

Census 2011: General health status and long-term health problems and disability: age and sex-specific and age-standardised percentages

December 2013

Introduction

The Office for National Statistics (ONS) published local authority-level data from the 2011 Census in December 2012 covering the topics of general health status, long-term health problems and disability, and provision of unpaid care. Subsequent data releases have made these data available by age and sex and for smaller geographical areas. This report presents data on general health status and long-term health problems and disability by age and sex at unitary authority and ward level for Peterborough, including age-standardised percentages.

Many health conditions are strongly associated with old age, and so areas with higher proportions of older people are likely to have higher proportions in poor health. Age-standardisation of the data allows more valid comparison between areas by adjusting for the confounding effect of age. The age-standardised percentages presented are standardised to the European Standard Population, using the direct method, and Byar's method for the calculation of confidence intervals; they represent the percentage which each area would have should it have the same age structure as the standard population.

The data presented in this report relate to all usual residents *in households* (i.e. excluding residents in communal establishments such as hospitals, care homes and prisons); previous data releases and local reports for health-related topics have related to the total usual resident population and so figures are not directly comparable to those presented previously.

In this report, data for Peterborough are compared with the England average and the average for the ONS New and Growing Towns cluster of local authorities, which includes Peterborough. The ONS cluster used is based on the 2001 Census. ONS plans to publish clusters based on the 2011 Census in 2014.

An Excel file containing all of the tables and figures included here, several appendices, and population denominators accompanies this report.

KEY POINTS

GENERAL HEALTH:

- 81.8% of household residents in Peterborough reported good or very good health
- The percentage varied by age, from 96.4% in 0-15s to 27.2% in 85s and over, and by sex, with a slightly lower percentage in females than males
- Percentages were consistently lower in Peterborough across all age groups compared with the ONS New and Growing Towns cluster and England averages
- After adjusting for age, the percentage reporting good or very good health in Peterborough was statistically significantly lower than the ONS cluster and England averages
- At ward level, the age-standardised percentage was statistically significantly lower than the Peterborough average in Bretton North, Central, Dogsthorpe, East, North, Orton Longueville, Paston and Ravensthorpe wards

LONG-TERM HEALTH PROBLEMS AND DISABILITY:

- 29,699 people, 16.3% of household residents in Peterborough, reported a long-term activity-limiting illness (all extents of limitation)
- The percentage varied by age, from 4.4% in 0-15s to 84.6% in 85s and over
- The percentage also varied by sex, with generally higher percentages in females than males, however, the percentage was notably higher in boys aged 0-15
- 51% of people with a long-term illness in Peterborough (15,137) are of working age (16-64)
- Percentages with a long-term illness were consistently higher in Peterborough across all age groups compared to the ONS New and Growing Towns cluster and England averages
- After adjusting for age, the percentage in Peterborough was statistically significantly higher than the ONS New and Growing Towns cluster and England averages
- At ward level, the age-standardised percentage was statistically significantly higher than the Peterborough average in Bretton North, Central, Dogsthorpe, East, North, Orton Longueville, Paston, Ravensthorpe and Stanground East wards
- 45.2% of people reporting a long-term illness described their illness as limiting their day-to-day activities a lot. Demographic and geographic patterns were similar to those for all extents of limitation.
- After adjusting for age, the percentage reporting long-term activity-limiting illness which limits day-to-day activities a lot was statistically significantly higher than the England average in Peterborough in females and for all persons combined. The percentages for both sexes and for persons were statistically significantly higher than the ONS cluster averages

General Health

Self-assessed general health reflects an individual's perception of all aspects of their health, wellbeing and quality of life. This perception may be influenced by both physical health and social and cultural factors and so differences between areas may reflect a combination of these features.

Age and sex

81.8% of all household residents in Peterborough reported themselves to be in good or very good health (Table 1.1, Figure 1.1). This varied notably with age: 96.4% of those aged 0-15 years reported good or very good health, declining to 27.2% of those aged 85+. Variation is also seen by sex: a smaller percentage of females reported good or very good health compared with males (80.4% v 83.3%); this gap was widest among those aged 75 years and over.

Table 1.1 Number of people and percentage of the population reporting good or very good health by age group and sex, Peterborough, 2011

Age group (years)	Males		Females		Persons	
	Number	%	Number	%	Number	%
0-15	19,256	96.3	18,477	96.6	37,733	96.4
16-24	10,071	94.0	9,626	92.5	19,697	93.3
25-34	13,091	91.9	13,182	90.6	26,273	91.3
35-49	16,502	85.1	15,839	82.2	32,341	83.7
50-64	10,413	70.8	10,621	69.8	21,034	70.3
65-74	3,608	59.0	3,761	57.6	7,369	58.3
75-84	1,610	43.5	1,914	38.9	3,524	40.8
85+	320	30.9	483	25.2	803	27.2
All ages	74,871	83.3	73,903	80.4	148,774	81.8

The pattern by age in Peterborough was similar to that of both the ONS New and Growing Towns (NGT) cluster and England (Table 1.2, Figure 1.2), and patterns were similar for both sexes (Appendices 1.1-2). However, the percentages were consistently lower in Peterborough compared with the cluster and national averages, even in the young. The inequality comparing Peterborough with the NGT cluster was widest in those aged 50-64 years (70.3% v 73.5%) and the inequality was bigger in females than males (Appendices 1.1-2).

Figure 1.1 Percentage of the population reporting good or very good health by age group and sex, Peterborough, 2011

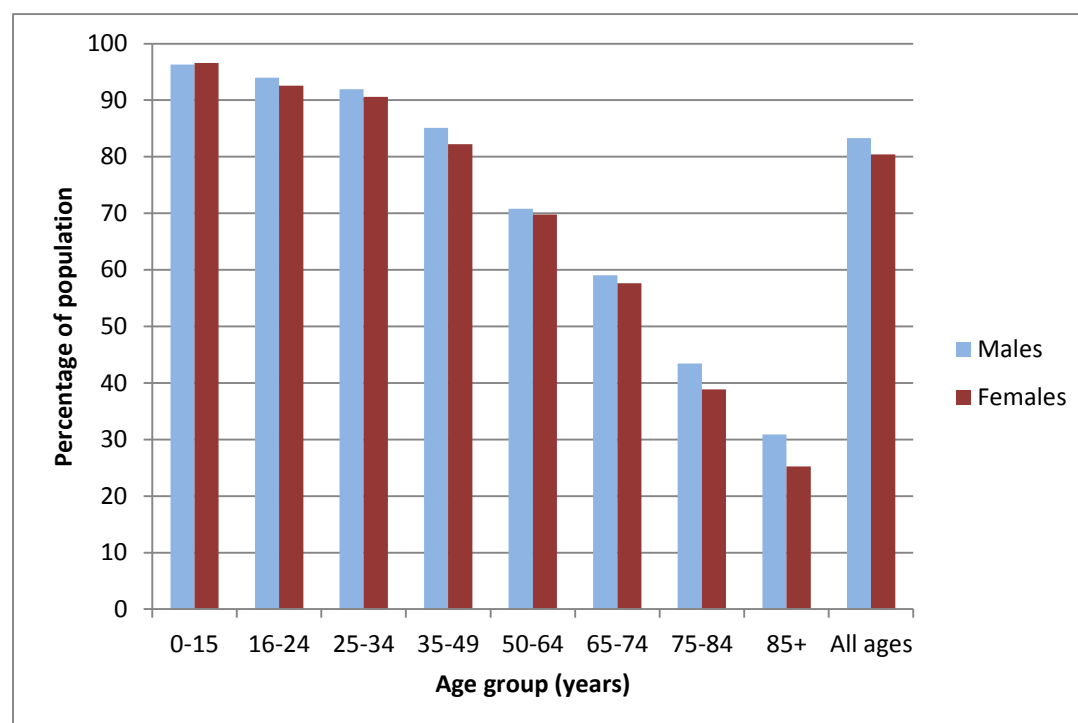
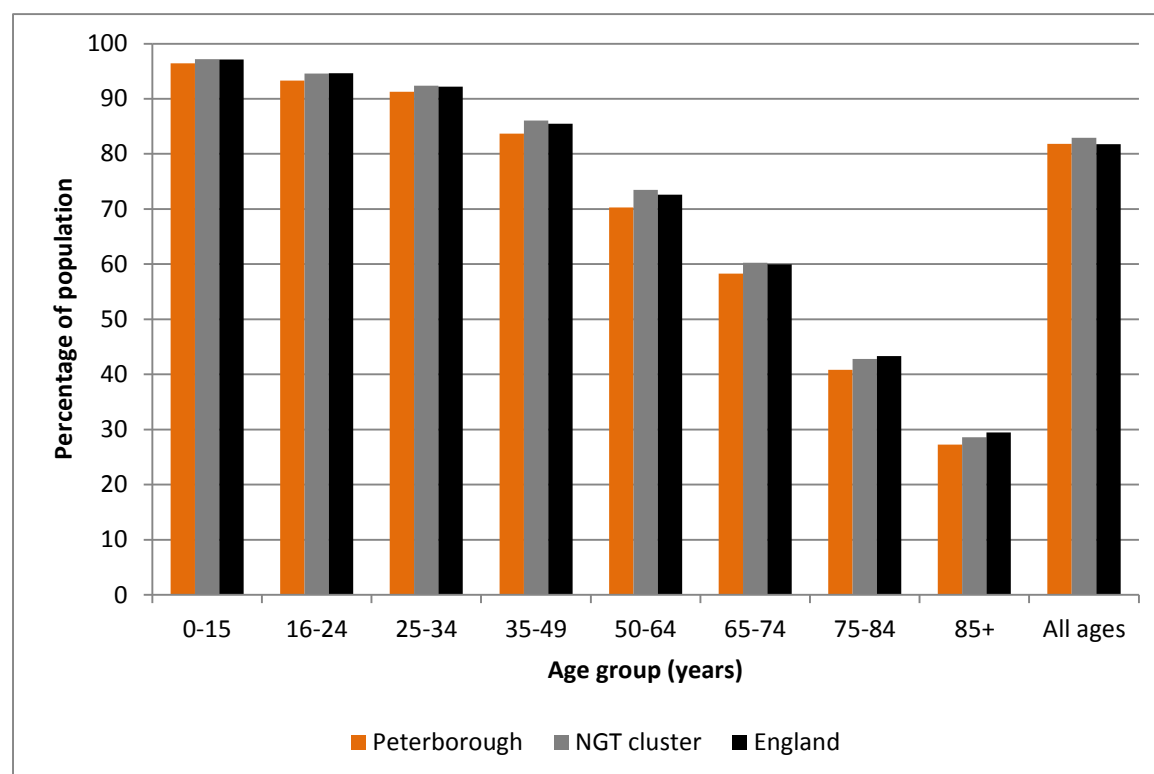


