attributable deaths from respiratory causes and fewer from cardiovascular and digestive disease causes, relative to England and Jersey (Figure 14).

Figure 14: Proportion of smoking-attributable deaths within each major cause group, Channel Islands and England compared.

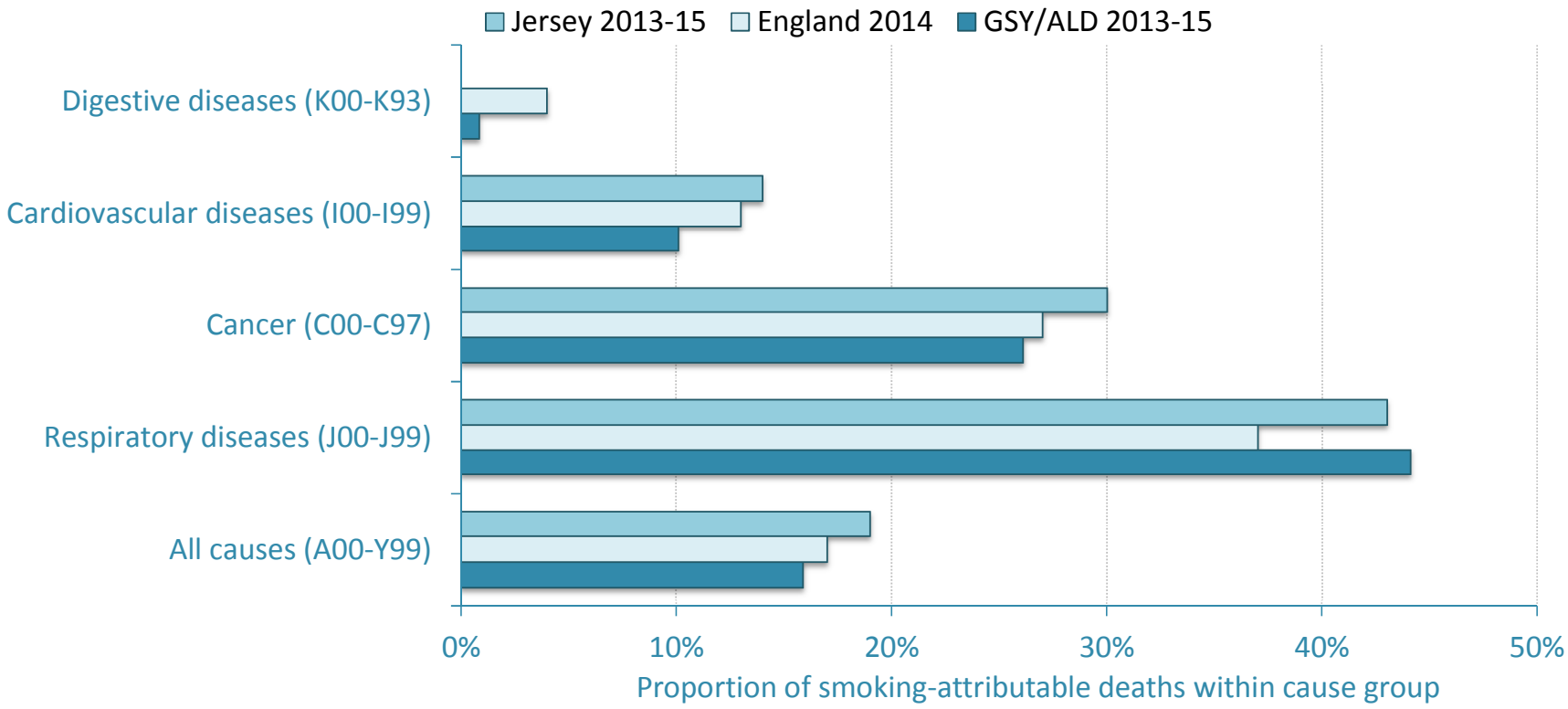
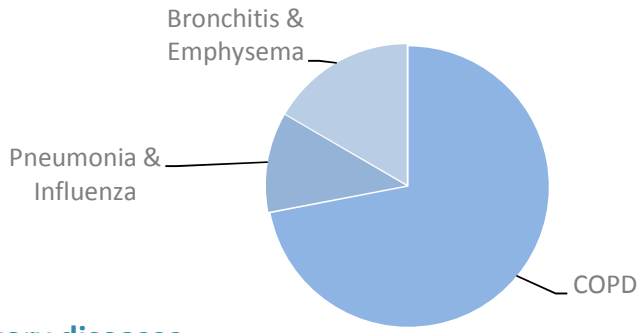
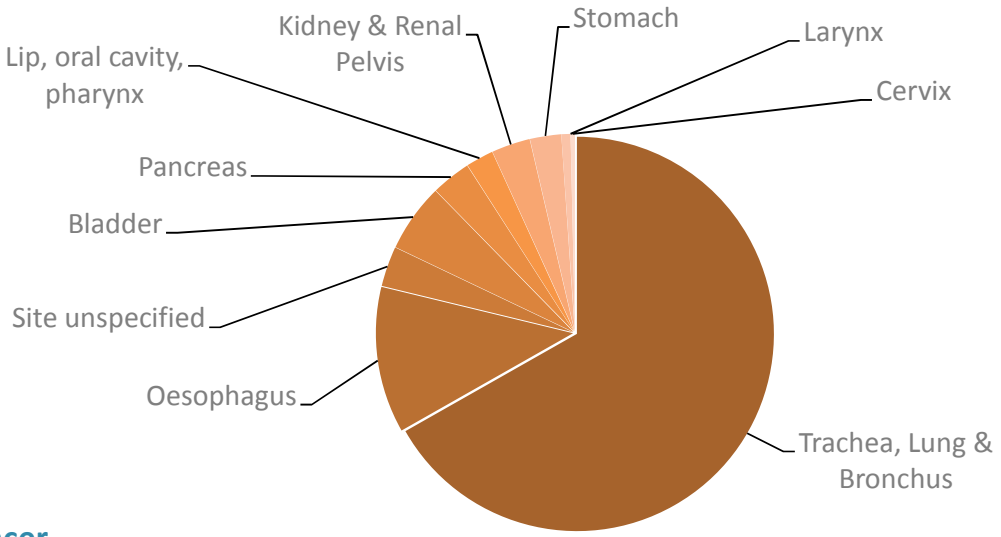


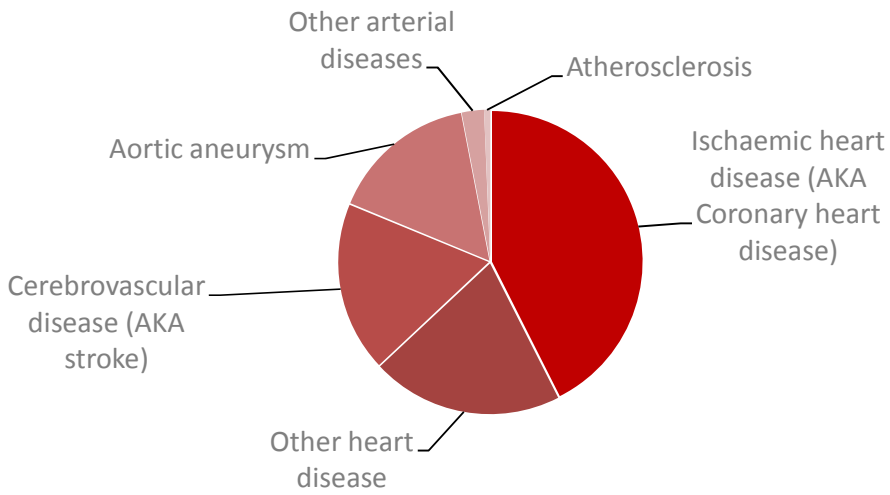
Figure 15: Main contributory causes for smoking-attributable deaths from Respiratory Diseases (a), Cancer (b) and Cardiovascular Diseases (c).



a) Respiratory diseases



b) Cancer



c) Cardiovascular diseases

By far the most common contributory causes of smoking-attributable death were **COPD**, **lung cancer** and **coronary heart disease**.

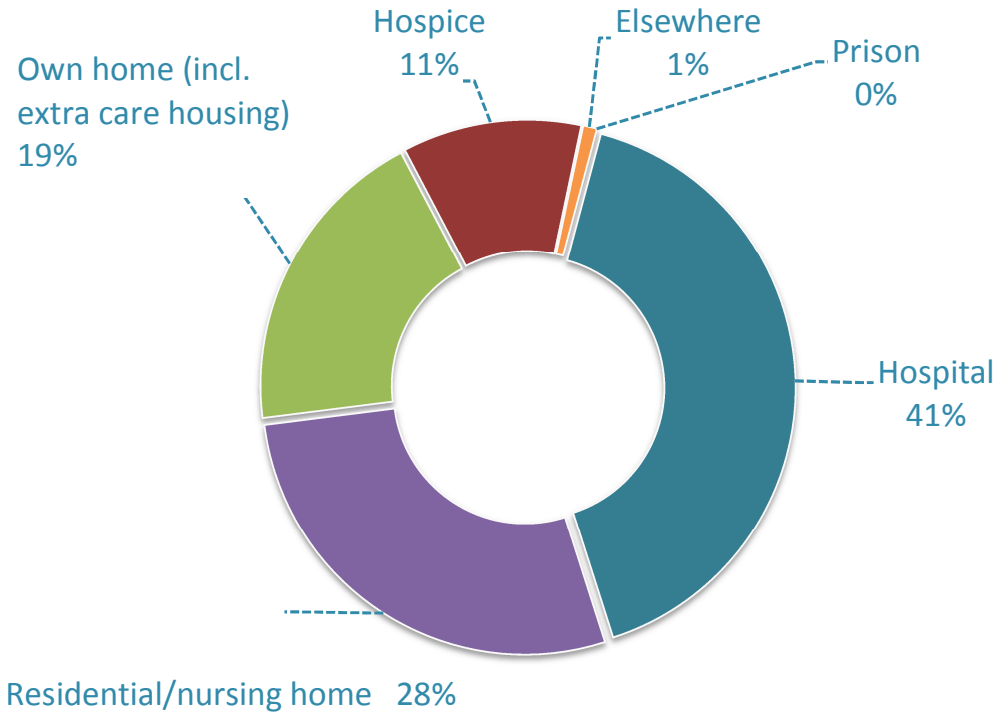
NOTES

- Relative risks were from Statistics on Smoking: England 2010 (http://www.ic.nhs.uk), based on the American Cancer Prevention Society II Study 1982–1988 (http://apps.nccd.cdc.gov/sammec). This indicator includes all deaths (35 years and over) which have one of the following ICD-10 codes as the underlying cause of death: C00–C14, C15, C16, C25, C32, C33–C34, C53, C64–C66, C67, C68, C80, C92.0, I00–I09, I20–I25, I26–I51, I60–I69, I70, I71, I72–I78, J10–J18, J40–J43, J44, K25-K27.
- Smoking prevalence estimates were from the Sixth Guernsey Healthy Lifestyle Survey, 2013.

Place of death

Of the 1643 non-still birth deaths in Guernsey and Alderney registered during 2013–2015, approximately 40% occurred in hospitals (PEH, KEVII or Alderney MMH), 30% in residential or nursing homes, 20% at a private address — usually the person's own home or that of a relative — and 10% in hospice care. A very small number of deaths occurred in other places, namely public areas.

