

Making Chronic Conditions Count

3. Hypertension



February 2010

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Title: Making Chronic Conditions Count: 3. Hypertension

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Description: Chronic conditions are responsible for a significant proportion of early deaths. They reduce quality of life in many of the adults living with them, represent substantial financial costs to patients and the health and social care system, and cause a significant loss of productivity to the economy. This report contains estimates and forecasts of the population prevalence of hypertension and shows how it varies across the island and what change is expected between 2007, 2015 and 2020.

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HYPERTENSION

This chapter relates to adults (aged 16 years and over) who have high blood pressure. Measured blood pressure on a sample (of approximately 55%) and self-reported use of hypertension medication from the Health Survey for England (HSfE) 2003 and 2004 were used to determine blood pressure status¹. Full details of methods can be found in the Making Chronic Conditions Count technical supplement.

Detailed estimates and forecasts of hypertension prevalence, broken down by sex and age within each area, are given at the end of the chapter.

KEY POINTS: HYPERTENSION

In 2007 nearly 852,000 adults in the Republic of Ireland (25.1%) have high blood pressure. By 2020 this is expected to rise to over 1,192,000 (28.3%). This represents a 40% increase – an additional 341,000 adults – in less than 15 years.

In 2007 nearly 396,000 adults in Northern Ireland (28.7%) have high blood pressure. By 2020 this is expected to rise to nearly 482,000 (31.7%). This represents a 22% increase – an additional 86,000 adults – in less than 15 years.

Hypertension is more common amongst males than females.

Hypertension prevalence rates increase with age. Nearly three out of four (71%) adults aged 75 years and over have high blood pressure. In 2020 relatively more of the adults with high blood pressure will belong to the older age groups.

While high hypertension prevalence rates are observed in many parts of the island, prevalence rates are noticeably lowest around Dublin.

Local socio-economic circumstances affect hypertension prevalence. Across all age groups, hypertension tends to be more common in more deprived areas.

Hypertension prevalence is slightly higher in Northern Ireland than in the Republic of Ireland. North-South differences in the current and future hypertension prevalence are chiefly due to differences in current and (projected) future demographic and socio-economic profiles.

¹ Adults are defined to be 'hypertensive' if their hypertension is 'controlled' (SBP <140mmHg and DBP <90mmHg and taking medicine prescribed for high blood pressure), 'uncontrolled' (SBP ≥140mmHg and/or DBP ≥90mmHg and taking medicine prescribed for high blood pressure) or 'untreated' (SBP ≥140mmHg and/or DBP ≥90mmHg and not taking medicine prescribed for high blood pressure). See this report's technical supplement for more details.



National Estimates in 2007

In 2007, a quarter (25.1%) of adults in the Republic of Ireland (851,658 people) and 28.7% of adults in Northern Ireland (395,529 people) have high blood pressure.

The estimated hypertension prevalence rate (25.1%) in the Republic of Ireland is lower than estimates from other survey studies. Direct comparisons with these studies, however, are confounded by important differences in methodology.

- The Survey of Lifestyle, Attitudes and Nutrition (SLÁN) 2007 survey (Morgan et al, 2008) uses the same definition of high blood pressure in its physical examination sub-study of adults aged 45 years and over. It reports that that 60% of adults aged 45 years and over have high blood pressure; higher than the estimated 51.8% prevalence rate in our study.
- In the Central Statistics Office's (CSO) Quarterly National Household Survey 2007 (CSO, 2008) 10% of adults aged 18 years and over have ever been told by a doctor that they had high blood pressure. This is not comparable to our national prevalence estimate because it includes people who have had high blood pressure at any time in the past, it is not based on physical measurement and it excludes people with undiagnosed high blood pressure².

The estimated hypertension prevalence rate (28.7%) in Northern Ireland is broadly similar to estimates from other studies:

- It is higher (28.7% compared to 11.7%) than the Quality and Outcomes Framework (QOF) estimate that is based on primary care data (Department of Health, Social Services and Public Safety (DHSSPS) 2007). However, this is not unexpected because the QOF covers all ages while this report covers adults aged 16 years and over.
- The Health and Social Wellbeing Survey 2005-2006 reports that 25% of adults aged 16 years and over have ever been told by a doctor or nurse that they have high blood pressure (DHSSPS, 2007). This estimate is similar to our national prevalence estimate although it is based on somewhat different methodology - the estimate includes people who have had high blood pressure at any time in the past, it is not based on physical measurement and it excludes people with undiagnosed high blood pressure.

Again, direct comparisons are confounded by important differences in methodology.

Hypertension prevalence in England in 2007 is estimated to be 30.0% (Department of Health 2008). The percentages of adults with high blood pressure in the three countries (the Republic of Ireland, Northern Ireland and England) are slightly different. This is chiefly due to differences in their demographic and socio-economic profiles. In particular, both Northern Ireland and England have an older population than the Republic of Ireland.

² In the SLÁN 2007 survey, approximately 60% of respondents with measured high blood pressure had not been diagnosed (Morgan et al, 2008).

Demographic Variation in 2007

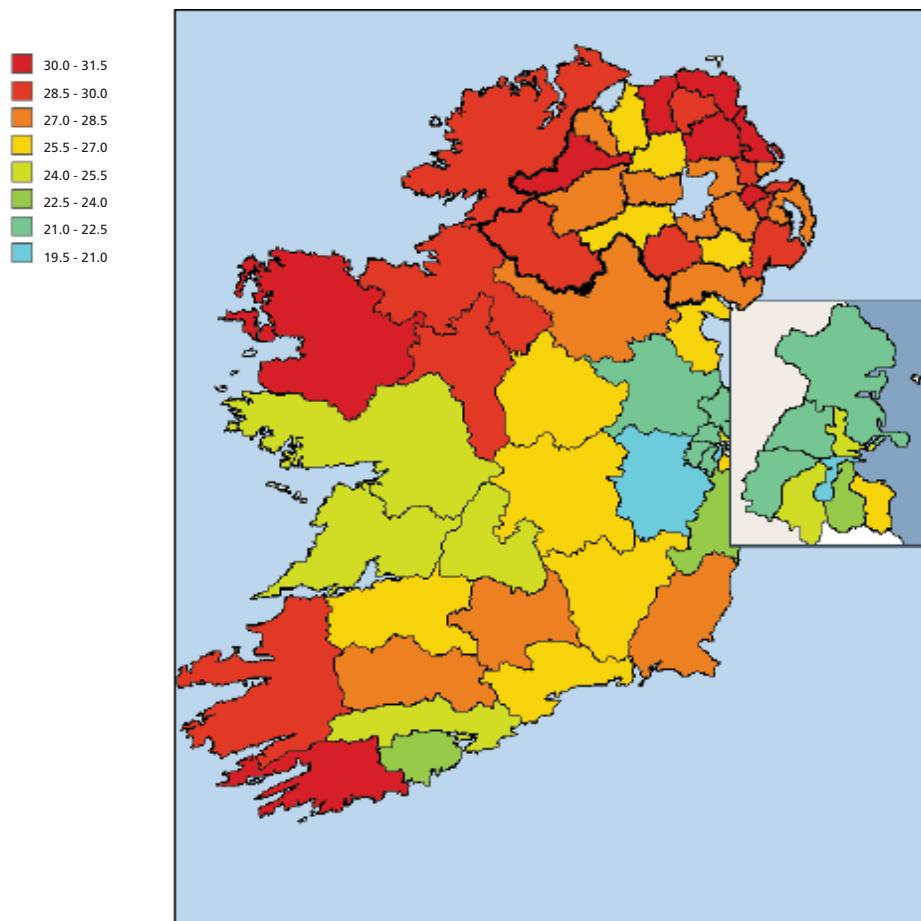
Slightly more males than females have high blood pressure. This is true in both the Republic of Ireland (male 26.7%, female 23.4%) and Northern Ireland (male 29.8%, female 27.6%).

