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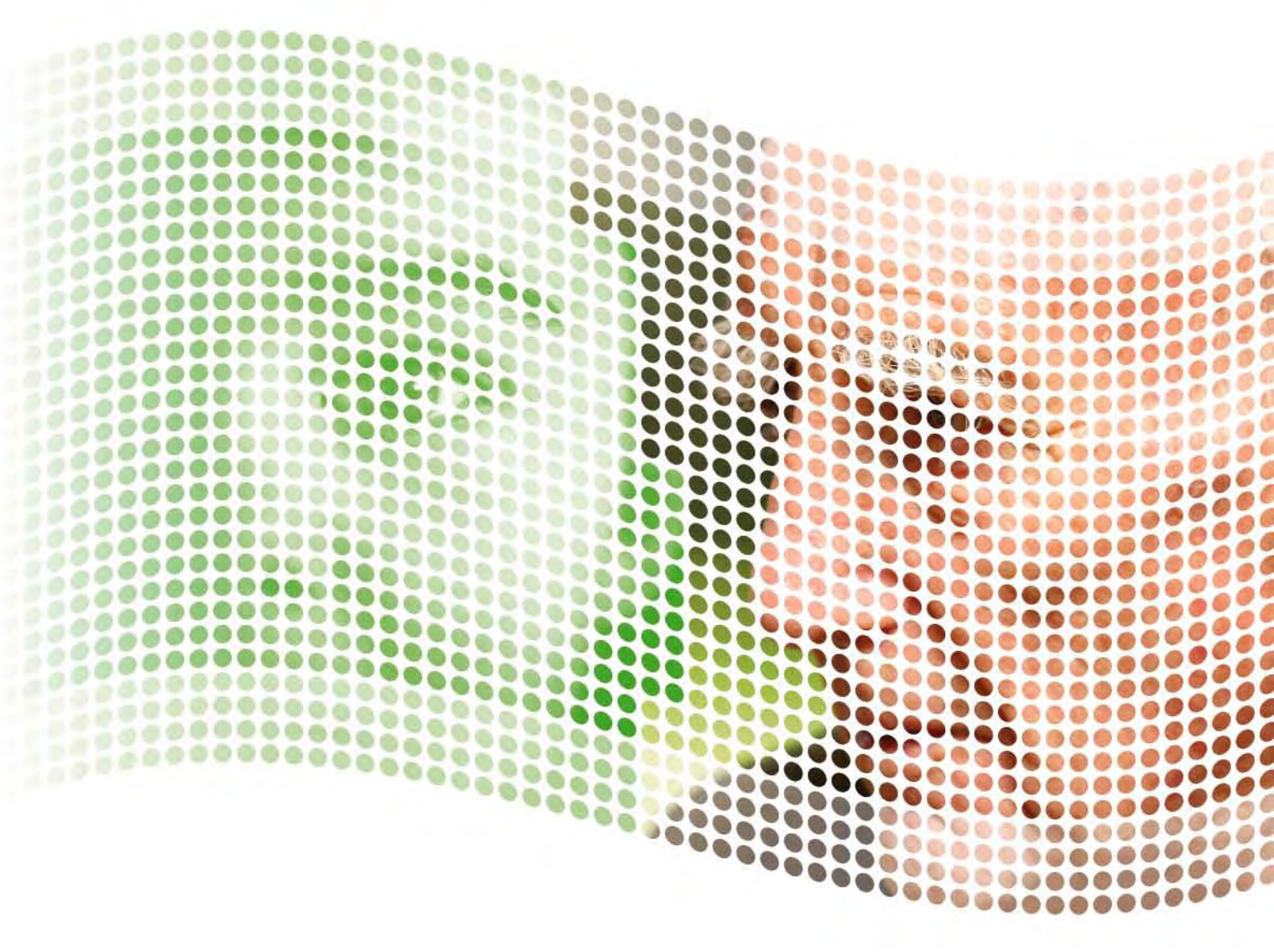
Profile of Head and Neck Cancers in England:

Incidence, Mortality and Survival



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This report has been produced by

the Oxford Cancer Intelligence Unit (OCIU) which is the lead cancer registry for head and neck cancers in collaboration with the National Cancer Intelligence Network's Head and Neck Site Specific Clinical Reference Group.

Acknowledgements:

This report was prepared by Dr Gabriele Price, Dr Monica Roche and Dr Rachel Crowther from the Oxford Cancer Intelligence Unit and Mr Richard Wight, Consultant Head and Neck Surgeon and Chair of the NCIN Head and Neck Cancers Site Specific Clinical Reference Group. This report would not have been possible without the timely and accurate contributions of data from the regional cancer registries and the Office for National Statistics.

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Foreword

This report is the first output resulting from the collaboration between the National Cancer Intelligence Network's Site Specific Clinical Reference Group for Head and Neck Cancers and the Oxford Cancer Intelligence Unit which is the lead cancer registry for head and neck cancers.

It highlights some interesting and important findings about time trends and variations in incidence, mortality and survival for the main categories of head and neck cancers. We hope you find the report useful and would welcome feedback on areas for further work.

MR RICHARD WIGHT FRCS
Consultant Head and Neck Surgeon
Chair, NCIN Head and Neck Cancers Site Specific Clinical Reference Group

DR MONICA ROCHE
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EXECUTIVE SUMMARY

Incidence

The incidence of several Head and Neck cancers has risen between 1990 and 2006:

- Oral cavity cancer incidence has risen by more than 30%; immigration from the Indian sub-continent may have contributed to this trend, since chewing of betel quid is an important risk factor. This finding supports the further development of oral cancer risk awareness programmes.
- Salivary gland cancer incidence has increased by around 37%, though the numbers remain small. The reasons for this rise are unclear, but analysis of trends in different pathological subtypes might be informative.
- Oropharyngeal cancer incidence has more than doubled – the biggest rise in any head and neck cancer. Recent research suggests a change in patterns of causation, with human papilloma virus (rather than smoking and alcohol) being the primary risk factor in a younger subpopulation.
- The incidence of palate cancer has increased by 66%. The reasons for this are unclear; further work is needed to establish whether the rise is primarily in soft palate cancer (matching the rise in oropharyngeal cancer) or hard palate cancer.
- The incidence of thyroid cancer has doubled. This may be due in part to increased detection of small papillary carcinomas through the imaging of goitres.

Laryngeal cancer has declined in incidence by 20% since 1990, but incidence has levelled off in the last five years. Laryngeal cancer is strongly associated with smoking and its falling incidence may reflect a reduction in smoking rates.

The incidence of nasopharyngeal and hypopharyngeal cancers has not changed significantly during the study period.

Incidence rates for all types of cancer (averaged over the last four years of the study period) vary significantly between the Strategic Health Authorities and Cancer Networks with the lowest and highest incidence, but the geographical pattern of distribution varies from cancer to cancer. This may reflect the distribution of different risk factors, including those that predominantly affect certain ethnic groups. A general pattern of higher incidence in the north and west of the country is common but not universal; London often has high rates too, and the highest rates of oral cancer, nasopharyngeal cancer and palate cancer are found in parts of London.

The average national incidence rates vary from 0.39 per 100,000 population for nasopharyngeal cancer (an average of 208 cases per year across England) to 3.01 for laryngeal cancer and 3.02 for oral cancer (an average of 1729 and 1767 cases per year respectively).

Mortality

Mortality from several types of Head and Neck cancer has fallen between 1990 and 2006:

- The fall in nasopharyngeal cancer mortality (against a static incidence rate) should also be interpreted with caution due to small numbers, but is likely to reflect improvements in the combined delivery of chemo-radiotherapy.
- Hypopharyngeal cancer mortality fell by almost 50%, also against a static incidence rate. The explanation for this is unclear but may reflect more aggressive surgical and non-surgical treatment, particularly at the start of the study period.
- Laryngeal cancer mortality fell by around 33%. Again the reasons are unclear; falling incidence may have played a part, but changes in stage at presentation and in treatment may also be relevant.

Other cancers show a stable mortality rate despite rising incidence:

- Oral cavity cancer mortality remains static. Further investigation of changes in stage at presentation would shed more light on this finding.
- Thyroid cancer has a stable mortality rate despite a doubling in incidence: this may partly reflect increased detection of small papillary carcinomas with a high cure rate.
- Mortality from palate cancer has also remained static.

Mortality from salivary gland cancer has not changed significantly over the study period. Because of this cancer's prolonged course, these data include patients diagnosed before the study period and do not relate directly to the rise in incidence over the same period.

Oropharyngeal cancer mortality has shown an increase, but it is less marked than the increase in the incidence rate. Greater treatment efficacy, including use of combined therapy, may explain the differences in the trends, but any changes in stage at diagnosis also need to be taken into account.

In general, mortality rates (averaged over 2002–2006) vary less across the country than incidence rates do. Cancers of the oral cavity, oropharynx, hypopharynx, larynx and thyroid show significant variation between the Strategic Health Authorities and Cancer Networks with the lowest and highest rates, but the other cancers do not. The geographical pattern is inconsistent, although several cancers have a generally higher mortality rate in the north of the country.

Mortality rates also vary between cancers, from 1.07 per 100,000 population for oral cavity cancer (an average of 667 deaths per year across England) and 1.05 for laryngeal cancer (646 deaths per year) to 0.09 per 100,000 for palate cancer (an average of 58 deaths per year).