Table 1.2 Number of people and percentage of the population reporting good or very good health by age group, Peterborough and comparators, 2011

Age group (years)	Peterborough		NGT cluster		England	
	Number	%	Number	%	Number	%
0-15	37,733	96.4	651,388	97.2	9,698,359	97.2
16-24	19,697	93.3	351,934	94.6	5,584,937	94.6
25-34	26,273	91.3	429,822	92.4	6,523,691	92.2
35-49	32,341	83.7	622,273	86.1	9,609,133	85.5
50-64	21,034	70.3	422,448	73.5	6,910,058	72.6
65-74	7,369	58.3	149,687	60.3	2,705,345	59.9
75-84	3,524	40.8	69,467	42.8	1,227,422	43.3
85+	803	27.2	16,052	28.6	293,925	29.5
All ages	148,774	81.8	2,713,071	82.9	42,552,870	81.7

NGT – New and Growing Towns

Figure 1.2 Percentage of the population reporting good or very good health by age group, Peterborough and comparators, 2011



NGT – New and Growing Towns

At ward level, patterns were again similar by age; the pattern by sex was also similar but greater differences between the sexes were seen in particular wards (Appendix 1.3). Some of this variation could be related to the age structures of those populations and so data and patterns are discussed further following age-standardisation.

Age-standardised percentages

Age-standardisation of the data provides a comparable summary measure for each area by removing the potentially confounding effects of their differing age structures.

After adjusting for age, the percentage reporting good or very good health was statistically significantly lower than the England average in Peterborough in males (83.6% v 84.6%), females (82.2% v 84.2%) and for all persons combined (82.9% v 84.4%) (Table 1.3, Figure 1.3). The percentages for Peterborough were also statistically significantly lower than the ONS New and Growing Towns cluster averages (which were actually higher or very similar to the national averages).

Table 1.3 Directly age-standardised percentage of the population reporting good or very good health by sex, Peterborough and comparators, 2011

Local authority / comparator	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
Peterborough	83.6	(83.0 to 84.2)	82.2	(81.6 to 82.8)	82.9	(82.5 to 83.3)
NGT cluster	85.1	(84.9 to 85.2)	84.3	(84.2 to 84.5)	84.7	(84.6 to 84.8)
England	84.6	(84.6 to 84.6)	84.2	(84.2 to 84.2)	84.4	(84.4 to 84.4)

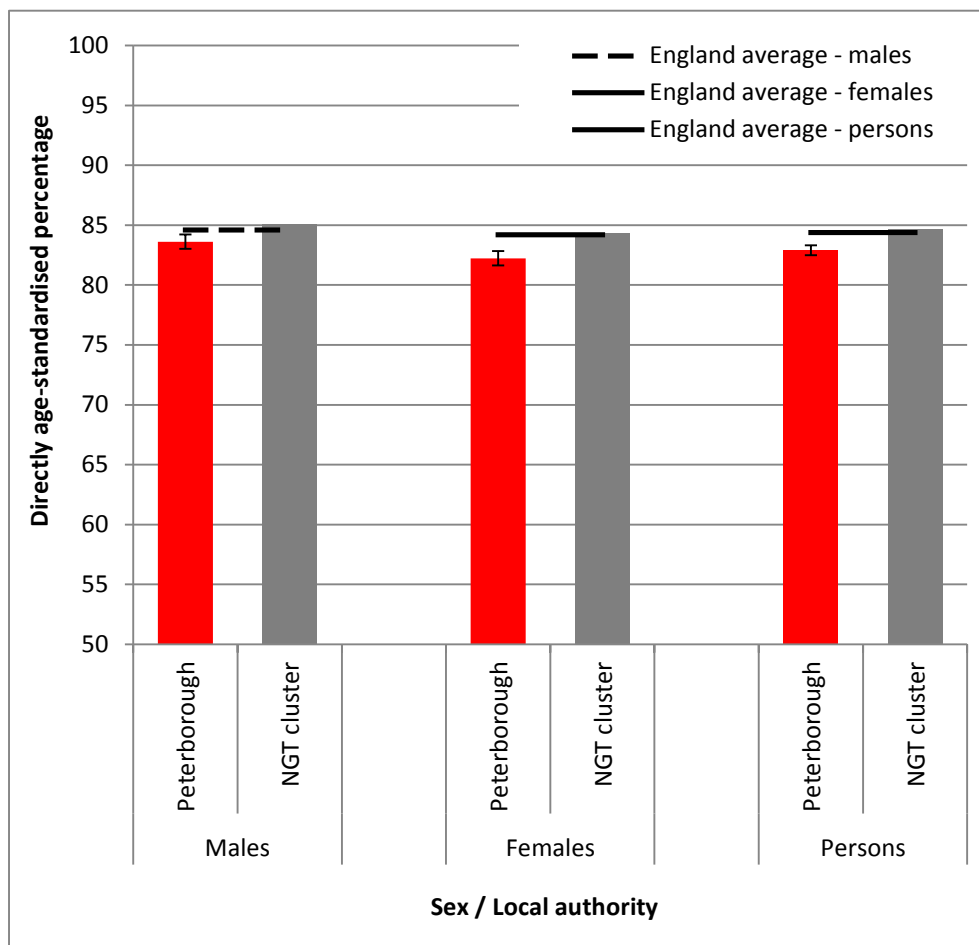
CI – confidence interval

NGT – New and Growing Towns

At ward level, the percentage reporting good or very good health was statistically significantly lower than the Peterborough average in Bretton North, Central, Dogsthorpe, East, North, Orton Longueville, Paston, and Ravensthorpe wards (Figure 1.4, Appendix 1.4). The percentages in all of these wards were also statistically significantly lower than the England average. Age-standardised percentages by ward are mapped in Figure 1.5.

