

2008

HEALTH PROFILE FOR
GUERNSEY & ALDERNEY

Public Health Directorate
Health & Social Services
Department
States of Guernsey

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Glossary and Abbreviations

95% CI	95% Confidence Interval The 95% confidence interval is used to indicate the reliability of an estimate. Because of our small population numbers, rates or estimates over short periods of time are sensitive to random fluctuations in numbers of events. We cannot know for sure that our estimate is spot on, but there is a 95% probability that the real value of the estimate will fall somewhere between the 95% LL ('lower level') and the 95% UL ('upper level') of confidence.
Bailiwick	Where stated in this report Bailiwick refers to Guernsey, Alderney and the smaller islands of Herm and Jethou, but excludes Sark.
EASR	European Age Standardised Rate Age standardisation adjusts rates to take into account how many old or young people are in the population being looked at. 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 European Standard Population has been used to calculate the standardised rates in this report; hence rates are referred to as 'European Age Standardised Rates'. The same population is used for males, females and all persons (World Health Annual of Statistics 1991).
EDS-PAS	EDS Healthcare Patient Administration System
HSSD	Health and Social Services Department (a States of Guernsey government department)
MATLD	Maternity Live Delivery
MoH	Medical Officer of Health
NHS	National Health Service
PCT	Primary Care Trust (regional unit of the National Health Service which manages the provision of primary care services in a specific area)
PEH	Princess Elizabeth Hospital
SQL	A relational database server, developed by Microsoft.

Introduction

Welcome to this, the first Public Health Profile for Guernsey and Alderney.

The *2008 Health Profile for Guernsey & Alderney* has been designed and developed with the aim of helping the States of Guernsey and Alderney and their departments make decisions and plans to improve local people's health, and to inform strategic plans, such as the *Children and Young People's Plan 2011–13*, the *Future 2020 Vision of the Health and Social Services System* (Billet d'Etat VIII, May 2011), and the *States' Strategic Plan 2011–16* (Billet d'Etat XVI, October 2011).

The profile provides a snapshot of the overall health of the local population, and enables potential areas for improvement to be highlighted through comparison with other jurisdictions. Key audiences for the profile include politicians and States' officers.

The profile is structured around selected established health 'indicators'. A health indicator is a characteristic of an individual, population, or environment which is subject to measurement (directly or indirectly) and which can be used to describe one or more aspects of the health of the population.

Health indicators can be used for various purposes, such as defining the state of public health at a particular point in time, which can be referred back to at a later date to examine change, or to define differences in the health of populations, or to assess the extent to which the objectives of a program are being reached.

In this profile, thirty-four indicators have been selected to give a balance across a range of important health areas. They are arranged into nine themed groups: Demography; Fertility, Infant and Child Health; Life Expectancy; Mortality; Sexual Health; Mental Health; Cancer Screening; Lifestyle and Wider Determinants of Health.

The indicators have also been chosen to allow comparisons between the Bailiwick and some of its nearest geographical and political neighbours, for instance Jersey and England.

It is planned, in future, to update the profile to describe trends in these indicators. At that point the profile will be extended to include additional public health indicators where possible. In addition, it is planned that more detailed profiles, covering specific public health issues, will be produced in the future.

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 the future.

Notes on methods

The *2008 Health Profile for Guernsey & Alderney* was compiled retrospectively between 2010 and 2012. The year 2008 was chosen to avoid a subsequent change in the local patient administration system, which caused data for 2009 to be partly stored on the old system and partly on the new system. It is aimed to produce the next profile for the years 2010–12. This, again, will be timed to avoid the 2009 changeover, which would continue to affect three year rolling average rates up to 2011.

The 2006–08 rates given in this report are three year averages of the years 2006, 2007 and 2008. Three year averages are used to help minimise the effects of random year-to-year fluctuations which can be a particular problem for small populations. The population numbers quoted in this report and those used in the calculation of rates throughout the Health Profile are estimates made by the Social Security Department for the Policy Council Research Unit.

An audit of local death coding was commissioned from the Office of National Statistics (ONS) of England during 2011. ONS checked the coding of deaths registered in Guernsey and Alderney for one calendar year. A recoding exercise was then performed to ensure that international standards were being met. Mortality data given in this report are based on death codes newly provided by ONS rather than those previously assigned locally. Therefore data given in this report may not be comparable to previous mortality data for the island. From 2012 death coding has been formally outsourced from Guernsey to the Office for National Statistics.

Recent improvements to the way death data is transferred between Guernsey's Greffe and the Public Health and Strategy Directorate, which have seen the former paper-based transfer replaced with an electronic transfer, may also account for minor differences in the total number of deaths reported here and in published MoH Annual Reports.

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1. DEMOGRAPHY

Population

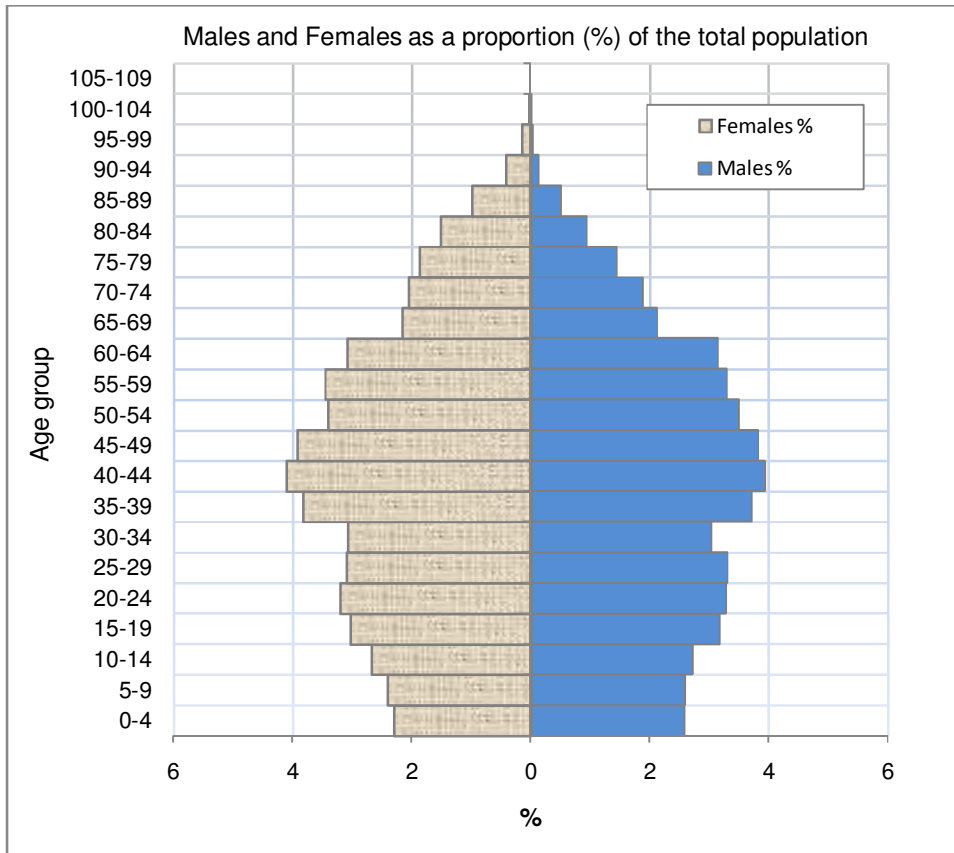
In 2008 the resident population of Guernsey was estimated to be 61,726 and the resident population of Alderney, 2,270, giving a Bailiwick total of 63,996. Table 1 shows the Bailiwick population broken down by Island of residence, 5-year age band and sex.

Table 1. Bailiwick population by Island of residence, age and sex.

Age group	POPULATION 2008				Total Females	Total Males	TOTAL PERSONS
	Guernsey		Alderney				
	Female	Male	Female	Male			
0-4	1433	1614	36	43	1469	1657	3126
5-9	1499	1613	39	49	1538	1662	3200
10-14	1665	1679	47	66	1712	1745	3457
15-19	1878	1968	61	68	1939	2036	3975
20-24	1999	2051	49	47	2048	2098	4146
25-29	1929	2073	49	45	1978	2118	4096
30-34	1926	1891	39	54	1965	1945	3910
35-39	2388	2313	60	66	2448	2379	4827
40-44	2543	2457	84	64	2627	2521	5148
45-49	2440	2361	68	87	2508	2448	4956
50-54	2096	2161	80	79	2176	2240	4416
55-59	2102	2016	108	95	2210	2111	4321
60-64	1851	1913	123	107	1974	2020	3994
65-69	1321	1290	62	76	1383	1366	2749
70-74	1246	1141	66	68	1312	1209	2521
75-79	1130	873	64	56	1194	929	2123
80-84	920	582	49	28	969	610	1579
85-89	590	303	40	25	630	328	958
90-94	257	84	9	8	266	92	358
95-99	89	22	3	2	92	24	116
100-104	19	0	1	0	20	0	20
105-109	0	0	0	0	0	0	0
TOTAL	31321	30405	1137	1133	32458	31538	63996

The structure of the Bailiwick population is shown in Figure 1.

Figure 1. Population pyramid for Guernsey and Alderney, 2008.



This population pyramid conforms to what one would expect for a Western European population. Firstly, it shows a similar proportion of males and females in each age band until the upper age bands where females exceed the number of males, because of their lower mortality rates at these ages. Secondly, there is a bulge in the pyramid at the level of the middle-age categories and a progressive narrowing of the pyramid in the younger age groups. This indicates a continuing decline in birth rate which began approximately forty years ago. When separate population pyramids are created for Guernsey and Alderney an interesting difference can be seen between the islands. Whereas the sex/age pyramid of the Guernsey population (Figure 2) assumes the same distribution as the combined distribution for the Bailiwick, the Alderney pyramid is much more top-heavy (Figure 3). The narrow bottom of the Alderney pyramid, representing the under-35 age categories, reveals that there are few young people relative to the number of older people in the island. Because the pyramid has been created using population estimates made at the end of March 2008, it is assumed to be a good reflection of the structure of the island's permanent residents and is unlikely to be merely the result of the immigration of seasonal workers.

Figure 2. Population pyramid for Guernsey, 2008.

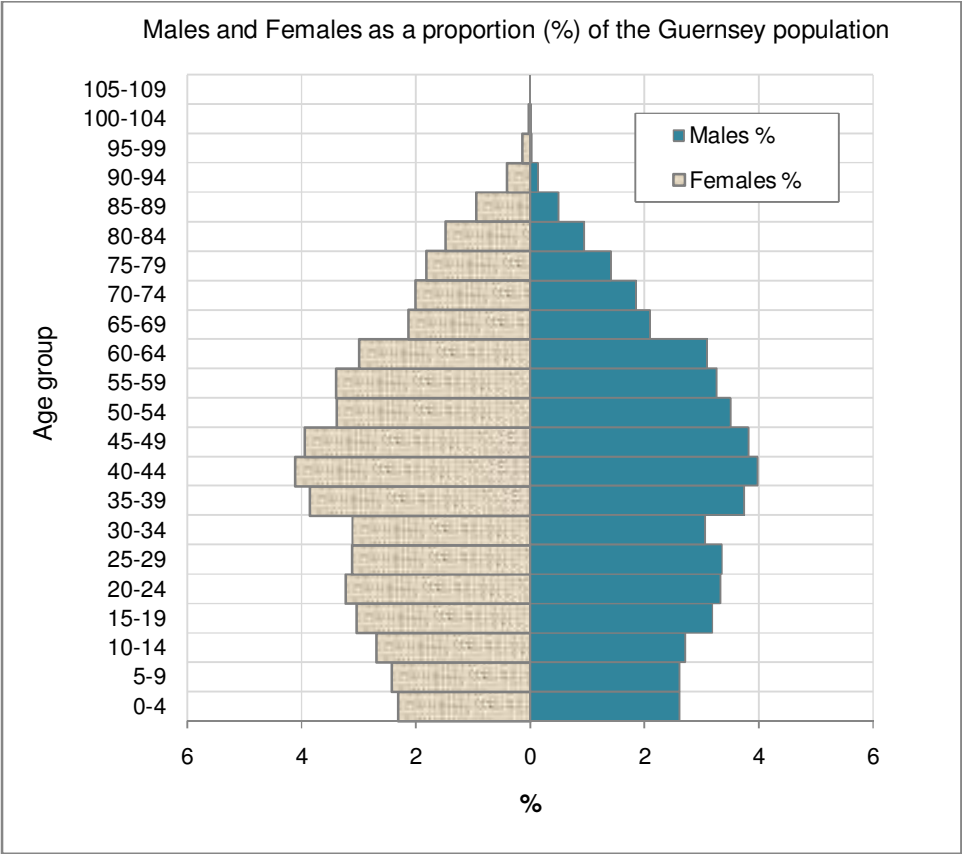
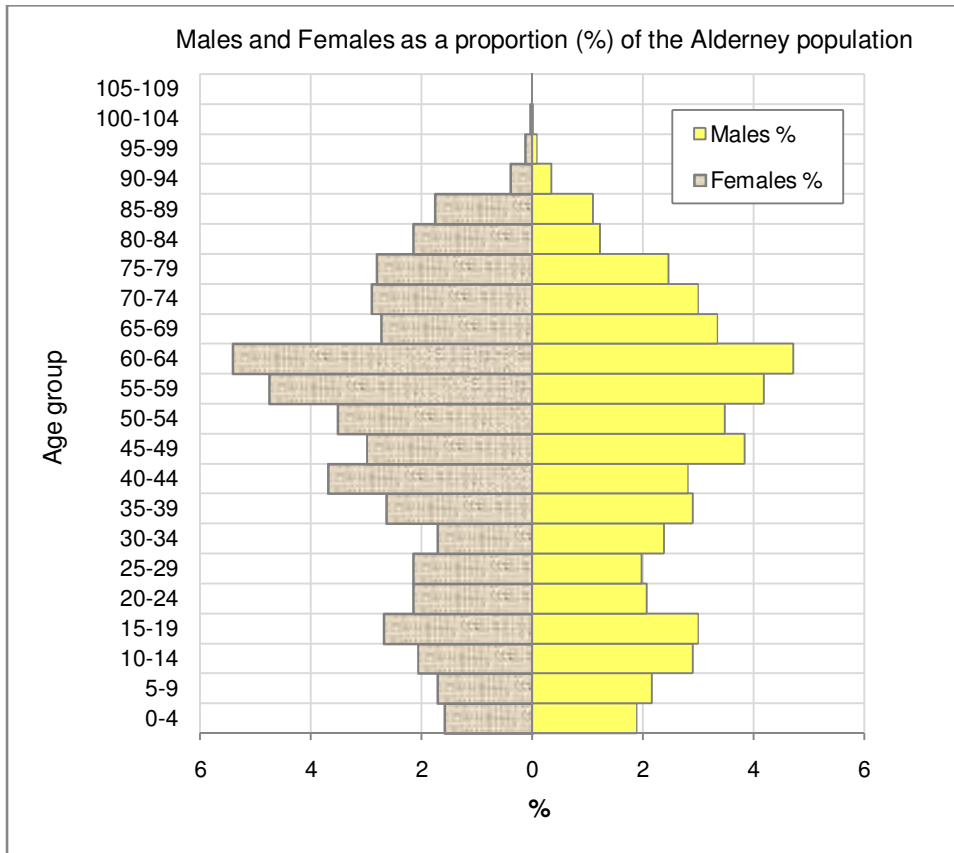


Figure 3. Population pyramid for Alderney, 2008.



Population Density

Guernsey has an area of 63km² (*Guernsey Facts and Figures 2010*, 78) while Alderney has an area of 8km² (www.alderney.gov.gg). The population densities for the islands were, therefore, 980 people per square kilometre and 284 people per square kilometre, respectively.