Survival

Survival data is analysed at national level in this report. Several cancers have shown an improvement in relative survival rates during the study period:

- Oral cancer: significant improvement in both 1-year and 5-year relative survival rates. The 5-year relative survival rate for the most recently diagnosed cases is 56%.
- Salivary gland cancer: 7% increase in 1- and 5-year relative survival, which may reflect the more frequent use of post-operative radiotherapy. The 5-year relative survival rate for the most recently diagnosed cases is 69% but because the disease course is long in this cancer, 10, 15, or 25 year survival rates are better indicators of cure.
- Oropharyngeal cancer: 12% increase in one and five year relative survival. This does not yet reflect the more recent use of chemotherapy and the reduction of surgery in some units. The 5-year relative survival rate for the most recently diagnosed cases is 52%.
- Nasopharyngeal cancer: 10% increase in 1- and 5-year relative survival, reflecting improvements in chemo-radiotherapy combined delivery. The 5-year relative survival rate for the most recently diagnosed cases is 50%.
- Thyroid cancer: 10% increase in 1- and 5-year relative survival, perhaps partly due to detecting and treating a larger number of smaller cancers. The 5-year relative survival rate is 87% for the most recently diagnosed cases.
- Hypopharyngeal cancer has shown a 10% increase in 1-year relative survival, particularly over the last 6 years of the study period. The reasons for this are unclear, though it may relate to more aggressive non-surgical treatment. The 5-year relative survival rate remains poor at 26% for the most recently diagnosed cases, and a long-term survival benefit of aggressive treatment has yet to be demonstrated.

For other cancers, survival rates have changed little over the study period:

- Laryngeal cancer: One year relative survival for larynx cancer has shown a small but significant increase between the earliest and latest cohorts increasing from 82.75% to 85.33%. 5-year relative survival rates have remained unchanged over the study period, reflecting the absence of any significant new therapies during the study period. The 5-year

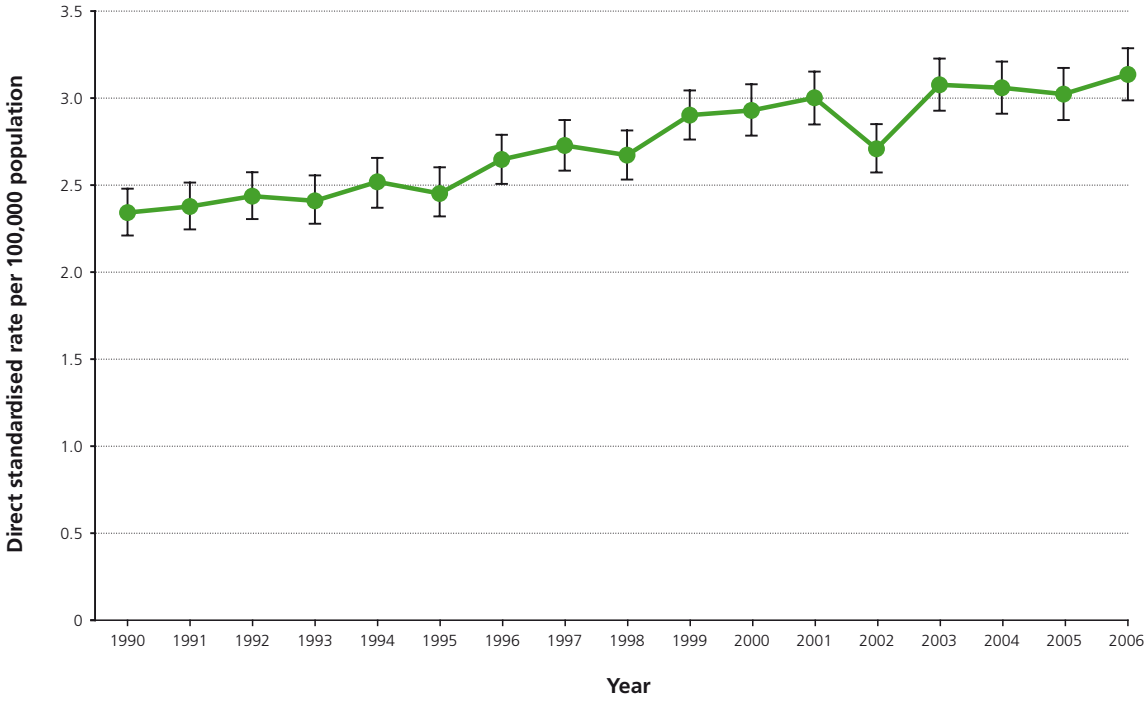
relative survival rate is 65% for the most recently diagnosed cases. Although survival has not improved, there is evidence of improved quality of life with advances such as surgical voice restoration.

- Palate cancer: 1- and 5-year relative survival is unchanged. The 5-year relative survival rate is 60% for the most recently diagnosed cases.

1. Incidence

Oral cavity cancer excluding inner part of lip and hard palate (ICD-10 C02, C03, C04 and C06)

Trends in the incidence of oral cavity cancer in England, 1990–2006



Incidence of oral cavity cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**8834**	**1766.8**	**3.02**	**2.95**	**3.08**
Q30 North East	524	104.8	3.43	3.13	3.73
Q31 North West	1316	263.2	3.33	3.15	3.52
Q32 Yorkshire and The Humber	869	173.8	2.94	2.73	3.14
Q33 East Midlands	797	159.4	3.10	2.88	3.33
Q34 West Midlands	949	189.8	3.05	2.85	3.25
Q35 East of England	854	170.8	2.48	2.31	2.65
Q36 London	1240	248.0	3.64	3.43	3.85
Q37 South East Coast	728	145.6	2.70	2.49	2.91
Q38 South Central	623	124.6	2.70	2.48	2.92
Q39 South West	934	186.8	2.79	2.60	2.98

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Incidence of oral cavity cancer by Cancer Network, 2002–2006

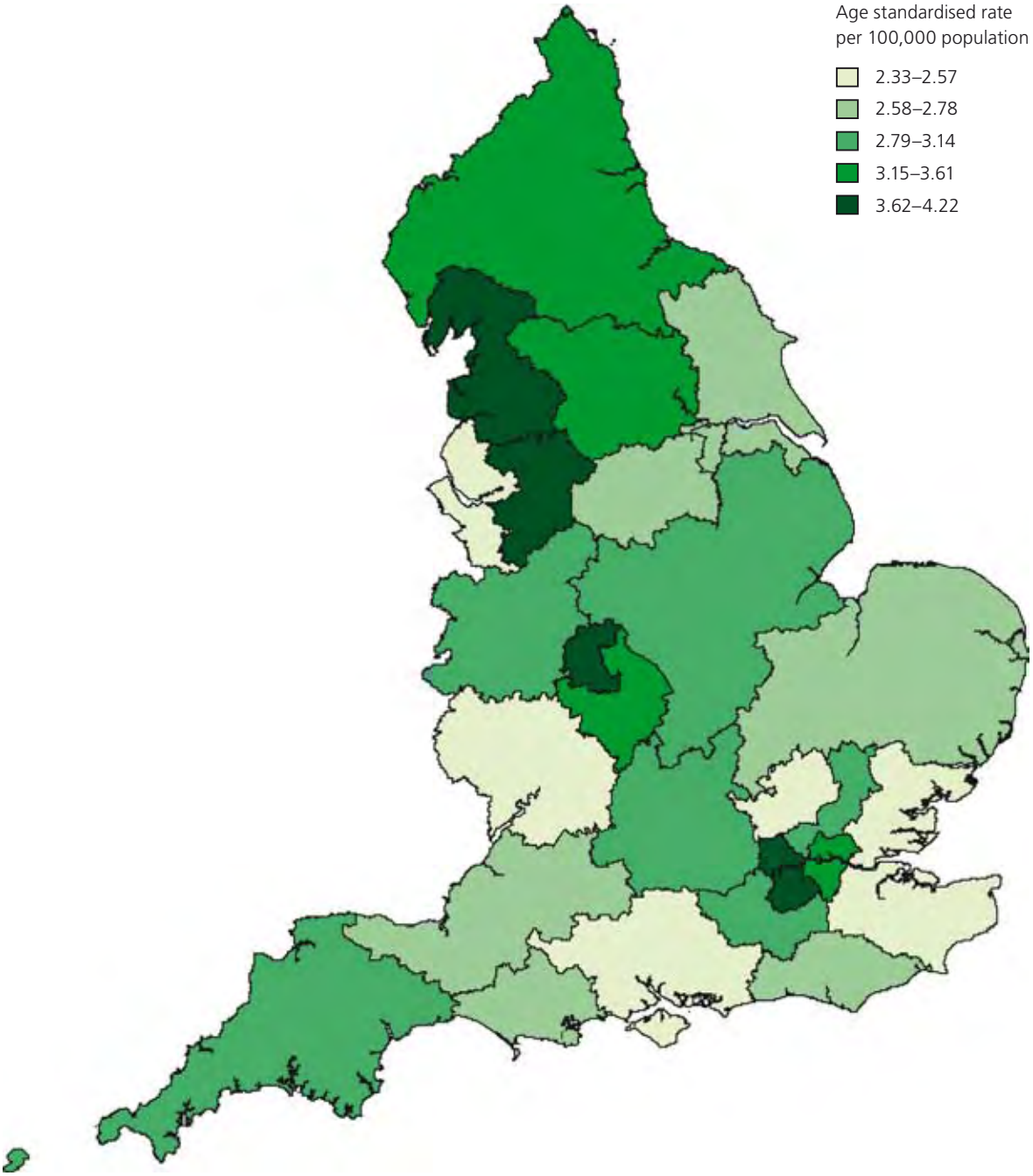
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**8834**	**1766.8**	**3.02**	**2.95**	**3.08**
N01 Lancashire and South Cumbria	332	66.4	3.62	3.22	4.03
N02 Greater Manchester and Cheshire	654	130.8	3.97	3.66	4.28
N03 Merseyside and Cheshire	276	55.2	2.33	2.04	2.61
N06 Yorkshire	492	98.4	3.33	3.02	3.63
N07 Humber and Yorkshire Coast	174	34.8	2.58	2.18	2.97
N08 North Trent	274	54.8	2.67	2.35	3.00
N11 Pan Birmingham	348	69.6	3.49	3.12	3.87
N12 Arden	180	36.0	3.15	2.68	3.62
N20 Mount Vernon	177	35.4	2.52	2.13	2.90
N21 West London	359	71.8	4.22	3.77	4.67
N22 North London	215	43.0	3.05	2.63	3.47
N23 North East London	227	45.4	3.31	2.87	3.76
N24 South East London	238	47.6	3.35	2.91	3.80
N25 South West London	279	55.8	3.62	3.19	4.06
N26 Peninsula	321	64.2	2.79	2.47	3.12
N27 Dorset	131	26.2	2.64	2.14	3.14
N28 Avon, Somerset and Wiltshire	319	63.8	2.78	2.46	3.10
N29 3 Counties	181	36.2	2.57	2.18	2.96
N30 Thames Valley	381	76.2	2.97	2.66	3.27
N31 Central South Coast	318	63.6	2.54	2.24	2.83
N32 Surrey, West Sussex and Hampshire	197	39.4	2.82	2.41	3.22
N33 Sussex	209	41.8	2.70	2.31	3.09
N34 Kent and Medway	250	50.0	2.46	2.15	2.78
N35 Greater Midlands	332	66.4	2.88	2.56	3.20
N36 North of England	600	120.0	3.31	3.03	3.58
N37 Anglia	440	88.0	2.62	2.36	2.87
N38 Essex	209	41.8	2.37	2.03	2.71
N39 East Midlands	721	144.2	3.09	2.86	3.32