The more notable differences by sex in some wards became less apparent after age-standardisation and none of the differences were statistically significant. However, noticeable but non-significant differences did remain in Central and Stanground East wards where the percentages reporting good or very good health were 3 and 3.1 percentage points lower in females respectively (see Appendix 1.4).

Figure 1.3 Directly age-standardised percentage of the population reporting good or very good health by sex, Peterborough and comparators, 2011

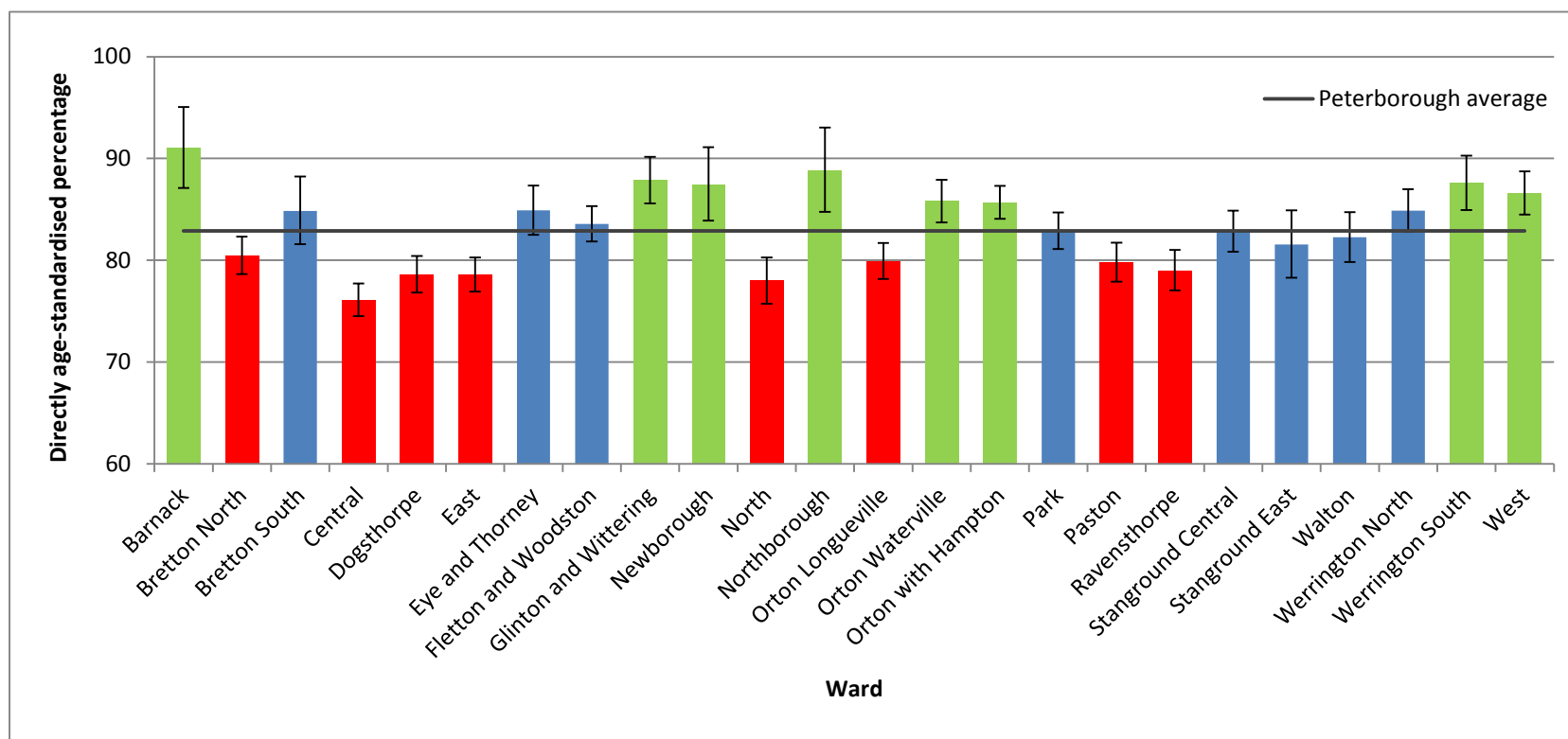


Error bars represent 95% confidence intervals. NGT – New and growing towns.

Assessment of significance is based on overlapping confidence intervals of both the local authority and England values but the England confidence intervals are not shown on the figure.

- Significantly higher than the England average
- Not significantly different to the England average
- Significantly lower than the England average
- New and growing towns cluster average

Figure 1.4 Directly age-standardised percentage of the population reporting good or very good health, by ward, Peterborough, 2011



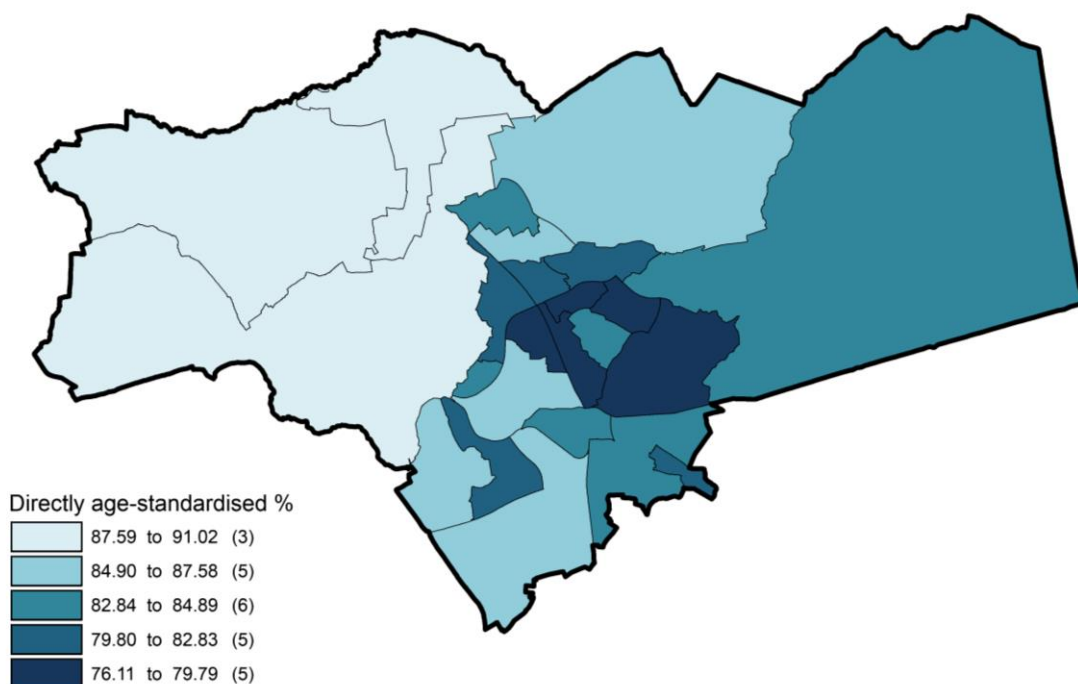
Error bars represent 95% confidence intervals.

Assessment of significance is based on overlapping confidence intervals of both the ward and Peterborough values but the Peterborough confidence intervals are not shown on the figure.

- Significantly higher than the Peterborough average
- Not significantly different to the Peterborough average
- Significantly lower than the Peterborough average

Figure 1.5

Directly age-standardised percentage of the population reporting good or very good health, by ward, Peterborough, 2011



Source: 2011 Census - Table DC3302EW. Office for National Statistics © Crown Copyright 2012
Age-standardised percentages calculated by Cambridgeshire County Council Public Health Intelligence
© Crown copyright and database rights (2013) Ordnance Survey 100023205

2. Long-term health problems and disability

2.1. All extents of limitation of day-to-day activities

Age and sex

29,699 people, 16.3% of all household residents in Peterborough, reported having a long-term activity-limiting illness (Table 2.1.1, Figure 2.1.1). This varied notably with age: 4.4% of those aged 0-15 years reported a long-term health problem, rising to 84.6% of those aged 85 years and over; the increase being particularly noticeable from age 50-64 years. Although the percentages reporting long-term illness are highest in the oldest age groups, it should be noted that 51% of all people with a long-term illness in Peterborough are of working age (aged 16-64 years) (15,137/29,699).