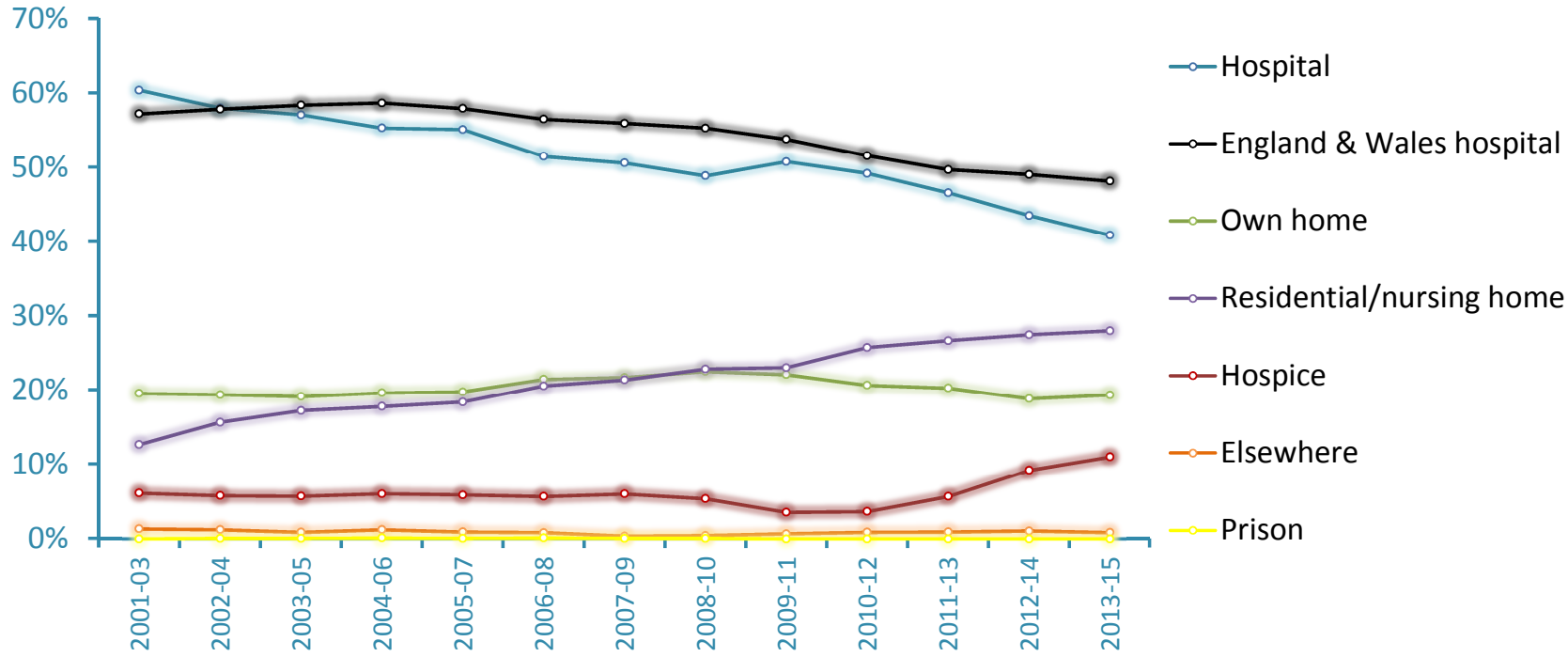
Figure 16: Place of death for Guernsey/Alderney deaths 2013–15.



The three-year average proportion of local deaths in hospital during the years 2013, 2014 and 2015 (40.9%) was lower than that of England and Wales in 2014 (48.1%).

Figure 17 shows the trend in place of death from 2001–2003 to 2013–2015. Deaths at home, elsewhere and in prison have remained fairly constant, while deaths in residential/nursing homes and in hospice care have increased as hospital deaths have decreased. A much greater reduction in hospital deaths has occurred locally compared with England and Wales over the same time period. Guernsey and Alderney have seen a 19.5% reduction, whereas the reduction in England and Wales was 9.0%. Much of the reduction in hospital deaths locally has occurred since 2010.

Figure 17: Secular trend in place of death, Guernsey/Alderney with England and Wales hospital comparison, 2001–03 to 2013–15.

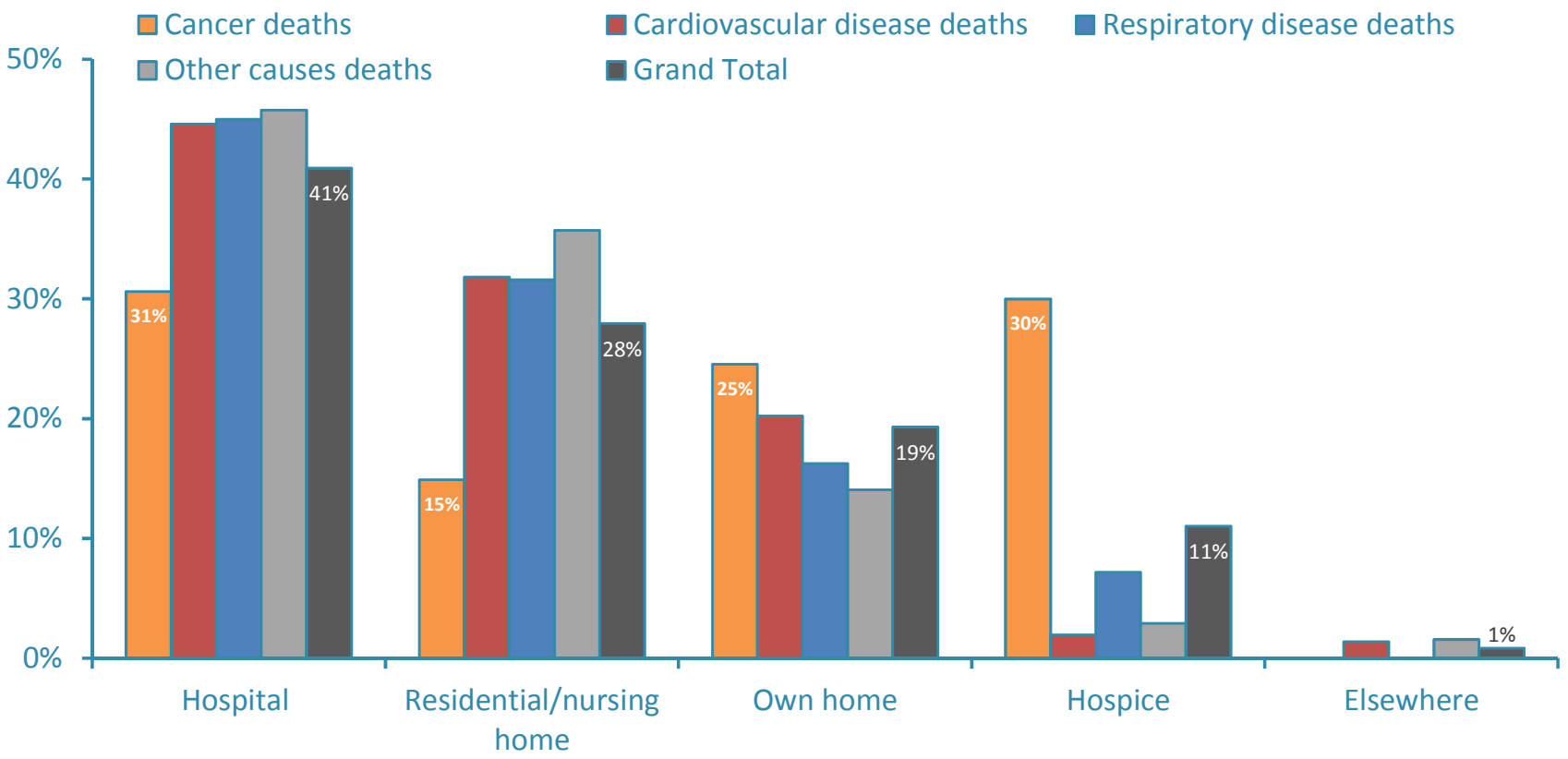


Sources of E&W data: First two values in the England and Wales series (for 2002 and 2003) are from: *Deaths from selected causes by place of death in England and Wales between 1997 and 2012* [www.ons.gov.uk, accessed 16-08-16]; 2004 to 2014 values are from: *Deaths by place of occurrence England and Wales 2004–2014* [www.ons.gov.uk accessed 16-08-16].

NB. E&W figures are for the middle year of the Gsy/Ald range

Place of death was found to vary according to the underlying cause of death. Figure 18 shows for example that while 41% of deaths from all causes occurred in hospital, death in hospital was ***more*** common when the underlying cause was respiratory disease and ***less*** common when the underlying cause was cancer. Similarly while 11% and 19% of all-cause deaths were in the hospice and at home, respectively, a greater proportion of cancer deaths occurred in these places than deaths from other causes. Almost one-third of cancer deaths occurred in hospice care.

Figure 18: Place of death by underlying cause, Guernsey/Alderney 2013–15.



Excess winter mortality

As in other countries, England and Wales experience more deaths during the winter months than at other times of year. A measure of this winter excess is produced annually by the Office for National Statistics. The ONS standard method defines the winter period as December to March, and compares the number of deaths that occurred in this winter period with the average

number of deaths occurring in the preceding August to November and the following April to July. By applying the same method to Guernsey and Alderney death data, the number and nature of excess winter deaths occurring locally can be examined.

Figure 19, below, shows that in all but three of the last fourteen reporting periods, there were more deaths during winter than there were in the non-winter period. 2012–2013 and 2013–2014 were two of the years where no excess of winter deaths were seen, however in 2014–2015 the number of excess winter deaths was relatively high, totalling 49. These results mirror the findings for England and Wales where 2014–2015 was a particularly pronounced year for EWM, in contrast to 2013–2014 where excess winter deaths were lower than average[13].

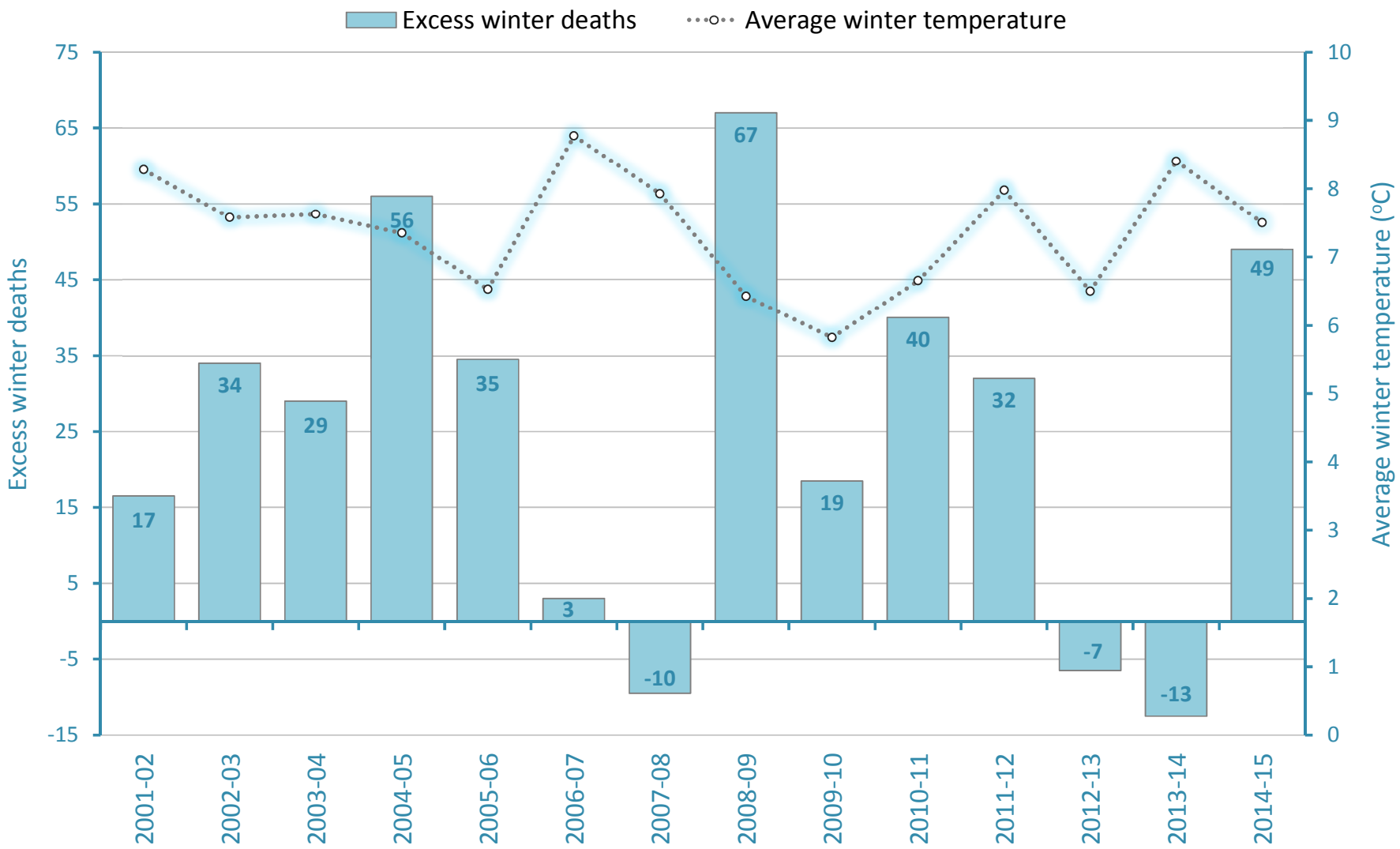
The average number of excess winter deaths per year in Guernsey and Alderney between 2001–2002 and 2014–2015 was 25.