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of incidence rates for patients diagnosed with oral cavity cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

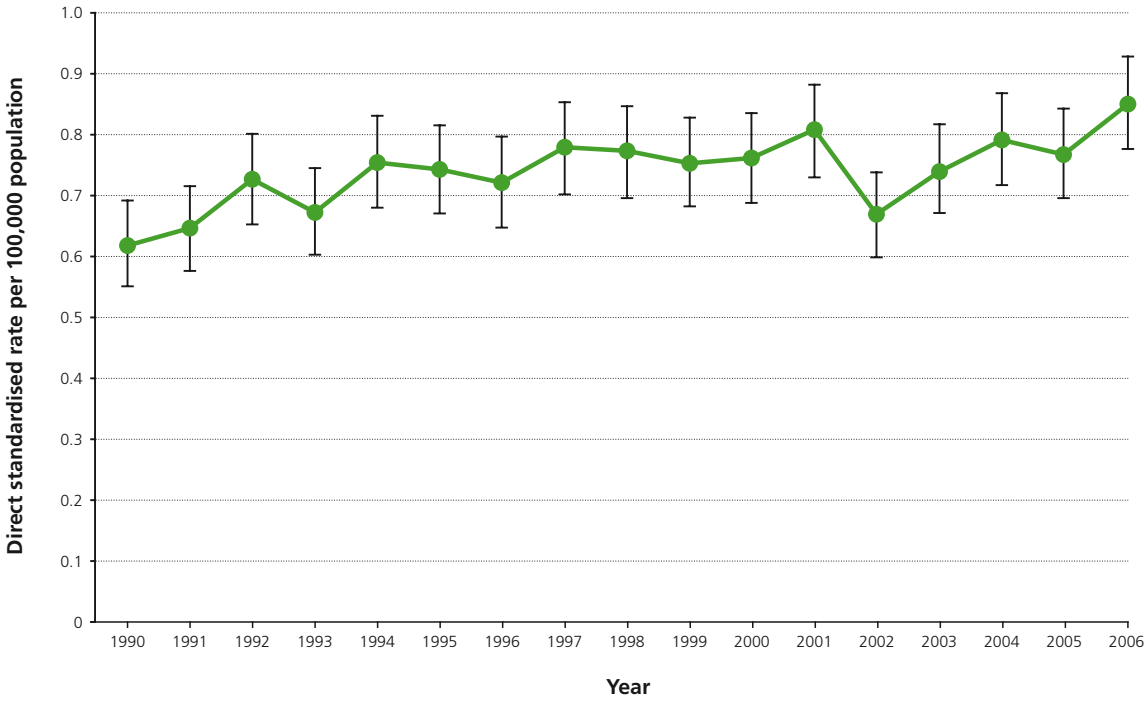


Summary

- The incidence rate of oral cavity cancer has risen by more than 30% in the study period.
- The principal risk factors are smoking and alcohol, and chewing of betel quid. The latter, by immigrants from the Indian sub-continent, may have partly contributed to the rising trend.
- These findings support the further development of oral cancer risk awareness programmes.
- Age standardised rates (per 100,000 population) vary from 4.22 in West London Cancer Network to 2.33 in Merseyside and Cheshire.

Salivary glands cancer (ICD-10 C07 and C08)

Trends in the incidence of salivary glands cancer in England, 1990–2006



Incidence of salivary glands cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**2285**	**457.0**	**0.77**	**0.73**	**0.80**
Q30 North East	129	25.8	0.84	0.69	1.00
Q31 North West	344	68.8	0.84	0.75	0.94
Q32 Yorkshire and The Humber	204	40.8	0.67	0.57	0.76
Q33 East Midlands	187	37.4	0.73	0.63	0.84
Q34 West Midlands	214	42.8	0.67	0.58	0.77
Q35 East of England	248	49.6	0.74	0.64	0.83
Q36 London	269	53.8	0.72	0.63	0.81
Q37 South East Coast	190	38.0	0.67	0.57	0.77
Q38 South Central	172	34.4	0.75	0.63	0.87
Q39 South West	328	65.4	0.97	0.86	1.08

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Incidence of salivary glands cancer by Cancer Network, 2002–2006