Overall, a higher percentage of females than males reported a long-term illness (17.7% v 14.9%) but this varied by age: in children aged 0-15, the percentage was notably higher in boys than girls (5.1% v 3.6%) but in those aged 35-49 years and above, the percentages were higher in females; percentages were similar in those aged 16-34 years.

Table 2.1.1 Number of people and percentage of the population with a long-term activity-limiting illness by age group and sex, Peterborough, 2011

Age group (years)	Males		Females		Persons	
	Number	%	Number	%	Number	%
0-15	1,019	5.1	692	3.6	1,711	4.4
16-24	652	6.1	611	5.9	1,263	6.0
25-34	917	6.4	934	6.4	1,851	6.4
35-49	2,187	11.3	2,635	13.7	4,822	12.5
50-64	3,319	22.6	3,882	25.5	7,201	24.1
65-74	2,268	37.1	2,646	40.5	4,914	38.9
75-84	2,212	59.7	3,229	65.6	5,441	63.1
85+	848	81.9	1,648	86.1	2,496	84.6
All ages	13,422	14.9	16,277	17.7	29,699	16.3

The pattern by age was similar in Peterborough to that of the ONS New and Growing Towns (NGT) cluster and England (Table 2.1.2, Figure 2.1.2), and patterns were similar for both sexes (Appendices 2.1.1-2). Despite the all-age percentage in Peterborough being lower than the national average, the percentages reporting long-term illness were consistently higher in Peterborough across all age groups. The inequality comparing Peterborough with the NGT cluster was widest in people aged 50-64 years (24.1% v 21.4%), and in females aged 75-84 years (65.6% v 62.6%).

Figure 2.1.1 Percentage of the population with a long-term activity-limiting illness by age group and sex, Peterborough, 2011

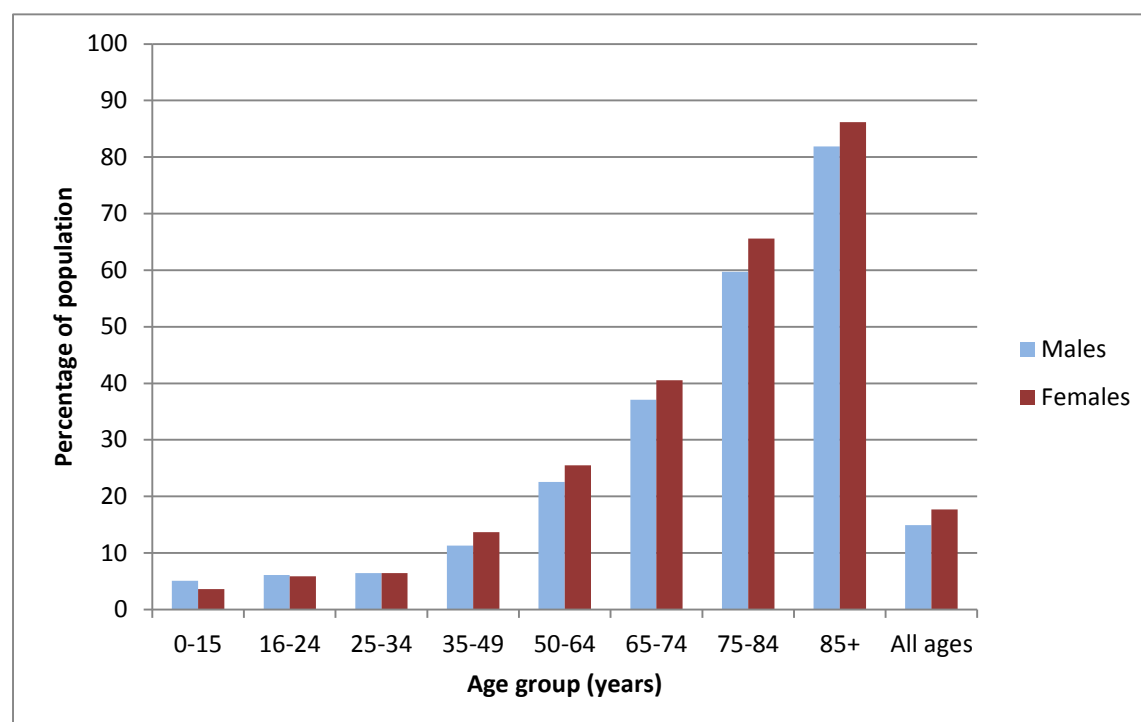
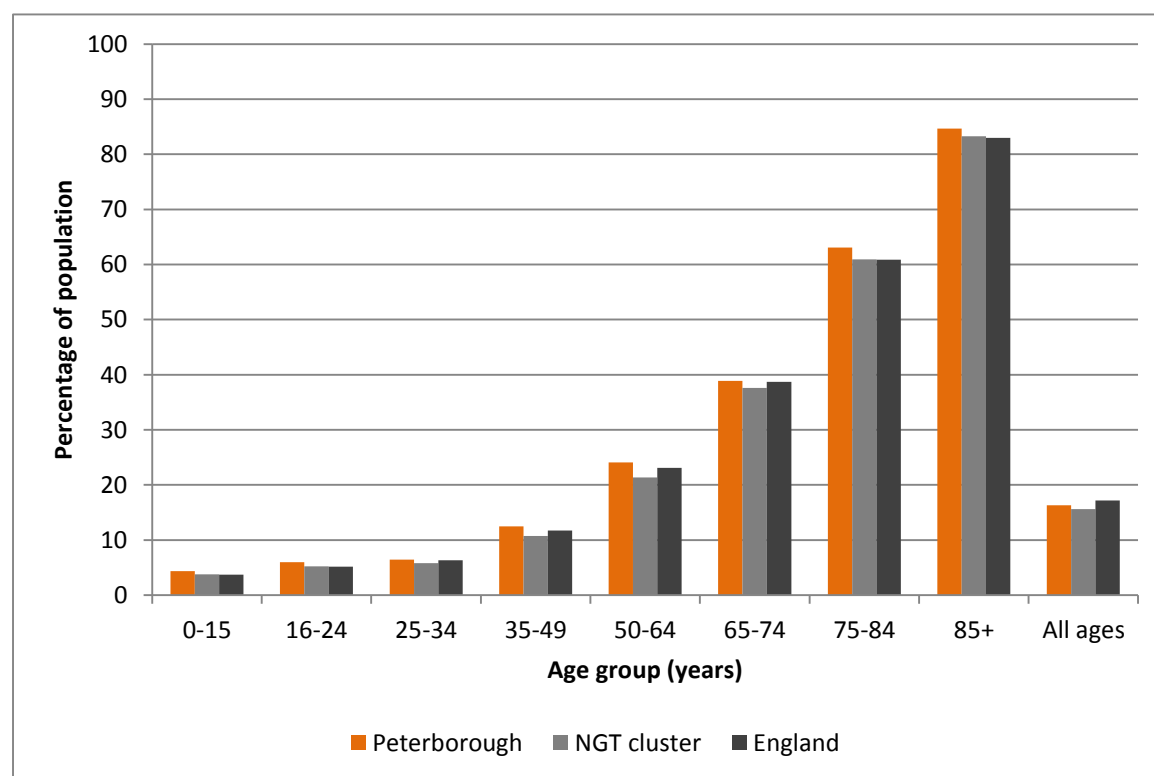


Table 2.1.2 Number of people and percentage of the population with a long-term activity-limiting illness by age group, Peterborough and comparators, 2011

Age group (years)	Peterborough		NGT cluster		England	
	Number	%	Number	%	Number	%
0-15	1,711	4.4	25,414	3.8	372,138	3.7
16-24	1,263	6.0	19,479	5.2	305,761	5.2
25-34	1,851	6.4	27,073	5.8	446,876	6.3
35-49	4,822	12.5	77,520	10.7	1,317,350	11.7
50-64	7,201	24.1	122,805	21.4	2,196,897	23.1
65-74	4,914	38.9	93,439	37.6	1,746,642	38.7
75-84	5,441	63.1	98,958	60.9	1,723,800	60.9
85+	2,496	84.6	46,701	83.2	827,490	83.0
All ages	29,699	16.3	511,389	15.6	8,936,954	17.2

NGT – New and growing towns

Figure 2.1.2 Percentage of the population with a long-term activity-limiting illness by age group, Peterborough and comparators, 2011



NGT – New and growing towns

At ward level, patterns were again similar by age and sex. There were greater differences between the sexes in some wards (Appendix 2.1.3) but some of this variation could be related to the age structures of those populations; data and patterns are therefore discussed further following age-standardisation.