2.FERTILITY, INFANT AND CHILD HEALTH

General Fertility Rate

The general fertility rate (GFR) is defined as the number of live births per 1,000 females of childbearing age (15-44) in a given population. In 2008 GFR for Guernsey and Alderney was 50.21. In the three year period 2006-2008, the rate was 48.41.

Table 2. General Fertility Rate in England and Wales, 2008. Source: Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base (www.nchod.nhs.uk).

	Female population (15-44y)	Live births to females (11-49y)	Birth rate per 1000 females aged 15-44	95% CI	
				Lower	Upper
England and Wales	11110500	708459	63.76	63.62	63.91
England	10532490	672809	63.88	63.73	64.03
Government office regions					
North East	513614	30217	58.83	58.19	59.48
North West	1382026	88167	63.80	63.39	64.20
Yorkshire and the Humber	1068666	66353	62.09	61.63	62.55
East Midlands	884768	54192	61.25	60.75	61.75
West Midlands	1077441	71726	66.57	66.10	67.04
East of England	1125394	71738	63.74	63.29	64.20
London	1841507	127651	69.32	68.95	69.69
South East	1664193	104023	62.51	62.14	62.88
South West	974881	58742	60.26	59.78	60.73
Guernsey 2008	13005	653	50.21	46.43	54.21
Guernsey 2006-08	39251	1900*	48.41	46.25	50.63

*Sum of live births in each year of the three years

General fertility rate in the Bailiwick was considerably lower than in England, including all government office regions both for 2008 alone and for 2006–08 (Table 2).

Methodology Notes

- GFR is calculated here as number of live birth registrations in 2008 (or 2006–08)/ female population of Guernsey and Alderney aged 15-44 in 2008 (or 2006–08)*1000.
- The live birth registration numerators are those stated in the MoH annual reports for 2006/7, 2007/8 and 2008/9 (Guernsey registrations plus births to Alderney women in Alderney). Note that a correction to the 2008 vital statistics appeared in the 111th annual report for 2009/10.

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 exact current age-specific fertility rates throughout her childbearing years. TFR can be used as an estimate of fertility growth in a population, in other words, whether a childbearing 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. In 2008 the TFR of Guernsey and Alderney was 1.55. For the period 2006–2008 TFR was 1.49.

Table 3. Total Fertility Rate in England and Wales, 2008. Source: Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base (www.nchod.nhs.uk).

	TFR	95% CI	
		Lower	Upper
England and Wales	1.97	1.96	1.97
England	1.97	1.96	1.97
Government office regions			
North East	1.85	1.83	1.87
North West	2.01	2	2.02
Yorkshire and the Humber	1.93	1.91	1.94
East Midlands	1.94	1.93	1.96
West Midlands	2.08	2.07	2.1
East of England	2.00	1.98	2.01
London	1.95	1.94	1.96
South East	1.96	1.95	1.98
South West	1.94	1.92	1.95
Guernsey 2008	1.55	1.31	1.87
Guernsey 2006-08	1.49	1.34	1.65

As with GFR, TFR in the Bailiwick is low compared to England and Wales (Table 3). It is also low relative to global fertility rate estimates for high-income countries produced by the WHO (Table 4).

Table 4. WHO global average Total Fertility Rates for 2008. Source: World Health Statistics 2010, Demography and socioeconomic statistics p167 (<http://www.who.int/whosis/whostat/2010/en/index.html>).

Low income	4
Lower middle income	2.5
Upper middle income	2
High Income	1.7
Guernsey	1.55

Methodology Notes

- TFR is the sum of age-specific fertility rates for each five-year group of ages within the range 10–49 years. Each age-specific rate = number of live births in Guernsey in 2008 (or 2006–08) for age group /2008 (or 2006–08) female population of Guernsey and Alderney for age group.
- Live birth at PEH data comes from the Maternity Live Delivery (MATLD) SQL Table and includes home births as well as those that occurred in hospital.
- The three year average rate for TFR was calculated in an identical manner to the single-year 2008 rate but using combined data from 2006, 2007 and 2008.
- No attempt has been made to adjust PEH birth totals according to mother's normal place of residence. Any error introduced by deliveries at PEH to non-Guernsey women or absent data for women who delivered off-island is likely to have been small.
- Note that there is a minor difference between the number of live births registered in Guernsey and Alderney for 2008/9 as stated in the MoH annual report (n=653) (i.e. that used to calculate GFR) and the number of live births to Guernsey and Alderney women recorded on the MATLD SQL Table as having taken place in the same year (n=652).

Stillbirth Rate

A stillbirth is the birth after the 24th week of gestation of a baby that has died *in utero* (Still-birth (Definition) Act 1992). The stillbirth rate is defined as the number of stillbirths per 1,000 live and stillbirths. In 2008 the stillbirth rate for Guernsey and Alderney was 4.6 per 1,000. For the three year period 2006–2008 the rate was 4.7 per 1,000.

In Table 5 it can be seen that the 2008 rate is slightly lower than both the England average and the England and Wales average for the same year.

Table 5. Stillbirth rates in England and Wales, 2008. Source: Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base (www.nchod.nhs.uk).

	Total births	Stillbirths	Stillbirth rate per 1,000	95%CI	
				Lower	Upper
England and Wales	712051	3592	5.0	4.9	5.2
England	676236	3427	5.1	4.9	5.2
Government office regions					
North East	30396	179	5.9	5.1	6.8
North West	88617	450	5.1	4.6	5.6
Yorkshire and the Humber	66724	371	5.6	5.0	6.2
East Midlands	54447	255	4.7	4.1	5.3
West Midlands	72129	403	5.6	5.1	6.2
East of England	72042	304	4.2	3.8	4.7
London	128381	730	5.7	5.3	6.1
South East	104494	471	4.5	4.1	4.9
South West	59006	264	4.5	4.0	5.0

Guernsey 2008	655	3	4.6	0.9	13.4
Guernsey 2006-08	1905	9	4.7	2.2	9.0

In Table 6 it can be seen that over the ten year period 1998–2008 stillbirth rate has fluctuated between a low of 2.9 per 1,000 (for the years 1999-2003) and a high of 4.5 per 1,000 (seen for the years 1998-2002 and 2004-2008). This variability illustrates the role of chance fluctuations in the annual number of stillbirths which affect rates within our small local population. The wide 95% confidence intervals for each estimated rate provide another measure of this.

Table 6. Stillbirth rates in Guernsey (5-year rolling averages) with England and Wales single-year rates for comparison. Source for England and Wales data: ONS statistical bulletin ‘Infant and perinatal mortality summary tables’, see <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=6305&Pos=6&ColRank=1&Rank=160>.

Year	Guernsey stillbirths /1,000	95% CI		England + Wales stillbirths/1,000
		LOWER	UPPER	
(1998-2002)	4.5	2.4	7.5	5.4
(1999-2003)	2.9	1.3	5.5	5.5
(2000-04)	3.3	1.6	6.1	5.5
(2001-05)	3.3	1.6	6.1	5.6
(2002-06)	3.0	1.4	5.6	5.6
(2003-07)	4.2	2.2	7.1	5.5
(2004-08)	4.5	2.4	7.5	5.3

Methodology Notes

- Stillbirth numbers are from Greffe registrations.
- Live birth numbers are from PEH maternity data, not Greffe registrations.

Infant Death Rate

The infant mortality rate is defined as the number of deaths under the age of one, per 1,000 live births. There were no infant deaths in Guernsey in 2008 giving a rate of 0. The lower and upper levels of confidence for this rate were 0 and 5.7, respectively, at the 95% level. The three year average rate for the period 2006–2008, whilst higher at 1.6 (95% CI 0.3-4.6), was still low compared to the England and Wales rate of 4.7 for 2008 (see Table 7, below).

Table 7. Infant Death Rate in Guernsey compared to England and Wales, 2008.

Source: Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base (www.nchod.nhs.uk).

	Live births	Infant deaths	Infant death rate per 1,000 live births	95%CI	
				Lower	Upper
England and Wales	708459	3331	4.7	4.5	4.9
England	672809	3184	4.7	4.6	4.9
Government office regions					
North East	30217	127	4.2	3.5	5.0
North West	88167	455	5.2	4.7	5.7
Yorkshire and the Humber	66353	357	5.4	4.9	6.0
East Midlands	54192	266	4.9	4.4	5.5
West Midlands	71726	469	6.5	6.0	7.2
East of England	71738	314	4.4	3.9	4.9
London	127651	545	4.3	3.9	4.6
South East	104023	417	4.0	3.6	4.4
South West	58742	234	4.0	3.5	4.5
Guernsey 2008	652	0	0.0	0.0	5.7
Guernsey 06-08	1896	3	1.6	0.3	4.6

Low Birth Weight Rate

Babies weighing less than 2,500 g at birth are said to have a 'low birth weight'. Low birth weight is used as a general health indicator for newborns because it is a key determinant of infant survival, health and development. It has also been shown to correlate with socio-economic deprivation. The low birth weight rate for Guernsey in 2008 was calculated to be 5.6 per 1,000 births. The three year average for the period 2006–08 was 6.1 per 1,000 births. Both of these rates are lower than the England and Wales rate for 2008, which was 7.5 (Table 8). A potential bias is that a few of the highest risk local babies, who are more likely to have a low birth weight, are born in Southampton and will not appear in these statistics.

Table 8. Low Birth Weight Rate in Guernsey and England and Wales, 2008. Source: Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base (www.nchod.nhs.uk).

	<u>Denominator</u>	<u>Numerator</u>	95%CI		
	Number of all stated live and still births	Live and still births <2500g	Low birth weight rate per 1,000 live and still births	Lower	Upper
England and Wales	706428	52954	7.5	7.4	7.6
England	670864	50100	7.5	7.4	7.5
Government office regions					
North East	29960	2383	8	7.7	8.3
North West	88168	6743	7.6	7.5	7.8
Yorkshire and the Humber	66396	5103	7.7	7.5	7.9
East Midlands	54373	4050	7.4	7.2	7.7
West Midlands	71858	6320	8.8	8.6	9
East of England	71393	4841	6.8	6.6	7
London	126948	10053	7.9	7.8	8.1
South East	103777	6857	6.6	6.5	6.8
South West	57991	3750	6.5	6.3	6.7
	Live and still births with weight recorded	Live births <2500g	Low birth weight rate per 1,000 live births		
Guernsey 2008	648 [†]	36	5.6	4.0	7.6
Guernsey 2006-08	1891	116	6.1	5.1	7.3

[†]weight not recorded in seven births

Breastfeeding Initiation

The proportion of Guernsey and Alderney mothers who breastfed their babies at birth in 2008–09 Q1-Q4¹, as a proportion of all mothers for whom a feeding type was known, was 70.8% according to the PEH maternity service database. According to the results of the annual *Infant Feeding Survey*² conducted by the island's health visitors the rate for approximately the same period (the calendar year Jan–Dec 2008) was slightly higher at 72%. As the figure obtained from the maternity service records is based on the direct observation of new mothers by staff, whereas the *Infant Feeding Survey*, relates to feeding initiation as it is self-reported by mothers eight months after the birth of their baby, it is considered that maternity service database figure is likely to be the most accurate.

¹ Quarters have been used here to tie local data in with England and Wales figures which are reported in financial, not calendar, years. Q1 refers to the period April, May, June 2008; Q2 to July, August, September 2008, Q3 to October, November, December 2008 and Q4 to January, February, March 2009.
² Unpublished.

The local rate of breastfeeding initiation is similar to the English average, but slightly lower than England's southern regions which are the usual first-choice comparisons for Guernsey (Table 9).

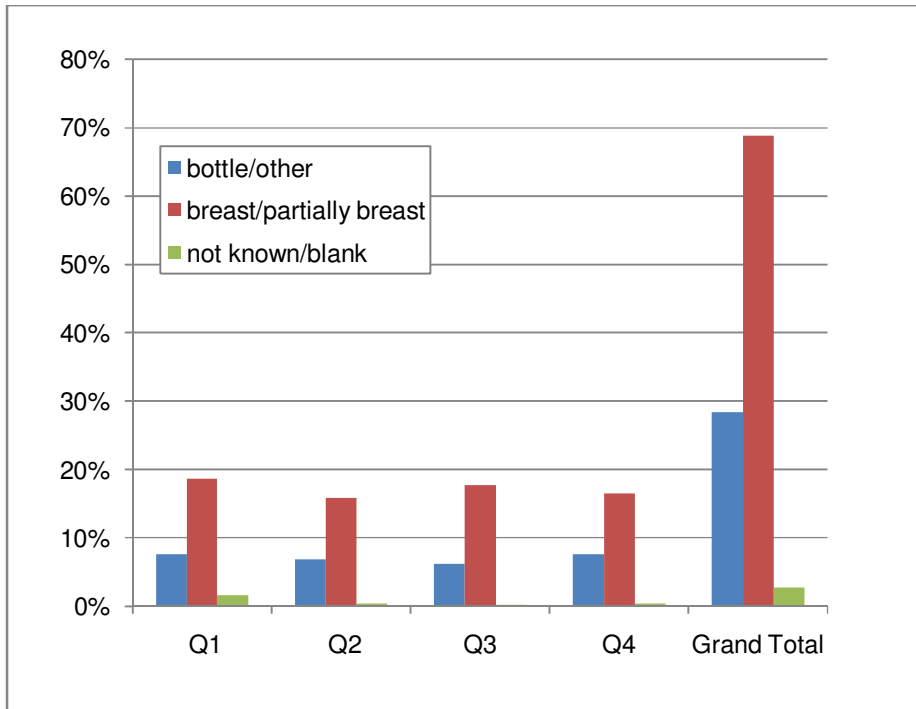
Table 9. Breastfeeding Initiation in Guernsey and England. Source: "Statistics on the initiation and prevalence of breastfeeding 2009/10 Quarter 4 file amended 18 August 2010" http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_116060.

	Maternities where breastfeeding was initiated (% of known total)
English regions 2008-09 Q1-Q4	
England	71.5%
North East	54.0%
North West	62.1%
Yorkshire & Humber	66.8%
East Midlands	71.0%
West Midlands	64.3%
East of England	70.4%
London	83.7%
South East Coast	76.8%
South Central	76.7%
South West	75.9%
Guernsey Jan-Dec 2008	
Guernsey	70.8/72%

Six descriptors of feeding initiation type were available for selection on the PEH maternity service database for births occurring during the period Q1–4 2008–09. These were 'bottle', 'breast', 'breast and', 'not applicable', 'not known' and 'other'. Out of a total 670 births, 646 (96.4%) were given the first, second or third descriptor. One was coded as 'not applicable', one as 'not known' and five as 'other'. 17 (2.5%) were allocated no descriptor and appear as blanks (see Figure 4).

Figure 4. Feeding initiation by type for all live births in Guernsey, 2008-09 Q1-Q4.

Source: PEH Maternity Services.



Methodology Notes

- Feeding initiation data for births occurring in Guernsey were taken from EDS-PAS MATLD (M drive/epidemiology/vital statistics/MATLD data 1997-October 2009).
- The *Infant Feeding Survey* is a questionnaire designed to be completed by a health visitor for all Guernsey and Alderney mothers delivering at PEH, eight months after the birth of their child. Mothers are asked to indicate breastfeeding duration by choosing from one of the following options: none, birth, 1 wk, 2wks, 6wks, 4mths, 6mths, 9mths.
- Data on feeding initiation at birth was obtained from the *Infant Feeding Survey* by subtracting those marked 'none' from the total of all returned surveys for the year in question.