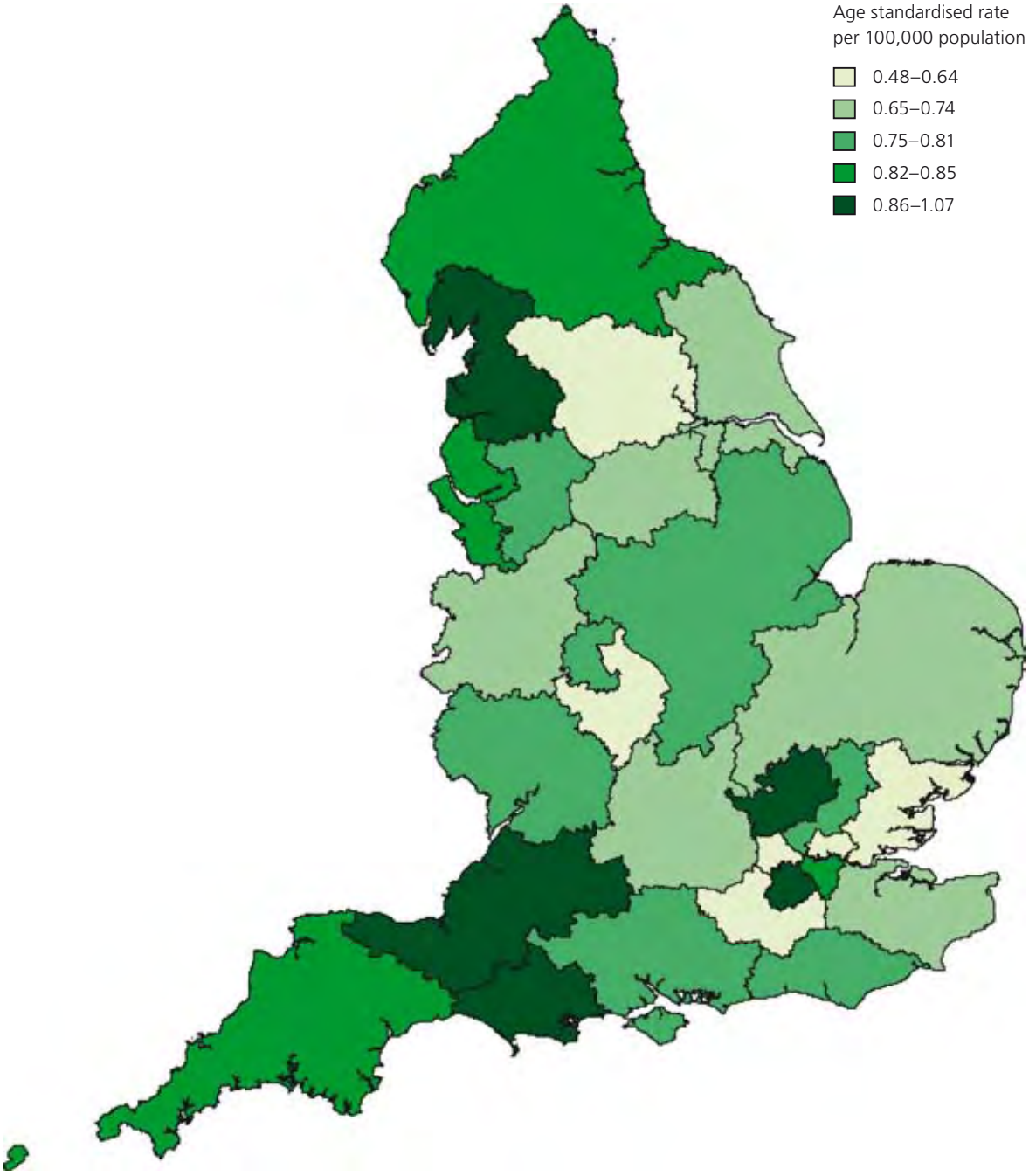
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**2285**	**457.0**	**0.77**	**0.73**	**0.80**
N01 Lancashire and South Cumbria	84	16.8	0.92	0.72	1.12
N02 Greater Manchester and Cheshire	140	28.0	0.81	0.67	0.95
N03 Merseyside and Cheshire	101	20.2	0.82	0.65	0.98
N06 Yorkshire	96	19.2	0.63	0.50	0.76
N07 Humber and Yorkshire Coast	45	9.0	0.67	0.46	0.88
N08 North Trent	78	15.6	0.72	0.55	0.88
N11 Pan Birmingham	80	16.0	0.77	0.59	0.94
N12 Arden	35	7.0	0.62	0.41	0.83
N20 Mount Vernon	58	11.6	0.86	0.63	1.08
N21 West London	58	11.6	0.62	0.45	0.78
N22 North London	60	12.0	0.79	0.59	1.00
N23 North East London	36	7.2	0.48	0.32	0.64
N24 South East London	64	12.8	0.85	0.63	1.06
N25 South West London	74	14.8	0.89	0.68	1.11
N26 Peninsula	98	19.6	0.85	0.67	1.03
N27 Dorset	55	11.0	1.02	0.72	1.31
N28 Avon, Somerset and Wiltshire	123	24.6	1.07	0.87	1.27
N29 3 Counties	51	10.2	0.75	0.54	0.97
N30 Thames Valley	86	17.2	0.69	0.54	0.83
N31 Central South Coast	105	21.0	0.81	0.64	0.97
N32 Surrey, West Sussex and Hampshire	40	8.0	0.57	0.39	0.75
N33 Sussex	66	13.2	0.81	0.60	1.02
N34 Kent and Medway	71	14.2	0.67	0.51	0.84
N35 Greater Midlands	79	15.8	0.65	0.50	0.80
N36 North of England	153	30.6	0.85	0.71	0.99
N37 Anglia	124	24.8	0.74	0.61	0.88
N38 Essex	53	10.6	0.62	0.44	0.79
N39 East Midlands	172	34.4	0.75	0.63	0.87

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of incidence rates for patients diagnosed with salivary glands cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

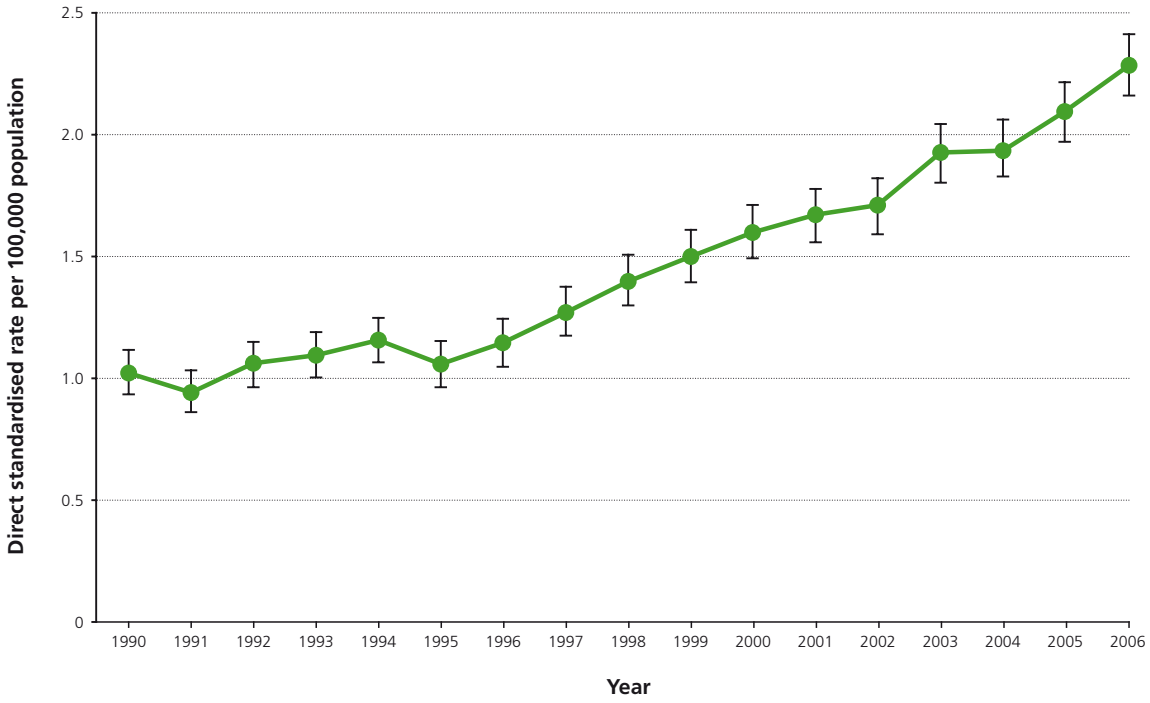


Summary

- The incidence rate of salivary gland cancer has increased by 37% in the study period, though the numbers remain small. The reasons for this increase are unclear.
- Salivary gland cancer has many different pathological types and further sub-analysis could assess if this trend is observed across all types.
- Age standardised rates (per 100,000 population) vary from 1.07 in Avon, Somerset and Wiltshire Cancer Network to 0.48 in North East London.

Oropharynx cancer excluding soft palate (ICD-10 C01, C09 and C10)

Trends in the incidence of oropharynx cancer in England, 1990–2006



Incidence of oropharynx cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**5330**	**1066**	**2.00**	**1.95**	**2.05**
Q30 North East	327	65.4	2.32	2.06	2.58
Q31 North West	895	179.0	2.42	2.25	2.58
Q32 Yorkshire and The Humber	520	104.0	1.92	1.75	2.09
Q33 East Midlands	411	82.2	1.74	1.57	1.91
Q34 West Midlands	581	116.2	2.02	1.85	2.18
Q35 East of England	546	109.2	1.81	1.66	1.97
Q36 London	718	143.6	2.27	2.10	2.43
Q37 South East Coast	419	83.8	1.75	1.58	1.92
Q38 South Central	358	71.6	1.76	1.58	1.94
Q39 South West	555	111.0	1.91	1.75	2.07

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Incidence of oropharynx cancer by Cancer Network, 2002–2006