Age-standardised percentages

Age-standardisation of the data provides a comparable summary measure for each area by removing the potentially confounding effects of their differing age structures.

After adjusting for age, the percentage reporting long-term activity-limiting illness was statistically significantly higher than the England average in Peterborough in males (14.5% v 14.1%), females (15.6% v 14.6%) and for all persons combined (15.1% v 14.4%) (Table 2.1.3, Figure 2.1.3). These percentages were also statistically significantly higher than the ONS New and Growing Towns cluster averages (which were actually lower than the national averages).

Table 2.1.3 Directly age-standardised percentage of the population with a long-term activity-limiting illness by sex, Peterborough and comparators, 2011

Local authority / comparator	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
Peterborough	14.5	(14.3 to 14.8)	15.6	(15.4 to 15.9)	15.1	(14.9 to 15.3)
NGT cluster	13.4	(13.3 to 13.4)	14.1	(14.0 to 14.2)	13.8	(13.7 to 13.8)
England	14.1	(14.1 to 14.2)	14.6	(14.6 to 14.6)	14.4	(14.4 to 14.4)

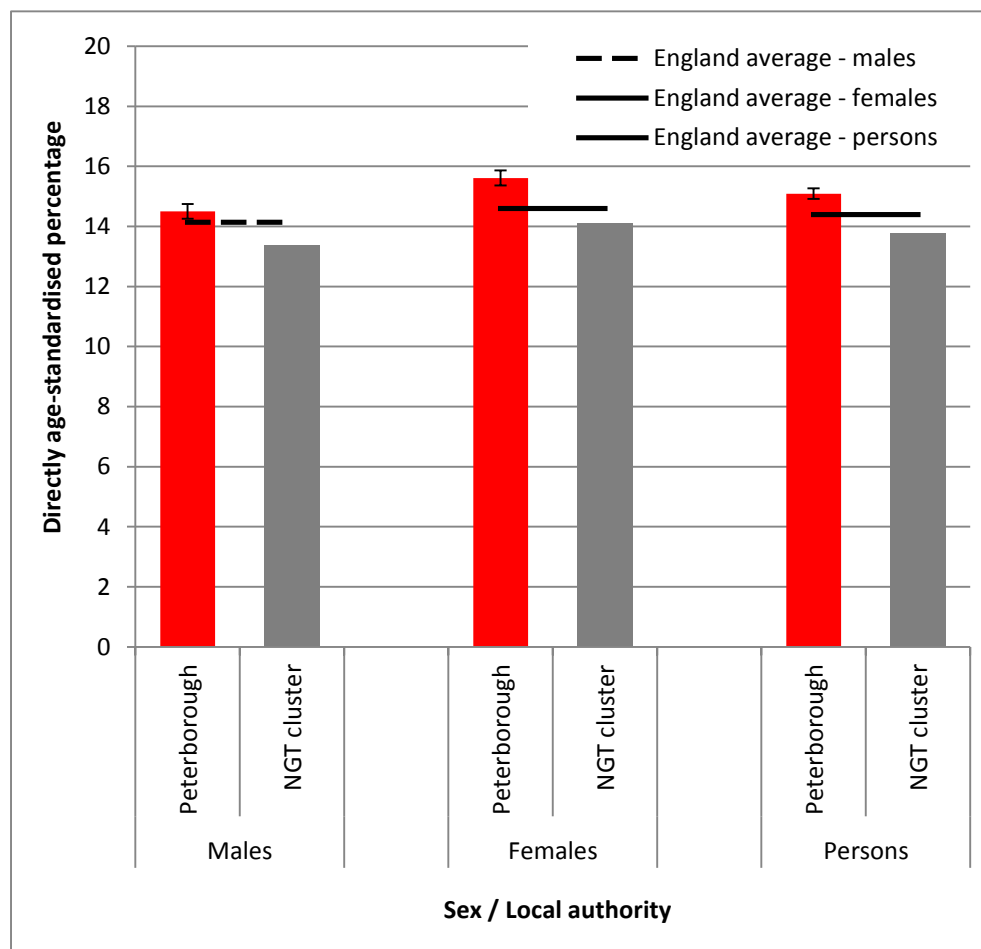
CI – confidence interval

NGT – New and growing towns

By ward, the percentage reporting a long-term health problem was statistically significantly higher than the Peterborough average in Bretton North, Central, Dogsthorpe, East, North, Orton Longueville, Paston, Ravensthorpe and Stanground East wards (Figure 2.1.4, Appendix 2.1.4). All of these wards, plus Stanground Central and Walton wards, were also statistically significantly higher than the England average. Age-standardised percentages by ward are mapped in Figure 2.1.5.

The more notable differences by sex in some wards became less apparent after age-standardisation. The percentage was statistically significantly higher in females than males in West ward, but still statistically significantly lower than the national average (Appendix 2.1.4).

Figure 2.1.3 Directly age-standardised percentage of people with a long-term activity-limiting illness, by sex, Peterborough and comparators, 2011