Breastfeeding at 6/8 Weeks

Prevalence

The proportion of babies born in Guernsey or Alderney between January and December 2008 who were breastfed for six weeks or more was 48%. This is slightly less than the England average for the period 2008–09 Q1-Q4 (i.e. April 2008 to March 2009 — the closest time frame for comparison), which was 49% (see Table 10).

Table 10. Breastfeeding at 6–8 weeks in Guernsey and England. Source: "Statistics on the initiation and prevalence of breastfeeding 2009/10 Quarter 4 file amended 18 August 2010" http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_116060.

	Babies breastfed at six weeks (% of known total)
English regions 2008-09 Q1-Q4	
England	49.0%
North East	33.2%
North West	34.4%
Yorkshire & Humber	43.7%
East Midlands	43.1%
West Midlands	39.0%
East of England	49.9%
London	71.9%
South East Coast	53.2%
South Central	57.1%
South West	50.2%
Guernsey Jan-Dec 2008	
Guernsey	48%

Coverage

The percentage of Guernsey and Alderney babies whose six week feeding status was known represents 71% of the infants that were due for follow-up. Infants due for follow-up were all babies born at PEH in 2008 excluding those born to non-resident women. This is less than the 85% data quality standard that is recommended by the Department of Health as a minimum coverage level for statistical confidence (95% coverage is preferred, see *'Breastfeeding at 6-8 weeks Data Collection Guidance'* www.dh.gov.uk).

Methodology Notes

- Since April 2008 all English PCTs have been required to submit data to the Department of Health on local prevalence of breastfeeding at 6–8 weeks. Data are submitted on a quarterly basis and are typically derived from information recorded at infants' 6–8 week checks. PCTs must submit the following items: 1) total number of infants due a 6–8 week check in the quarter 2) number of infants being "totally" breastfed 3) number of infants being "partially" breastfed 4) number of infants "not at all" breastfed.
- In Guernsey, by contrast, it is only possible for the HSSD to obtain breastfeeding data by way of the *Infant Feeding Survey*.
- It is not possible to discriminate between Guernsey infants who are totally versus partially breastfed. However, the *Infant Feeding Survey* returns do allow a calculation of the proportion of infants who are breastfed (at least partially) for six weeks or more.

Tooth decay in children aged 5 Years

Dental health in children is measured using the 'dmft' value, where dmft stands for 'decayed, missing or filled teeth'. Nineteen percent of Guernsey school children aged 5

who were surveyed in 2008 had evidence of dental decay and the mean number of decayed, missing or filled teeth (dmft) was 0.56. This compares favourably to the England average for the same period which was 1.11.

Variations in child dental health were seen between schools (see Table 11), with a dmft range from 0 to 0.97.

Table 11. Tooth decay in 5 year old children. School names have been anonymised.

School	dmft
a	0.00
b	0.16
c	0.18
d	0.31
e	0.32
f	0.37
g	0.41
h	0.42
i	0.45
j	0.50
k	0.56
l	0.60
m	0.66
n	0.69
o	0.77
p	0.78
q	0.97

Methodology Notes

- Examinations of the teeth of Guernsey schoolchildren were carried out by the Head of the Children's Dental Service. Data were collected from reception class children in the States and private schools and in all cases examination was carried out towards the end of the school year.
- When children were seen for their routine 3.5 year health check by their health visitor, parents were asked to give written consent for their children's teeth to be examined at age 5.
- Examination was modelled on the data collection methodology of the British Association for the Study of Community Dentistry (BASCD)
- England data are from the publication *NHS Dental Epidemiology Programme for England. Oral Health Survey of 5 year old Children 2007/2008.*

3. 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 2006–2008 was 82.0 years; 79.7 years for males and 84.1 years for females. Life expectancy at 65 was 18.4 years for males and 21.5 years for females.

Table 12. Life Expectancy at birth for Guernsey and Alderney residents, 2006–08.

	Life expectancy	95% confidence limits	
		lower	upper
Persons	82.0	81.4	82.6
Males	79.7	78.8	80.6
Females	84.1	83.3	85.0

The Guernsey life expectancy values compare favourably with those for UK residents. When considered alongside the latest available UK figures they can be seen to exceed the most recently calculated country-wide averages for England, Wales, Scotland and Northern Ireland (Table 13). They also exceed the calculated averages for all of the English Government Office Regions (Table 13) but are very similar to those of the South West.

Table 13. Life Expectancy at birth and at age 65 by country and Government Office Regions, 2006–08. Source: ONS Statistical Bulletin *Life Expectancy at birth and at age 65 by local areas in the United Kingdom, 2006–08* release date 21/10/09. www.statistics.gov.uk.

LIFE EXPECTANCY AT BIRTH AND AT AGE 65				
	MALES		FEMALES	
	Birth	Age 65	Birth	Age 65
United Kingdom	77.5	17.5	81.7	20.2
England	77.9	17.7	82.0	20.3
Wales	77.0	17.2	81.4	20.2
Scotland	75.0	16.3	79.9	18.9
Northern Ireland	76.4	17.0	81.3	19.8
ENGLISH REGIONS				
North East	76.4	16.7	80.6	19.3
North West	76.3	16.8	80.6	19.4
Yorkshire and The Humber	77.1	17.2	81.3	19.8
East Midlands	77.8	17.5	81.8	20.2
West Midlands	77.2	17.4	81.6	20.1
East of England	78.9	18.2	82.7	20.7
London	78.2	18.1	82.7	21.0
South East	79.2	18.4	83.0	21.0
South West	79.0	18.4	83.1	21.2
Guernsey	79.7	18.4	84.1	21.5

There are, however, several local areas in the UK where life expectancies exceed those of Guernsey residents. In Kensington and Chelsea, for example, life expectancy at birth for the period 2006–08 was considerably higher; 84.3 for males and 88.9 for females.

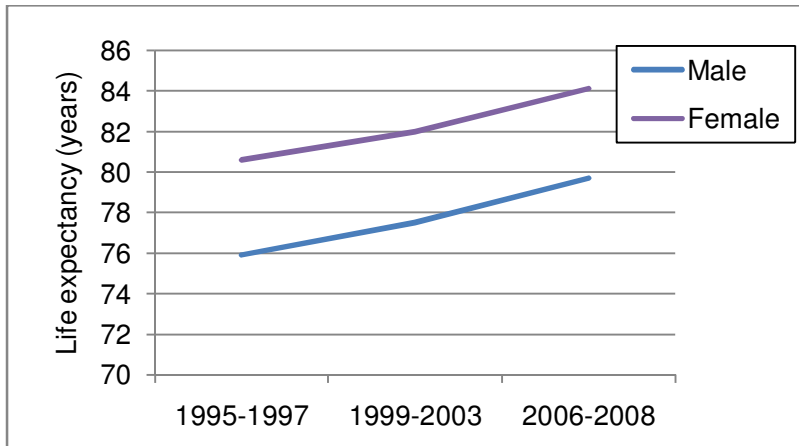
Change in Life Expectancy over time

Life expectancy at birth in 2006–8 has increased compared to 1995–7 and 1999–2003 when previous calculations were made. Male life expectancy has increased by 3.8 years, or 5%. Female life expectancy has increased by 3.5 years, or 4.4%.

Table 14. Change in life expectancy for males and females over time.

Year	Male	Female
1995-1997	75.9	80.6
1999-2003	77.5	82.0
2006-2008	79.7	84.1

Figure 5. Change in life expectancy for males and females over time.



Methodology Notes

- Calculations were performed using the *Single Area Life Expectancy Calculator* created by SEPHO which can be found at <http://www.sepho.org.uk/viewResource.aspx?id=8943>.
- Data used in these calculations consisted of population estimates for Guernsey and Alderney for the years 2006, 2007 and 2008 and death data for the years 2006, 2007 and 2008, the latter derived from death registration extracts from Guernsey and Alderney Greffes.
- Population estimates for 2006 are inferred from 'year of birth' data. Figures for the number of individuals aged <1 year and 1-4 years were derived by proportional splitting of a figure provided for the age band 0-4 years.
- Death registrations in 2006, 2007 and 2008 were used as a proxy for deaths occurring in those years. It is assumed that any deaths that occurred late in 2008 and which were thus not registered until 2009 will have been balanced out by deaths occurring late in 2005 which were registered in 2006.
- Death registrations in Guernsey and Alderney include non-resident individuals who die locally and exclude residents who die off-island. An assumption is made that the number of the former would be balanced by the number of the latter.

4. MORTALITY

Population Mortality

In 2008 there was a total of 503 deaths registered in Guernsey and Alderney, including stillbirths, 234 of which were male and 269 female. This equates to a crude death rate of 785.9 per 100,000. Standardised for age against the European population, this rate (EASR) was calculated as 460.9 deaths per 100,000. The EASR for the period 2006–2008 is slightly higher, 492.3, but is still markedly less than the England and England/Wales averages for the same period (see Table 15).

Table 15. Age-standardised death rates (EASR) per 100,000 in Guernsey/Alderney and England and Wales, 2006–08. Source: Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base (www.nchod.nhs.uk).

	Age-standardised death rate per 100,000 (EASR)
England and Wales	584.3
England	581.9
Government office regions	
North East	660.0
North West	661.2
Yorkshire and the Humber	619.1
East Midlands	590.3
West Midlands	608.8
East of England	540.7
London	560.7
South East	530.1
South West	529.3
Guernsey 2006-08	492.3

Causes of Death

The top ten causes of death for people dying in Guernsey and Alderney in 2008 are shown in Table 16, below.

Table 16. Top ten causes of death ranked by European age-standardised rate (EASR) per 100,000.

Cause of death (three character category of the ICD-10)	ICD-10 Codes	Number of deaths			Crude rate per 100,000			EASR per 100,000		
		M	F	Total	M	F	Total	M	F	Total
Ischaemic heart diseases	I20-I25	36	30	66	114.1	92.4	103.1	81.2	37.9	57.1
Cerebrovascular diseases (predominantly stroke)	I60-I69	20	31	51	63.4	95.5	79.7	43.7	35.7	39.3
Cancer of the digestive organs	C15-C26	20	17	37	63.4	52.4	57.8	49.0	29.2	39.1
Cancer of the respiratory and intrathoracic organs (predominantly lung cancer)	C30-C39	23	14	37	72.9	43.1	57.8	52.1	26.6	38.0
Chronic lower respiratory diseases (including bronchitis, emphysema, COPD, asthma)	J40-J47	12	21	33	38.0	64.7	51.6	25.5	37.7	31.3
Other forms of heart disease	I30-I52	14	18	32	44.4	55.5	50.0	33.8	19.3	27.0
Organic, including symptomatic, mental disorders (Including dementia and Alzheimer's disease)	F00-F09	12	18	30	38.0	55.5	46.9	26.3	19.4	22.2
Cancer of the female genital organs	C51-C58	0	11	11	0.0	33.9	17.2	0.0	23.8	12.5
General symptoms and signs (predominantly old age/senescence)	R50-R69	3	15	18	9.5	46.2	28.1	6.8	14.9	12.4
Other external causes of accidental injury	W00-X59	6	4	10	19.0	12.3	15.6	16.5	6.4	10.7

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 particular causes of death. YLL is the number of years *not* lived by individuals who die under the age of 75, 75 having been set as an age that everyone can be expected to reach.

In the period 2006–2008, 5815 years of life were lost in Guernsey prematurely. This equates to an age-standardised rate of 301.2 years per 10,000 population, which is low relative to the English regions (see Table 17, below).

Deaths from cancer contributed over one third of all premature years of life lost (37.2%), while cardiovascular diseases contributed 15.6% and respiratory diseases, 7.6%.

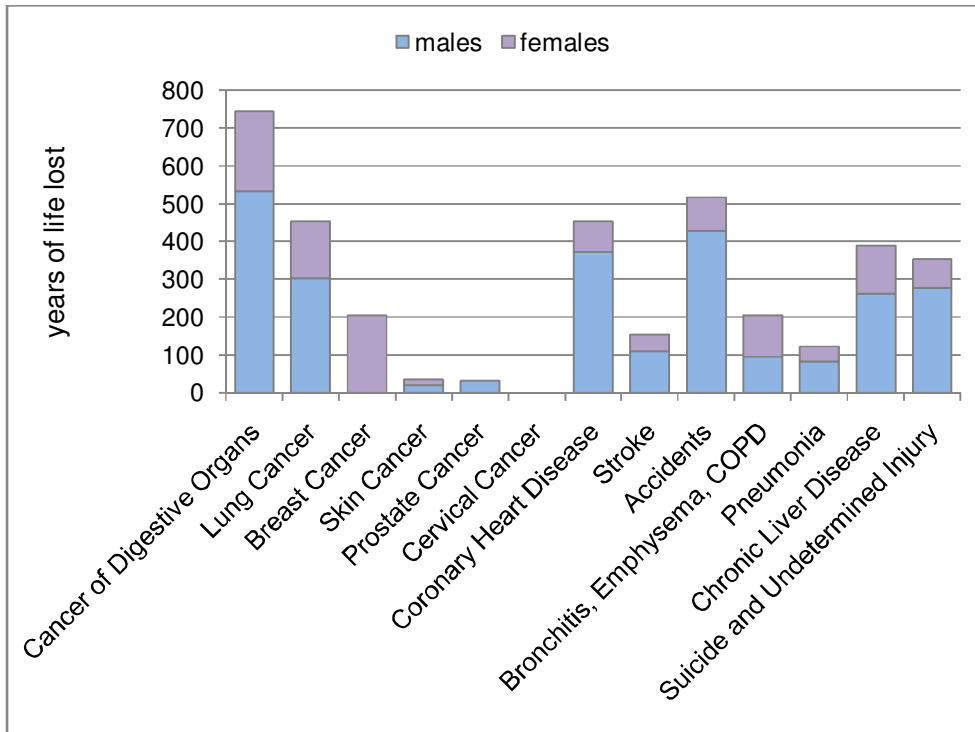
Table 17. Years of Life Lost (EASR per 10,000 population), Guernsey and Alderney compared to England and Wales, 2006–08. Source: Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base (www.nchod.nhs.uk).

	EASR per 10,000 population
England and Wales	445.5
England	442.3
Government office regions	
North East	512.1
North West	526.0
Yorkshire and the Humber	478.1
East Midlands	438.4
West Midlands	474.2
East of England	390.1
London	435.5
South East	388.6
South West	400.0
Guernsey	301.2

Table 18. Years of Life Lost in Guernsey and Alderney for main causes of death, 2006–08.

Disease	ICD-10 codes	Years of Life Lost (number)			PERSONS (% of total)	Years of Life Lost (EASR per 10,000)		
		MALE	FEMALE	PERSONS		MALE	FEMALE	PERSONS
All Causes	A00-Y99	3555	2260	5815	100	368.5	233.8	301.2
All Cancers	C00-C99	1193	973	2165	37	122.9	98.4	110.7
Cancer of Digestive Organs	C15-C26	533	213	745	13	55.8	21.3	38.6
<i>Upper GI cancers</i>	<i>C15-17, C22-25</i>	285	93	378	-	30.0	8.9	19.5
<i>Lower GI cancers (incl. Colorectal)</i>	<i>C18-21</i>	220	58	278	-	23.1	6.0	14.5
<i>Other/ill-defined sites</i>	<i>C26</i>	28	63	90	-	2.7	6.4	4.6
Lung Cancer	C33-C34	303	150	453	8	30.2	14.9	22.5
Breast Cancer	C50	0	205	205	4	0.0	20.6	10.4
Skin Cancer	C43-C44	20	15	35	1	1.9	1.4	1.7
Prostate Cancer	C61	33	0	33	1	3.4	0.0	1.7
Cervical Cancer	C53	0	0	0	0	0.0	0.0	0.0
Cardiovascular Disease	I00-I99	763	148	910	16	74.8	14.7	44.6
Coronary Heart Disease	I20-I25	373	80	453	8	36.1	8.4	22.2
Stroke	I60-I69	110	45	155	3	10.9	4.3	7.6
Accidents	V01-X59	428	90	518	9	47.6	8.6	28.3
Respiratory Diseases	J00-J99	233	210	443	8	23.3	21.1	22.2
Bronchitis, Emphysema, COPD	J40-J44	95	110	205	4	9.6	11.0	10.3
Pneumonia	J12-J18	83	40	123	2	8.0	4.3	6.1
Chronic Liver Disease	K70, K73-K74	263	128	390	7	26.7	12.8	19.6
Suicide and Undetermined Injury	X60-X84, Y10-Y34 excl. Y33.9	278	75	353	6	32.7	8.7	20.9

Figure 6. Lost years by cause of death (selected causes), 2006-08.