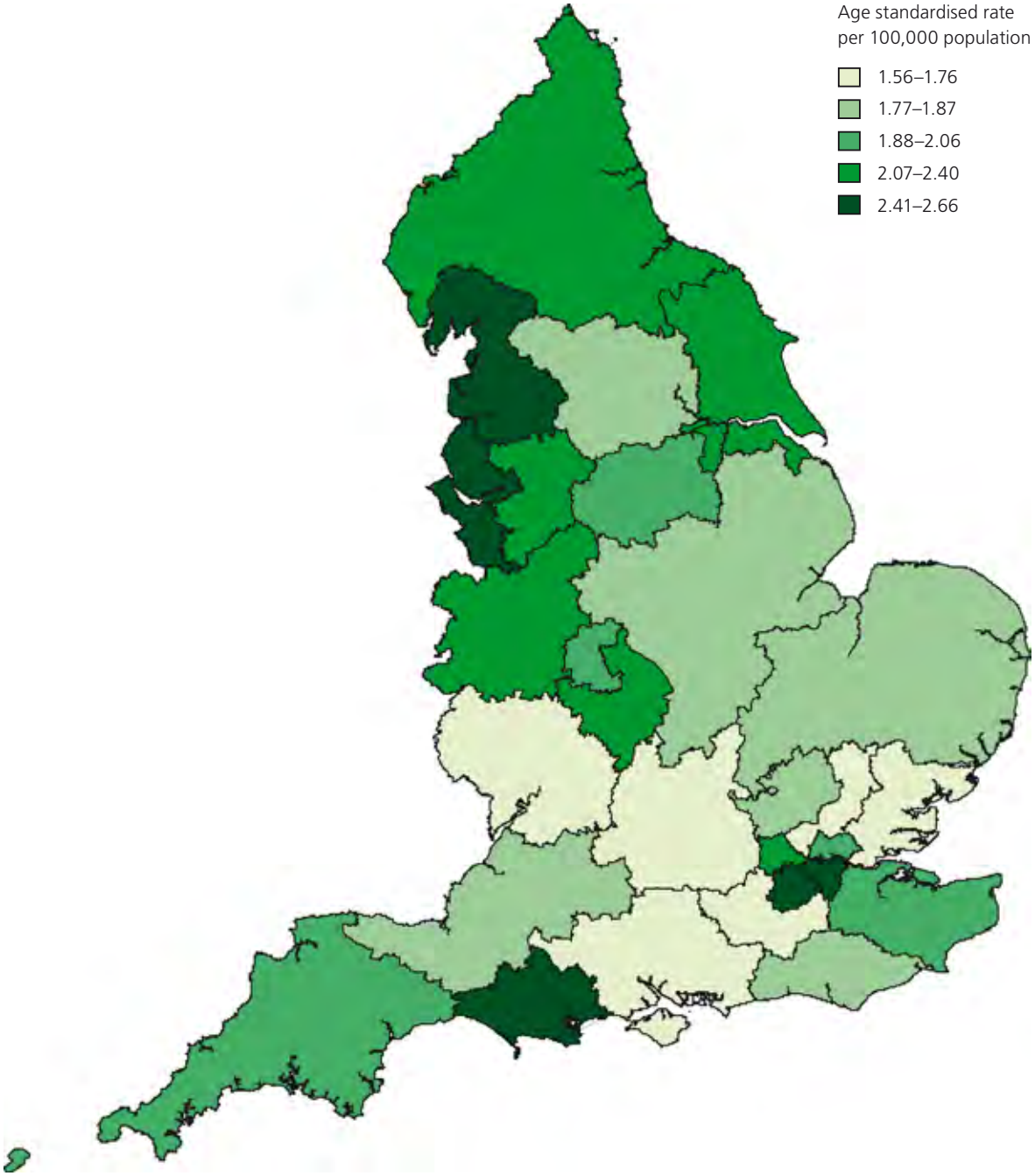
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**5330**	**1066**	**2.00**	**1.95**	**2.05**
N01 Lancashire and South Cumbria	214	42.8	2.53	2.18	2.87
N02 Greater Manchester and Cheshire	366	73.2	2.33	2.09	2.57
N03 Merseyside and Cheshire	289	57.8	2.66	2.34	2.97
N06 Yorkshire	251	50.2	1.85	1.62	2.08
N07 Humber and Yorkshire Coast	123	24.6	2.07	1.70	2.45
N08 North Trent	188	37.6	1.95	1.66	2.23
N11 Pan Birmingham	179	35.8	1.89	1.61	2.18
N12 Arden	121	24.2	2.23	1.82	2.63
N20 Mount Vernon	117	23.4	1.85	1.51	2.19
N21 West London	185	37.0	2.31	1.97	2.65
N22 North London	111	22.2	1.68	1.36	2.00
N23 North East London	129	25.8	2.06	1.70	2.42
N24 South East London	161	32.2	2.49	2.10	2.88
N25 South West London	173	34.6	2.41	2.04	2.77
N26 Peninsula	193	38.6	1.96	1.67	2.25
N27 Dorset	97	19.4	2.41	1.92	2.90
N28 Avon, Somerset and Wiltshire	188	37.6	1.82	1.55	2.09
N29 3 Counties	94	18.8	1.56	1.24	1.88
N30 Thames Valley	200	40.0	1.74	1.49	1.98
N31 Central South Coast	181	36.2	1.69	1.43	1.94
N32 Surrey, West Sussex and Hampshire	109	21.8	1.67	1.35	1.99
N33 Sussex	125	25.0	1.87	1.53	2.21
N34 Kent and Medway	168	33.6	1.88	1.59	2.16
N35 Greater Midlands	218	43.6	2.07	1.79	2.35
N36 North of England	360	72.0	2.14	1.92	2.37
N37 Anglia	280	56.0	1.87	1.65	2.10
N38 Essex	130	26.0	1.75	1.45	2.06
N39 East Midlands	380	76.0	1.77	1.59	1.96

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of incidence rates for patients diagnosed with oropharynx cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

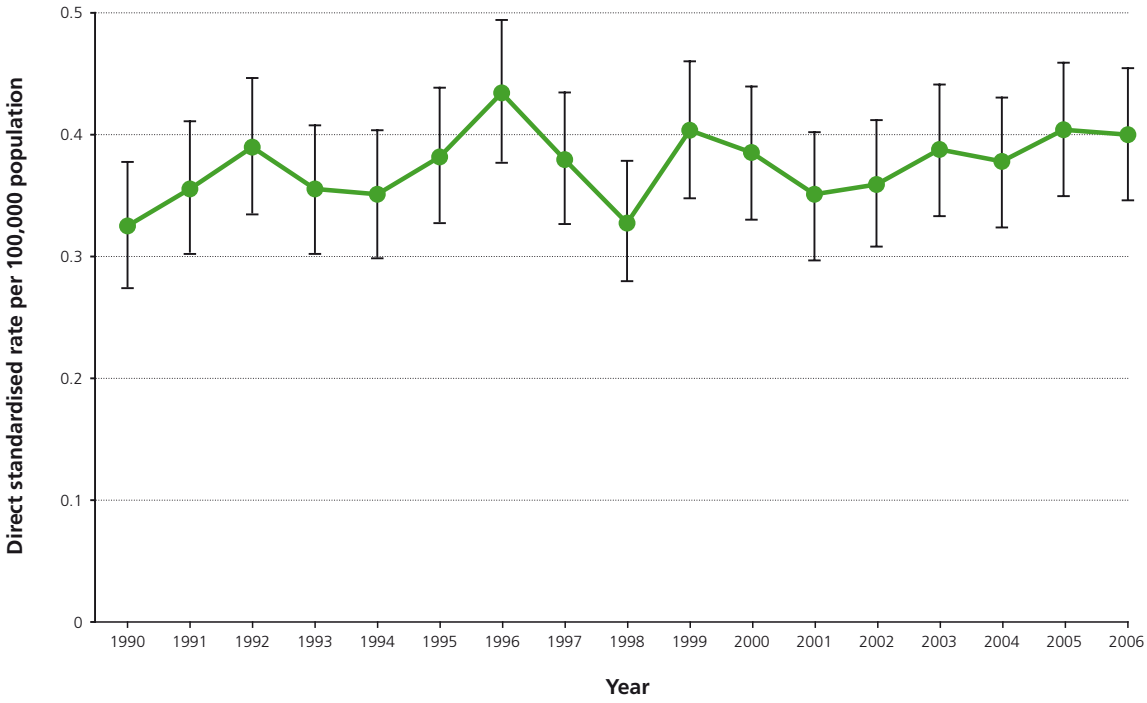


Summary

- The incidence rate of oropharynx cancer has more than doubled in the study period.
- Oropharynx shows a greater rise in incidence than any other head and neck cancer subsite.
- Recent publications suggest that the causation of oropharynx cancer may be altering with a subpopulation where human papilloma virus is the primary causative factor. This group of patients is younger and may not have the traditional, causative factors of smoking and alcohol.
- Age standardised rates (per 100,000 population) are highest in Merseyside and Cheshire Cancer Network (2.66). Lowest rates have been recorded in 3 Counties Cancer Network (1.56).

Nasopharynx cancer (ICD-10 C11)

Trends in the incidence of nasopharynx cancer in England, 1990–2006



Incidence of nasopharynx cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1039**	**207.8**	**0.39**	**0.36**	**0.41**
Q30 North East	46	9.2	0.32	0.22	0.41
Q31 North West	161	32.2	0.43	0.36	0.49
Q32 Yorkshire and The Humber	79	15.8	0.29	0.23	0.36
Q33 East Midlands	81	16.2	0.35	0.27	0.43
Q34 West Midlands	89	17.8	0.30	0.24	0.37
Q35 East of England	108	21.6	0.37	0.30	0.44
Q36 London	191	38.2	0.56	0.48	0.64
Q37 South East Coast	95	19.0	0.41	0.32	0.49
Q38 South Central	75	15.0	0.36	0.28	0.45
Q39 South West	114	22.8	0.38	0.31	0.45

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Incidence of nasopharynx cancer by Cancer Network, 2002–2006