Hypertension is more common in older age groups. Just less than three out of four adults aged 75 years and over in Northern Ireland (71.9%) and the Republic of Ireland (70.9%) have high blood pressure.

Ethnicity does not contribute much to North-South differences because neither jurisdiction has a large 'non-white' ethnic population.

Geographic Variation in 2007

Figure 3.1: Percentage of adults who have high blood pressure; across Local Health Offices (LHOs) in the Republic of Ireland and Local Government Districts (LGDs) in Northern Ireland (2007).



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In addition to the higher hypertension prevalence rate in Northern Ireland, areas with high hypertension prevalence rates occur across the island. Quite noticeably, hypertension prevalence is lowest in parts of Dublin and its surrounds.

Socio-economic Variation in 2007

Local socio-economic circumstances in an area affect hypertension prevalence although, like diabetes, the effect does not seem to be as strong as it is for CHD and stroke.

Figure 3.2: Percentage of adults who have high blood pressure; across deprivation bands³ in the Republic of Ireland within each sex and each age group (2007).

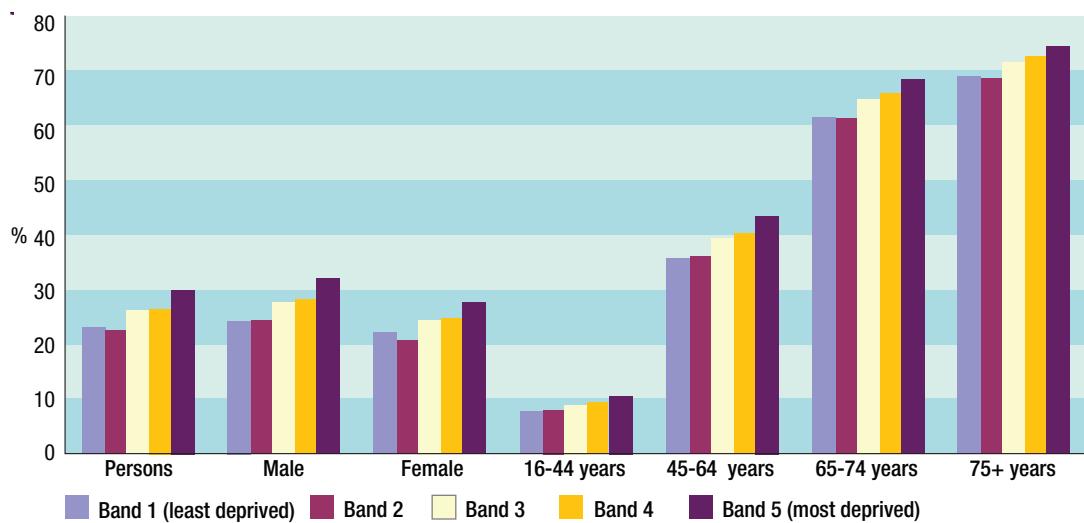
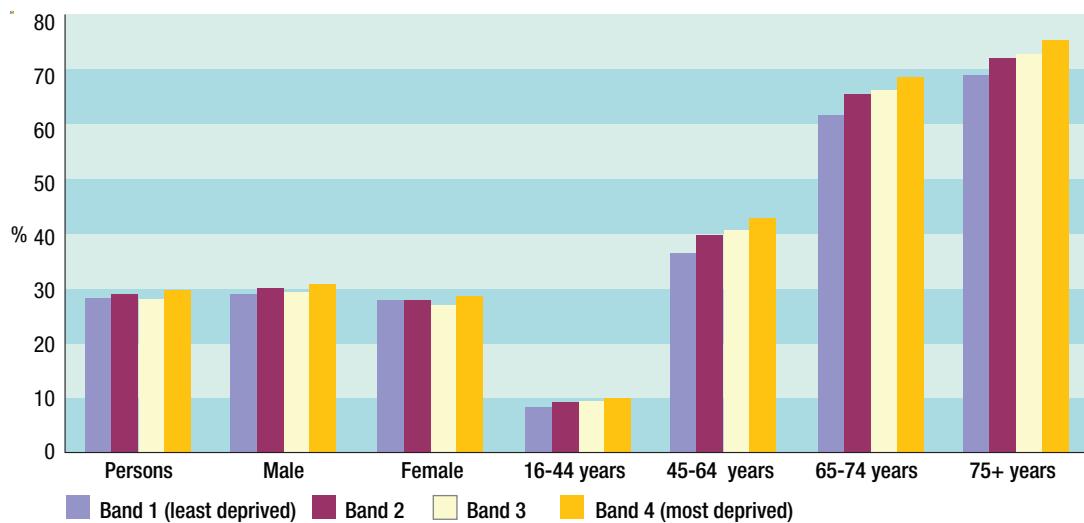


Figure 3.3: Percentage of adults who have high blood pressure; across deprivation bands³ in Northern Ireland within each sex and each age group (2007).



3 See this report's technical supplement for definitions of the deprivation bands.

The effects of local socio-economic circumstances are observed in both jurisdictions but are more apparent in the Republic of Ireland⁴. In the Republic of Ireland hypertension prevalence in the most deprived LHOs - Local Health Office Area (Republic of Ireland) - is 1.3 times what it is in the least deprived LHOs. In Northern Ireland hypertension prevalence in the most deprived LGDs - Local Government District (Northern Ireland) - is almost 1.1 times what it is in the least deprived LGDs.