The years of life lost measure provides greater weight to a death the younger the person is when they die. Conditions that cause many deaths but which affect mainly older people e.g. pneumonia (72 deaths between 2006 and 2008), account for a small proportion of life years lost (Figure 6). By contrast other conditions affecting much younger people, e.g. suicide, though few in number (11 deaths between 2006 and 2008), result in many more lost years.

Methodology Notes

- A population count used in the 2006–08 EASR calculation required the number of individuals aged 0 in 2006 to be known. Because this data was not available from Policy Council that component was estimated as 1/5 of the 0–4 age category (for which a total was known).
- YLL calculations followed the methods set out by the National Centre for Health Outcomes Development (NCHOD) see document *Explanations of statistical methods used in the Compendium* <http://www.nchod.nhs.uk/>
- Deaths are registered in the place where the death occurs. This means that registrations at Guernsey Greffe and Alderney Greffe will include a small number of non-residents who die in the islands, e.g. whilst on holiday. Residents of Guernsey and Alderney who die off-island will, likewise, have their deaths registered in the jurisdiction where they die and will not contribute to the local statistics given in this report. The arrangement whereby acutely ill patients, who, one assumes, are at a greater risk than normal of dying, are sent to England for specialist treatment, means there may be underreporting of certain causes of death, though the effect on cause of death statistics as a whole is likely to be very small.

Standardised Mortality Ratios (SMRs)

Standardised mortality ratios (SMRs) are a common method of measuring mortality levels within local populations and comparing them against a comparison population (hereafter 'comparator'), such as England and Wales. Age-specific mortality rates for the chosen comparator are applied to population estimates for a given area, generating an expected number of cases. The actual observed number of cases is then compared to the expected value and expressed as a percentage. The SMR of the comparator is fixed at 100, therefore a local SMR in excess of 100 indicates a higher level of mortality and one of less than 100, a lower level of mortality.

SMRs for Guernsey were calculated against two comparators, i.e. two sets of rates, those of England and Wales and those of England's South West Government Office Region ('South West'). Table 19 shows that Guernsey generally experiences lower levels of mortality than England and Wales, with the exception of COPD, chronic liver disease and accidents, where mortality is higher in one or both sexes. A similar pattern is seen when Guernsey is compared to the South West. Overall, individuals in Guernsey experience 92% of the expected mortality from all causes, but mortality from COPD, chronic liver disease and accidents is higher than expected. Deaths from lung cancer are also higher for both men and women, averaging 16% higher than in the South West (SMR=116). Male deaths from chronic liver disease exceed the South West comparator by more than 30%, whereas female deaths are no different to the comparator. Conversely, in the case of accident deaths females exceed the comparator by 40%, whereas in males there is no difference.

Table 19. Standardised Mortality Ratios for Guernsey and Alderney, 2006–08.

Source of underlying rates: Compendium of Clinical and Health Indicators / Clinical and Health Outcomes Knowledge Base (www.nchod.nhs.uk).

Disease	ICD-10 code(s)	standardised to England and Wales			standardised to the South West Government Office Region		
		Male	Female	Persons	Male	Female	Persons
All causes	A00-Y99	87.5	85.9	86.7	93.8	91.2	92.4
All cardiovascular diseases	I00-I99	85.1	80.2	82.6	91.7	83.7	87.5
Coronary heart disease	I20-I25	83.7	69.0	77.2	91.9	74.4	84.1
Stroke	I60-I69	88.9	87.7	88.2	91.2	85.1	87.5
Cancer	C00-C97	83.5	85.2	84.2	87.7	89.5	88.4
Lung cancer	C33-C34	96.2	89.4	93.2	115.4	117.6	116.0
Cervical cancer	C53	-	0.0	-	-	0.0	-
Breast cancer	C50	-	66.4	-	-	66.9	-
Prostate cancer	C61	95.7	-	-	91.0	-	-

Pneumonia	J12-J18	84.4	61.1	70.3	89.8	63.6	73.8
COPD	J40-J44	107.5	102.4	104.7	126.3	134.7	129.5
Chronic liver disease	K70, K73-K74	113.4	82.2	102.2	132.5	98.1	120.8
Accidents	V01-X59	98.5	126.9	111.4	97.1	140.0	115.1

* Green fill denotes SMRs less than or equal to the comparator; red fill denotes SMRs higher than the comparator. Dark green and red fills denote SMRs more than 25% below, or 25% above, the comparator, respectively.

Figure 7. Standardised Mortality Ratios for Guernsey, 2006–08, where England and Wales rates are the standard.

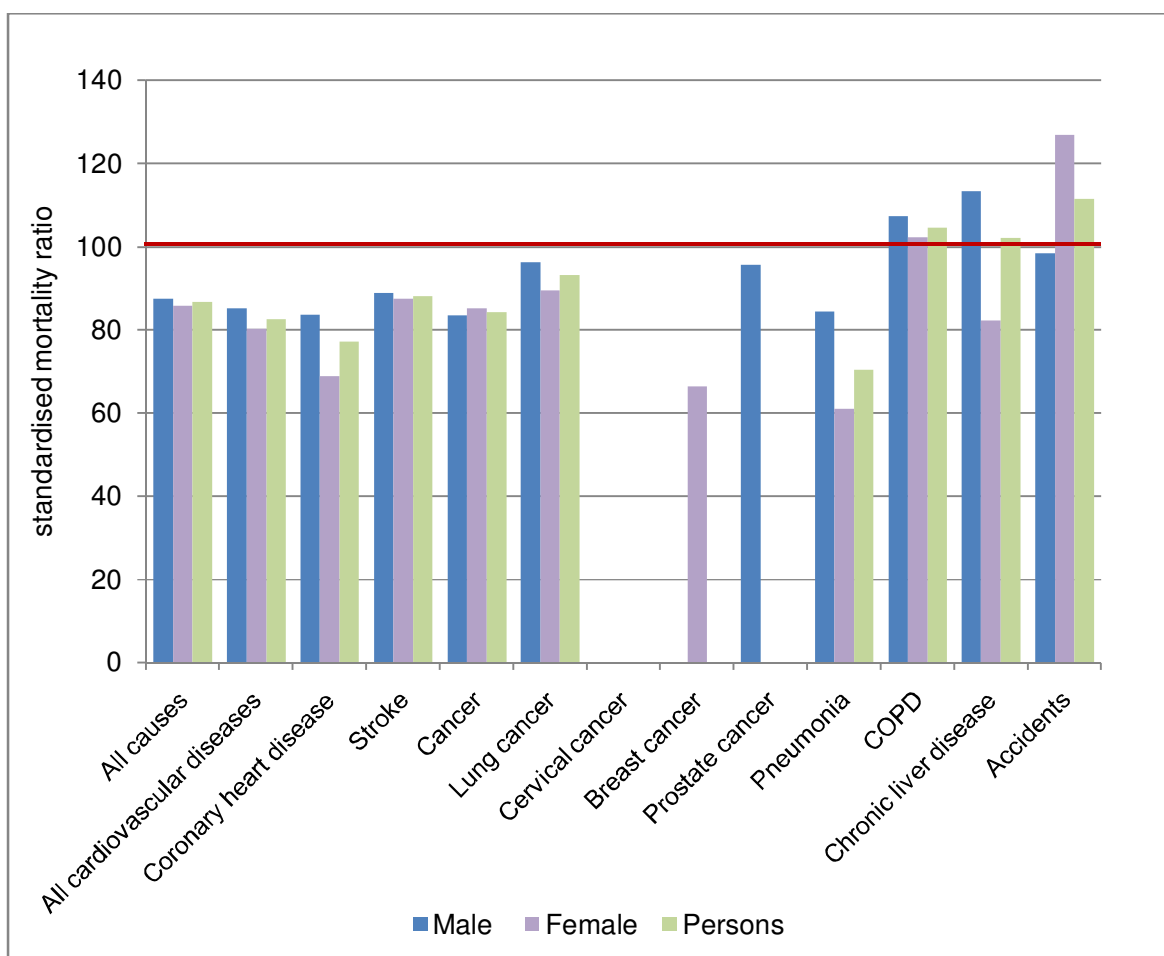
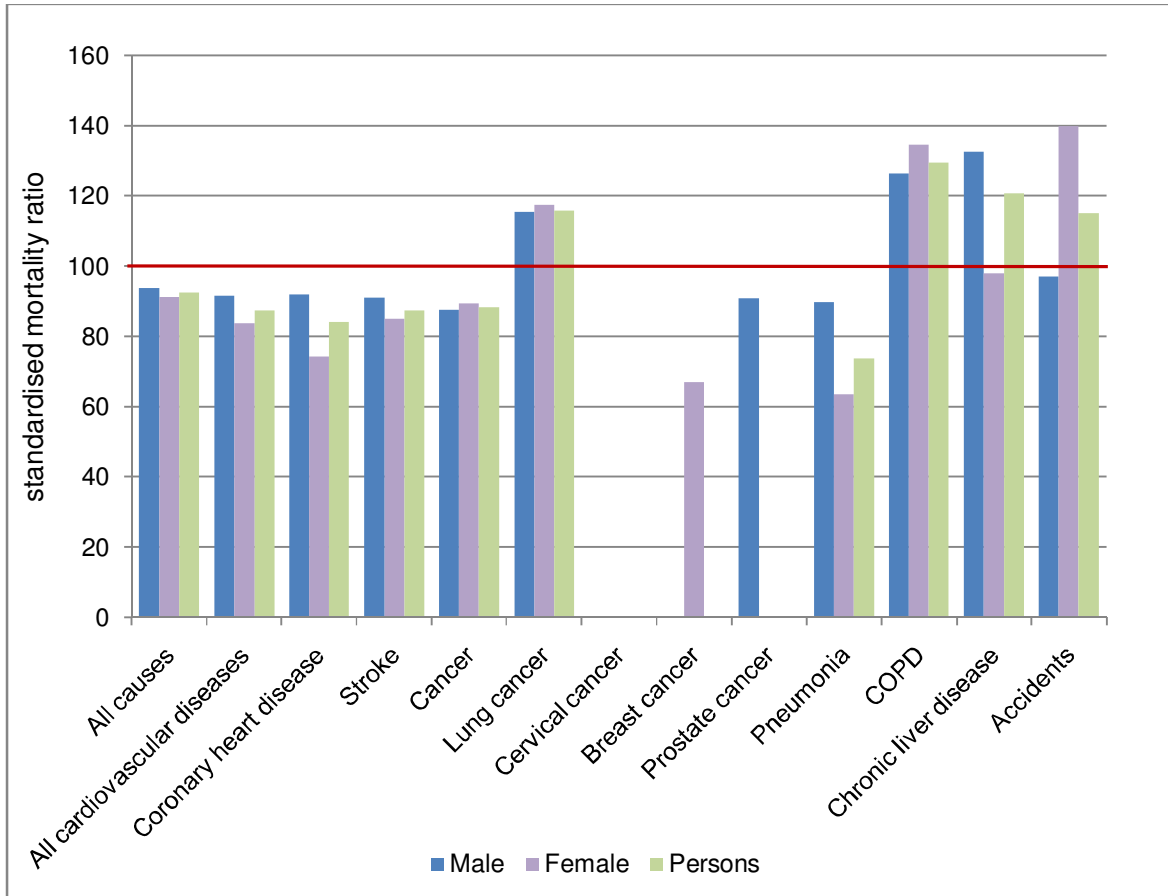


Figure 8. Standardised Mortality Ratios for Guernsey, 2006-08, where rates of the South West Government Office Region are the standard.



Methodology Notes

- SMR calculations are based on Guernsey and Alderney deaths registered between 1st January 2006 and 31st December 2008. The population figures used in the calculation of this statistic are Guernsey and Alderney counts for the years 2006–08.

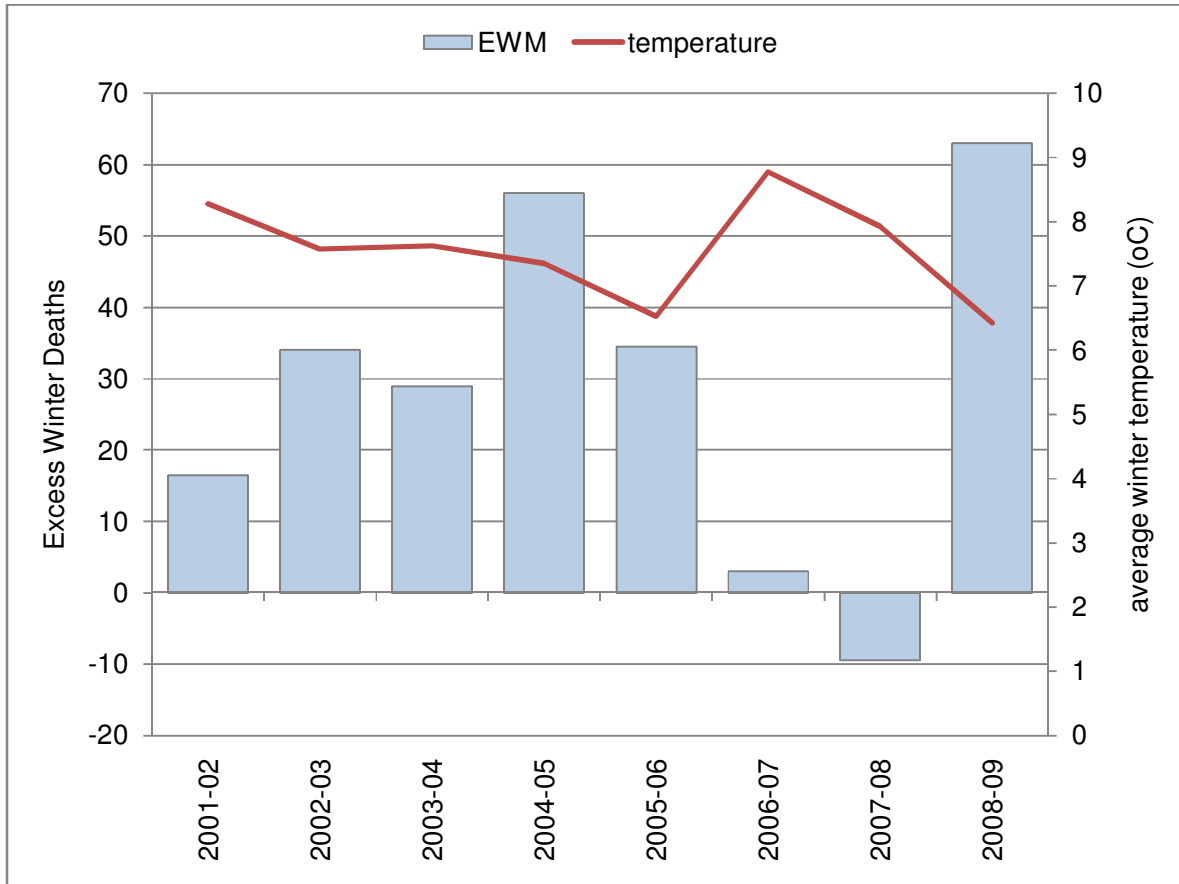
Excess Winter Mortality

European countries experience higher levels of mortality in the winter than in the summer and a measure of this increase for England and Wales is provided annually by the Office for National Statistics (ONS). Excess Winter Mortality (EWM) for Guernsey and Alderney was determined using the Office for National Statistics’ methodology.