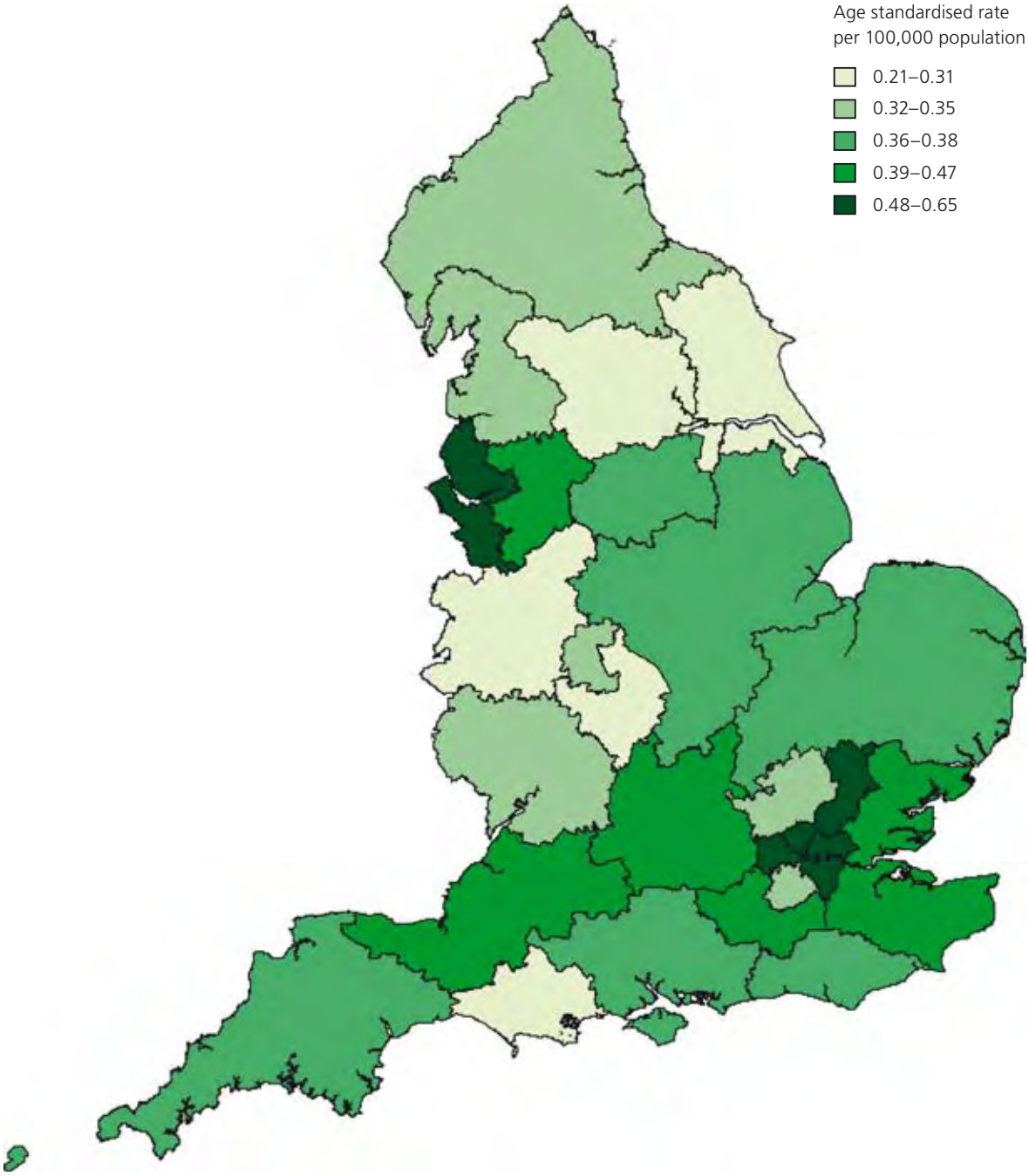
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1039**	**207.8**	**0.39**	**0.36**	**0.41**
N01 Lancashire and South Cumbria	29	5.8	0.33	0.20	0.45
N02 Greater Manchester and Cheshire	70	14.0	0.43	0.33	0.54
N03 Merseyside and Cheshire	53	10.6	0.48	0.35	0.61
N06 Yorkshire	38	7.6	0.28	0.19	0.37
N07 Humber and Yorkshire Coast	13	2.6	0.21	0.09	0.34
N08 North Trent	34	6.8	0.38	0.25	0.50
N11 Pan Birmingham	31	6.2	0.32	0.20	0.43
N12 Arden	16	3.2	0.31	0.15	0.46
N20 Mount Vernon	21	4.2	0.34	0.19	0.49
N21 West London	48	9.6	0.56	0.40	0.72
N22 North London	42	8.4	0.57	0.39	0.75
N23 North East London	39	7.8	0.57	0.39	0.75
N24 South East London	44	8.8	0.65	0.46	0.85
N25 South West London	24	4.8	0.32	0.19	0.44
N26 Peninsula	36	7.2	0.37	0.24	0.49
N27 Dorset	11	2.2	0.25	0.09	0.40
N28 Avon, Somerset and Wiltshire	47	9.4	0.42	0.29	0.54
N29 3 Counties	19	3.8	0.32	0.17	0.47
N30 Thames Valley	48	9.6	0.42	0.30	0.54
N31 Central South Coast	40	8.0	0.36	0.25	0.47
N32 Surrey, West Sussex and Hampshire	26	5.2	0.39	0.24	0.55
N33 Sussex	25	5.0	0.38	0.22	0.53
N34 Kent and Medway	37	7.4	0.42	0.28	0.56
N35 Greater Midlands	32	6.4	0.29	0.19	0.39
N36 North of England	57	11.4	0.33	0.24	0.42
N37 Anglia	52	10.4	0.36	0.26	0.46
N38 Essex	31	6.2	0.41	0.26	0.56
N39 East Midlands	76	15.2	0.36	0.28	0.44

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of incidence rates for patients diagnosed with nasopharynx cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

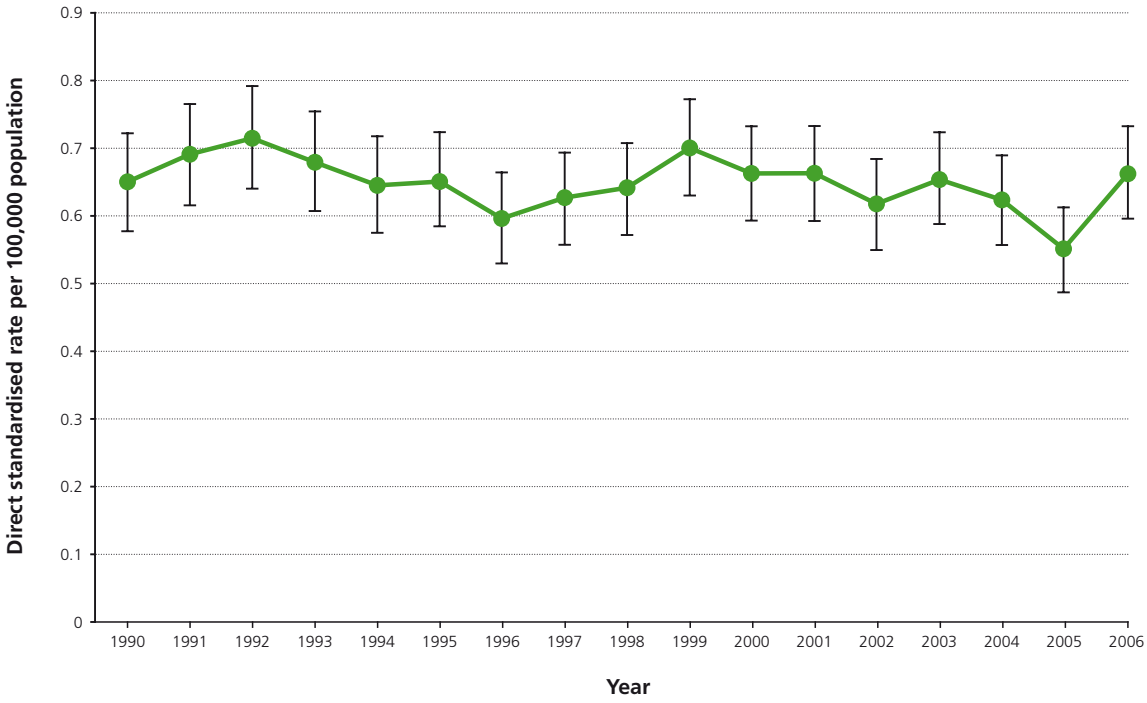


Summary

- The incidence of nasopharynx cancer has remained relatively static in the study period.
- This cancer has a recognised higher incidence in patients of South East Asian origin, and the figures would suggest no significant change in net migration and settlement.
- Age standardized rates (per 100,000 population) vary from 0.65 in South East London Cancer Network to 0.21 in Humber and Yorkshire Coast.
- There appears to be a reverse gradient from South to North, though the overall numbers are small.

Hypopharynx cancer (ICD-10 C12 and C13)

Trends in the incidence of hypopharynx cancer in England, 1990–2006



Incidence of hypopharynx cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1808**	**361.6**	**0.63**	**0.60**	**0.66**
Q30 North East	144	28.8	0.94	0.78	1.10
Q31 North West	338	67.6	0.87	0.78	0.97
Q32 Yorkshire and The Humber	228	45.6	0.79	0.68	0.89
Q33 East Midlands	143	28.6	0.54	0.45	0.64
Q34 West Midlands	221	44.2	0.70	0.60	0.79
Q35 East of England	152	30.4	0.43	0.36	0.50
Q36 London	196	39.2	0.61	0.53	0.70
Q37 South East Coast	130	26.0	0.50	0.41	0.59
Q38 South Central	114	22.8	0.51	0.42	0.61
Q39 South West	142	28.4	0.41	0.34	0.48

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Incidence of hypopharynx cancer by Cancer Network, 2002–2006