EXCESS WINTER DEATHS AND TEMPERATURE

The colder temperatures of winter are sure to be a key factor determining the observed seasonal variation in mortality however the relationship between temperature and mortality appears to be complex, involving the interplay of many intermediary factors. When average winter temperature is plotted against the count of average winter deaths there is, consequently, no discernible pattern: the supposition that an unusually cold average winter temperature will result in an unusually high number of excess winter deaths, and vice versa, is not borne out by the Guernsey and Alderney data. The same is true for Jersey. Plausibly, the use of an average temperature for the whole winter season may mask considerable, relevant, daily, weekly and monthly variation over the four-month period. Examining the temperature-mortality relationship over shorter time periods within the winter season may be more revealing; however this approach would be ill-suited to Channel Islands data given the relatively small numbers of events (deaths) concerned and the inherent vulnerability of such small numbers to random fluctuation.

[13] ONS. Excess Winter Mortality in England and Wales: 2014/15 (Provisional) and 2013/14 (Final).

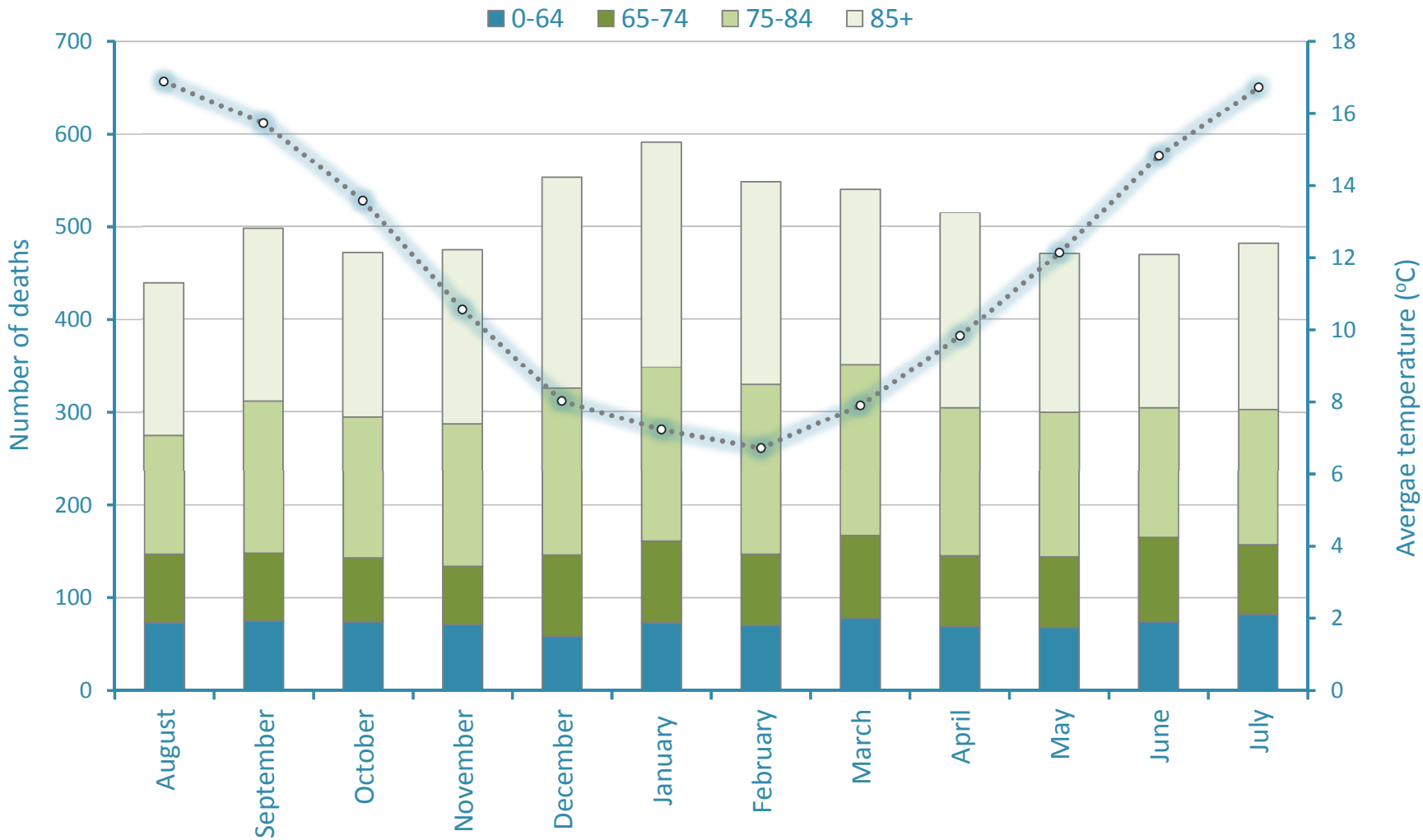
Figure 19: Excess winter deaths and average winter temperature in Guernsey/Alderney, 2001–02 to 2014–15.



EXCESS WINTER DEATHS BY AGE AND SEX

In recent reporting years there have been more excess winter deaths in England and Wales among females than there have among males. Over the period 2001–2002 to 2014–2015 this was also true for Guernsey and Alderney: 61% of excess winter deaths were among females (15 per year, on average) and 39% were among males (10 per year, on average). Almost exclusively, and for both sexes, these deaths occurred among those aged 75 and over, and more particularly among those aged 85 and over. The concentration of excess winter deaths among the older age groups is also seen in England and Wales and is clearly shown in Figure 20. Beginning in August the monthly average temperature drops to a winter low in February before rising again each month to July/August. While this change has no discernible effect on the number of deaths among the two youngest age groups (those aged 0–64 and 65–74), there is a visible upward bulge in deaths — a seasonal excess — among the over 75s and over 85s during the winter months.

***Figure 20:** Deaths by age and month, Guernsey/Alderney 2001–02 to 2014–15.*



EXCESS WINTER DEATHS BY UNDERLYING CAUSE — England and Wales

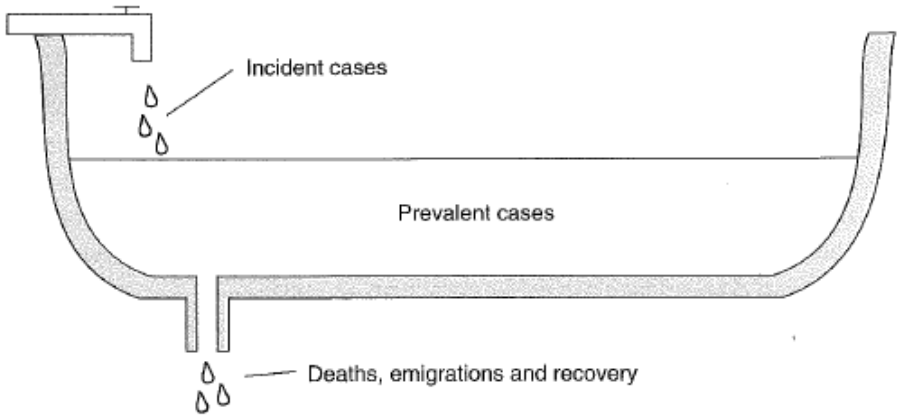
Excess winter deaths, as well as being concentrated in the over 75s, are also confined to certain causes of death. While some types of diseases show a marked winter/non-winter disparity in their numbers, others do not. Causes where a seasonal effect has been demonstrated in England and Wales are respiratory diseases, dementia and Alzheimer's, circulatory diseases, and injury and poisoning deaths (including accidental falls which can be affected by wintry conditions like icy pavements). The first two cause groups, respiratory diseases (with pneumonia accounting for the largest proportion of these deaths) and dementia and Alzheimer's, have consistently shown the greatest increase in winter compared to the non-winter period. The reason for the seasonal pattern in dementia and Alzheimer's deaths remains unclear: However, it may be related to the heightened vulnerability of people who have these conditions, leading to respiratory diseases, difficulties with self-care and falls, all of which may have more significant consequences in winter months. (ONS 25 Nov 2015).

Excess winter mortality has been shown to vary widely across Europe and, contrary to what one might expect, countries with relatively mild winter temperatures tend to show much higher rates of EWM than countries where winter temperatures are very low. Low indoor temperature has been shown to correlate with EWM from cardiovascular disease in England (Wilkinson et al, 2001) and homes tend to have less heat-conserving design features like cavity wall insulation and double glazing, making them harder to heat, where winters are more mild (Healy 2003). The nature of the built environment, then, may be one significant contributory factor to the observed EWM in Guernsey and Alderney. The tendency to take inadequate precautions against the cold when outside the home — in other words not dressing in sufficiently warm or protective clothing — is another way that mild-winter residents have been shown to differ from their colder-winter counterparts (The Eurowinter Group, 1997), and this too could be relevant locally.

Disease incidence/prevalence

Incidence and prevalence are both terms that are commonly used to describe disease frequency and disease burden. Incidence refers to the number of new cases occurring during a specified period in a given population, whereas prevalence measures the total pool of cases in a defined population who have a given disease or health outcome. The relationship between incidence and prevalence can be visualised using the bath model (Figure 21). Incidence is the inflow, prevalence is the bath water, and the outflow is everything that can change the prevalence, namely recovery, emigration or death (Bhopal 2008, 224).

Figure 21: Bath model of incidence and prevalence (after Bhopal 2008, 224).



In the absence of data-sharing between the Guernsey and Alderney's Primary Care practice groups and the States of Guernsey, the best estimations of disease incidence and prevalence in the islands come from population health surveys (principally the *Guernsey Healthy Lifestyle Survey* series), hospital activity data or estimates based on rates observed in other jurisdictions. Another key source, one which focuses on the incidence of cancer, is the Channel Islands Cancer Report series, provided by the National Cancer Intelligence Network.

Cancer Incidence

A report from the National Cancer Intelligence Network, to include data up to the end of 2015, is expected before the end of 2016. This will be available to download from www.gov.gg/publichealthinfo

CHAPTER 5: Sexual Health

Under 16 conceptions

There were fewer than 10 under-16 conceptions in Guernsey and Alderney during the three-year period 2013–2015. The rate per 1,000 was 2.0 (95% CI 0.8 to 4.5). Fifty percent of these conceptions ended in a termination. Table 18, below, shows the rate in relation to Jersey and to England and Wales regions using the most up-to-date data available. The percentage of conceptions leading to termination was lower in Guernsey/Alderney than in England and Wales, however this measure shows marked variation between reporting periods due to the small number of events in question (Figure 22). Jersey had a similar rate to Guernsey of 2.1 per 1,000 with 40% leading to termination.

Table 18: Comparison of under-16 conception rates, England and Wales regions 2012–14, and Channel Islands 2013–15.