In most years there are some excess winter deaths, however the pattern recently has been inconsistent. During the four months of winter 2008/09 (December ’08 and January, February and March ’09), there were 63 more deaths than the average for the non-winter period, the highest number of excess deaths recorded in the last eight years. This contrasts to the two previous winters when there were very few excess winter deaths (three in 2006/07), or none at all (-10 in 2007/08).

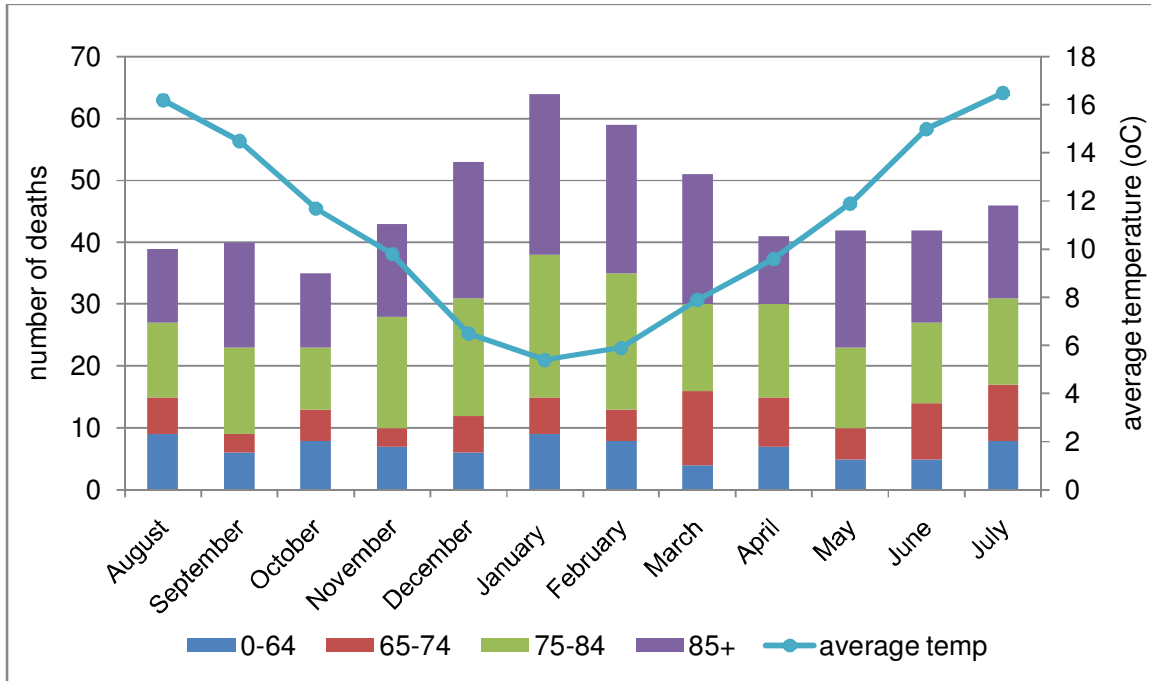
Figure 9 shows that the increase in EWM between 2006/07 and 2008/09 corresponded with a decrease in average temperature across the winter period. However in other years the relationship between EWM and temperature was less clear. These observations closely reflect the observed relationship of EWM/temperature in England and Wales over the same period (see <http://www.statistics.gov.uk/pdfdir/ewm1109.pdf>).

Figure 9. Excess Winter Mortality and average winter temperature, 2001/02–2008/09.



When monthly mortality data for 2008/09 are compared to mean monthly temperatures for Guernsey an informative picture is revealed. As the temperature falls so the number of deaths rises. However, it is only individuals in the oldest age categories, namely those aged over 75, who experience raised mortality during the winter. Younger people are not affected.

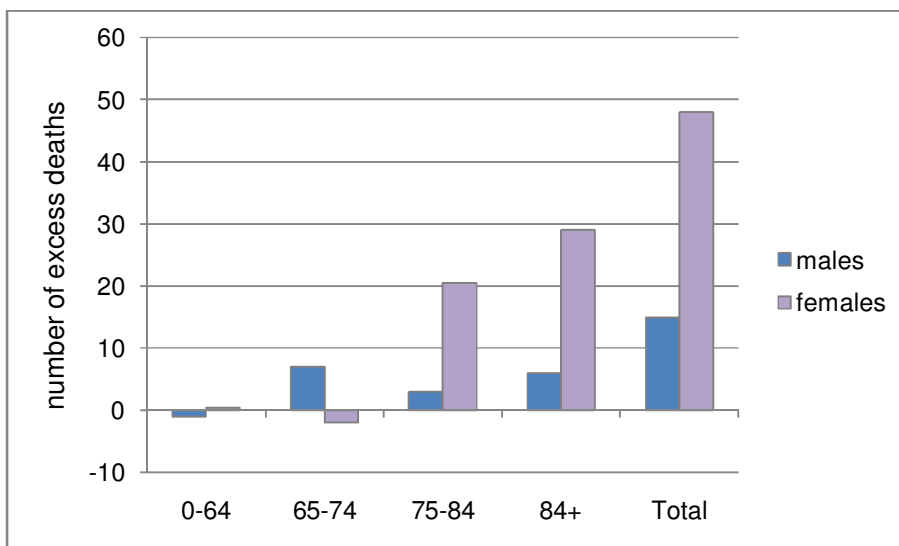
Figure 10. Monthly deaths and average monthly temperatures, August 2008 to July 2009.



Source of temperature data: Guernsey Meteorological Office.

Of the excess winter deaths in 2008/09, 15 were among males and 48 among females. The vast majority of this difference can be explained by elevated mortality in women over the age of 75 (who there are more of, on account of longer female life expectancy). In the under 75s it is males who experienced the higher rate of excess winter mortality, a pattern also seen in England and Wales during 2008/09.

Figure 11. Excess Winter Mortality in Guernsey and Alderney by age and sex, 2008/09.



In Guernsey and Alderney as elsewhere in Europe it is deaths from cardiovascular diseases and respiratory diseases (heart attacks, strokes, pneumonia etc.) that make up the majority of excess winter deaths. Contrary to what one might expect, deaths where the underlying cause was an accident, such as a trip or fall resulting in a fracture, do not show a marked seasonal pattern.

The reasons why older people, in particular, experience higher mortality during the winter months, are not fully understood. While low indoor temperatures resulting from inadequate heating or insulation of buildings may be one factor, research suggests that dressing warmly and appropriately for the weather when outside may be just as important as having a warm home (cf. Keatinge and Donaldson 2004).

5. SEXUAL HEALTH

Under-18 Conceptions

The rate of under-18 conceptions in Guernsey and Alderney in 2008 was 39.8 per 1,000 women aged 15–17 (95% CI 29 to 53.2). This is very similar to the England and Wales rate of 40.7. Conception rates for England's Government Office Regions are shown, for comparison, in Table 20, below.

Table 20. Under-18 conceptions for England and Wales, 2008. Source "Under 18 conception statistics 1998–2008" <http://webarchive.nationalarchives.gov.uk/20100418065544/dcsf.gov.uk/everychildmatters/resources-and-practice/ig00200/>.

	rate per 1,000	% leading to termination
England and Wales	40.7	49
England	40.5	50
Government office regions		
North East	49.0	44
North West	45.8	49
Yorkshire and the Humber	47.3	44
East Midlands	39.6	46
West Midlands	44.6	48
East of England	31.4	48
London	44.5	61
South East	33.0	51
South West	34.9	51
Guernsey 2008	39.8	44

Forty-four percent of under-18 conceptions were terminated compared to 49% in England and Wales.

Methodology Notes

- The denominator used in the calculation of under-18 conceptions was Guernsey and Alderney women aged 15–17.
- Teenage conceptions are inferred from births to women who conceived aged <18 (EDS PAS MATLD data) plus legal terminations to women who conceived aged <18 (Termination of Pregnancy database, Public Health).
- Figures for terminations refer to procedures performed locally and do not account for any that may have been performed in England and Wales, of which we know there are approximately 10 per year (see below).

Terminations of Pregnancy

The Medical Officer of Health was notified of 137³ terminations performed in Guernsey in 2008. A further 10 were performed in England or Wales to Guernsey residents. An age-standardised termination rate (EASR) for all known procedures (local and off-island) was calculated to be 11.3 per 1000. This is one of the lowest rates recorded for England and Wales in 2008 (see Table 21, below).

Table 21. Age-standardised termination rates in England and Wales, 2008. Source: "Abortion Statistics England and Wales 2008"
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_099285.

	EASR per 1,000 women aged 15-44
England and Wales	18.2
England	18.3
North East	15
North West	18
Yorkshire and the Humber	16
East Midlands	15
West Midlands	20
East of England	16
London	27
South East Coast	17
South Central	15
South West	15
Wales	16
Guernsey	11.3

³ Interim figure, awaiting confirmation by MSG.

Methodology Notes

- The above statistic relates to Guernsey and Alderney women.
- The numerator for the age-standardised rate is the number of termination notifications received by Guernsey's MoH plus the number of terminations performed in the UK to women identifying themselves as Guernsey residents (Table 12a "Abortion Statistics England and Wales 2008" http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_099285)
- The figure for terminations performed in the UK for locally resident women will include procedures that have been performed in private and NHS hospitals/clinics.
- The denominator is Guernsey and Alderney females aged 15–44 in 2008.
- The ages of the women who had off-island terminations cannot be obtained on the grounds of patient confidentiality. For the purposes of the EASR calculation these women were assumed to have had the same age distribution as women of known age who had terminations locally.

Sexually Transmitted Infections (STIs)

Rates of new episodes for selected diagnoses are shown below. Rates for the South West Government Office Region and the UK are given for comparison. (Source of UK and South West data: http://www.hpa.org.uk/web/HPAweb&HPAwebStandard/HPAweb_C/1203348026613 'STI Table 5: Rates' pdf.)

Table 22. Rates (per 100,000 population) of new episodes for selected STI diagnoses. 'MSM' represents the proportion of the total male diagnoses attributed to men who have sex with men.

		2008								
		Rate (Guernsey)			Rate (South West)			Rate (UK)		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Chlamydia*	<16	0	0	0	unavailable			unavailable		
	16-19	357.8	629.3	489.9	unavailable			unavailable		
	20-24	619.6	293.0	458.3	1072.1	1059.1	1066.0	1598.0	2322.6	1965.8
	25-34	24.6	25.4	25.0	449.9	243.1	349.6	502.6	330.1	417.5
	35-44	40.8	0.0	20.1	91.4	39.9	65.2	120.9	51.0	85.7
	45+	0.0	0.0	0.0	17.0	5.0	10.6	18.5	4.8	11.3
	Total	69.8	52.4	60.9	174.9	159.1	166.9	270.6	385.9	331.5
	MSM	0%			-			-		
Gonorrhoea	<16	0.0	19.7	9.5	0	8.6	4.2	2.7	15.7	9
	16-19	0.0	125.9	61.2	42.6	70.2	55.9	85.0	130.4	107.1
	20-24	190.7	0.0	96.5	84.1	48.5	67.3	142.6	84.1	114.1
	25-34	49.2	0.0	25.0	48.1	15.7	32.4	89.1	25.7	57.7
	35-44	20.4	0.0	10.0	24.9	2.9	13.7	37.8	5.5	21.5
	45+	0.0	0.0	0.0	5.3	1.0	3.0	7.7	1.1	4.2

	Total	22.2	9.2	15.6	19.7	9.2	14.3	35.7	17.1	26.3
	MSM	0%			-			-		
Syphilis	<16	0	0	0	0	1.1	0.5	0.2	0.5	0.3
	16-19	0	0	0	2.1	1.5	1.8	3.6	1.8	2.7
	20-24	0	0	0	4.5	3.8	4.2	12.3	2.8	7.7
	25-34	0	0	0	10.4	3.9	7.3	14.4	2.3	8.4
	35-44	0	0	0	14.4	1.1	7.6	14.9	0.9	7.8
	45+	0	0	0	3.5	0.2	1.7	4.0	0.2	2.0
	Total	0	0	0	5.2	1.0	3.1	6.8	0.8	3.8
	MSM	0%			-			-		
Herpes	<16	0.0	0.0	0.0	3.1	24.8	13.7	1.7	21.8	11.5
	16-19	0.0	0.0	0.0	37.6	198.4	115.1	47.2	228.1	135.2
	20-24	47.7	48.8	48.2	140.9	246.1	190.5	128.9	245.8	185.9
	25-34	0.0	25.4	12.5	105.9	127.6	116.4	100.9	129.2	114.9
	35-44	40.8	0.0	20.1	42.1	46.3	44.3	46.9	49.0	48.0
	45+	0.0	0.0	0.0	11.5	10.0	10.7	12.1	10.5	11.3
	Total	9.5	6.2	7.8	35.2	49.9	42.7	37.1	56.4	46.9
	MSM	0%			-			-		
Warts	<16	0.0	0.0	0.0	8.2	57.2	32.2	7.4	66.1	36
	16-19	178.9	314.7	244.9	320.6	839.9	570.8	335.2	838.2	579.8
	20-24	476.6	195.3	337.7	823.8	791.3	808.5	794.7	718.9	757.7
	25-34	270.7	50.7	162.4	391.4	247.0	321.4	403.2	245.2	324.9
	35-44	81.6	39.4	60.2	126.6	66.0	95.7	128.6	72.4	100.3
	45+	0.0	6.8	3.6	25.0	11.7	17.9	29.1	12.2	20.2
	Total	88.8	43.1	65.6	149.1	131.1	139.9	160.0	138.6	149.1
	MSM	0%			-			-		

* South West rates are from Genito-Urinary Medicine (GUM) clinic data only, UK rates include National Chlamydia Screening Programme data as well as GUM data.

For all but one of the selected STI diagnoses the highest rates were recorded in the 20–24 age group. The exception was Chlamydia, where the rate was highest in those aged 16–19 (Table 22).

Methodology Notes

- Guernsey STI rates are calculated from Orchard Clinic count-for-age data (KC60 returns) and Policy Council population statistics for 2008.
- The UK and South West Government Office Region rates and the Guernsey rates are based on Genito-urinary medicine clinic KC60 returns only and do not reflect any additional diagnoses made in other settings, such as those made in Primary care or, in the case of Guernsey, those made at the Guernsey Contraceptive Service.
- UK KC60 returns are collated and reported on by the Health Protection Agency.
- Rates reported for Guernsey are per 100,000 Guernsey + Alderney population and are age and sex specific.

6. MENTAL HEALTH

Suicide and Undetermined Injury Mortality

The age standardised mortality rate from suicide and undetermined injury among Guernsey and Alderney residents aged 15+ over the three year period 2006–08 was 6.1 per 100,000 (10 per 100,000 for males and 2.7 per 100,000 for females). Although the confidence intervals for these values are rather broad (for the male and female combined rate, 95% CI =3.1 to 9.2), the rates are nevertheless lower than those recorded in England. The England average rates for persons aged 15 and over for the year 2008, for comparison, were 15.8 per 100,000 for males and 4.7 per 100,000 for females. In the South West Government Office Region the rates were very similar to the national ones: 15.8 per 100,000 for males and 4.9 per 100,000 for females. (*Suicide Rates in the UK 2000–2009* www.ons.gov.uk).