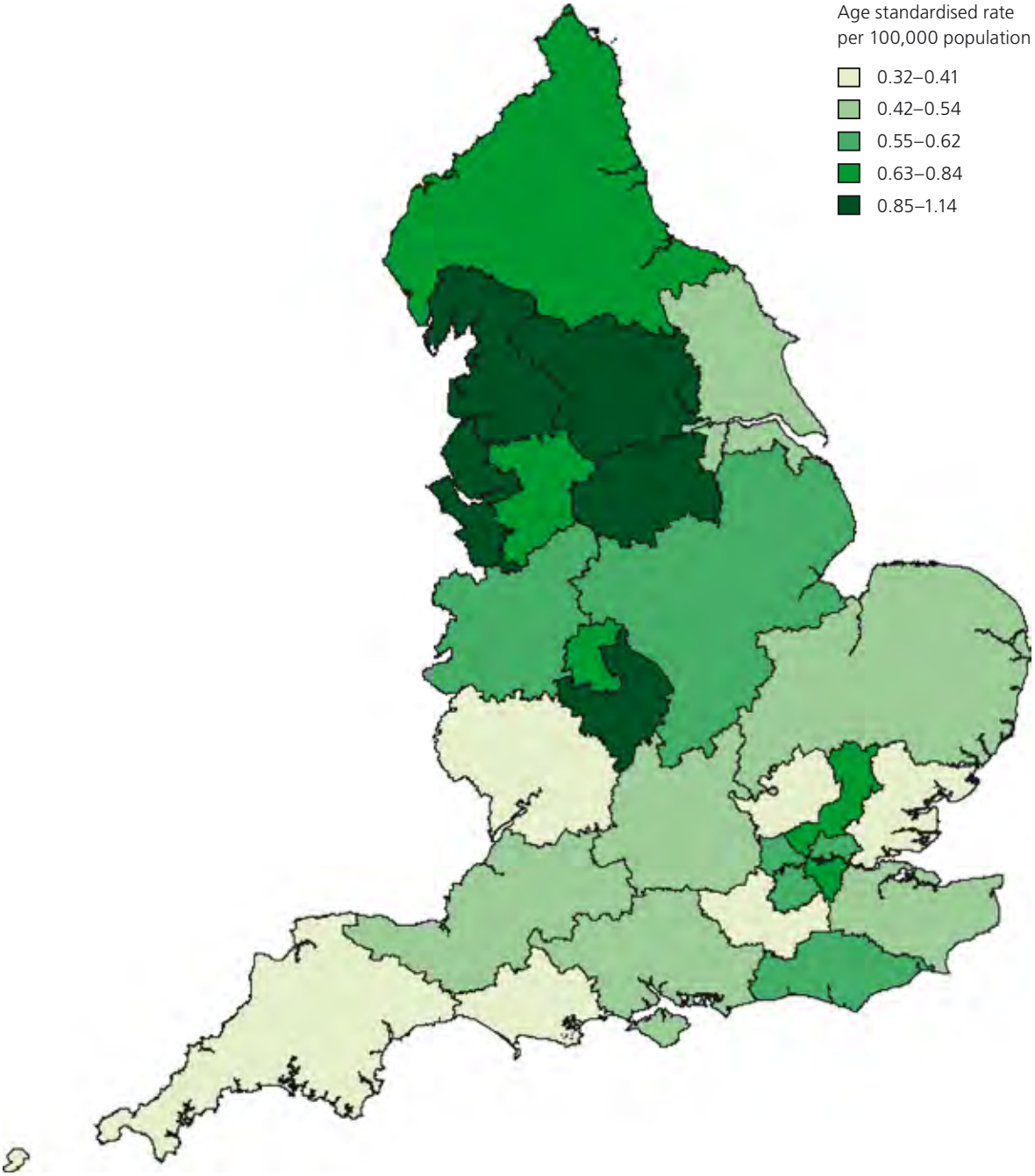
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1808**	**361.6**	**0.63**	**0.60**	**0.66**
N01 Lancashire and South Cumbria	76	15.2	0.85	0.65	1.05
N02 Greater Manchester and Cheshire	127	25.4	0.77	0.63	0.90
N03 Merseyside and Cheshire	128	25.6	1.14	0.94	1.34
N06 Yorkshire	118	23.6	0.85	0.69	1.00
N07 Humber and Yorkshire Coast	28	5.6	0.42	0.26	0.58
N08 North Trent	101	20.2	0.93	0.74	1.12
N11 Pan Birmingham	87	17.4	0.83	0.65	1.01
N12 Arden	50	10.0	0.87	0.62	1.11
N20 Mount Vernon	24	4.8	0.34	0.20	0.48
N21 West London	48	9.6	0.61	0.44	0.79
N22 North London	44	8.8	0.63	0.44	0.83
N23 North East London	37	7.4	0.56	0.37	0.74
N24 South East London	46	9.2	0.71	0.50	0.92
N25 South West London	43	8.6	0.57	0.39	0.74
N26 Peninsula	47	9.4	0.39	0.28	0.51
N27 Dorset	16	3.2	0.32	0.15	0.49
N28 Avon, Somerset and Wiltshire	57	11.4	0.47	0.34	0.60
N29 3 Counties	26	5.2	0.37	0.22	0.51
N30 Thames Valley	64	12.8	0.53	0.40	0.66
N31 Central South Coast	60	12.0	0.49	0.36	0.62
N32 Surrey, West Sussex and Hampshire	27	5.4	0.40	0.24	0.55
N33 Sussex	43	8.6	0.56	0.39	0.74
N34 Kent and Medway	47	9.4	0.49	0.35	0.64
N35 Greater Midlands	65	13.0	0.56	0.42	0.70
N36 North of England	153	30.6	0.84	0.70	0.97
N37 Anglia	80	16.0	0.48	0.37	0.59
N38 Essex	37	7.4	0.39	0.26	0.52
N39 East Midlands	129	25.8	0.55	0.45	0.65

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of incidence rates for patients diagnosed with hypopharynx cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

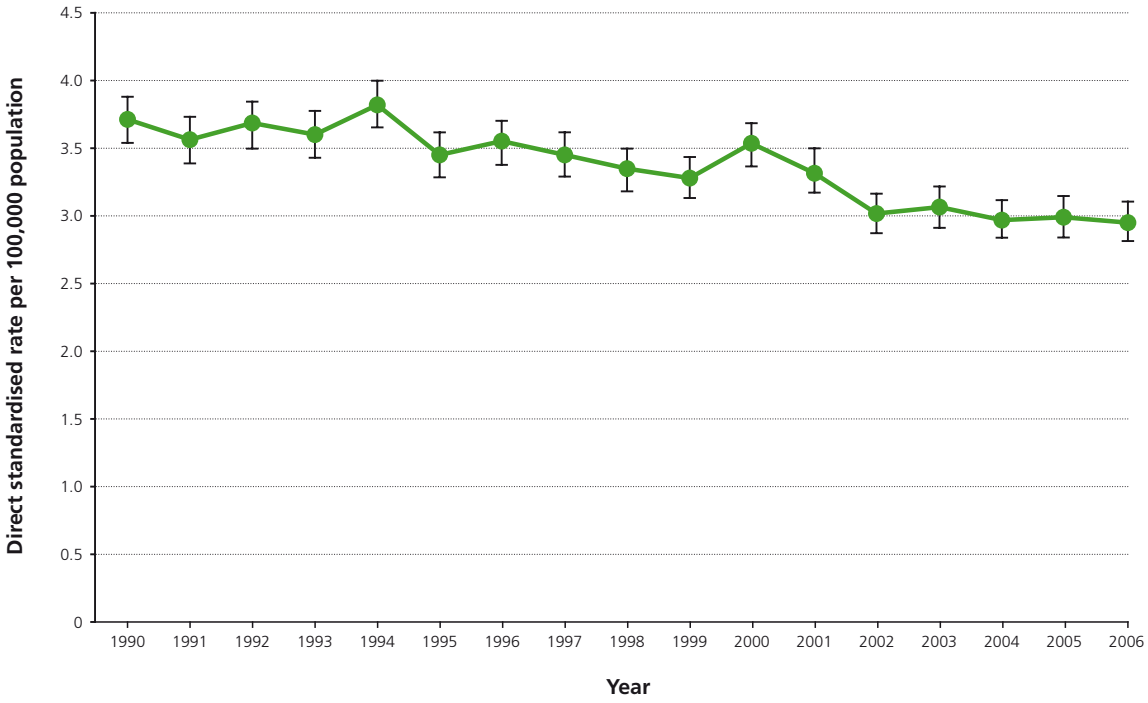


Summary

- The incidence of hypopharynx cancer has remained static in the study period.
- Age standardised rates (per 100,000 population) are considerably higher in Merseyside and Cheshire (1.14) compared to all other Cancer Networks. This suggests a geographic variation, though it would be of interest to compare this with adjacent populations in North Wales.
- Age standardised rates (per 100,000 population) are lowest in Dorset (0.32).