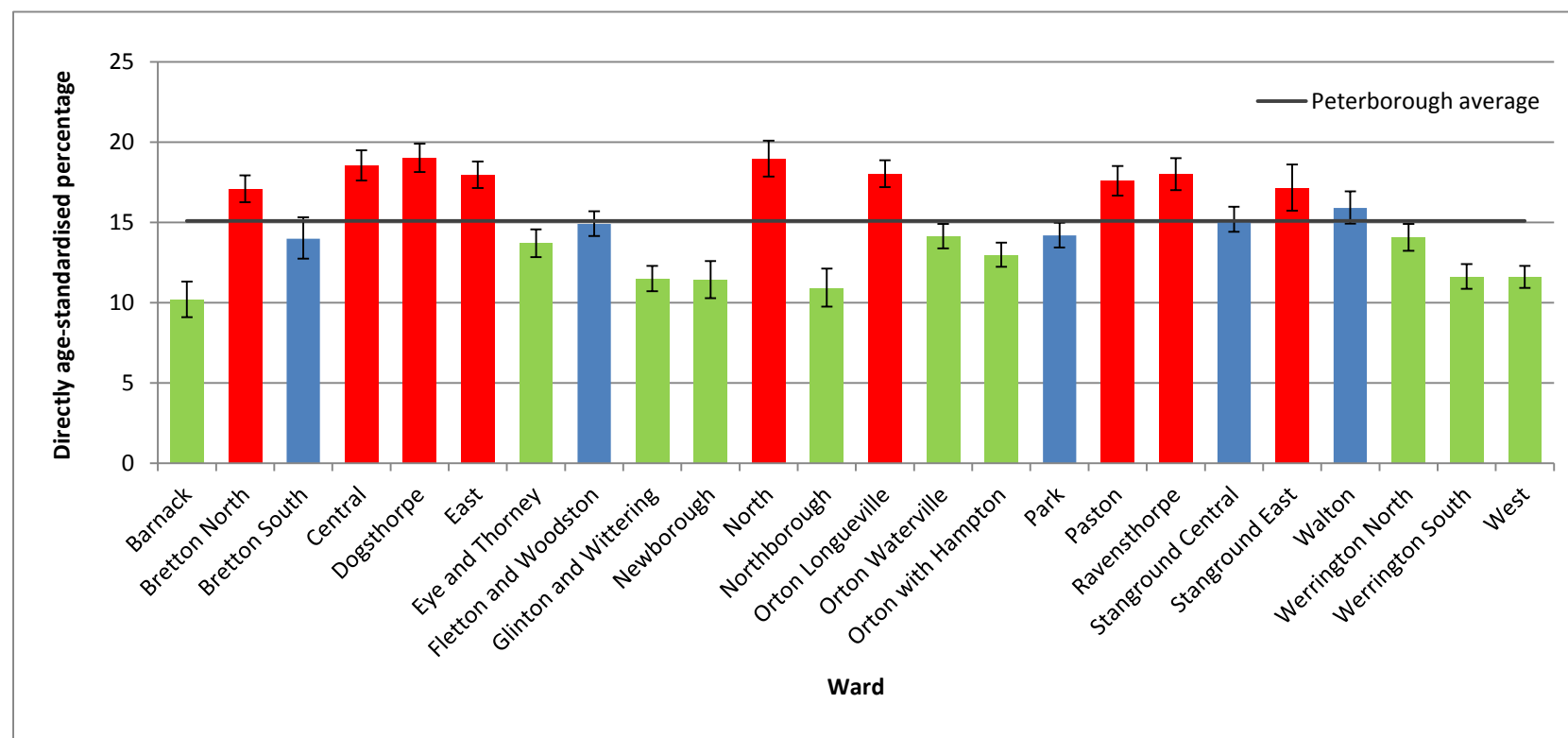


Error bars represent 95% confidence intervals. NGT – New and growing towns.

Assessment of significance is based on overlapping confidence intervals of both the local authority and England values but the England confidence intervals are not shown on the figure.

- Significantly lower than the England average
- Not significantly different to the England average
- Significantly higher than the England average
- New and growing towns cluster average

Figure 2.1.4 Directly age-standardised percentage of the population with a long-term activity-limiting illness by ward, Peterborough, 2011



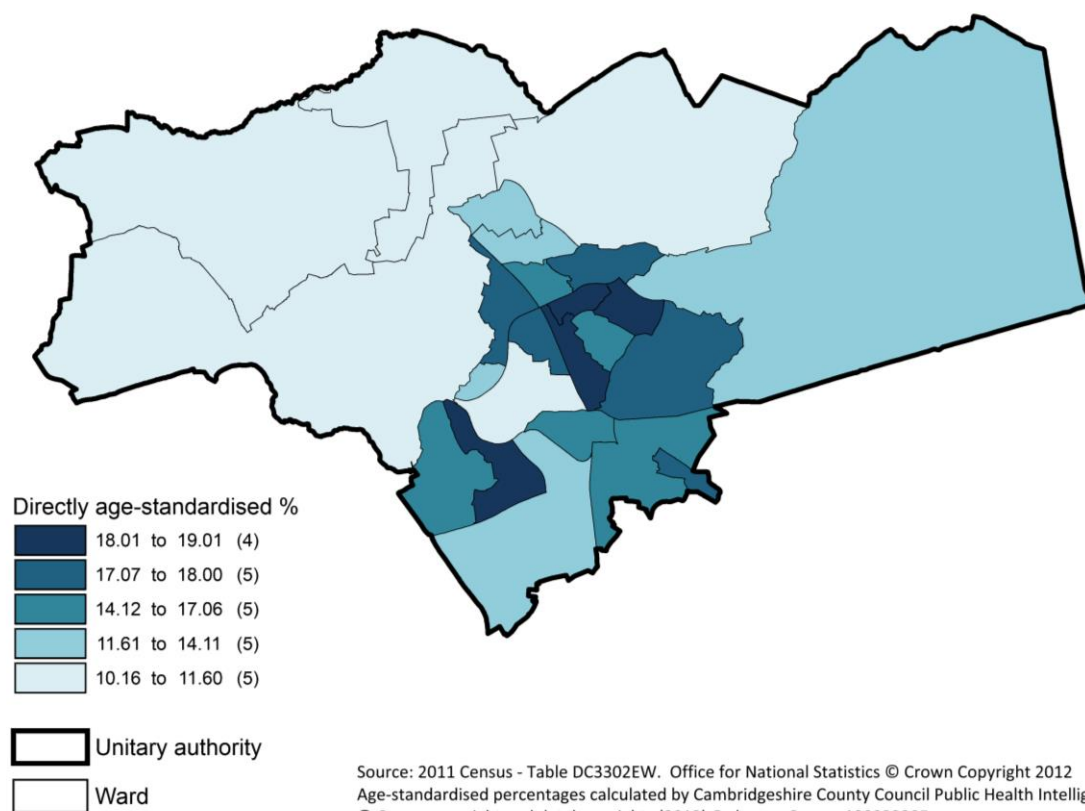
Error bars represent 95% confidence intervals.

Assessment of significance is based on overlapping confidence intervals of both the ward and Peterborough values but the Peterborough confidence intervals are not shown on the figure.

- Significantly lower than the Peterborough average
- Not significantly different to the Peterborough average
- Significantly higher than the Peterborough average

Figure 2.1.5

Directly age-standardised percentage of the population with a long-term activity-limiting illness, by ward, Peterborough, 2011



Source: 2011 Census - Table DC3302EW. Office for National Statistics © Crown Copyright 2012
Age-standardised percentages calculated by Cambridgeshire County Council Public Health Intelligence
© Crown copyright and database rights (2013) Ordnance Survey 100023205

2.2. Day-to-day activities limited a lot

Age and sex

Of the 29,699 people in Peterborough reporting a long-term activity-limiting illness, 13,427 (45.2%) described that illness as limiting their day-to-day activities a lot, 7.4% of the total population resident in households (Table 2.2.1, Figure 2.2.1). The distributions by age and sex follow similar patterns as those for all extents of limitation: percentages increase with age (1.8% in 0-15 year olds to 54.8% in those aged 85+ years), and percentages are slightly higher in females than males (8.0% v 6.8%), although this varies with age with greater percentages in males under 35 years of age. A slightly smaller percentage of people limited a lot by their illness are of working age (16-64 years) compared to all extents of limitation (48%, 6,397/13,427).

Table 2.2.1 Number of people and percentage of the population with a long-term illness which affects day-to-day activities a lot, by age group and sex, Peterborough, 2011

Age group (years)	Males		Females		Persons	
	Number	%	Number	%	Number	%
0-15	419	2.1	266	1.4	685	1.8
16-24	259	2.4	201	1.9	460	2.2
25-34	375	2.6	290	2.0	665	2.3
35-49	984	5.1	1,132	5.9	2,116	5.5
50-64	1,502	10.2	1,654	10.9	3,156	10.5
65-74	977	16.0	1,104	16.9	2,081	16.5
75-84	1,014	27.4	1,634	33.2	2,648	30.7
85+	542	52.3	1,074	56.1	1,616	54.8
All ages	6,072	6.8	7,355	8.0	13,427	7.4

The pattern by age was again similar in Peterborough to that of the ONS New and Growing Towns (NGT) cluster and England (Table 2.2.2, Figure 2.2.2), and patterns were similar for both sexes (Appendices 2.2.1-2). Despite the all-age percentage in Peterborough being lower than the national average, the percentages reporting long-term illness as limiting day-to-day activities a lot were higher in Peterborough in almost all age groups. The inequality comparing Peterborough with the NGT cluster was widest in men aged 85+ years (52.3% v 48.4%), and in females aged 75-84 years (33.2% v 30.0%). Data for wards are provided in Appendix 2.2.3.