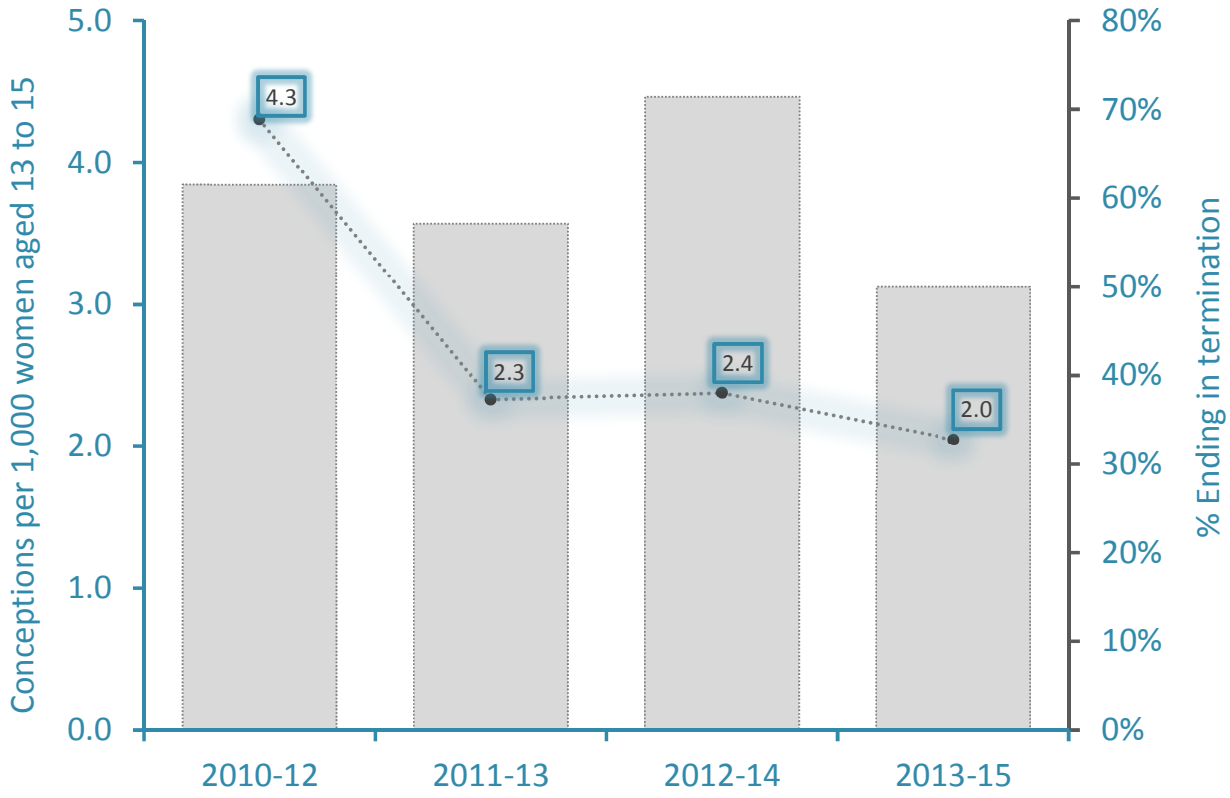
		Under 16	
Region	Reporting period	Conception rate per 1,000	% Leading to termination
North East	2012–14	7.4	56.6
North West	2012–14	5.8	63.5
West Midlands	2012–14	5.8	59.5
Yorkshire and the Humber	2012–14	6.1	57.1
Wales	2012–14	5.4	56.5
England and Wales	2012–14	4.9	61.2
England	2012–14	4.9	61.5
East Midlands	2012–14	4.9	53.1
London	2012–14	4.2	69.8
East	2012–14	4.1	61.5
South West	2012–14	4.0	64.4
South East	2012–14	3.9	63.6

Jersey	2013–15	2.1	40.0
Guernsey and Alderney	2013–15	2.0	50.0

Source: Conception Statistics, England and Wales, 2014 (Excel spreadsheet 717 KB).

The rolling three year average rate for under-16 conceptions reduced between 2010–2012 and 2011–2013 and has remained consistent since that point.

Figure 22: Trend in under-16 conception rate, Guernsey and Alderney. NB. Line graph and left vertical axis shows rates; bars and right hand axis shows proportion ending in termination.



Under 18 conceptions

There were 51 under-18 conceptions in Guernsey and Alderney during the three years from 2013 to 2015; an average of 17 per year. This equates to a rate of 16.9 per 1,000 (95% CI 12.6 to 22.3). Forty-five percent of these conceptions ended in a

termination. Table 19, below, shows the rate in relation to Jersey and to England and Wales regions using the most up-to-date data available.

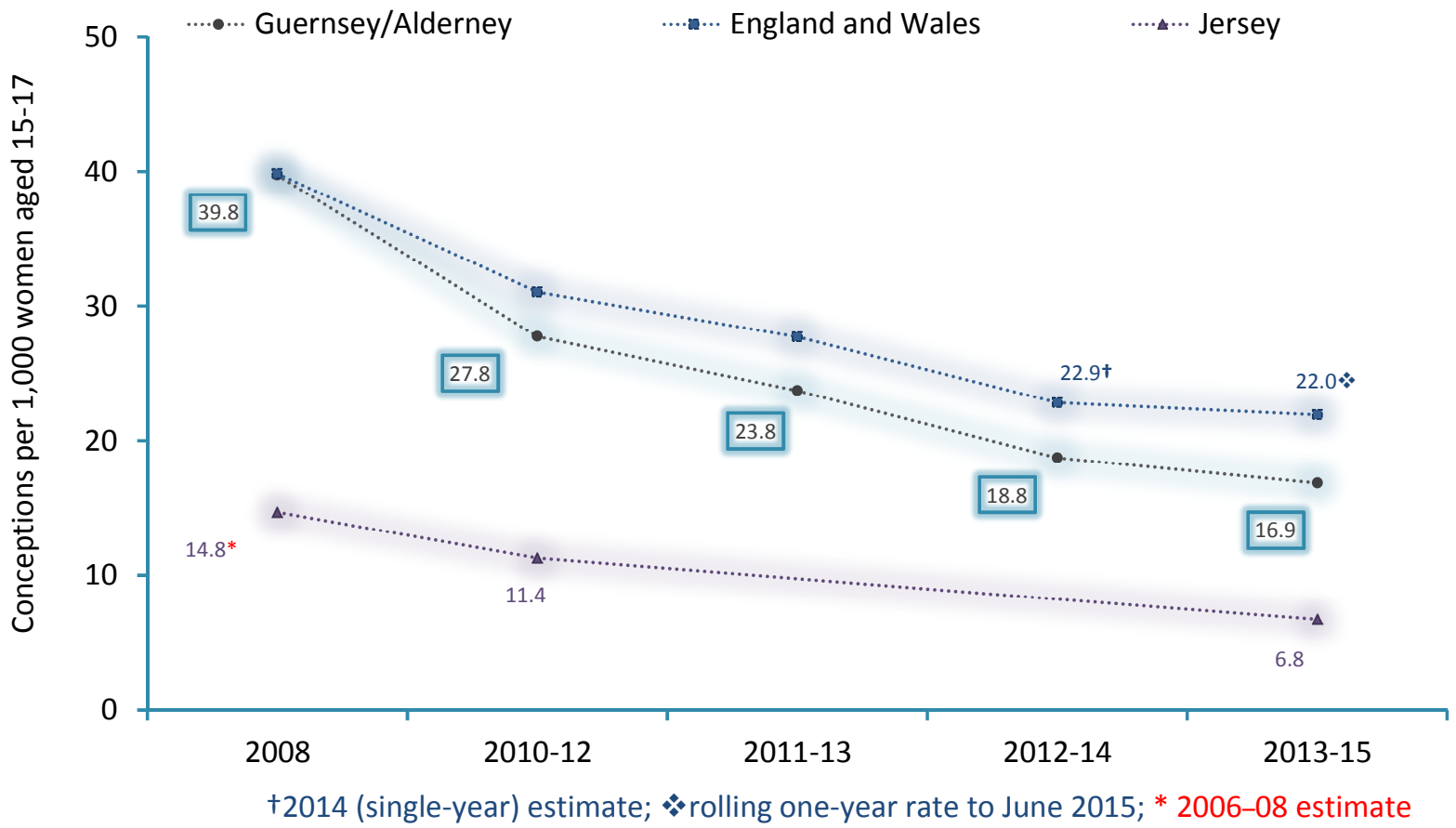
Table 19: Comparison of under-18 conception rates, England and Wales regions 2014, and Channel Islands 2013–15.

		Under 18	
Region	Reporting Period	Conception rate per 1,000	% Leading to termination
North East	2014	30.2	40.1
North West	2014	26.8	52.5
West Midlands	2014	26.5	49.7
Yorkshire and the Humber	2014	26.4	46
Wales	2014	25.4	45.8
England and Wales	2014	22.9	50.8
England	2014	22.8	51.1
East Midlands	2014	21.6	42.8
London	2014	21.5	64
East	2014	20.2	49.9
South West	2014	18.8	51.2
South East	2014	18.8	53.2
Guernsey and Alderney	2013–15	16.9	45
Jersey	2013–15	6.8	54

Source: Conception Statistics, England and Wales, 2014 (Excel spreadsheet 717 KB).

Since the last reporting period, 2010–2012, there has been a notable year-on-year reduction in the under-18 conception rate, and since 2008 the rate has fallen from 39.8 per 1,000 (95% CI 29 to 53.2) — an absolute difference of 23 per 1,000 and a fall of 58%. This reduction reflects, very closely, the trend seen in the England and Wales rate over the same period (Figure 23).

Figure 23: Trends in under-18 conceptions for England and Wales, Guernsey and Alderney and Jersey.



Notwithstanding the encouraging drop in under-18 conceptions seen locally and nationally it is important to note the under-18 conception figures for Jersey over the same period. As with under-16 conceptions the rate of under-18 conceptions has been notably lower than that of Guernsey/Alderney and England and Wales in every reporting period. Most recently, for 2013–2015,

Jersey has reported a rate of just 6.8 conceptions per 1,000 women — a rate less than half that of Guernsey/Alderney and one-third that of England and Wales.

NOTES:

- Under-16 conceptions are reported as rates per 1,000 women aged 13–15 and are derived from locally available data on births and terminations of pregnancy to young women who conceived aged under-16.
- Under-18 conceptions are reported as rates per 1,000 women aged 15–17 and are derived from locally available data on births and terminations of pregnancy to young women who conceived aged under-18.
- Dates of conception and maternal age at conception are estimated from pregnancy outcome data (i.e. date of baby's birth or date of termination) by following the Technical Method guidance of the Public Health England Sexual Health Balanced Scorecard: http://www.apho.org.uk/default.aspx?QN=SBS_PAGE02
- The young conception rates reported here are derived from locally-available data only and do not include births or terminations to Guernsey or Alderney residents which may have taken place off-island.

Terminations of pregnancy

The Medical Officer of Health was notified of 334 terminations performed in Guernsey during the three- year period 2013–15 — an average of 111 procedures per year. The Department of Health reported that a further 28 terminations were performed in England or Wales over the same period to women with a Guernsey or Alderney residential address[14]. The age-standardised rate for all known on- and off- island procedures was 9.9 per 1,000 women aged 15-44 (95% CI 8.9 to 11.0 per 1,000). This rate is significantly lower than the reported rates for England and Wales and all of the English regions in the closest reporting period, 2015 (see Table 20).

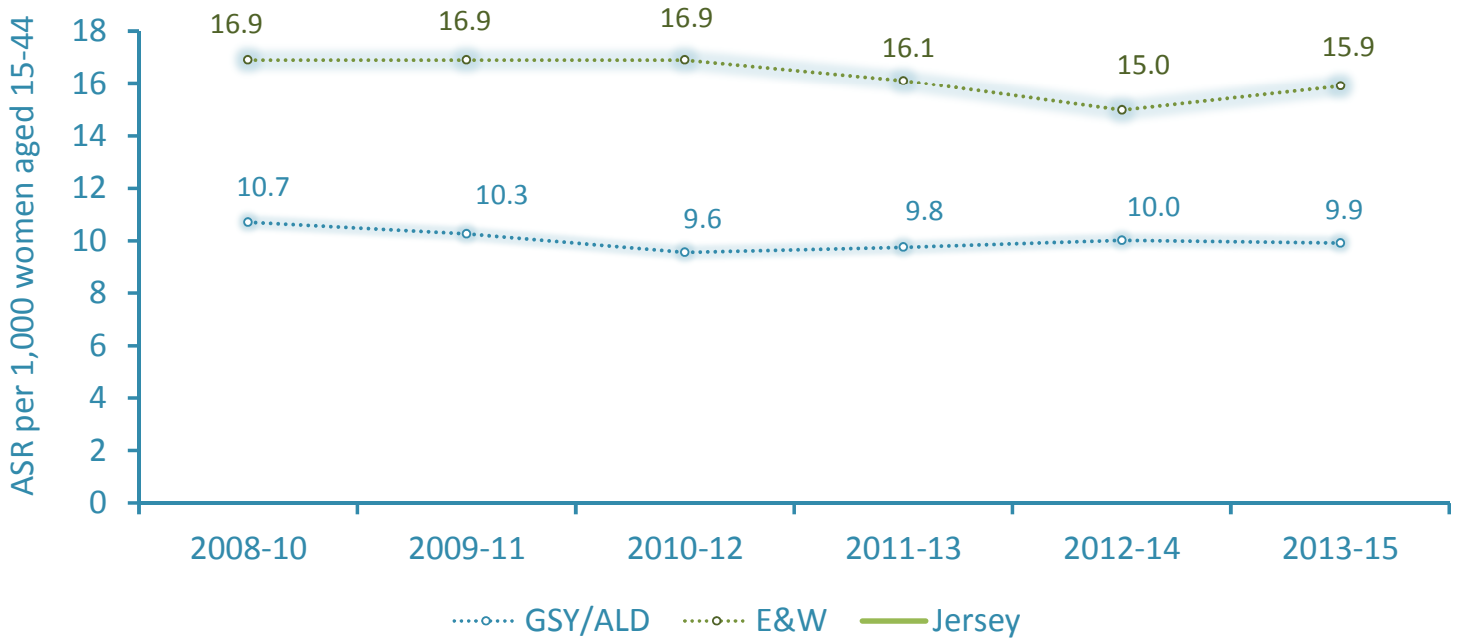
[14] Abortion Statistics, England and Wales: 2015. Accessed from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/529344/Abortion_Statistics_2015_v3.pdf on 18/10/16.