Mental Health Prescribing

Analysis of prescribing patterns for drugs used in the treatment of mental health conditions may give an indication of mental health issues in a given area. Table 23, below, shows the count of prescription items dispensed in 2008 for all psychotropic drugs combined and, more specifically, the count of antidepressants and antipsychotics dispensed. It should be noted that these data refer to prescriptions issued in primary care and the Medical Specialist Group only and do not include drugs dispensed/prescribed at the PEH or Castel hospitals. Except in a very few cases, each item refers to a one-month supply of the named type of drug.

Table 23. Dispensing counts for drugs used in the treatment of mental health conditions, 2008. Source: Prescribing Support Unit, Social Security Department.

	Items dispensed	Change on year before (%)
All psychotropic drugs*	175,712	-3.2
Antidepressants**	56,160	4.8
Antipsychotics***	5,812	6.1

*British National Formulary (BNF) 4.1, 4.2 and 4.3

**BNF 4.3

***BNF 4.2

Differences in the way prescribing levels are reported prevent the comparison of Guernsey and Alderney figures to data from elsewhere. The figures given above do however provide a baseline for year on year comparisons to monitor change within the Bailiwick.

7. CANCER SCREENING

Breast Screening

The Guernsey Breast Screening Service has been in place since 1995. This service is available to women aged 50–74 who are screened on a call-recall basis every two years. Eligible women are identified via GP patient registers. It is possible that some eligible women may not be registered with a GP.

Table 24. Uptake of breast screening among invited women, Breast Screening Service screening data, rounds 1–7.

round	dates	target group	# Invited*	# screened**	% uptake***
1	01/03/1995 - 28/02/1997	50-64	3904	3834	98.2
2	01/03/1997 - 31/03/1999	50-64	4473	4184	93.5
3	01/04/1999 - 31/03/2001	50-64	4839	4487	92.7
4	01/04/2001 - 31/03/2003	50-64	4249	3890	91.5
5	01/04/2003 - 31/03/2005	50-70	5640	5504	92.7
6	01/04/2005 - 31/03/2007	50-74	7001	6679	95.0
7	01/04/2007 - 31/03/2009	50-74	7706	7009	91.0

* Invited only

**Includes self-referrals

***excludes self-referrals

The percentage of invited women who were screened has been consistently high; over 90% in all rounds (Table 24). This compares very favourably with England.

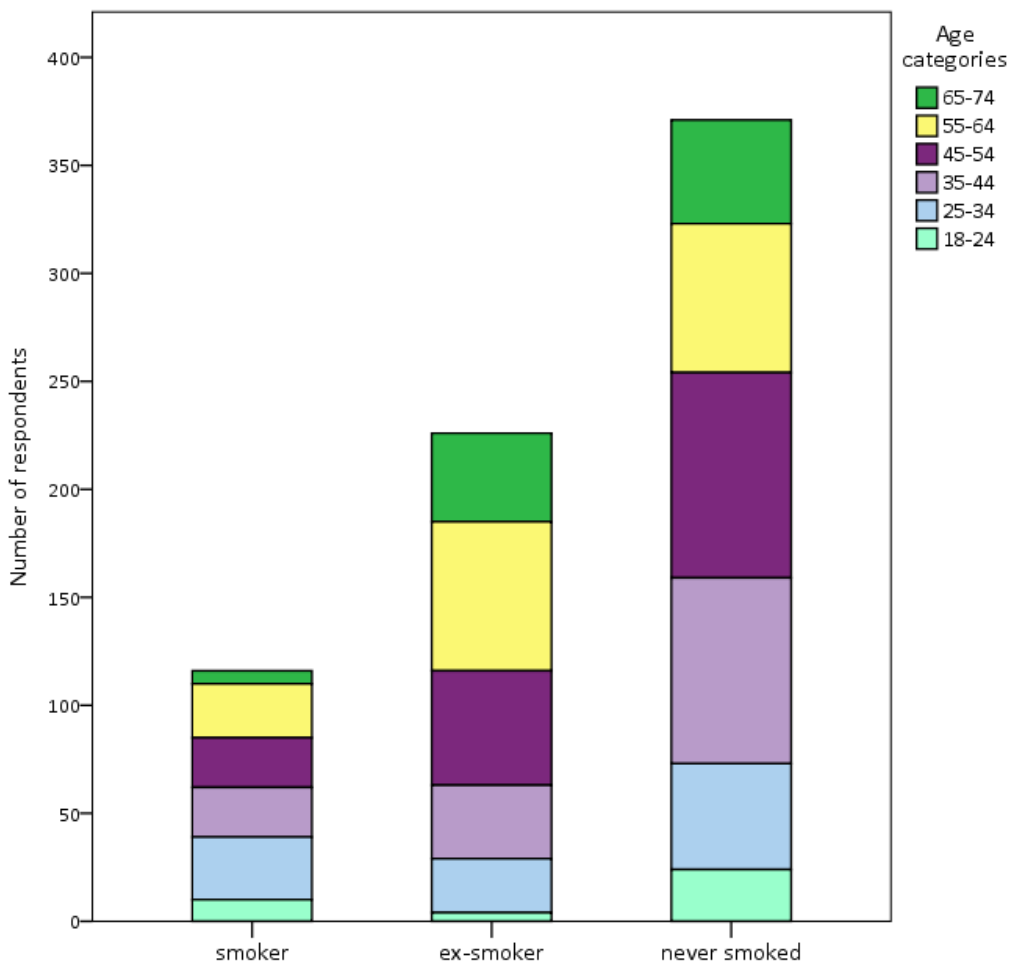
In England there is a centrally coordinated National Breast Screening Programme. Women between the ages of 50 and 70 are invited to be screened every three years. Uptake among those invited to attend screening during the financial year 2008–09 varied by region and by type of invitation. Of the 82 screening units in operation, the vast majority recorded uptake rates between 70 and 80%, with five recording rates higher than 80% and 11 recording rates lower than 70%. Overall uptake among women invited for their first screen was 69%, while uptake for repeat screens was higher, at 87% (*Breast Screening Programme, England 2008–09*, www.ic.nhs.uk).

8. LIFESTYLE

Adult Smoking

In the *Fifth Guernsey Healthy Lifestyle Survey 2008*, 735 islanders aged 18 and over, out of 1500 who were selected at random from GP patient lists and sent the survey, answered questions on their lifestyle, general health and use of health services. Of those who submitted a valid response to a question on smoking status (n=727), 16% identified themselves as smokers, 32% were ex-smokers and 52% were non-smokers who had never smoked (Figure 12).

Figure 12. Smoking by age among respondents to the *Fifth Guernsey Healthy Lifestyle Survey 2008*.



Of smokers, the greatest proportion was aged 25-34 and the smallest proportion was aged 65-74 (Table 25).

Table 25. Smoking habit by age among *Fifth Guernsey Healthy Lifestyle Survey* respondents.

		Smoking habit			Total
		smoker	ex-smoker	never smoked	
Age categories	18-24 Count	10	4	24	38
	% within Smoking habit	8.6%	1.8%	6.5%	5.3%
25-34	Count	29	25	49	103
	% within Smoking habit	25.0%	11.1%	13.2%	14.4%
35-44	Count	23	34	86	143
	% within Smoking habit	19.8%	15.0%	23.2%	20.1%
45-54	Count	23	53	95	171
	% within Smoking habit	19.8%	23.5%	25.6%	24.0%
55-64	Count	25	69	69	163
	% within Smoking habit	21.6%	30.5%	18.6%	22.9%
65-74	Count	6	41	48	95
	% within Smoking habit	5.2%	18.1%	12.9%	13.3%
Total	Count	116	226	371	713*
	% within Smoking habit	100.0%	100.0%	100.0%	100.0%

*number of respondents who provided information on smoking status and age. Compare with 727 who provided information on smoking status alone.

The prevalence of smoking has approximately halved between 1988 to 2008, as gauged from previous lifestyle surveys (Figure 13, Table 26).

Figure 13. Proportion of *Fifth Guernsey Healthy Lifestyle Survey* respondents who were smokers, 1988–2008.

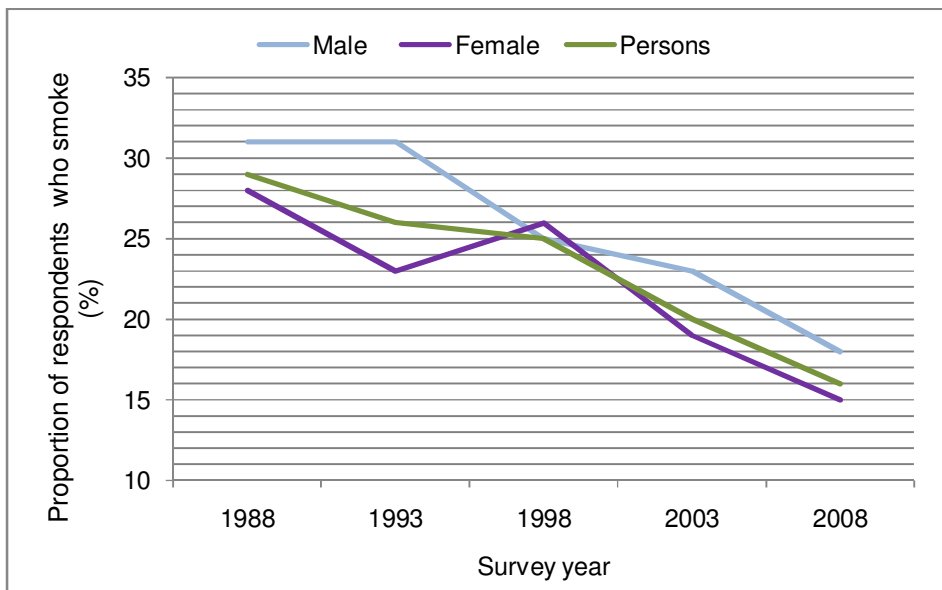


Table 26. Proportion of *Fifth Guernsey Healthy Lifestyle Survey* respondents who were smokers, 1988–2008.

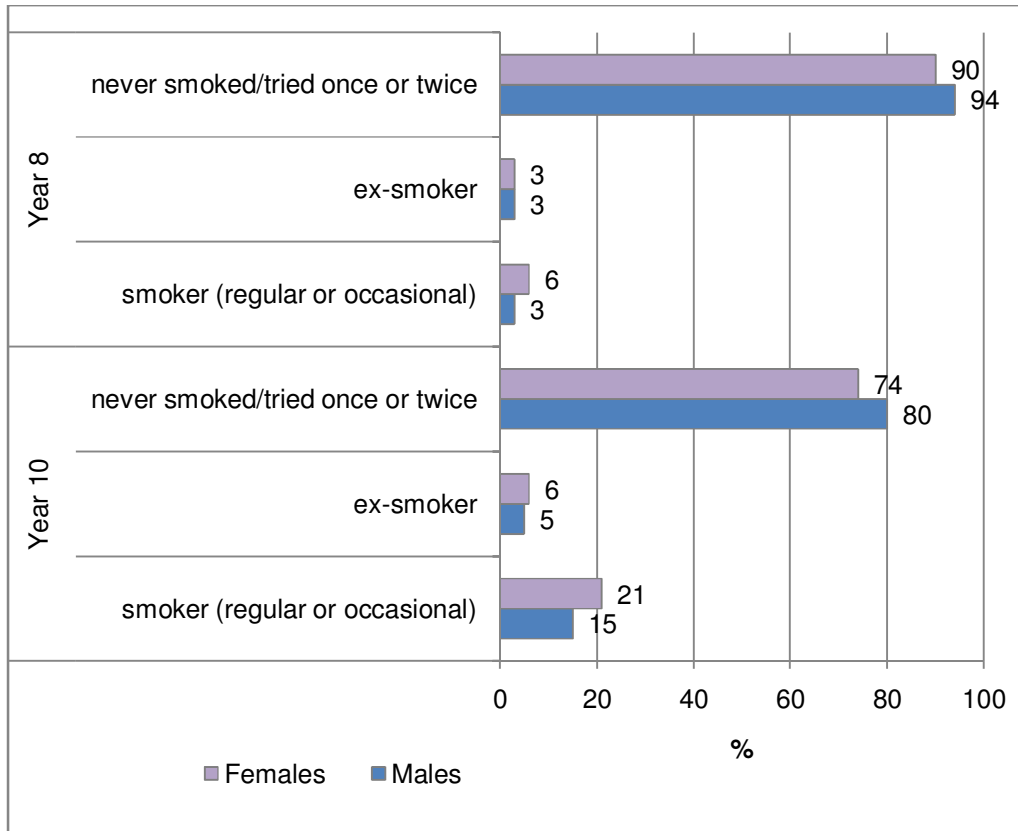
Survey Year	All tobacco products		
	Male	Female	Persons
	%	%	%
1988	31	28	29*
1993	31	23	26
1998	25	26	25
2003	23	19	20
2008	18	15	16

*Deduced from % totals for males and females and M/F denominator numbers as stated in the *'Your Health' Community Health Department Health Life Survey 1988*. Combines cigarette and pipe or cigar smoking figures.

Child Smoking

In 2007 the *Guernsey Young People's Survey* was carried out by the UK-based School's Health Education Unit. 1085 Guernsey children in Years 8 and 10 (ages 13 and 15) were asked a total of 97 questions about their health, lifestyle and viewpoints. The survey had a self-complete design and was administered electronically. Of the valid responses obtained for Question 30 (Year 8 n=597, Year 10 n=472), which asked about smoking status, the following results were obtained: Among Year 8 pupils 4.5% were regular or occasional smokers, 3% were ex-smokers, 79.5% had never smoked and the remaining proportion had tried smoking once or twice. Among Year 10 pupils 18% were regular or occasional smokers, 5.5% were ex-smokers, 55.5% had never smoked and the remainder had tried smoking once or twice. In both year groups girls were more likely to be smokers than boys (Figure 14).

Figure 14. Smoking status of Year 8 and 10 pupils in Guernsey. Due to rounding some numbers, when totalled, will fall short of or exceed 100.



Alcohol Consumption

In the *Fifth Guernsey Healthy Lifestyle Survey 2008* respondents were asked to estimate how many units of alcohol they consumed on each day of the week preceding the survey. This allowed both daily and weekly alcohol consumption to be gauged. There is no guaranteed 'safe' level of drinking but there is a lower risk level for which risks of harm are in general relatively low (110th MoH report). To stay within the lower risk category men should not regularly drink more than 3–4 units of alcohol per day and women should not regularly drink more than 2–3 units per day. Individuals exceeding the daily recommendations for their sex were deemed to be drinking at 'increasing risk'. Men drinking in excess of 8 units per day and women drinking in excess of 6 units per day on drinking days were deemed to be drinking at a level conferring 'higher risk' (NHS Choices www.nhs.uk/livewell/pages/effectsofalcohol.aspx).

Of the individuals from whom valid responses were obtained (n=586) 26.5% were found to be drinking at levels of increasing risk and 6.5% at levels of higher risk.

Figure 15. Proportion of *Fifth Guernsey Healthy Lifestyle Survey* respondents in each age group drinking at 'Increasing risk' level on drinking days.