Figure 2.2.1 Percentage of the population with a long-term illness which affects day-to-day activities a lot, by age group and sex, Peterborough, 2011

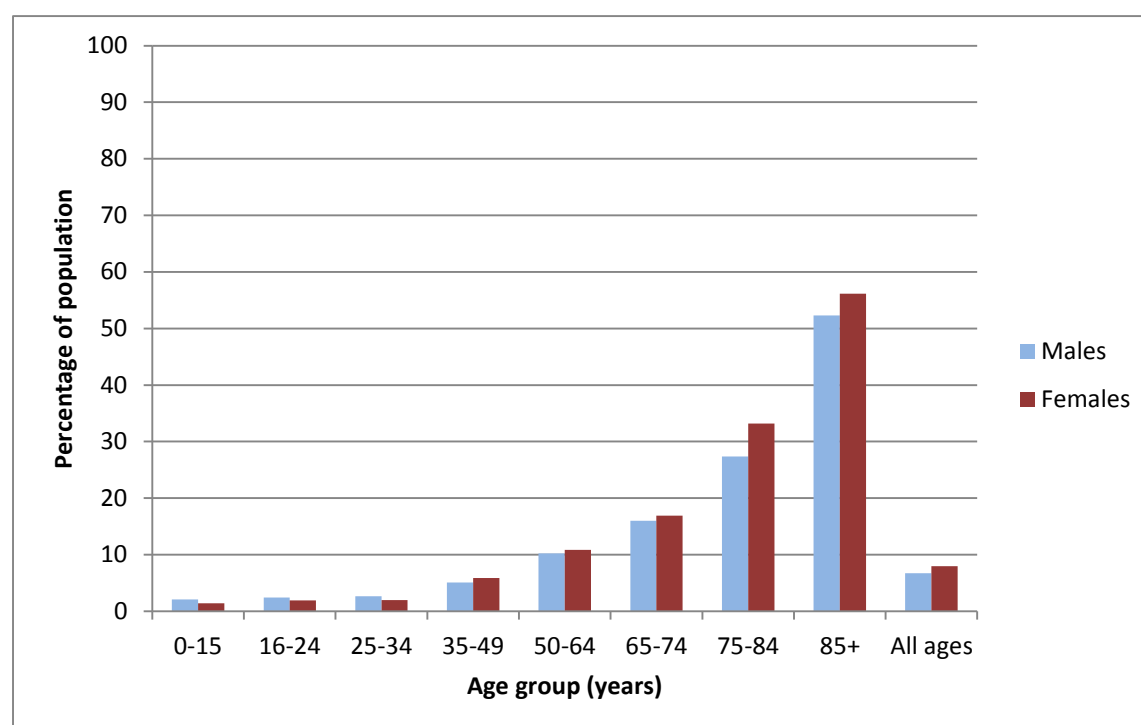
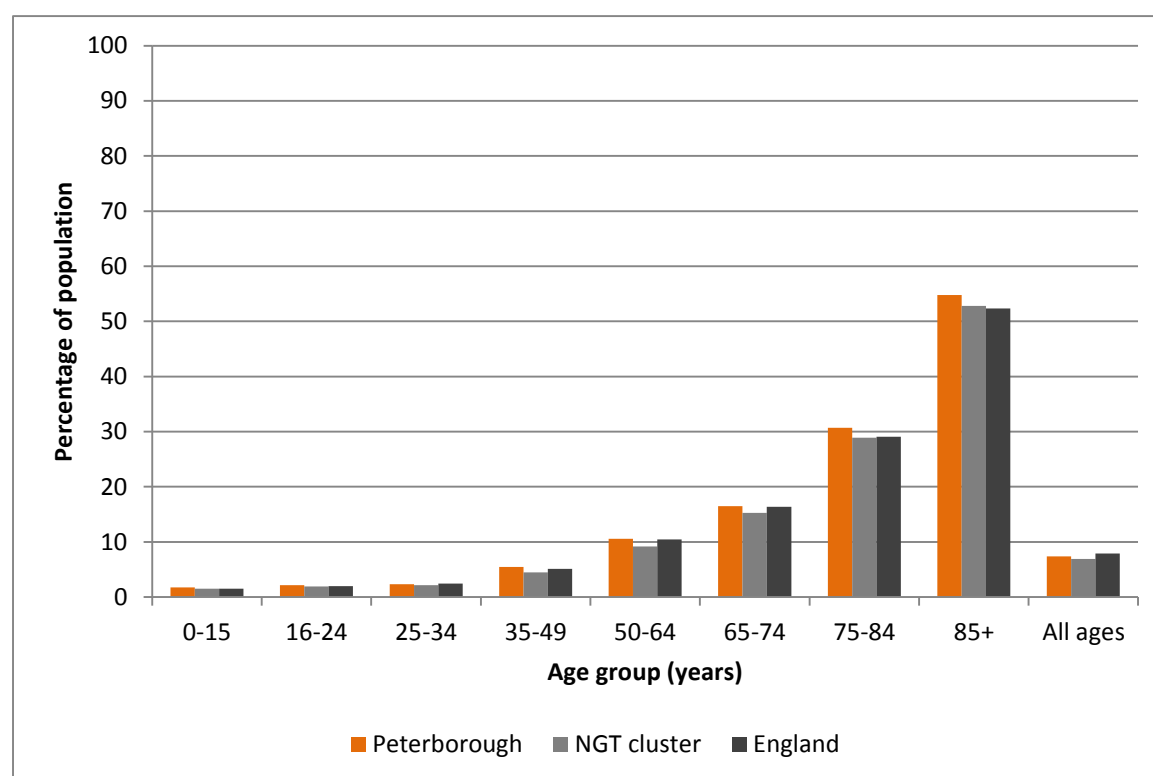


Table 2.2.2 Number of people and percentage of the population with a long-term illness which affects day-to-day activities a lot, by age group, Peterborough and comparators, 2011

Age group (years)	Peterborough		NGT cluster		England	
	Number	%	Number	%	Number	%
0-15	685	1.8	10,136	1.5	153,101	1.5
16-24	460	2.2	7,236	1.9	116,091	2.0
25-34	665	2.3	9,985	2.1	173,933	2.5
35-49	2,116	5.5	32,370	4.5	577,402	5.1
50-64	3,156	10.5	52,888	9.2	993,162	10.4
65-74	2,081	16.5	37,913	15.3	739,346	16.4
75-84	2,648	30.7	46,938	28.9	823,863	29.1
85+	1,616	54.8	29,634	52.8	521,910	52.3
All ages	13,427	7.4	227,100	6.9	4,098,808	7.9

NGT – New and growing towns

Figure 2.2.2 Percentage of the population with a long-term illness which affects day-to-day activities a lot by age group, Peterborough and comparators, 2011



NGT – New and growing towns

Age-standardised percentages

After adjusting for age, the percentage reporting long-term activity-limiting illness which limits day-to-day activities a lot was statistically significantly higher than the England average in Peterborough in females (6.8% v 6.4%) and for all persons combined (6.7% v 6.5%) but not significantly different in males (Table 2.2.3, Figure 2.2.3). The percentages for both sexes and for persons were statistically significantly higher than the NGT cluster averages (which were actually lower than the national averages).

Table 2.2.3 Directly age-standardised percentage of the population with a long-term illness which affects day-to-day activities a lot, by sex, Peterborough and comparators, 2011