Within each age group and in both jurisdictions, hypertension prevalence rates increase as you move from the least deprived areas to the most deprived areas. Like diabetes, local socio-economic circumstances do not appear to have an effect amongst either males or females in Northern Ireland.

How Hypertension Prevalence Will Change Between 2007 and 2020

The percentage of adults with high blood pressure is expected to increase over time:

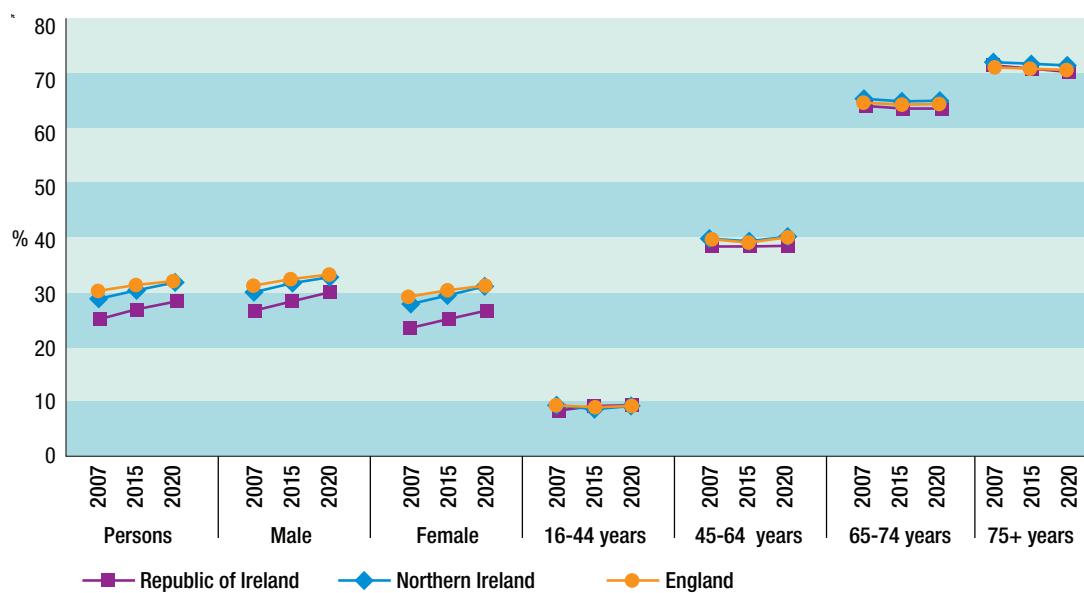
- In Northern Ireland it is expected to increase from 28.7% in 2007 to 30.3% in 2015 to 31.7% in 2020.
- In the Republic of Ireland it is expected to increase from 25.1% in 2007 to 26.8% in 2015 to 28.3% in 2020.

With an increasing and ageing population, far more adults will have high blood pressure in 2020 than in 2007. The number of adults in Northern Ireland with high blood pressure is expected to rise from 395,529 in 2007 to 481,867 in 2020; an increase of 86,338 adults (or 21.8%). The number of adults in the Republic of Ireland with high blood pressure is expected to rise from 851,658 in 2007 to 1,192,415 in 2020; an increase of 340,757 adults (or 40.0%). A proportionally larger increase is expected in the Republic of Ireland because its population is projected to increase more than Northern Ireland's.

⁻⁴ Direct North-South comparison is confounded by the fact there are five deprivation bands in the Republic of Ireland but only four deprivation bands in Northern Ireland. See this report's technical supplement for details.



Figure 3.4: Expected changes in the percentage of adults in the Republic of Ireland, Northern Ireland and England who have high blood pressure; within each sex group and age group (2007, 2015, 2020).



Amongst males and females, and in each age group, similar changes in hypertension prevalence rates are expected in each country (the Republic of Ireland, Northern Ireland and England).

An ageing population profile and higher hypertension prevalence rates in older age groups mean that a growing percentage of adults with high blood pressure will belong to the older age groups. Between 2007 and 2020, the percentage of adults with high blood pressure who are aged 65 years and over will rise in the Republic of Ireland from 37.0% to 41.6%. In Northern Ireland the percentage will rise from 42.0% to 46.7%.

Table 3.1: Demographic and geographic variation in the percentage of adults in the Republic of Ireland who have high blood pressure (2007).