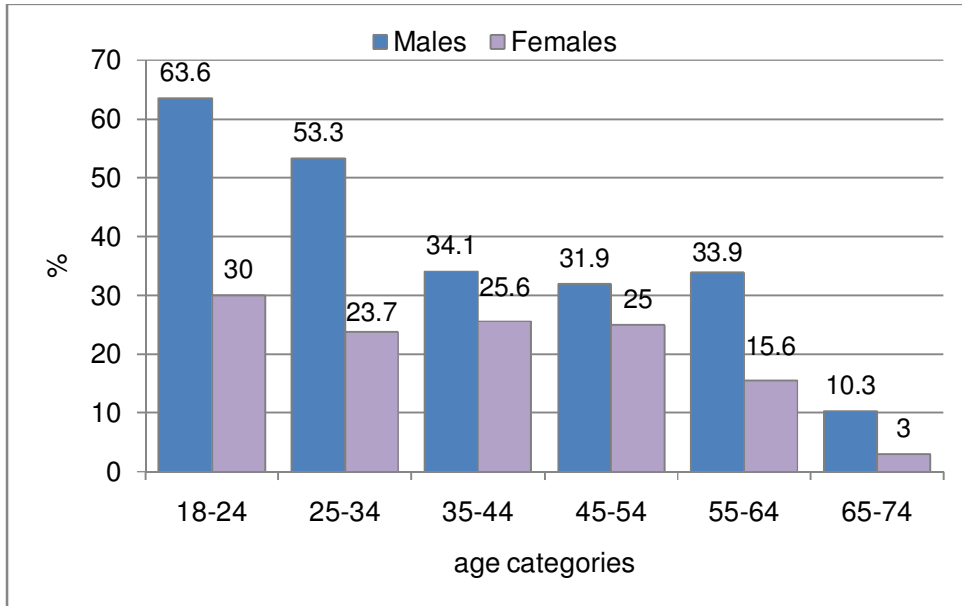
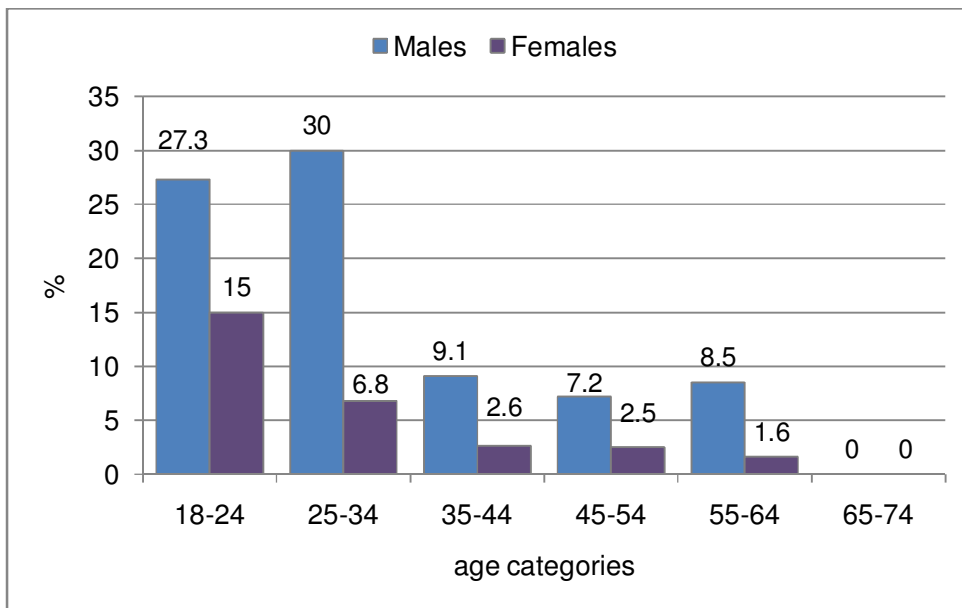


Figure 16. Proportion of *Fifth Guernsey Healthy Lifestyle Survey* respondents in each age group drinking at 'higher risk' level on drinking days.



A sex effect was noted whereby males in all age categories were more likely to be drinking at increasing and higher risk levels than females. Overall, 33.3% of males were exceeding 3–4 units on drinking days compared to 21.3% of females who were exceeding 2–3 units. 10.3% of males were exceeding the 8 unit cut-off, whereas only 3.6% of females exceeded the 6 unit cut-off.

Age effects were also evident. In both sexes higher risk drinking on drinking days was much more likely among younger adults, aged 18–34.

Alcohol-Attributable Hospital Admissions

In recent years the calculation and application of Alcohol Attributable Fractions ('AAFs') has allowed the impact of alcohol on health to be gauged better than was previously possible. In 2008 Jones *et al* published AAFs for 47 conditions for which there is evidence of a causal relationship with alcohol consumption. 13 of these are conditions specifically attributable to alcohol (such as alcoholic liver disease and ethanol poisoning) and 34 are conditions partly attributable to alcohol, separated into acute consequences (like fall injuries and road traffic accidents) and chronic conditions (like stroke and heart failure).

By applying the AAFs to local data it is estimated that 964 (7.6%) of the admissions to Guernsey's hospitals in 2008 were either specifically or partially attributable to alcohol. This equates to an age-standardised rate (EASR) of 1260 per 100,000.

The Guernsey rate is lower than the England average for the same period and equates best to the rate of admissions seen in the South East Government Office Region (see Table 27).

Table 27. Rates of alcohol-attributable hospital admissions per 100,000 (EASR) for the financial year 2008/09 by Government Office Region. Source:

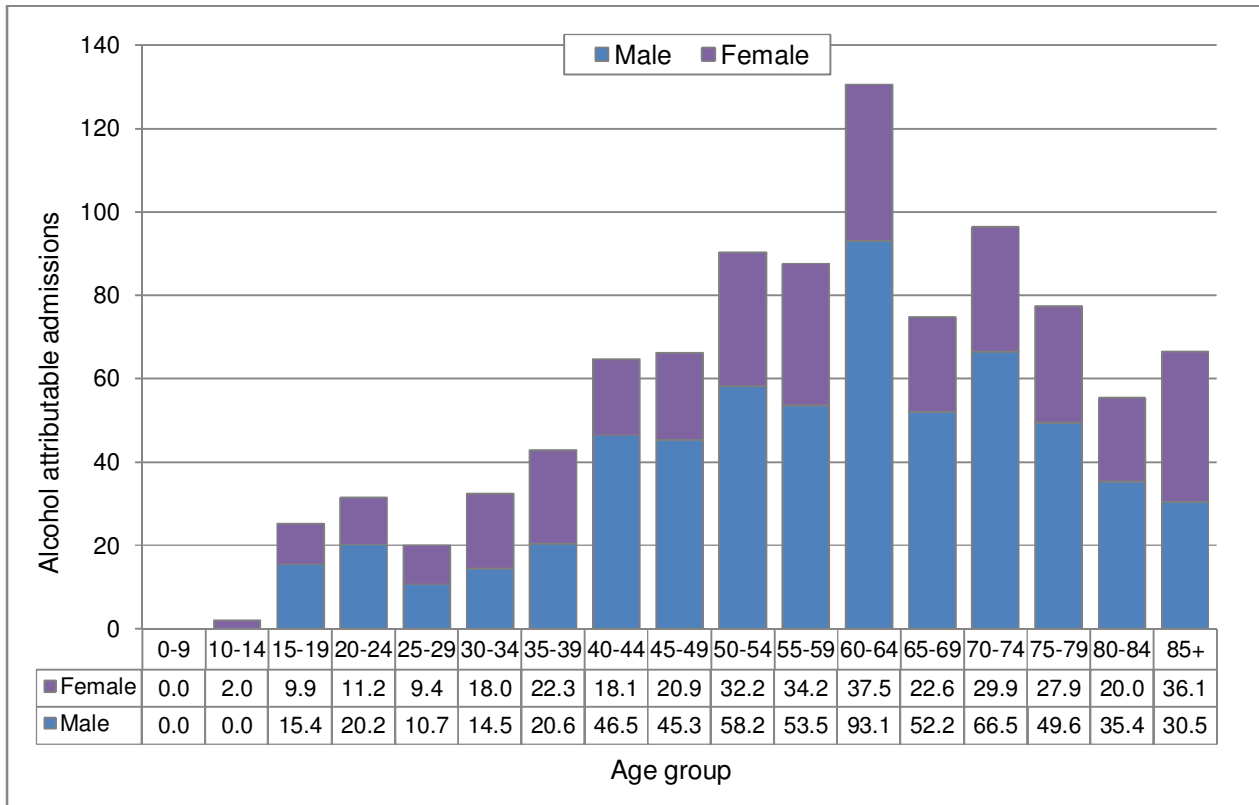
<http://www.nwph.net/alcohol/lape/download.htm> "Quarterly Data: 2008/09 Quarter 1 to 2009/10 Quarter 3".

North East	2,257
North West	2,071
West Midlands	1,663
England	1,582
East Midlands	1,572
Yorkshire and The Humber	1,525
South West	1,491
London	1,490
East of England	1,304
Guernsey	1,260
South East	1,239

*Guernsey data is for the calendar year 2008

Overall males were more likely to be admitted for alcohol-attributable conditions or consequences. Men accounted for 63.5% of alcohol-attributable admissions (n= 612) whereas women accounted for just 36.5% (n= 352). It can be seen from Figure 17 that the sex bias in admissions was true for nearly all age categories and was found to be particularly marked in the 60–74 age group, among whom more than twice as many men were admitted as women.

Figure 17. Alcohol-attributable admissions to Guernsey hospitals in 2008 by age and sex (EASR per 100,000). Numbers are synthetic estimates calculated by summing admissions deemed to be alcohol-attributable after they have been multiplied by their allocated fractions.



The tendency for more male alcohol-attributable admissions has been observed elsewhere. In the South West Government Office Region of England, for example, the ratio of male to female alcohol-attributable hospital admissions for 2005 was almost exactly the same as that observed in Guernsey in 2008; 64% of admissions were of males, as against 36% of females (Walsh *et al* 2008, 24). It has been suggested that differences in drinking habits between men and women, for example less total alcohol consumption, slower drinking, and a greater proportion of drinks taken with meals among women may explain the lower incidence of several alcohol-attributable diseases in this group (Sieri *et al* 2002, 1294).

Methodology Notes

- Alcohol-attributable fractions as given by Jones *et al* (2008) were applied to admissions data from EDS PAS for the year 2008 using an alcohol-attributable admission calculator produced by The Alcohol Learning Centre (www.alcohollearningcentre.org.uk). A query for extracting admission data was created in SQL (year =2008, Finished Consultant Episode =1, Main PAS Diagnosis =IS NOT NULL).
- When patients cannot be treated locally, the HSSD sometimes sends Guernsey and Alderney residents off-island for treatment at tertiary centres in England. In cases where residents were treated off-island for one of the alcohol-attributable conditions specified by Jones *et al*, they will not have counted towards the local alcohol-attributable admissions figure. Rather they will have been counted in the region in which they were treated.

Healthy Weight

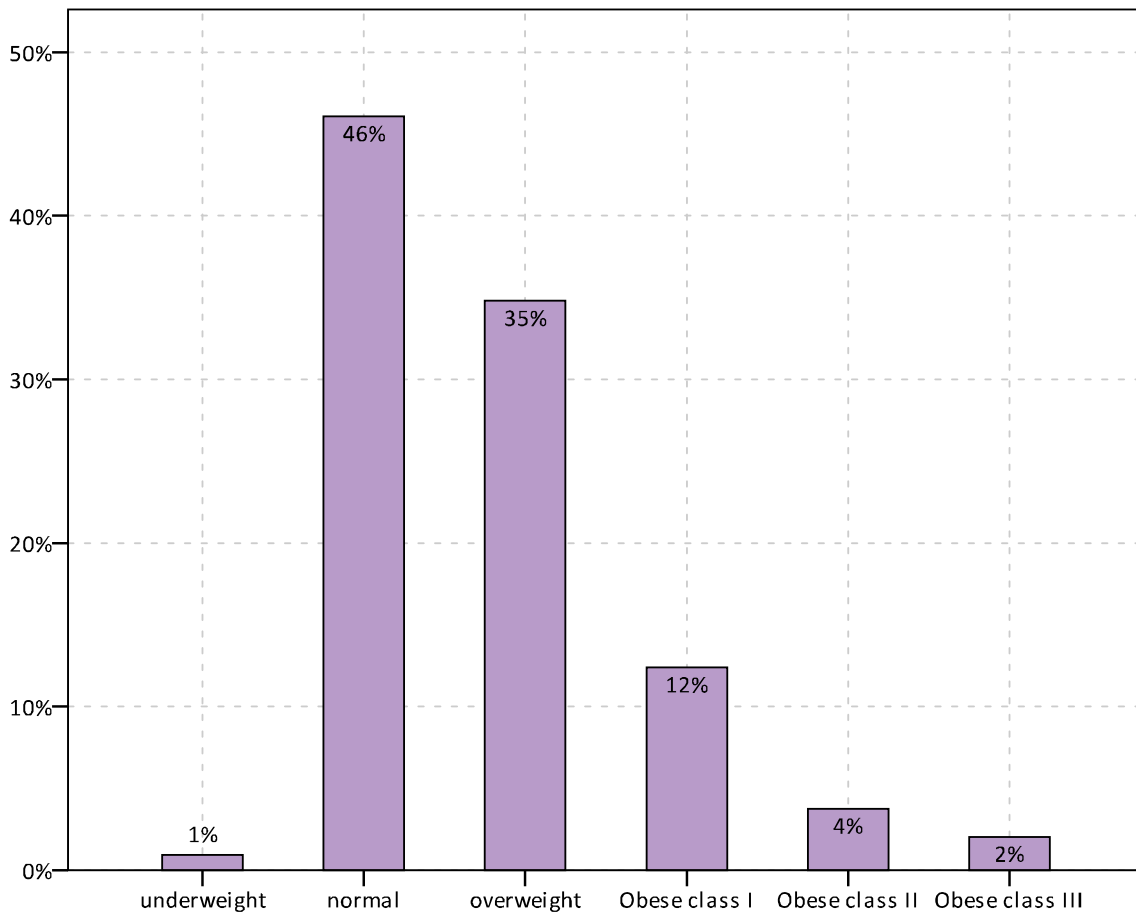
The weight status of islanders has been estimated from two sources: *The Fifth Guernsey Healthy Lifestyle Survey 2008* and the PEH maternity bookings database.

The Fifth Guernsey Healthy Lifestyle Survey 2008

Respondents to the *Fifth Guernsey Healthy Lifestyle Survey* were asked to state their weight and height from which Body Mass Index (BMI) could be calculated. BMI scores were then categorised as follows: <18.5 = underweight, 18.5–24.99 = healthy weight, 25–29.99 = overweight, ≥ 30 = obese. Obesity scores were further divided into obese class I (30–34.99), obese class II (35–39.99) and obese class III (≥ 40).