Table 20: Comparison of termination of pregnancy rates, Guernsey/Alderney 2013–15 and English regions 2015.

Region	Rate per 1,000 women aged 15–44 years (ASR)	95% CI LL	95% CI UL
London	20.7	20.4	22.6
West Midlands	17.8	17.4	19.4
North West	17.6	17.3	19.3
England	16.2	15.7	17.7
England and Wales	16.0	15.6	17.6
South East	15.1	14.7	16.6
East	14.6	14.2	16.1
Yorkshire and the Humber	13.7	13.3	15.1
North East	13.4	13.0	14.7
South West	13.2	12.8	14.6
East Midlands	13.0	12.6	14.3
Gsy/ Ald 2013–15	9.9	8.9	11.0

An examination of the three-year rolling average rate of terminations shows a stable picture since 2008–2010 that have been consistently lower than those of England and Wales.

Figure 24: Secular trend in age-standardised termination rate per 1,000 women aged 15–44 for England and Wales, Guernsey/Alderney and Jersey.



NOTES:

- All terminations carried out in Guernsey must be notified to the Medical Officer of Health within 21 days. Similarly, all terminations performed in England and Wales, whether carried out in the NHS or an approved independent sector place must be notified to the Chief Medical Officer of the country where the procedure takes place. The sum of local notifications and off-island procedures reported by the Department of Health should therefore capture all legal terminations of pregnancy to Guernsey and Alderney residents.

- The ages of women who have off-island terminations cannot be obtained on the grounds of patient confidentiality. To allow these off-island procedures to be factored in to the overall age-standardised rate calculation for Guernsey and Alderney, women undergoing terminations in England and Wales are assumed to have the same age distribution as the women who had terminations in Guernsey during the same calendar year.

Sexually transmitted infections (STIs)

Shown below are calculated values for a selection of indicators from Public Health England's *Sexual and Reproductive Health Profiles*.

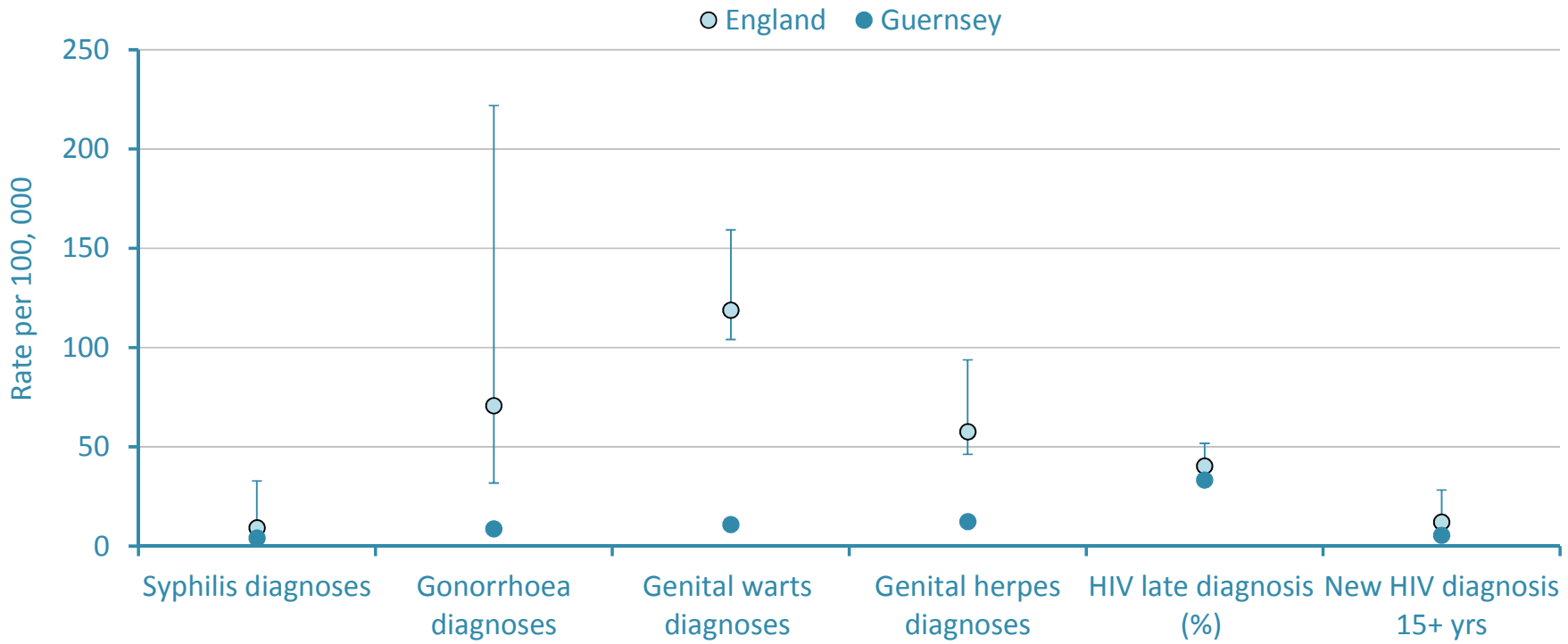
Table 21: Sexual health indicators for Guernsey and Alderney, 2013–15.

INDICATOR DESCRIPTION	2013–15
Syphilis diagnostic rate per 100,000	4.1
Gonorrhoea diagnostic rate per 100,000	8.8
Chlamydia diagnostic rate per 100,000	226.1
Chlamydia diagnostic rate per 100,000 aged 25+	104.2
Chlamydia detection rate per 100,000 aged 15–24 **PERSONS**	1259.3
Chlamydia detection rate per 100,000 aged 15–24 **MALES**	923.7
Chlamydia detection rate per 100,000 aged 15–24 **FEMALES**	1609.5
Genital warts diagnostic rate per 100,000 (first episode)	10.8
Genital Herpes diagnostic rate per 100,000 (first episode)	12.4
New STI diagnosis rate per 100,000	114.9
HIV late diagnoses %	33.3
Rate of new HIV diagnosis per 100,000 population among people aged 15 and over	5.5
Prevalence of diagnosed HIV infection per 1,000 among persons aged 15 to 59 years	0.7

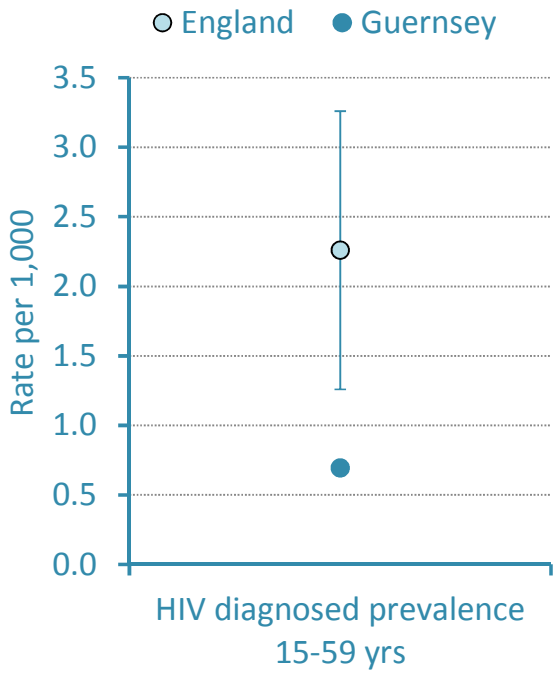
Figures 25a, 25b and 25c show the above rates in relation to England values for the closest comparison period. For indicators where low values indicate a good result, Guernsey and Alderney are at the low end of the England range in all cases (Figures 25a and 25b).

Figure 25a-c: Sexual Health Indicators for Guernsey/Alderney and England. England figures are for 2015 excepting HIV late diagnosis percentage which is for 2013–15. Error bars represent the highest and lowest recorded values around the national mean.

a) Sexual health indicators for Guernsey/Alderney and England.

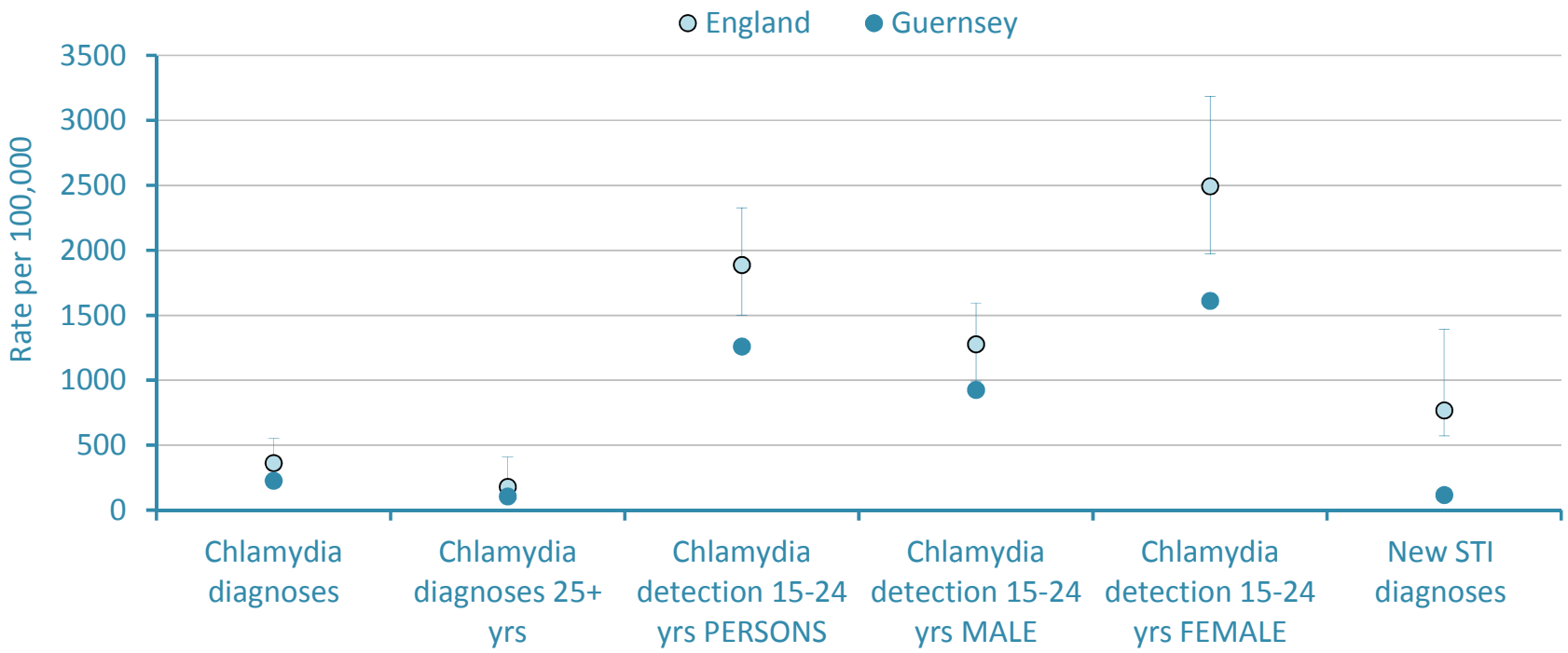


b) HIV diagnosed prevalence.



For indicators where low values indicate poor performance (Figure 25c) the low results for Guernsey and Alderney can be explained by differences in service provision, namely the absence locally of a chlamydia screening programme.

c) Chlamydia and all new STIs.



NOTES

- Rates for all indicators are based on GUM clinic diagnoses only
- Full indicator definitions for the results presented above can be found at: http://fingertips.phe.org.uk/profile/sexualhealth/data#page/6/gid/8000058/pat/6/par/E12000004/ati/102/are/E06000015/iid/90742/age/1/sex/4 [Accessed 25/10/16].

CHAPTER 6: Mental Health

Population mental wellbeing

In *The Sixth Guernsey Healthy Lifestyle Survey 2013*, the mental wellbeing of respondents was assessed using the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS). The WEMWBS is a short and psychometrically robust scale, available in full (14-item) and short (7-item) versions, in which participants are asked to respond to statements using a 5-point Likert scale, with options ranging from 'none of the time' through to 'all of the time'. A score between 1 and 5 is attributed to each response and the scores are then summed to give a total in the range 14–70 (for the full version) or 7–35 (for the short version). From this a population mean score can be derived and scores can also be allocated to low, moderate or high mental wellbeing categories[15]. WEMWBS focuses entirely on positive aspects of mental health with items covering positive functioning, satisfying interpersonal relationships and positive feeling.