Local Health Office	Males (16+ years)			Females (16+ years)			Persons (16+ years)			16-44 years			45-64 years			65-74 years			75+ years		
	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	
Carlow / Kilkenny	13,552	27.9%	11,635	24.5%	25,187	26.2%	4,929	9.1%	10,953	39.2%	4,927	64.8%	4,378	71.4%							
Cavan / Monaghan	14,113	29.5%	11,910	25.9%	26,024	27.7%	4,916	9.5%	11,069	40.5%	5,043	65.7%	4,995	72.2%							
Clare	11,499	26.6%	9,961	23.4%	21,460	25.0%	3,827	8.2%	9,485	36.2%	4,276	61.2%	3,872	68.2%							
Donegal	18,297	32.0%	15,792	27.5%	34,089	29.7%	6,428	10.3%	14,713	43.2%	6,767	68.1%	6,181	74.2%							
Dublin North	20,988	24.1%	18,903	20.7%	39,891	22.4%	8,584	7.9%	17,579	36.1%	8,361	61.3%	5,366	68.4%							
Dublin North Central	13,121	25.2%	12,724	23.7%	25,844	24.4%	5,609	8.5%	9,459	39.2%	5,474	65.0%	5,303	71.9%							
Dublin North West	17,427	23.4%	15,472	20.1%	32,898	21.7%	8,918	8.8%	13,115	38.5%	5,795	64.9%	5,071	71.9%							
Dublin South City	12,165	21.5%	10,961	19.1%	23,127	20.3%	5,592	7.4%	9,318	35.4%	4,077	61.5%	4,140	69.1%							
Dublin South East	10,715	24.1%	11,018	22.5%	21,733	23.2%	4,280	7.6%	8,656	36.1%	4,386	61.5%	4,410	69.1%							
Dublin South West	15,813	27.0%	14,689	23.6%	30,503	25.3%	6,387	9.0%	13,750	40.2%	5,999	65.9%	4,368	72.5%							
Dublin West	12,691	24.4%	10,767	20.3%	23,458	22.3%	6,411	9.3%	10,329	39.4%	3,768	65.9%	2,950	72.8%							
Dun Laoghaire																					
South Dublin	13,416	27.2%	14,148	25.5%	27,564	26.3%	4,279	7.8%	11,285	35.7%	6,312	61.5%	5,688	68.8%							
Galway	24,990	27.1%	21,515	23.1%	46,505	25.1%	9,603	8.7%	19,560	39.1%	9,068	64.7%	8,274	71.4%							
Kerry	16,738	30.1%	14,850	27.1%	31,588	28.6%	5,258	9.2%	13,717	39.7%	6,515	64.8%	6,098	71.5%							
Kildare / West Wicklow	18,288	22.7%	14,770	18.6%	33,058	20.7%	8,105	8.0%	15,463	35.3%	5,293	61.3%	4,197	68.4%							
Laois / Offaly	15,279	27.8%	12,802	23.8%	28,081	25.8%	5,708	9.1%	12,139	39.1%	5,439	64.8%	4,795	71.2%							
Limerick	16,854	27.9%	14,953	24.5%	31,808	26.2%	6,074	8.8%	13,787	39.5%	6,517	64.8%	5,429	71.5%							
Longford / Westmeath	12,634	28.2%	11,073	24.5%	23,706	26.3%	4,604	9.0%	10,239	39.3%	4,621	64.8%	4,242	71.6%							
Louth	11,993	27.7%	10,736	24.1%	22,729	25.8%	4,901	9.4%	9,782	40.3%	4,313	65.8%	3,732	72.7%							
Mayo	15,642	31.7%	14,019	28.7%	29,661	30.2%	4,671	9.5%	12,607	40.5%	6,229	65.7%	6,154	72.4%							
Meath	15,068	23.4%	12,399	19.5%	27,467	21.5%	6,469	8.1%	12,350	35.5%	4,751	61.2%	3,897	68.4%							
North Cork	9,538	29.0%	8,504	26.6%	18,042	27.8%	3,207	9.2%	7,679	39.4%	3,646	64.8%	3,511	71.6%							
North Lee - Cork	17,648	26.6%	15,361	23.0%	33,009	24.8%	7,195	9.0%	14,526	39.5%	6,297	64.9%	4,991	71.6%							
North Tipperary /																					
East Limerick	10,093	25.6%	8,732	22.7%	18,825	24.2%	3,436	7.8%	8,131	36.1%	3,844	61.2%	3,415	68.2%							
Roscommon	7,471	30.9%	6,573	28.6%	14,044	29.8%	2,203	9.4%	5,821	39.4%	2,990	64.7%	3,030	71.4%							
Sligo / Leitrim /																					
West Cavan	11,130	30.3%	9,850	26.9%	20,980	28.6%	3,437	9.1%	9,007	39.4%	4,279	64.7%	4,257	71.4%							
South Lee - Cork	17,070	24.1%	16,161	21.6%	33,231	22.8%	6,656	7.6%	13,899	35.5%	6,932	61.5%	5,743	68.8%							
South Tipperary	10,562	29.5%	9,257	26.5%	19,820	28.0%	3,426	9.2%	8,534	39.4%	4,075	64.8%	3,784	71.3%							
Waterford	13,431	28.2%	12,012	25.0%	25,442	26.6%	4,849	9.0%	10,837	39.4%	5,339	64.8%	4,418	71.5%							
West Cork	6,771	31.7%	6,040	29.0%	12,811	30.4%	1,943	9.5%	5,368	39.7%	2,819	64.7%	2,681	71.4%							
Wexford	15,247	29.4%	13,369	25.7%	28,616	27.5%	5,503	9.6%	12,385	40.4%	6,088	65.7%	4,640	72.3%							
Wicklow	10,775	25.0%	9,682	21.7%	20,457	23.3%	4,050	8.0%	9,249	35.8%	3,987	61.3%	3,172	68.6%							
Republic of Ireland	451,019	26.7%	400,639	23.4%	851,658	25.1%	171,455	8.7%	364,792	38.4%	168,229	64.0%	147,182	70.9%							

Table 3.2: Demographic and geographic variation in the percentage of adults in the Republic of Ireland who have high blood pressure (2015).