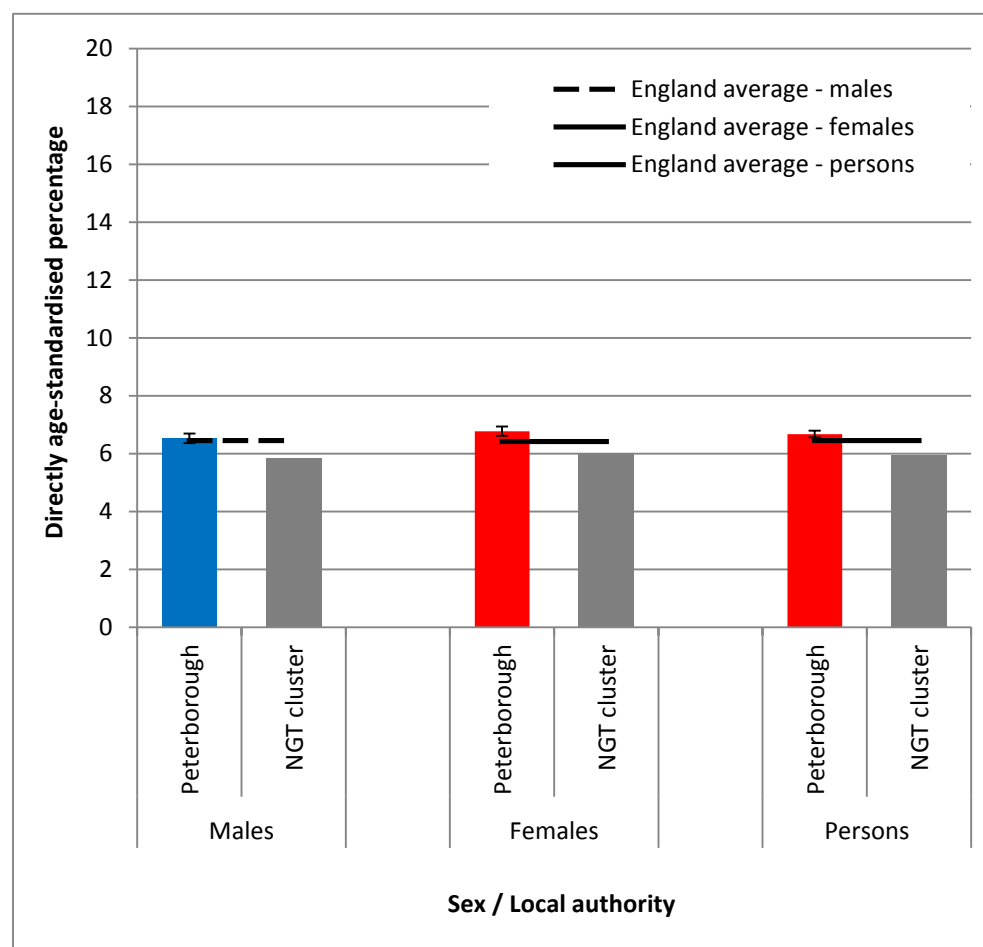
Local authority / comparator	Males		Females		Persons	
	%	95% CI	%	95% CI	%	95% CI
Peterborough	6.5	(6.4 to 6.7)	6.8	(6.6 to 6.9)	6.7	(6.6 to 6.8)
NGT cluster	5.9	(5.8 to 5.9)	6.0	(6.0 to 6.1)	6.0	(5.9 to 6.0)
England	6.5	(6.4 to 6.5)	6.4	(6.4 to 6.4)	6.5	(6.4 to 6.5)

CI – confidence interval

NGT – New and Growing Towns

Figure 2.2.3 Directly age-standardised percentage of the population with a long-term illness which affects day-to-day activities a lot, by sex, Peterborough and comparators, 2011

Note: Axis scale is set to 0-20 to maintain consistency with Figure 2.1.3 (all extents of limitation of day-to-day activities)



Error bars represent 95% confidence intervals. NGT – New and growing towns.

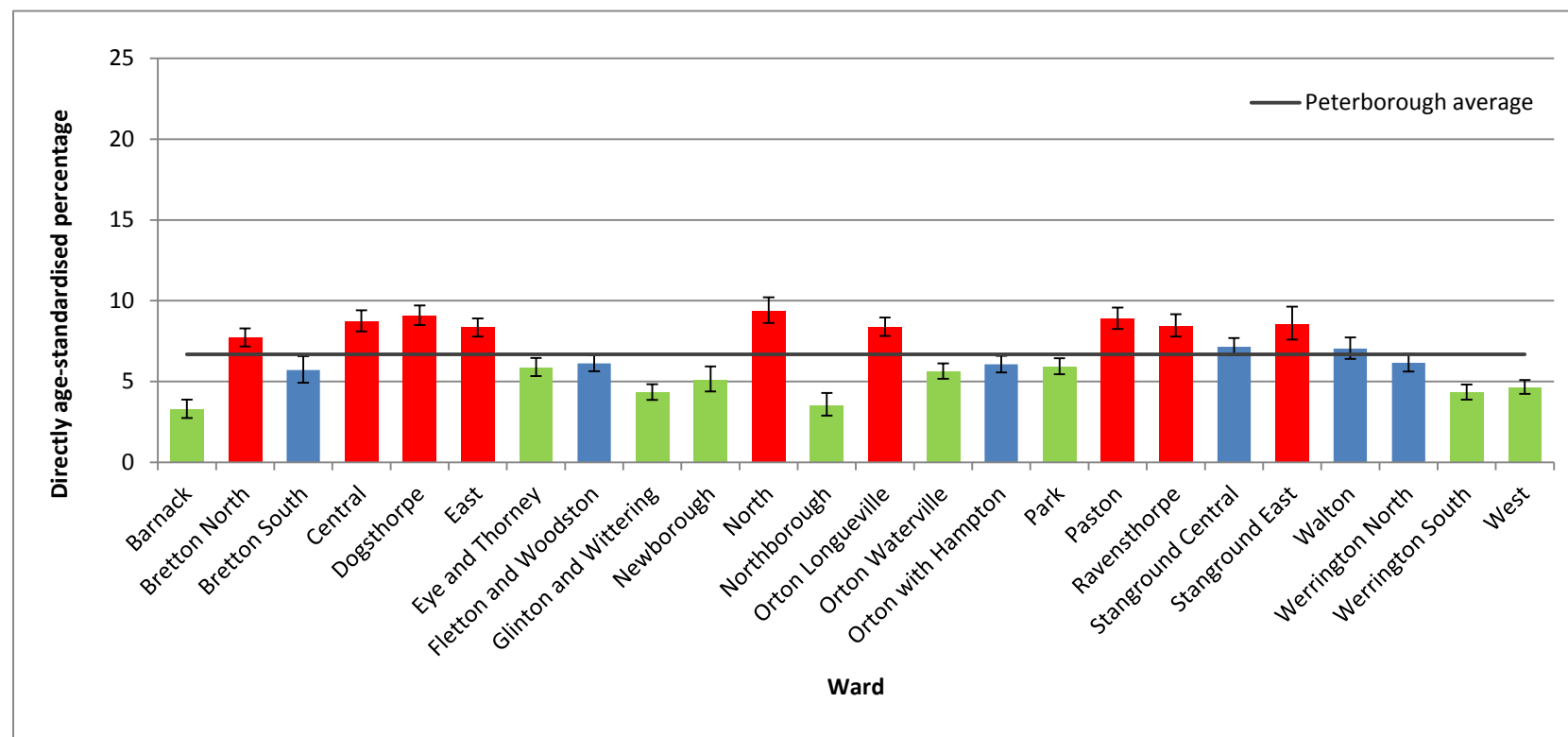
Assessment of significance is based on overlapping confidence intervals of both the local authority and England values but the England confidence intervals are not shown on the figure.

- Significantly lower than the England average
- Not significantly different to the England average
- Significantly higher than the England average
- New and growing towns cluster average

By ward, the percentage reporting a long-term health problem limiting daily activities a lot was statistically significantly higher than the Peterborough average in Bretton North, Central, Dogsthorpe, East, North, Orton Longueville, Paston, Ravensthorpe and Stanground East wards (Figure 2.2.4, Appendix 2.2.4). All of these wards, plus Stanground Central ward, were also statistically significantly higher than the England average.

Figure 2.2.4 Directly age-standardised percentage of the population with a long-term illness which limits day-to-day activities a lot, by ward, Peterborough, 2011

Note: Axis scale is set to 0-25 to maintain consistency with Figure 2.1.4 (all extents of limitation of day-to-day activities)



Error bars represent 95% confidence intervals.

Assessment of significance is based on overlapping confidence intervals of both the ward and Peterborough values but the Peterborough confidence intervals are not shown on the figure.

- Significantly lower than the Peterborough average
- Not significantly different to the Peterborough average
- Significantly higher than the Peterborough average

Source

2011 Census – Table DC3302EW. Office for National Statistics © Crown Copyright 2012

Accessed via Nomis – <http://www.nomisweb.co.uk/census/2011/dc3302ew>

Age-standardised percentages calculated by Cambridgeshire County Council Public Health Intelligence.

Further information

Data for Peterborough on themes other than health are included on the Peterborough City Council website:

http://www.peterborough.gov.uk/community_information/about_peterborough/2011_census.aspx

More detail on the 2011 Census is available on the ONS website:

<http://www.ons.gov.uk/ons/guide-method/census/2011/index.html>

For further information, please contact:

Jon Moore, Public Health Analyst

jon.moore@cambridgeshire.gov.uk

Peterborough Public Health Intelligence Team

PHI-team@peterborough.gov.uk