WEMWBS scores were recorded in the range 14 to 70 and the population mean score was found to be 50.0 with no overall difference between men and women (mean score for males 49.9 and 50.0 for females). These scores were found consistent with WEMWBS scores obtained previously from the *Guernsey Emotional Wellbeing Survey*, conducted in 2010.

Overall, 15% of respondents were classified as having High Wellbeing, 71% as having Moderate and 14% as having Low Wellbeing

It was found that:

Older adults were more likely to be in the high mental wellbeing category than younger adults

[15] Defined as scores less than one standard deviation below the sample mean, within one standard deviation from the mean and greater than one standard deviation above the mean, respectively.

Low mental wellbeing was more prevalent for those with low household incomes (<£20,000 per year) and among those who were living in States Housing Department or Guernsey Housing Associations rental properties[16].

Prevalence of high mental wellbeing was higher among retired adults (20.7%) than those in other employment groups. While the number of adults who were sick or disabled and unable to work was low, 59.1% of these adults had low mental wellbeing.

Those who rated their health as very good were far less likely to be in the low mental wellbeing (5.0%) category than those who rated their health as bad/very bad (51.7%).

Suicide and undetermined injury

Information on the number and rate of deaths from suicide and undetermined injury is given under Rates of death from selected causes, (Table 15).

[16] Compared with those with higher incomes and other living arrangements, respectively.

CHAPTER 7: Health Protection

Population screening programmes

A Public Health screening programme is an organised service in which populations of apparently healthy people are invited to be tested for certain conditions or risk factors before they have symptoms or develop a disease. Screening can reduce the risk of developing a condition or its complications but it cannot offer a guarantee of protection.

Screening programmes for Guernsey and Alderney residents at least partially funded by the States include:

- Breast cancer screening
- Cervical cancer screening
- Colorectal cancer screening
- Diabetic retinopathy screening
- Ante-natal screening for pregnant women
- Newborn and young baby checks

In the last Health Profile (2010–12, published 2014) it was noted that Public Health Services aimed in future to undertake a review of population screening programmes, to document and appraise how they operate and how/where they are provided and managed. It was planned that agreed outcome measures and a reporting timetable for each screening service would also be set out at this time, and that indicators for measuring the performance of the various screening programmes could then be included in future profiles. Regrettably it has not been possible to undertake these aims to date.

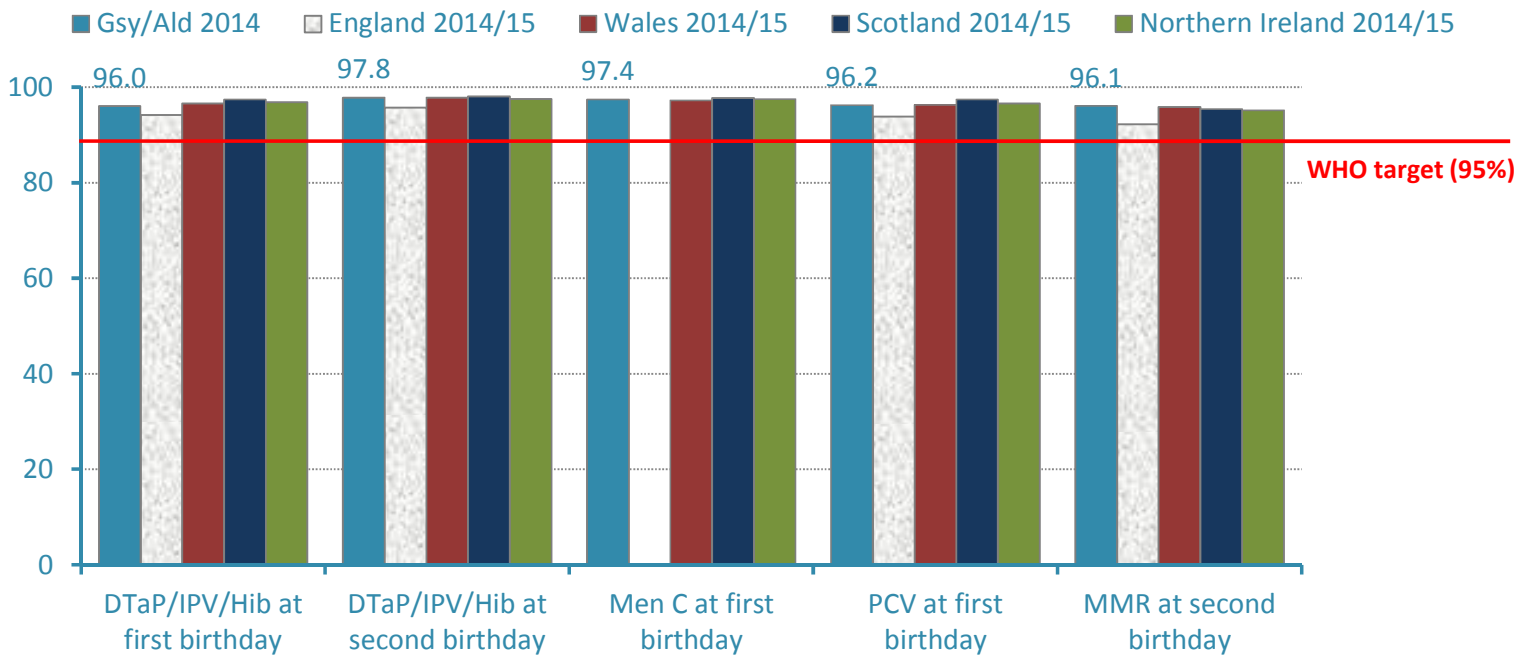
Child immunisation coverage

PRE-SCHOOL IMMUNISATIONS (Guernsey only)

Pre-school immunisations for children in Guernsey and Alderney are administered by Primary Care practices and the Health Visiting Service.

Coverage for five key immunisation indicators is shown below, comparing Guernsey to Jersey and the countries of the UK. No data were available for Alderney.

Figure 26: Comparison of pre-school immunisation coverage, Channel Islands (2014) and UK (2014–15).



Sources: Guernsey data: Primary Care Company Limited; UK data: http://content.digital.nhs.uk/catalogue/PUB18472 'NHS Immunisation Statistics - England 2014–15 Excel Tables'.

Coverage among Guernsey children was above the 95% recommended level for each indicator.

HPV IMMUNISATION

Immunisation against Human Papilloma Virus, which is known to be implicated in the development of cervical cancer, is currently offered to girls aged 12 to 13, with the first dose given in school Year 8 and the second in school Year 9.

Regrettably, there are no valid data available from Health Visiting and School Nurse Services from which to assess uptake and population coverage for immunisations given during 2013–2015 because of issues with the Child Health Information System implemented in 2009/10. School nurses have started to manually collect data from 2015-6. It is hoped that planned upgrades to the Child Health Information System Software will rectify this problem in the future.

Seasonal 'flu immunisation

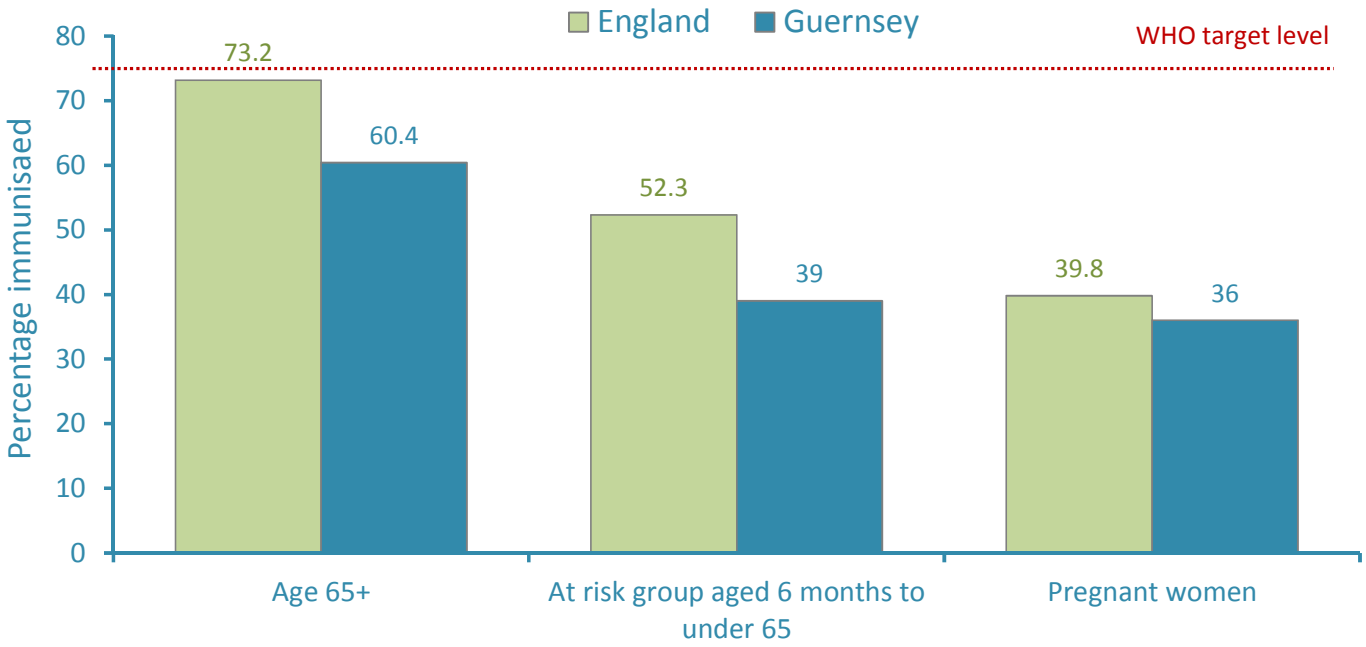
Most people would be able to cope with, and recover well from, an Influenza infection, however for some people — those for whom 'flu would pose a more serious problem — immunisation is recommended. In Guernsey as in England, seasonal 'flu immunisation is offered by GPs to:

- Those over the age of 65
- Pregnant women
- Children and adults determined to be 'at increased risk' through an underlying health condition or weakened immune system

Examples of relevant health conditions would include chronic respiratory diseases like asthma, COPD or bronchitis; chronic heart, kidney or liver diseases or diabetes.

Figures provided by Primary Care practices to the Medical Officer of Health show that during the winter season 2013–2014 uptake in Guernsey compared to England was similar for pregnant women, but considerably lower among over-65s and those deemed to be at clinical risk (Figure 27). Uptake across all groups in Guernsey fell well short of the WHO target of 75%.

Figure 27: Seasonal 'Flu immunisation uptake in Guernsey, winter 2013–14.



Source of England data:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/319558/SeasonalFluData_GPPatients_Jan2014_acc.pdf

For the 2015–16 'flu season immunisation was offered to children aged two years and older. It is intended that results from this programme will be reported in future Profiles.

CHAPTER 8: Lifestyle

Smoking among adults

The prevalence of smoking among adult islanders is currently estimated from two sources; local health and lifestyle surveys, the most recent being *The Sixth Guernsey Healthy Lifestyle Survey 2013*, and HSC Maternity Services data.

THE SIXTH GUERNSEY HEALTHY LIFESTYLE SURVEY 2013

Out of a weighted sample of 1172 people, 13.3% identified themselves as current smokers. Thirty-five percent were ex-smokers and 52% were non-smokers who had never smoked. Smoking prevalence was found to vary by age and sex, being slightly higher overall among males than females and most prevalent in the age groups 18 to 24 and 35 to 44 for men and women alike. Associations were also seen between smoking prevalence and housing type, education level and household earnings. For more detail see https://www.gov.gg/CHttpHandler.ashx?id=102497&p=0

Change over time

Between the first lifestyle survey in 1988 and the sixth in 2013 estimated smoking prevalence fell from 30.4% to 12.7%[17] matching the steady reductions reported in England.