Local Health Office	Males (16+ years)			Females (16+ years)			Persons (16+ years)			16-44 years			45-64 years			65-74 years			75+ years		
	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	
Carlow / Kilkenny	16,711	29.7%	14,157	26.6%	30,868	28.2%	5,487	9.5%	13,105	39.2%	6,633	64.8%	5,643	71.0%							
Cavan / Monaghan	17,081	31.0%	14,259	27.4%	31,340	29.3%	5,480	9.7%	12,979	40.5%	6,913	65.7%	5,968	71.8%							
Clare	13,948	28.0%	11,983	25.5%	25,930	26.8%	4,243	8.5%	10,930	36.3%	5,894	61.2%	4,863	67.9%							
Donegal	22,159	33.6%	18,918	29.1%	41,077	31.4%	7,153	10.6%	17,255	43.2%	9,277	68.0%	7,392	73.9%							
Dublin North	26,242	25.6%	23,014	21.9%	49,256	23.7%	10,310	8.5%	21,046	36.2%	10,957	61.3%	6,943	68.0%							
Dublin North Central	16,382	27.2%	15,490	25.3%	31,872	26.2%	6,557	9.1%	11,322	39.4%	7,162	64.9%	6,831	71.5%							
Dublin North West	21,594	25.0%	18,750	21.4%	40,344	23.2%	10,537	9.4%	15,686	38.7%	7,585	64.9%	6,536	71.5%							
Dublin South City	15,055	23.2%	13,282	20.4%	28,337	21.8%	6,535	7.9%	11,150	35.5%	5,339	61.4%	5,313	68.7%							
Dublin South East	13,424	25.8%	13,412	23.8%	26,836	24.8%	5,073	8.2%	10,362	36.2%	5,739	61.5%	5,662	68.7%							
Dublin South West	19,648	29.0%	17,829	25.0%	37,477	26.9%	7,521	9.6%	16,450	40.4%	7,852	65.9%	5,653	72.1%							
Dublin West	15,683	26.0%	13,033	21.5%	28,716	23.7%	7,630	9.9%	12,354	39.5%	4,935	65.8%	3,797	72.5%							
Dún Laoghaire																					
South Dublin	16,950	29.1%	17,280	26.8%	34,230	27.9%	5,135	8.4%	13,505	35.9%	8,258	61.5%	7,332	68.4%							
Galway	30,300	28.6%	25,967	24.0%	56,267	26.2%	11,283	9.2%	23,247	39.4%	12,074	64.7%	9,663	71.0%							
Kerry	20,596	32.5%	17,910	29.1%	38,506	30.8%	5,766	9.6%	16,182	39.7%	8,806	64.7%	7,752	71.0%							
Kildare / West Wicklow	24,673	24.8%	19,933	20.5%	44,606	22.7%	9,821	8.4%	20,301	35.3%	8,720	61.2%	5,765	68.0%							
Laois / Offaly	19,260	29.5%	15,692	26.0%	34,953	27.9%	6,527	9.7%	14,967	39.3%	7,500	64.8%	5,959	70.8%							
Limerick	20,374	29.4%	17,989	26.9%	38,363	28.2%	6,688	9.2%	15,883	39.6%	8,982	64.8%	6,810	71.2%							
Longford / Westmeath	15,942	30.0%	13,558	26.7%	29,500	28.4%	5,257	9.6%	12,629	39.4%	6,373	64.7%	5,241	71.3%							
Louth	14,441	29.1%	12,846	25.5%	27,286	27.3%	5,470	9.7%	11,476	40.3%	5,910	65.8%	4,430	72.4%							
Mayo	19,089	33.3%	16,904	29.5%	35,993	31.4%	5,521	10.0%	14,998	40.9%	8,294	65.7%	7,180	72.0%							
Meath	20,467	25.5%	16,792	21.5%	37,259	23.6%	7,864	8.6%	16,213	35.5%	7,827	61.2%	5,354	68.0%							
North Cork	11,697	31.3%	10,249	28.6%	21,946	30.0%	3,513	9.6%	9,057	39.5%	4,927	64.8%	4,450	71.2%							
North Lee - Cork	21,385	28.8%	18,448	24.9%	39,833	26.8%	7,867	9.5%	17,135	39.6%	8,505	64.8%	6,326	71.2%							
North Tipperary / East Limerick	12,232	27.1%	10,512	24.9%	22,744	26.0%	3,787	8.2%	9,368	36.2%	5,298	61.2%	4,291	67.8%							
Roscommon	9,132	32.4%	7,925	29.4%	17,057	30.9%	2,610	9.8%	6,922	39.8%	3,981	64.7%	3,543	70.9%							
Sligo / Leitrim / West Cavan	13,531	31.9%	11,802	28.4%	25,333	30.2%	3,827	9.3%	10,562	39.4%	5,867	64.7%	5,079	71.1%							
South Lee - Cork	20,775	26.3%	19,463	23.5%	40,238	24.9%	7,240	8.1%	16,390	35.6%	9,357	61.4%	7,250	68.4%							
South Tipperary	13,099	31.4%	11,296	28.7%	24,396	30.1%	3,817	9.6%	10,211	39.4%	5,487	64.8%	4,880	71.0%							
Waterford	16,587	30.1%	14,646	27.2%	31,233	28.6%	5,397	9.4%	12,965	39.5%	7,188	64.8%	5,683	71.2%							
West Cork	8,398	34.1%	7,301	31.0%	15,699	32.6%	2,143	9.9%	6,333	39.8%	3,813	64.7%	3,411	71.0%							
Wexford	18,837	31.2%	16,298	27.8%	35,135	29.5%	6,143	10.0%	14,816	40.5%	8,198	65.7%	5,977	72.0%							
Wicklow	14,765	27.4%	13,197	23.9%	27,962	25.6%	4,916	8.5%	12,137	35.7%	6,566	61.3%	4,343	68.2%							
Republic of Ireland	560,456	28.5%	490,135	25.1%	1,050,591	26.8%	197,116	9.1%	437,937	38.5%	230,219	63.9%	185,315	70.5%							

Table 3.3: Demographic and geographic variation in the percentage of adults in the Republic of Ireland who have high blood pressure (2020).