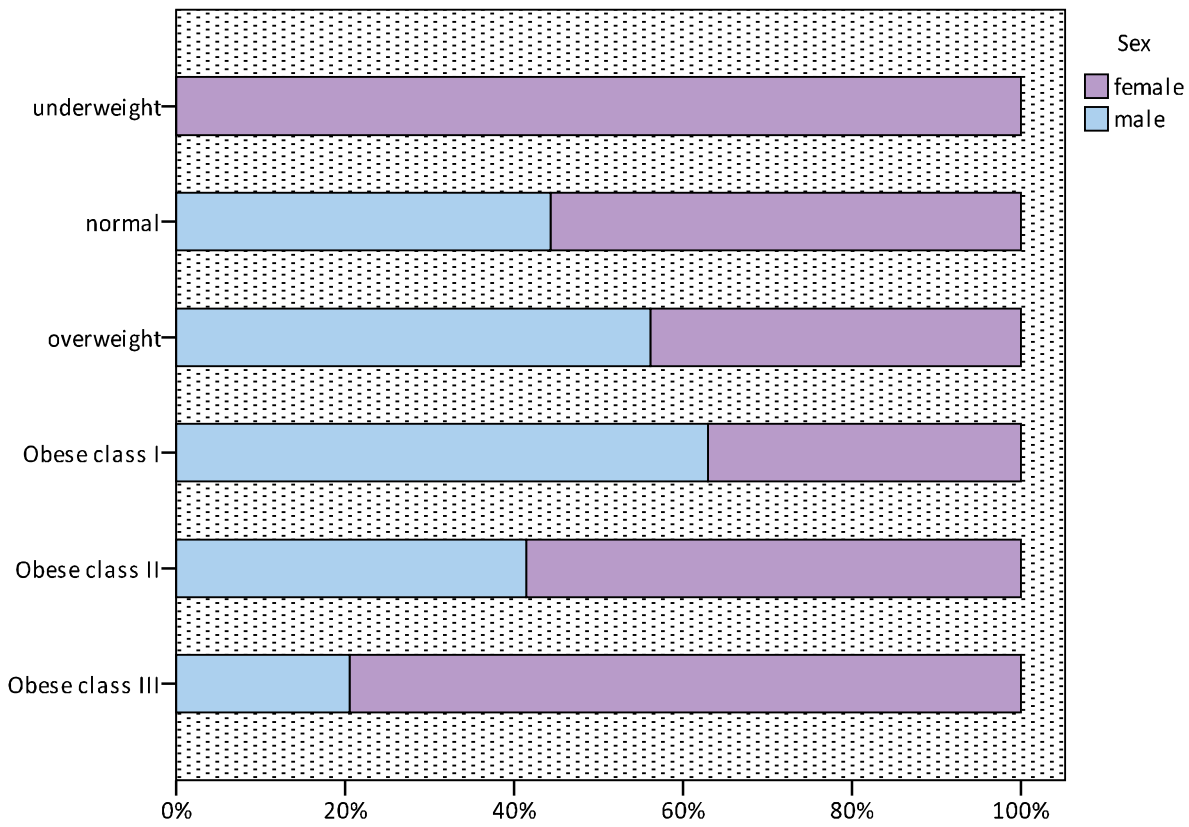
Of the respondents for whom a valid BMI score could be calculated (n=638), 53% were found to be either overweight or obese, 46% were of healthy weight and 1% were underweight.

Figure 18. Weight status of respondents to the *Fifth Guernsey Healthy Lifestyle Survey 2008 (n=638)*.



In the overweight and obese class I categories men made up a greater proportion of the total than women. By contrast, in obese class II and obese class III women made up a greater proportion of the total than did men.

Figure 19. Weight status by sex of respondents to the *Fifth Guernsey Healthy Lifestyle Survey 2008*.



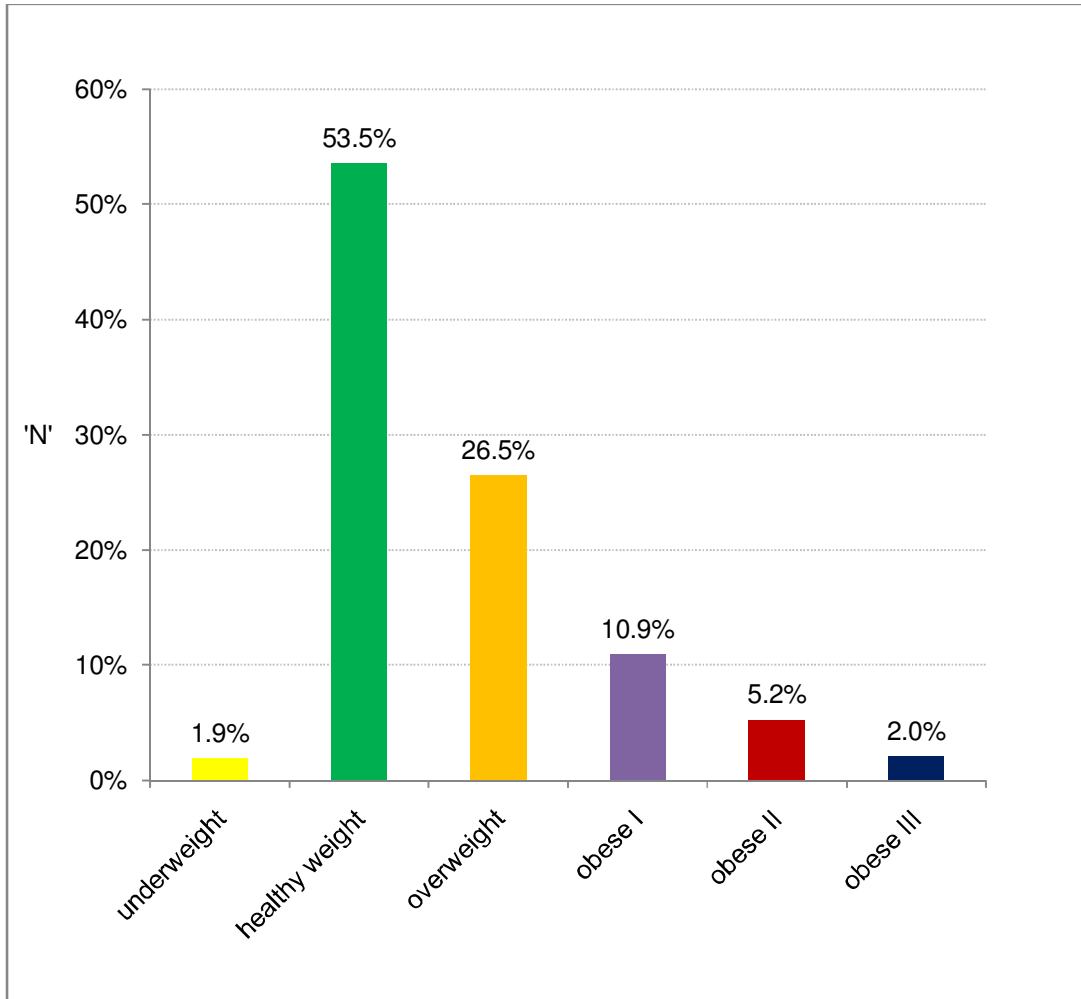
PEH maternity bookings database

Midwives routinely record the height and weight of pregnant women when they first book in with the maternity services. Women usually know their weight and height, which are therefore self-reported, but on occasion measurements are taken by the attending clinician. An anonymous extract was made of the weights and heights of women booked in 2008, and from these data, BMIs were calculated.

Late bookings, defined here as bookings in or after the 26th week of pregnancy (the third trimester), were excluded to control for the effects of pregnancy-related weight gain. Of 655 women who were booked in the first or second trimester, weight and height data were available for 635 (96.9%). Of those 635, 12 (1.9%) were underweight, 340 (53.5%) were a healthy weight, 168 (26.5%) were overweight and 115 (18.1%) were obese (Figure 20).

As proportions of the total study population, the numbers of people falling into each weight category are similar to those derived from the *Fifth Guernsey Healthy Lifestyle Survey 2008* (above).

Figure 20. Weight status of women booked with Guernsey maternity services in 2008.



Methodology Notes

- Figures 18 and 19 were created from the original SPSS dataset of *The Fifth Guernsey Healthy Lifestyle Survey 2008*.
- Maternity data are from the HSSD EUROKING system.

Healthy School Status

The National Healthy Schools Programme is a joint initiative between the Department for Children, Schools and Families (DCSF) and the Department of Health (DH) in England which promotes a whole school/whole child approach to health. The programme was set up in 1999 and is a key delivery mechanism for the aims of England's *Children's Plan* (DCSF 2007), and *Healthy Weight, Healthy Lives* (DH 2008). In order to achieve healthy schools status a school must demonstrate that they have taken steps to achieve 41 key criteria around the following four themes: personal, social and health education (PSHE), emotional health and wellbeing, healthy eating and physical activity. Although Healthy Schools is foremost a UK initiative, Guernsey

schools have also had the opportunity to achieve accreditation. By the end of 2008, eight out of 25 local schools had achieved Healthy School status. A further three were working towards accreditation.

Methodology Notes

- The count of 25 schools comprises Guernsey and Alderney state and private schools including special needs schools.

Food and Physical Activity

Children

Children who completed the *Guernsey Young People's Survey 2007* were asked questions on their fruit and vegetable consumption, junk food consumption and the frequency with which they exercised in the week prior to the survey.

It is currently recommended that children and adults eat at least five portions of fruit and vegetables per day. The proportion of surveyed children reaching this recommended level is shown below for each year group:

Table 28. Proportion of children eating five or more portions of fruit and vegetables per day.

Year 6		Year 8		Year 10	
M	F	M	F	M	F
24%	38%	24%	30%	22%	26%

The majority of children are not eating five portions of fruit and vegetables per day. In every year group boys ate fewer portions than girls.

The proportions of children in each school year answering “on most days” to the question, “How often have you eaten the following in the last 7 days?” were as follows:

Table 29. Junk food consumptions levels.

	Year 6		Year 8		Year 10	
	M	F	M	F	M	F
Fizzy drinks	22%	14%	34%	23%	32%	21%
Crisps	33%	37%	33%	30%	34%	26%
Sweets, chocolate, chocolate bars	39%	32%	39%	32%	38%	40%

These data indicate that certain types of junk food, namely crisps, sweets and chocolate products, are being consumed on a daily basis by around one third of children in all three year groups.

It is currently recommended that children do at least one hour of physical activity per day (www.nhs.uk/Change4Life). Children taking part in the *Guernsey Young Peoples Survey 2007*, were asked, “How many times last week did you exercise, both inside and outside school and have to breathe harder and faster?” The proportion answering “5 or more times” is shown below for each year group.

Table 30. Weekly physical activity.

Year 6		Year 8		Year 10	
M	F	M	F	M	F
60%	54%	57%	40%	50%	30%

These data show that a minimum of 40% of children in any of the surveyed age categories are not exercising five times per week, let alone every day.

Adults

In *The Fifth Guernsey Healthy Lifestyle Survey 2008*, nearly one quarter of adults reported having eaten five or more portions of fruit or vegetables on the day before the survey, but with big variation between the sexes. Nearly 28% of women had reached the five-a-day target, whereas only 17% of men had done so. Variation also occurred with age; only 13.2% of respondents aged 18–24 met the target, compared with 30.1% of 55–64 year olds.

With regard to physical exercise in the past week, 26% said that they took part five or more times in sport or recreational activity of moderate intensity lasting at least 30 minutes. The median number of exercise episodes was 3 for both males and females.

9. WIDER DETERMINANTS OF HEALTH

Poverty Risk

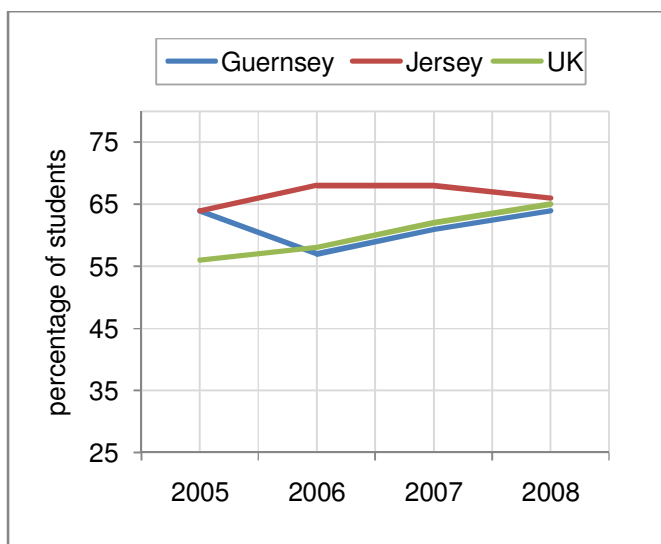
In the EU, people falling below 60% of median income are said to be at risk of poverty (www.poverty.org.uk). In the 2005/06 *Guernsey Household Expenditure Survey* 16.6% of adults and 18% of children in Guernsey were found to be living at risk of poverty (*Sustainable Guernsey 2009*, 28).

GCSE Results

In 2008, Policy Council reported that 64% of Guernsey pupils achieved 5 or more GCSE passes (graded A* to C). The UK average for the same year was 65% and the pass rate of Jersey students was 66%⁴.

Figure 21. Guernsey students achieving 5 or more GCSE passes (grades A* to C).

Source: Education Department, States of Guernsey. In. *Guernsey Facts and Figures 2009*, 87.



Unemployment

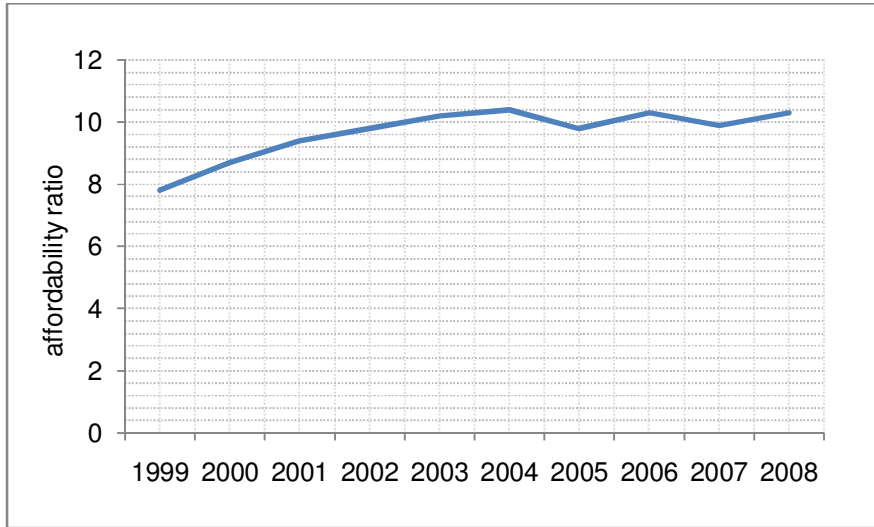
According to the International Labour Office definition, in March 2008, 183 people in Guernsey and Alderney were registered as unemployed, a proportion of 0.6% (Social Security Department, *Guernsey Facts and Figures 2010*). The UK proportion for the same month was 5.2% (National Statistics First Release: labour market statistics March 2008 <http://www.statistics.gov.uk/pdfdir/lmsuk0308.pdf>).

Housing Affordability

Dividing house price by average annual earnings gives a ratio that indicates housing affordability for a given area. The ratio of approximated mean income to median annual house price in Guernsey in 2008 was 10.3. This is a 4% increase on the 2007 ratio, 9.9, and a 32% increase on the 1999 rate, 7.8 (Policy Council Research Unit).

⁴ The stated average may mask differences between high and low performing schools.

Figure 22. House price to earnings ratio in Guernsey, 1999–2008.



Crime Rate

In 2008, 2,648 crimes were reported to Guernsey Police (*Guernsey Facts and Figures 2010*, 65). The number of reported crimes has fallen year on year for the last three consecutive years, with the 2008 reported crime figure 23.6% lower than that of 2005 (*Guernsey Facts and Figures 2010*, 65).

FUTURE INDICATORS

The following are deemed to be important indicators of public health. Efforts will be made to include these in future editions of the Health Profile:

- Bowel cancer screening uptake
- Cervical screening uptake
- Child immunisation coverage
- Healthcare acquired infection rates (including *Clostridium difficile* and MRSA)
- Population mental wellbeing
- Seasonal influenza vaccination coverage

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