HSC MATERNITY SERVICES DATA - SMOKING DURING PREGNANCY

The smoking status of expectant mothers is routinely recorded at 'booking' - the initial appointment with midwives which, in the majority of cases, happens during the first trimester of pregnancy. An anonymous extract was made of babies who were born in 2013, 2014 and 2015 and the smoking status at booking of those babies' mothers was examined. Smoking at booking

[17] Un-weighted figure for 18–74 age group to match the methodology of previous surveys.

information was not available for babies born in 2013 or 2015. For babies born in 2014, data on smoking status at booking was available for 99% of mothers. Seventy-nine percent were born to non-smokers, 8% had mothers who reported having given up smoking on becoming pregnant and 13% were born to mothers who smoked during pregnancy at least up to the point of the booking appointment.

Data on the smoking status of mothers at the time of delivery were unavailable for the period 2013–2015, however in previous years it had been found that most mothers who were smokers at booking continued to smoke throughout pregnancy until the birth of their baby/babies (Health Profile for Guernsey and Alderney 2010–2012).

Smoking among children

Information on smoking among children is gathered by the Office *for* the Committee *for* Education, Sport and Culture as part of the Young People's Survey series. Results from past surveys are available at: https://www.gov.gg/ypsurvey

Alcohol consumption — adults

Daily limits and binge drinking[18]

In 2013 UK national guidance on alcohol consumption, adopted in the Bailiwick, was that men should not regularly exceed four units of alcohol per day and women should not regularly exceed three units[19]. Drinking more than double these recommended maximums (i.e. over eight units for men and over 6 for women) was defined as binge drinking (NHS Choices). Recent changes to this guidance are explained here: https://www.gov.uk/government/news/new-alcohol-guidelines-show-increased-risk-of-cancer .

Respondents to *The Sixth Guernsey Healthy Lifestyle Survey 2013* were asked how many units of alcohol they had consumed on each day in the last week[20]. Around a quarter (27.8%) of all adults reported drinking nothing that week. A third (34.2%) drank

[18] Text in this section, and that headed 'drinking risk' is taken from the *The Sixth Guernsey Healthy Lifestyle Survey 2013* pp.30-31.
[19] Department of Health, Sensible drinking: report of an inter-departmental working group. London: Department of Health, 1995. A unit is 8mg of pure alcohol.
[20] A visual aid showing the number of units in different drink types was provided.

within the recommended daily limits (up to 3 units for females and 4 units for males) on their heaviest drinking day and *37.9% drank above the recommended daily limits.*

- One in five (20.8%) adults reported binge drinking (drinking more than 6 units for females and 8 units for males) in the previous week. This equates to 28.9% of all those that drank alcohol in the previous week.
- Males were more likely to have consumed more than the recommended daily limits on at least one day and to have binged than females.
- Alcohol consumption on the heaviest drinking day in the last week was also collected through the 2012 Health Survey for England (all adults age 16+). A comparison between the two surveys suggested that a greater proportion of adults in Guernsey reported drinking in the previous week and a greater proportion of males in Guernsey (but not females) drank above recommended limits.

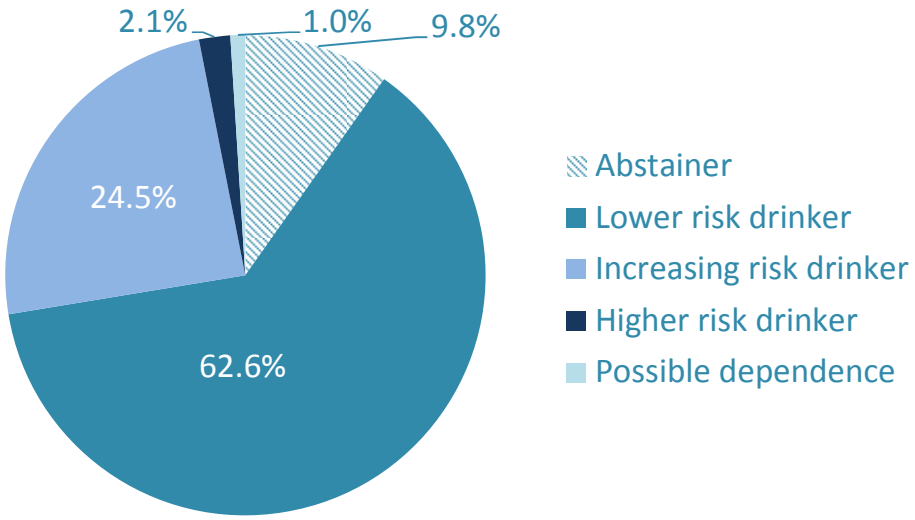
Drinking risk

The AUDIT (Alcohol Use Disorders Identification Test) tool was introduced to *The Sixth Guernsey Healthy Lifestyle Survey 2013*. AUDIT was developed by the World Health Organization as a screening tool to support the identification of harmful and hazardous alcohol consumption patterns in health settings. It consists of ten questions measuring frequency and quantity of alcohol consumption and problems related with alcohol use. Answers for each question are scored and then summed to provide an overall score that indicates an individual's risk of harm from alcohol use. Drinking risk is categorised as: lower risk (scores of 0-7), increasing risk (scores of 8–15), higher risk (scores of 16–19) and possible dependence (scores of 20 or more).

- Almost two thirds (62.6%) of all adults were categorized as lower risk drinkers, a quarter (24.5%) as increasing risk, 2.1% as higher risk and 1.0% as possible dependent drinkers (Figure 28).

- Men were more likely to be increasing risk drinkers (32.3%) than women (17.0%), although the proportions of men and women in the higher risk and possible dependence categories were similar.

Figure 28: AUDIT drinking risk category distribution of survey respondents.



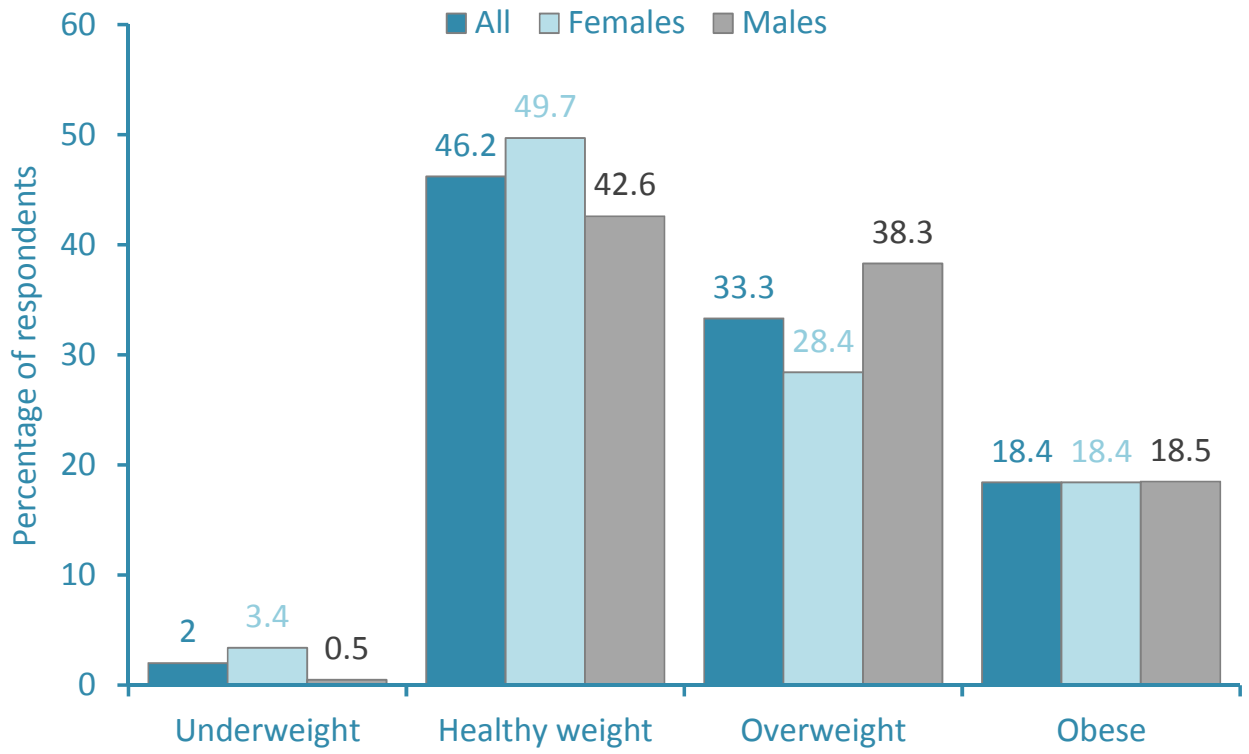
Excess weight — adults

Respondents to *The Sixth Guernsey Healthy Lifestyle Survey 2013* were asked to state their weight and height from which Body Mass Index (BMI) could be calculated. BMI scores were then categorised as follows:

Underweight:	BMI of 10 to less than 18.5
Healthy weight:	BMI 18.5 to less than 25
Overweight:	BMI 25 to less than 30
Obese:	BMI of 30 or more

Of the respondents for whom a valid BMI score could be calculated (weighted *N*=1137) just under 52% were found to be overweight or obese, 46% were a healthy weight and 2% were underweight. Men were more likely to be overweight or obese than women (56.8% compared to 46.8%).

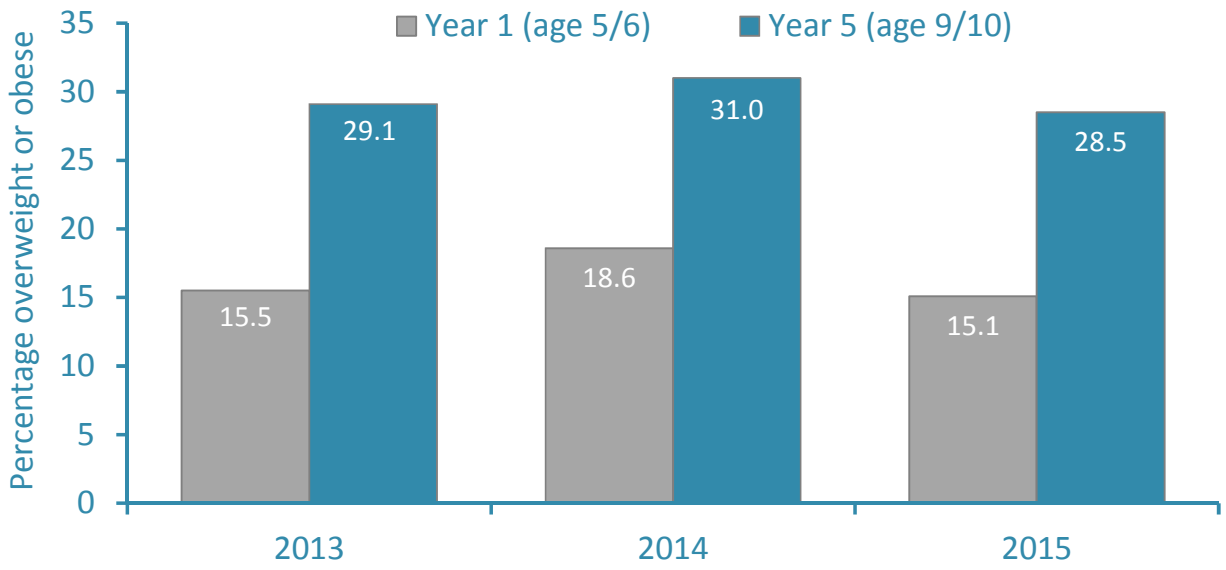
***Figure 29: Weight status of respondents to* The Sixth Guernsey Healthy Lifestyle Survey 2013.**



Excess weight — children

Since 2013 the weight status distribution of primary school-aged children in two year groups, Year 1 (age 5/6) and Year 5 (age 9/10) has been monitored annually via the Guernsey Child Measurement Programme[13]. Results from the first three measurement years give a picture of levels of overweight and obesity that are stable at a high level. *Among Year 1 children approximately one in six children are overweight or obese. Among Year 5 children levels of excess weight are much higher with more than one in four children overweight or obese.*

Figure 30: Overweight and obesity in primary school-aged children, 2013–15.



Healthy schools status

The *National Healthy Schools Programme (NHSP)* launched in 1999 as a joint initiative between the Department for Children, Schools and Families (DCSF) and the Department of Health (DH) in England. The programme provided a key delivery mechanism for the aims of England's Children's Plan (DCSF 2007), and Healthy Weight, Healthy Lives (DH 2008), its aim being to promote a whole school/whole child approach to health. In order to achieve healthy schools status schools had to demonstrate that they had taken steps to achieve forty-one key criteria around four themes: personal, social and health education (PSHE), emotional health and wellbeing, healthy eating and physical activity. Once achieved, accreditation was valid for a three-year period.