Local Health Office	Males (16+ years)		Females (16+ years)		Persons (16+ years)		16-44 years		45-64 years		65-74 years		75+ years	
	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence
Carlow / Kilkenny	18,796	31.3%	15,948	28.6%	34,744	30.0%	5,604	9.8%	14,540	39.4%	7,715	64.8%	6,884	70.9%
Cavan / Monaghan	19,031	32.6%	15,924	29.1%	34,955	30.9%	5,608	10.0%	14,175	40.5%	8,084	65.7%	7,088	71.6%
Clare	15,600	29.2%	13,353	27.2%	28,952	28.3%	4,385	8.8%	11,787	36.4%	6,915	61.2%	5,866	67.7%
Donegal	24,711	35.2%	21,109	30.8%	45,820	33.0%	7,339	10.9%	18,847	43.3%	10,847	68.1%	8,787	73.6%
Dublin North	30,305	26.8%	26,175	22.7%	56,480	24.7%	11,281	8.8%	24,050	36.2%	12,860	61.3%	8,290	67.8%
Dublin North Central	18,881	28.8%	17,636	26.4%	36,517	27.6%	7,026	9.3%	12,951	39.4%	8,405	64.9%	8,135	71.3%
Dublin North West	24,711	26.4%	21,246	22.3%	45,957	24.4%	11,313	9.6%	17,956	38.7%	8,902	64.9%	7,787	71.3%
Dublin South City	17,249	24.6%	15,068	21.3%	32,317	22.9%	6,970	8.2%	12,768	35.5%	6,266	61.4%	6,314	68.5%
Dublin South East	15,515	27.2%	15,268	24.8%	30,783	26.0%	5,479	8.4%	11,839	36.2%	6,736	61.5%	6,729	68.5%
Dublin South West	22,635	30.4%	20,250	25.9%	42,885	28.1%	8,123	9.8%	18,795	40.4%	9,215	65.9%	6,752	71.9%
Dublin West	17,970	27.3%	14,766	22.4%	32,736	24.8%	8,277	10.2%	14,148	39.5%	5,792	65.8%	4,520	72.2%
Dun Laoghaire														
South Dublin	19,777	30.3%	19,744	27.6%	39,521	28.9%	5,658	8.7%	15,437	35.9%	9,691	61.5%	8,735	68.2%
Galway	33,751	30.1%	29,275	25.4%	63,026	27.7%	11,819	9.5%	25,468	39.4%	14,378	64.8%	11,361	70.8%
Kerry	23,161	34.3%	20,120	30.8%	43,281	32.6%	5,871	9.9%	17,820	39.9%	10,289	64.7%	9,301	70.8%
Kildare / West Wicklow	29,169	26.5%	23,786	22.3%	52,955	24.4%	10,268	8.6%	24,188	35.3%	10,807	61.2%	7,692	67.8%
Laois / Offaly	21,784	31.5%	17,755	28.4%	39,539	30.0%	6,591	10.1%	16,732	39.4%	9,053	64.7%	7,163	70.6%
Limerick	22,709	30.7%	20,022	28.8%	42,730	29.8%	6,859	9.5%	17,128	39.7%	10,535	64.8%	8,208	71.1%
Longford / Westmeath	18,051	31.9%	15,358	29.1%	33,409	30.6%	5,316	10.0%	14,121	39.6%	7,693	64.7%	6,279	71.1%
Louth	15,974	30.6%	14,303	27.2%	30,276	28.9%	5,595	10.0%	12,534	40.4%	6,913	65.8%	5,235	72.1%
Mayo	21,453	34.8%	19,154	30.9%	40,607	32.8%	5,868	10.3%	16,424	40.8%	9,878	65.7%	8,437	71.8%
Meath	24,284	27.3%	20,099	23.4%	44,382	25.4%	8,220	8.7%	19,316	35.5%	9,700	61.2%	7,146	67.8%
North Cork	13,115	33.1%	11,506	30.4%	24,621	31.8%	3,564	9.9%	9,971	39.7%	5,757	64.8%	5,330	71.0%
North Lee - Cork	23,742	30.5%	20,595	26.6%	44,337	28.6%	7,955	9.7%	18,867	39.7%	9,935	64.8%	7,579	71.0%
North Tipperary /														
East Limerick	13,677	28.3%	11,719	26.7%	25,396	27.5%	3,901	8.4%	10,103	36.3%	6,215	61.2%	5,178	67.7%
Roscommon	10,280	33.9%	8,986	30.7%	19,266	32.3%	2,775	10.2%	7,583	39.7%	4,741	64.7%	4,167	70.8%
Sligo / Leitrim /														
West Cavan	15,142	33.5%	13,204	30.0%	28,346	31.8%	3,928	9.6%	11,535	39.4%	6,859	64.7%	6,025	70.8%
South Lee - Cork	23,162	28.0%	21,807	25.1%	44,969	26.5%	7,335	8.3%	18,037	35.8%	10,929	61.4%	8,667	68.2%
South Tipperary	14,817	33.0%	12,770	30.7%	27,587	31.9%	3,914	9.9%	11,335	39.7%	6,383	64.7%	5,956	70.8%
Waterford	18,674	31.6%	16,520	29.2%	35,194	30.5%	5,513	9.7%	14,396	39.7%	8,360	64.8%	6,925	71.0%
West Cork	9,502	35.9%	8,225	32.6%	17,726	34.3%	2,203	10.2%	6,974	39.9%	4,456	64.7%	4,094	70.8%
Wexford	21,201	32.8%	18,364	29.8%	39,565	31.4%	6,291	10.3%	16,449	40.7%	9,535	65.7%	7,290	71.8%
Wicklow	17,647	29.1%	15,888	25.8%	33,535	27.5%	5,158	8.6%	14,453	35.7%	8,137	61.3%	5,786	68.0%
Republic of Ireland	636,473	30.0%	555,942	26.6%	1,192,415	28.3%	206,008	9.4%	490,724	38.5%	271,980	63.9%	223,704	70.3%

Table 3:4: Demographic and geographic variation in the percentage of adults in Northern Ireland who have high blood pressure (2007).

Local Government District	Males (16+ years)	Number	Prevalence	Females (16+ years)		Persons (16+ years)		16-44 years		45-64 years		65-74 years		75+ years	
				Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence
Armagh	5,690	28.5%	5,238	25.7%	10,928	27.1%	2,083	9.3%	4,703	39.7%	2,332	64.9%	1,810	71.5%	
Ards	8,809	29.3%	8,779	27.5%	17,588	28.4%	2,419	8.2%	7,634	36.6%	3,932	61.3%	3,603	68.5%	
Ballymena	6,428	30.2%	6,161	26.9%	12,589	28.5%	2,032	8.8%	5,339	39.6%	2,785	64.9%	2,433	71.7%	
Ballymoney	7,437	31.1%	7,455	29.4%	14,892	30.2%	2,265	9.3%	6,042	39.9%	3,404	64.9%	3,180	71.7%	
Banbridge	3,420	29.9%	3,279	27.7%	6,699	28.8%	1,124	9.3%	2,743	39.5%	1,474	64.9%	1,358	71.5%	
Belfast	4,770	26.7%	4,537	24.8%	9,307	25.7%	1,593	8.2%	3,864	35.8%	2,021	61.4%	1,830	68.4%	
Carrickfergus	30,747	30.9%	33,808	29.3%	64,554	30.1%	11,148	9.6%	24,446	42.4%	14,002	68.3%	14,958	75.0%	
Castlereagh	7,287	29.5%	7,889	28.3%	15,176	28.8%	2,071	8.3%	5,774	35.4%	3,505	61.4%	3,827	68.5%	
Coleraine	6,858	31.6%	6,973	29.7%	13,831	30.6%	1,977	9.1%	5,611	39.6%	3,313	64.9%	2,930	71.7%	
Cookstown	3,874	28.7%	3,596	26.2%	7,470	27.4%	1,392	9.2%	3,142	40.4%	1,530	65.8%	1,407	72.4%	
Craigavon	9,916	29.4%	9,630	27.3%	19,546	28.3%	3,544	9.5%	8,123	40.3%	4,222	65.9%	3,657	72.5%	
Derry	11,940	29.9%	11,271	26.4%	23,210	28.1%	4,743	10.1%	10,185	42.4%	4,645	68.2%	3,637	74.7%	
Down	7,861	29.5%	7,472	27.5%	15,333	28.5%	2,568	9.1%	6,449	39.5%	3,274	64.9%	3,042	71.7%	
Dungannon	5,813	27.8%	5,386	25.7%	11,199	26.8%	2,080	8.9%	4,591	39.3%	2,364	64.9%	2,164	71.7%	
Fermanagh	7,333	30.4%	6,742	28.0%	14,075	29.2%	2,225	9.1%	5,966	39.6%	2,983	64.8%	2,902	71.5%	
Lamet	3,937	32.2%	3,821	29.6%	7,758	30.8%	1,112	9.3%	3,326	39.9%	1,808	64.9%	1,512	71.6%	
Limavady	3,838	28.2%	3,309	25.6%	7,147	26.9%	1,451	9.6%	3,113	40.5%	1,412	65.8%	1,172	72.4%	
Lisburn	12,339	29.7%	12,244	26.6%	24,583	28.1%	4,181	9.0%	10,492	39.2%	5,273	64.9%	4,637	71.7%	
Magherafelt	4,597	27.5%	4,107	25.1%	8,704	26.4%	1,703	9.0%	3,605	39.2%	1,794	64.9%	1,602	71.4%	
Moyle	2,123	32.9%	2,045	30.0%	4,168	31.4%	594	9.4%	1,746	41.0%	971	65.8%	857	72.5%	
Newry and Mourne	10,258	29.0%	9,556	25.9%	19,814	27.4%	3,708	9.2%	8,369	40.2%	4,198	65.8%	3,538	72.6%	
Newtownabbey	9,577	30.8%	9,761	28.7%	19,339	29.7%	2,973	9.1%	7,897	39.4%	4,339	64.9%	4,130	71.7%	
North Down	9,129	29.7%	9,797	29.3%	18,926	29.5%	2,388	8.1%	7,830	36.7%	4,109	61.3%	4,599	68.8%	
Onnagh	5,734	29.2%	5,244	26.2%	10,977	27.7%	2,013	9.3%	4,721	40.1%	2,235	65.8%	2,008	72.5%	
Strabane	4,782	31.8%	4,329	28.5%	9,111	30.1%	1,712	10.4%	3,781	43.3%	1,993	68.2%	1,625	74.3%	
Northern Ireland	198,803	29.8%	196,727	27.6%	395,529	28.7%	66,402	9.2%	163,047	39.6%	85,879	65.1%	80,202	71.9%	

Table 3.5: Demographic and geographic variation in the percentage of adults in Northern Ireland who have high blood pressure (2015).

Local Government District	Number	Males (16+ years)		Females (16+ years)		Persons (16+ years)		16-44 years		45-64 years		65-74 years		75+ years	
		Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number
Antrim	6,716	29.6%	6,264	26.5%	12,980	28.0%	2,183	8.9%	5,207	38.7%	3,115	64.9%	2,476	71.3%	
Ards	10,285	32.0%	10,337	29.8%	20,621	30.8%	2,268	8.0%	8,115	36.0%	5,840	61.3%	4,398	68.1%	
Armagh	7,540	31.3%	7,193	28.3%	14,733	29.7%	2,167	8.8%	5,891	39.4%	3,576	64.8%	3,099	71.3%	
Ballymena	8,451	32.8%	8,596	31.5%	17,048	32.1%	2,158	9.0%	6,654	39.1%	4,132	64.9%	4,104	71.5%	
Ballymoney	4,218	32.0%	3,944	29.7%	8,162	30.8%	1,168	9.3%	3,300	39.2%	1,958	64.9%	1,736	71.1%	
Banbridge	5,883	28.4%	5,598	26.8%	11,480	27.6%	1,630	8.0%	4,819	35.9%	2,700	61.3%	2,330	68.4%	
Belfast	31,480	31.8%	33,365	30.1%	64,845	30.9%	10,672	9.7%	24,984	42.6%	13,896	68.3%	15,292	74.6%	
Carrickfergus	5,253	32.0%	5,124	28.8%	10,377	30.4%	1,133	7.8%	4,354	36.0%	2,528	61.3%	2,361	68.0%	
Castlereagh	7,667	30.7%	8,316	30.6%	15,984	30.6%	1,699	7.7%	6,355	35.6%	3,741	61.5%	4,189	68.4%	
Coleraine	7,542	34.8%	7,569	32.9%	15,111	33.8%	1,644	8.8%	5,909	39.7%	3,838	64.8%	3,719	71.3%	
Cookstown	4,620	30.3%	4,180	27.5%	8,799	28.9%	1,509	9.3%	3,530	40.6%	2,007	65.8%	1,753	72.0%	
Craigavon	11,745	30.3%	11,273	27.8%	23,017	29.0%	3,844	9.2%	9,336	39.9%	5,235	65.9%	4,602	72.2%	
Derry	13,843	32.6%	13,217	29.1%	27,060	30.8%	4,507	10.1%	11,850	42.3%	5,951	68.2%	4,752	74.2%	
Down	9,179	31.5%	8,767	29.2%	17,946	30.3%	2,543	8.9%	7,411	39.3%	4,247	64.8%	3,744	71.4%	
Dungannon	7,337	27.6%	6,365	25.6%	13,702	26.6%	2,660	9.1%	5,516	39.1%	2,922	64.9%	2,604	71.3%	
Fermanagh	8,541	32.2%	7,789	29.7%	16,330	31.0%	2,322	9.3%	6,709	39.7%	3,827	64.8%	3,472	71.1%	
Larne	4,414	35.0%	4,208	31.8%	8,621	33.4%	942	8.8%	3,559	39.4%	2,257	64.8%	1,863	71.1%	
Limavady	4,497	30.9%	3,995	29.2%	8,492	30.1%	1,384	9.8%	3,603	40.3%	1,947	65.8%	1,558	72.3%	
Lisburn	14,360	31.5%	14,394	28.6%	28,754	30.0%	4,060	8.7%	11,874	38.9%	6,820	64.8%	6,000	71.5%	
Magherafelt	5,503	28.7%	4,826	26.7%	10,328	27.8%	1,850	9.2%	4,324	39.1%	2,203	64.9%	1,951	71.3%	
Moyle	2,376	34.1%	2,248	31.2%	4,623	32.6%	590	9.2%	1,888	40.7%	1,118	65.8%	1,027	71.9%	
Newry & Mourne	12,356	30.0%	11,304	26.9%	23,661	28.5%	4,034	9.1%	9,954	40.1%	5,079	65.8%	4,595	72.2%	
Newtownabbey	10,278	32.2%	10,804	31.5%	21,082	31.9%	2,608	8.7%	8,369	39.2%	5,105	64.9%	5,000	71.6%	
North Down	9,988	31.8%	10,780	32.0%	20,768	31.9%	2,170	8.0%	7,710	36.3%	5,610	61.4%	5,278	68.3%	
Omagh	6,841	30.8%	6,185	28.2%	13,026	29.5%	2,108	9.3%	5,537	40.6%	2,876	65.8%	2,505	72.2%	
Strabane	5,456	34.7%	5,002	30.8%	10,458	32.8%	1,574	10.2%	4,285	42.7%	2,461	68.2%	2,138	74.2%	
Northern Ireland	226,368	31.4%	221,642	29.3%	448,0111	30.3%	65,430	9.1%	181,044	39.5%	104,990	65.0%	96,547	71.6%	