The option of taking part in the NHSP was extended to Guernsey and Alderney schools. Over the period 2013–2015 six of the twenty six local schools held a valid Healthy Schools accreditation. A further seven schools had held a valid accreditation prior to 2013.

Locally, at the time of publication of this report, the programme continues to exist in the form of the *Guernsey Healthy Schools Standard* which retains a three-year cycle of accreditation and re-validation by external, off-island, assessors. However, due to the reduction in the number of primary schools in recent years, a decision has been made to review the *Guernsey Healthy Schools Standard* with a view to implementing a new benchmarking system.

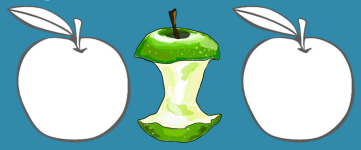
Food and physical activity

ADULTS

In The *Sixth Guernsey Healthy Lifestyle Survey 2013*, just over one fifth of adults reported eating five or more portions of fruit or vegetables on a normal day. This figure varied between the sexes. Twenty-two percent of women had reached the five-a-day target, compared to 19% of men. Variation also occurred with age; only 11% of respondents aged 18–24 met the target, compared with 25% of 65–74 year olds.

With regard to physical activity in the past week, 30% said that they took part five or more times in sport or recreational activity of moderate intensity lasting at least 30 minutes.

20% (about one in five)



— the proportion of adults who met the 5-a-day target in the day before the survey

30% (about one in three)



— the proportion of adults who met the target of 5 x 30 mins moderate intensity activity in the week before the survey

CHAPTER 9: Health service use

Health service use, insurance and barriers to access[21]

Respondents to *The Sixth Guernsey Health and Lifestyle Survey 2013* were asked about recent visits to the GP and dentist. Eighty-seven percent of all adults reported having visited their GP within the last year, with women more likely to have visited than men (91.4% compared with 81.7%). Over half (56.3%) of all adults reported having medical insurance that would cover the fee for a GP. The proportion with such medical insurance was highest in the 35-44 year age group (66.2%). Of those who did not have insurance 16.4% said they had been prevented from going to the doctor when they or their child needed to in the last year because they could not afford the fee. Eighty-three percent of adults had attended a dental check in the last five years. Among those that had not, 39.7% reported that this was because the cost was too high and 38.6% that they didn't feel they needed it.

[21] Text in this section is from *The Sixth Guernsey Healthy Lifestyle Survey 2013*, pp.19-20.

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Appendix 1

Years of Life Lost per 10,000 for fifteen selected causes. Comparison of rates in Guernsey and Alderney, England and the South West region, 2013–15 (sorted by ASR high to low).

	Guernsey and Alderney			England			South West				Difference	
	YLL per 10,000 (persons unless indicated)	95% CI LL	95% CI UL	YLL per 10,000 (persons unless indicated)	95% CI LL	95% CI UL	YLL per 10,000 (persons unless indicated)	95% CI LL	95% CI UL	HSCIC ref.	G&A compared to England	G&A compared to South West
Suicide and undetermined injury	22.47	20.43	25.64	31.87	31.27	32.46	35.56	33.5	37.61	P00473	lower	lower
Accidents	24.06	21.92	26.74	32.17	31.61	32.72	34.81	32.88	36.74	P00334	lower	lower
Lung cancer	20.43	18.41	22.80	31.36	31	31.72	27.39	26.34	28.44	P00238	lower	lower
Coronary heart disease	24.40	22.17	26.88	43.79	43.33	44.25	36.33	35.01	37.64	P00320	lower	lower
Breast cancer *(female-only rate)*	24.28	21.43	28.07	32.72	32.1	33.34	32.41	30.43	34.39	P00164	lower	lower
Prostate cancer *(male-only rate)*	7.74	6.03	9.90	7.71	7.49	7.93	7.85	7.18	8.52	P00246	no difference	no difference
Stroke	12.08	10.53	13.84	14.75	14.47	15.04	13.58	12.69	14.47	P00324	lower	no difference
Colorectal cancer	11.12	9.69	12.90	14.21	13.94	14.48	14.03	13.15	14.9	P00202	lower	lower
Bronchitis, Emphysema, COPD	17.27	15.44	19.40	13.33	13.11	13.55	11.29	10.67	11.92	P00140	higher	higher
Chronic liver disease incl. cirrhosis	11.64	10.31	13.64	20.32	19.95	20.68	16.34	15.29	17.38	P00326	lower	lower
Malignant melanoma	4.88	4.02	6.28	3.65	3.5	3.8	4.31	3.79	4.83	P00274	higher	no difference
Pneumonia	1.83	1.24	2.55	8.48	8.26	8.71	7.04	6.38	7.69	P00519	lower	lower
Bladder cancer	1.37	0.89	2.05	2.59	2.48	2.69	2.75	2.39	3.1	P00162	lower	lower
Infectious and parasitic diseases	3.39	2.65	4.45	5.89	5.68	6.1	4.25	3.7	4.8	P00459	lower	no difference
Cervical cancer *(female-only rate)*	1.95	1.27	3.40	5	4.72	5.28	4.85	3.95	5.75	P00200	lower	lower

Appendix 2

Cause of death definitions

Symbol	Data Provider	Description	Ages	ICD-10 Code description/codes/ages	Provider reference ID/Comments
†	HSCIC	Accidents	All	V01-X59	P00049
†	HSCIC	All causes	All	A00-Y99	P00339
†	HSCIC	Bladder cancer	All	C67	P00130
†	HSCIC	Breast cancer	All	C50	P00148
†	HSCIC	Bronchitis, Emphysema, COPD	All	J40-J44	P00174
†	HSCIC	Cervical cancer	All	C53	P00188
†	HSCIC	Chronic liver disease incl. cirrhosis	All	K70, K73-K74	P00204
†	HSCIC	Colorectal cancer	All	C17-C21	P00226
†	HSCIC	Coronary heart disease	All	I20-I25	P00248
†	HSCIC	Infectious and parasitic diseases	All	A00-B99	P00479
†	HSCIC	Lung cancer	All	C33-C34	P00509
†	HSCIC	Malignant melanoma	All	C43	P00645
†	HSCIC	Pneumonia	All	J12-J18	P00598
†	HSCIC	Prostate cancer	All	C61	P00625
†	HSCIC	Stroke	All	I60-I69	P00675
†	HSCIC	Suicide and undetermined injury	15+	X60-X84, Y10-Y34	P00546

❖	ONS	Alcohol-related deaths	All	Mental and behavioural disorders due to use of alcohol, F10; Degeneration of nervous system due to alcohol, G31.2; Alcoholic polyneuropathy, G62.1; Alcoholic cardiomyopathy, I42.6; Alcoholic gastritis, K29.2; Alcoholic liver disease, K70; Chronic hepatitis, not elsewhere classified, K73; Fibrosis and cirrhosis of liver, K74 (Excluding K74.3-K74.5 - Biliary cirrhosis); Alcohol induced chronic pancreatitis, K86.0; Accidental poisoning by and exposure to alcohol, X45; Intentional self-poisoning by and exposure to alcohol, X65; Poisoning by and exposure to alcohol, undetermined intent, Y15;	No reference
❖	ONS	Drug-poisoning deaths (aka 'deaths related to drug poisoning')	All	Mental and behavioural disorders due to drug use (excluding alcohol and tobacco), F11–F16, F18–F19; Accidental poisoning by drugs, medicaments and biological substances, X40–X44; Intentional self-poisoning by drugs, medicaments and biological substances, X60–X64; Assault by drugs, medicaments and biological substances, X85; Poisoning by drugs, medicaments and biological substances, undetermined intent, Y10–Y14;	No reference
*	PHE (PHOF)	All cancers	<75	C00-C97	4.05i

*	PHE (PHOF)	All causes considered preventable	Various	Tuberculosis, A15-A19, B90, 0-74; Hepatitis C, B17.1, B18.2, 0-74 years; HIV/AIDS, B20-B24, All ages; Malignant neoplasm of lip, oral cavity and pharynx, C00-C14, 0-74 years; Malignant Neoplasm of oesophagus, C15, 0-74 years; Malignant neoplasm of stomach, C16, 0-74 years; Malignant neoplasm of colon and rectum, C18-C21, 0-74 years; Malignant neoplasm of liver, C22, 0-74 years; Malignant neoplasm of trachea, bronchus, and lung, C33-C34, 0-74 years; Malignant neoplasm of skin, C43, 0-74 years; Mesothelioma, C45, 0-74 years; Malignant neoplasm of breast, C50, 0-74 years; Malignant neoplasm of cervix uteri, C53, 0-74 years; Diabetes Mellitus, E10-E14, 0-49 years; Alcohol-related disease excluding external causes, F10, G31.2, G62.1, I42.6, K29.2, K70, K73, K74 (excl. K74.3-K74.5), K86.0, 0-74 years; Illicit drug use disorders, F11-F16, F18-F19, 0-74 years; Ischaemic heart disease, I20-I25, 0-74 years; DVT with pulmonary embolism, I26, I80.1-I80.3, I80.9, I82.9, 0-74 years; Aortic aneurysm and dissection, I71, 0-74 years; Influenza (including swine 'flu), J09-J11, 0-74 years; COPD, J40-J44, 0-74 years; Transport accidents, V01-V99, All ages; Accidental injury, W00-X59, All ages; Suicide and self-inflicted injuries, X60-X84, Y10-Y34, All ages; Homicide/Assault, X85-Y09, U50.9, All ages; Misadventures to patients during surgical and medical care, Y60-Y69, Y83-Y84, All ages;	4.03; Based on the preventable mortality component of 'avoidable mortality' as defined by ONS in April 2012.
*	PHE (PHOF)	Cardiovascular disease	<75	I00-I99	4.04i; Equates to HSCIC definition of Circulatory Disease

*	PHE (PHOF)	Liver disease	<75	Alcoholic liver disease, K70; Toxic liver disease, K71; Hepatic failure, not elsewhere classified, K72; Chronic hepatitis not elsewhere classified, K73; Fibrosis and cirrhosis of liver, K74; Other inflammatory liver diseases, K75; Other diseases of liver, K76; Liver disorders in diseases classified elsewhere, K77; Acute hepatitis A, B15; Acute hepatitis B, B16; Other acute viral hepatitis, B17; Chronic viral hepatitis, B18; Unspecified viral hepatitis, B19; Malignant neoplasm of liver, C22; Portal vein thrombosis, I81; Oesophageal varices, I85; Liver transplant failure and rejection, T86.4.	4.06i
*	PHE (PHOF)	Preventable cancers	<75	Malignant neoplasm of lip, oral cavity and pharynx, C00-C14; Malignant Neoplasm of oesophagus, C15; Malignant neoplasm of stomach, C16; Malignant neoplasm of colon and rectum, C18-C21; Malignant neoplasm of liver, C22; Malignant neoplasm of trachea, bronchus, and lung, C33-C34; Malignant neoplasm of skin, C43; Mesothelioma, C45; Malignant neoplasm of breast, C50; Malignant neoplasm of cervix uteri, C53.	4.05ii; Based on the preventable mortality component of 'avoidable mortality' as defined by ONS in April 2012.
*	PHE (PHOF)	Preventable cardiovascular disease	<75	Ischaemic heart disease, I20-I25; DVT with pulmonary embolism, I26, I80.1-I80.3, I80.9, I82.9; Aortic aneurysm and dissection, I71; Alcoholic cardiomyopathy, I42.6.	4.04ii; Based on the preventable mortality component of 'avoidable mortality' as defined by ONS in April 2012.
*	PHE (PHOF)	Preventable liver disease	<75	Alcohol-related diseases, excluding external causes, K70, K73, K74 (excl. K74.3-K74.5); Hepatitis C, B17.1, B18.2; Malignant neoplasm of liver, C22.	4.06ii; Based on the preventable mortality component of 'avoidable mortality' as

					defined by ONS in April 2012.
*	PHE (PHOF)	Preventable respiratory disease	<75	Influenza (including swine 'flu), J09-J11; COPD, J40-J44.	4.07ii; Based on the preventable mortality component of 'avoidable mortality' as defined by ONS in April 2012.
*	PHE (PHOF)	Respiratory disease	<75	J00-J99	4.07i

Key:

† Health and Social Care Information Centre

❖ Office for National Statistics Indicator

* Public Health Outcomes Framework Indicator

Abbreviations:

HSCIC Health and Social Care Information Centre

ONS Office for National Statistics

DH (PHOF) Department of Health, Public Health Outcomes Framework