Table 3.6: Demographic and geographic variation in the percentage of adults in Northern Ireland who have high blood pressure (2020)

Local Government District	Number	Males (16+ years)		Females (16+ years)		Persons (16+ years)		16-44 years		45-64 years		65-74 years		75+ years	
		Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number	Prevalence	Number
Antrim	7,351	30.2%	7,015	27.3%	14,366	28.7%	2,324	8.9%	5,627	39.2%	3,212	64.8%	3,203	71.2%	
Ards	11,104	33.6%	11,389	31.6%	22,493	32.6%	2,220	8.1%	8,559	36.7%	6,091	61.3%	5,623	67.7%	
Armagh	8,196	32.2%	7,917	29.5%	16,114	30.8%	2,248	8.9%	6,265	39.7%	3,836	64.8%	3,765	71.1%	
Ballymena	9,058	34.0%	9,321	32.9%	18,379	33.5%	2,175	9.1%	6,975	39.6%	4,391	64.9%	4,837	71.4%	
Ballymoney	4,726	33.5%	4,402	31.0%	9,128	32.3%	1,168	9.2%	3,744	39.9%	2,074	64.9%	2,142	70.9%	
Banbridge	6,583	29.6%	6,347	28.3%	12,929	29.0%	1,682	8.1%	5,334	36.4%	3,012	61.3%	2,901	68.2%	
Belfast	31,835	32.8%	33,410	31.3%	65,245	32.0%	10,508	10.0%	25,030	43.5%	13,792	68.2%	15,915	74.4%	
Carrickfergus	5,806	34.4%	5,675	31.0%	11,480	32.6%	1,060	7.8%	4,679	37.0%	2,830	61.2%	2,911	67.7%	
Castlereagh	7,768	31.9%	8,540	32.6%	16,308	32.3%	1,592	7.8%	6,396	37.1%	3,805	61.4%	4,515	68.4%	
Coleraine	7,835	36.6%	7,923	35.6%	15,759	36.1%	1,479	8.9%	5,944	40.3%	3,959	64.8%	4,376	71.1%	
Cookstown	5,093	31.5%	4,592	28.8%	9,685	30.2%	1,590	9.6%	3,805	41.0%	2,149	65.8%	2,141	71.9%	
Craigavon	12,952	31.2%	12,444	28.6%	25,395	29.9%	4,165	9.5%	10,204	40.6%	5,521	65.8%	5,506	72.1%	
Derry	14,944	34.4%	14,590	31.6%	29,534	32.9%	4,442	10.4%	12,669	43.1%	6,674	68.2%	5,750	74.1%	
Down	9,959	32.9%	9,687	30.8%	19,646	31.8%	2,622	9.2%	7,841	40.0%	4,715	64.8%	4,468	71.2%	
Dungannon	8,477	28.3%	7,131	26.3%	15,608	27.4%	3,020	9.5%	6,324	39.4%	3,226	64.8%	3,039	71.1%	
Fermanagh	9,315	33.6%	8,569	31.4%	17,883	32.5%	2,343	9.5%	7,145	39.8%	4,360	64.8%	4,035	70.9%	
Larne	4,631	36.9%	4,463	33.6%	9,094	35.2%	893	8.9%	3,680	40.6%	2,303	64.8%	2,217	70.9%	
Limavady	4,896	32.9%	4,461	32.1%	9,357	32.5%	1,292	9.9%	3,884	40.6%	2,210	65.8%	1,970	72.2%	
Lisburn	15,447	32.9%	15,839	30.3%	31,286	31.5%	4,166	9.0%	12,550	39.9%	7,262	64.8%	7,307	71.3%	
Magherafelt	6,142	30.2%	5,331	28.2%	11,472	29.2%	1,852	9.3%	4,854	39.5%	2,486	64.8%	2,280	71.3%	
Moyle	2,524	35.6%	2,418	32.7%	4,942	34.1%	592	9.4%	1,911	41.1%	1,245	65.7%	1,195	71.7%	
Newry and Mourne	13,726	30.8%	12,549	28.0%	26,275	29.4%	4,396	9.4%	10,791	40.7%	5,726	65.8%	5,362	72.0%	
Newtownabbey	10,565	33.3%	11,432	33.6%	21,997	33.5%	2,444	8.7%	8,541	40.0%	5,268	64.9%	5,743	71.4%	
North Down	10,429	33.1%	11,422	33.9%	21,851	33.5%	2,098	8.2%	7,673	36.9%	5,701	61.4%	6,380	68.1%	
Omagh	7,529	32.2%	6,846	29.9%	14,375	31.1%	2,184	9.6%	5,843	41.0%	3,336	65.8%	3,012	72.1%	
Strabane	5,850	36.6%	5,415	32.7%	11,265	34.6%	1,470	10.1%	4,620	43.0%	2,608	68.1%	2,566	74.1%	
Northern Ireland	242,740	32.6%	239,127	30.8%	481,867	31.7%	66,025	9.3%	190,890	40.1%	111,791	64.9%	113,161	71.3%	

REFERENCES

- Central Statistics Office (2008). *Health Status and Health Service Utilisation. Quarterly National Household Survey Quarter 3 2007*. Dublin: Central Statistics Office.
http://www.eirestat.cso.ie/releasespublications/documents/labour_market/current/healthstatus.pdf
- Department of Health (2008). *Health Survey for England 2007. Adult Trend Tables 2007*.
<http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england/health-survey-for-england-2007-latest-trends-%5Bns%5D>
- Department of Health, Social Services and Public Safety (2007). *Northern Ireland Health and Social Wellbeing Survey 2005/06 Topline Results - General Health*. Belfast: Department of Health, Social Services and Public Safety.
<http://www.csu.nisra.gov.uk/survey.asp49.htm>
- Department of Health, Social Services and Public Safety (2007). *Quality & Outcomes Framework Statistics for Northern Ireland 2006/07*. Belfast: Department of Health, Social Services and Public Safety.
http://www.dhsspsni.gov.uk/qof_bulletin_200607_v2.pdf
- Morgan, K., McGee, H., Watson, D., Perry, I., Barry, M., Shelley, E., Harrington, J., Molcho, M., Layte, R., Tully, N., van Lente, E., Ward, M., Lutomski, J., Conroy, R. and Brugha, R. (2008). *SLÁN 2007: Survey of Lifestyle, Attitudes & Nutrition in Ireland*. Main Report. Dublin: Department of Health and Children.
http://www.dohc.ie/publications/pdf/slano7_report.pdf?direct=1



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