Larynx cancer (ICD-10 C32)

Trends in the incidence of larynx cancer in England, 1990–2006



Incidence of larynx cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**8645**	**1729**	**3.01**	**2.94**	**3.07**
Q30 North East	674	134.8	4.39	4.05	4.73
Q31 North West	1560	312.0	3.96	3.76	4.16
Q32 Yorkshire and The Humber	1004	200.8	3.46	3.24	3.68
Q33 East Midlands	708	141.6	2.78	2.57	2.99
Q34 West Midlands	901	180.2	2.91	2.72	3.10
Q35 East of England	806	161.2	2.40	2.23	2.57
Q36 London	1057	211.4	3.26	3.06	3.46
Q37 South East Coast	595	119.0	2.21	2.03	2.39
Q38 South Central	531	106.2	2.41	2.20	2.62
Q39 South West	809	161.8	2.44	2.27	2.62

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Incidence of larynx cancer by Cancer Network, 2002–2006

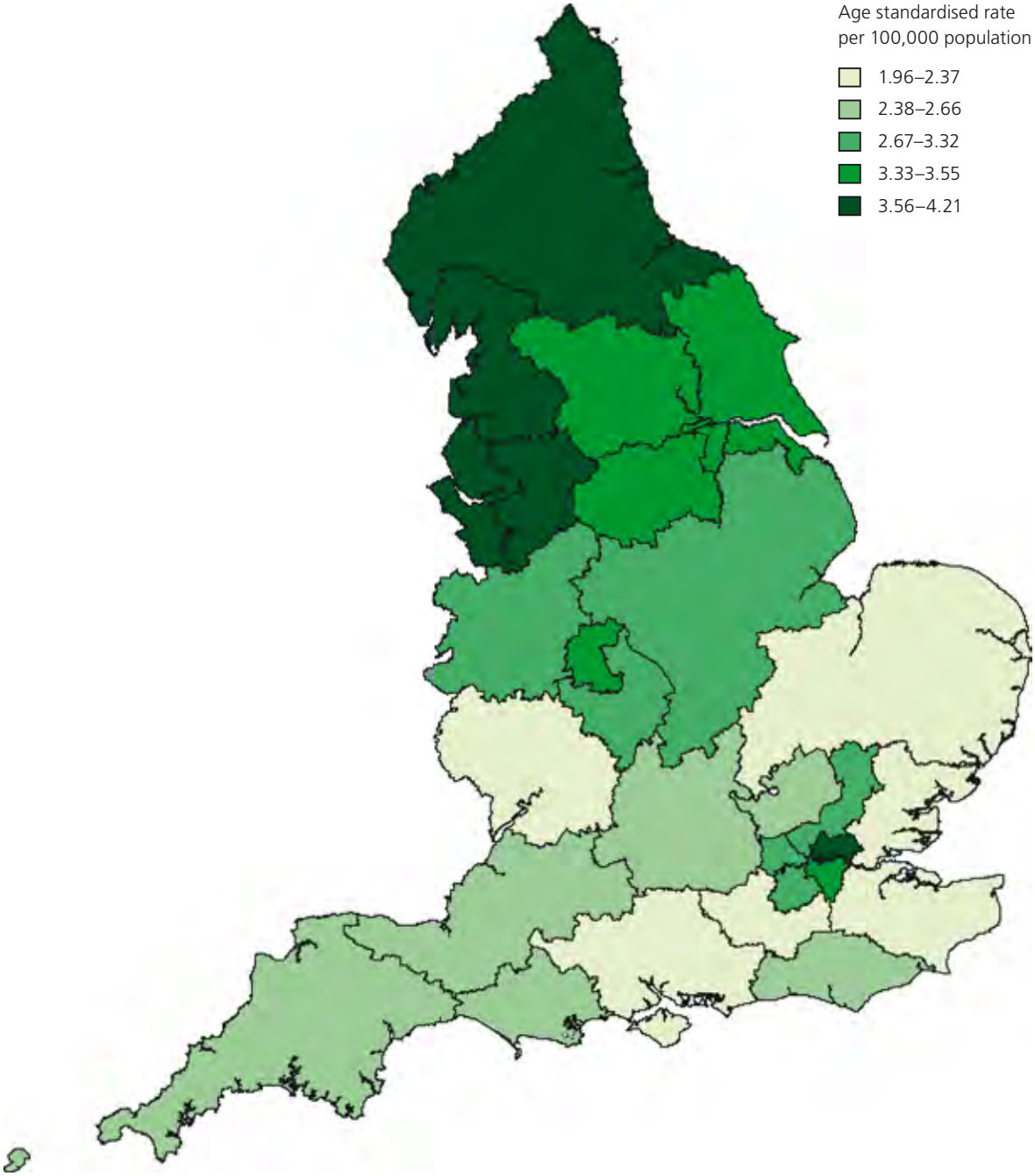
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**8645**	**1729**	**3.01**	**2.94**	**3.07**
N01 Lancashire and South Cumbria	340	68.0	3.77	3.36	4.18
N02 Greater Manchester and Cheshire	695	139.0	4.21	3.89	4.53
N03 Merseyside and Cheshire	457	91.4	3.87	3.51	4.24
N06 Yorkshire	490	98.0	3.45	3.14	3.76
N07 Humber and Yorkshire Coast	226	45.2	3.41	2.96	3.87
N08 North Trent	351	70.2	3.33	2.97	3.68
N11 Pan Birmingham	348	69.6	3.54	3.16	3.92
N12 Arden	152	30.4	2.67	2.24	3.10
N20 Mount Vernon	174	34.8	2.61	2.21	3.01
N21 West London	236	47.2	2.87	2.50	3.24
N22 North London	195	39.0	2.84	2.43	3.24
N23 North East London	230	46.0	3.56	3.10	4.03
N24 South East London	235	47.0	3.53	3.07	3.99
N25 South West London	228	45.6	3.12	2.71	3.53
N26 Peninsula	272	54.4	2.43	2.13	2.73
N27 Dorset	135	27.0	2.66	2.18	3.14
N28 Avon, Somerset and Wiltshire	281	56.2	2.48	2.18	2.78
N29 3 Counties	135	27.0	1.96	1.62	2.30
N30 Thames Valley	291	58.2	2.38	2.10	2.66
N31 Central South Coast	275	55.0	2.31	2.02	2.59
N32 Surrey, West Sussex and Hampshire	155	31.0	2.18	1.83	2.53
N33 Sussex	192	38.4	2.43	2.06	2.79
N34 Kent and Medway	230	46.0	2.36	2.04	2.67
N35 Greater Midlands	325	65.0	2.79	2.48	3.10
N36 North of England	768	153.6	4.20	3.90	4.51
N37 Anglia	395	79.0	2.35	2.11	2.59
N38 Essex	199	39.8	2.34	2.01	2.68
N39 East Midlands CN	635	127	2.76	2.54	2.98

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of incidence rates for patients diagnosed with larynx cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

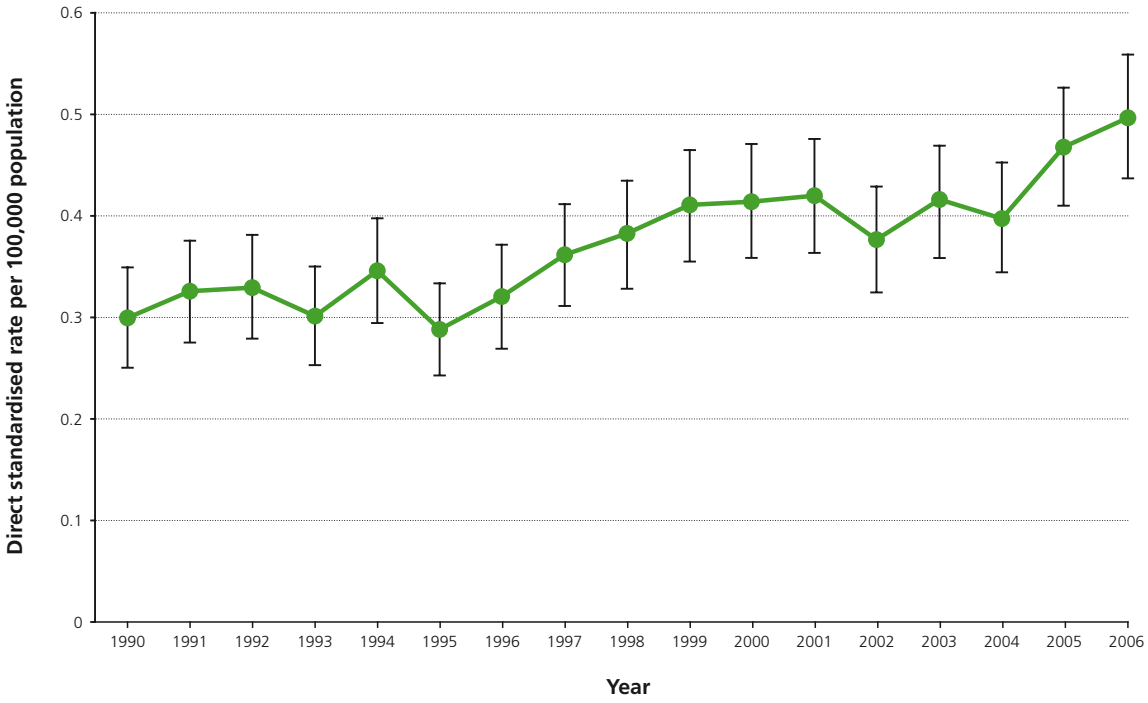


Summary

- The incidence of larynx cancer has fallen by 20% in the study period, but has levelled off in the last five years.
- As larynx cancer is strongly associated with smoking, part of this reduction may reflect changes in smoking habits. Other factors such as changes in the industrial landscape and decline in heavy industry could also have contributed.
- Age standardised rates (per 100,000 population) are highest in Greater Manchester and Cheshire at 4.21 and lowest in the 3 Counties at 1.96.
- There is a falling trend from North to South East.

Palate cancer (ICD-10 C05)

Trends in the incidence of palate cancer in England, 1990–2006



Incidence of palate cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1241**	**248.2**	**0.43**	**0.41**	**0.46**
Q30 North East	83	16.6	0.57	0.44	0.69
Q31 North West	231	46.2	0.58	0.50	0.66
Q32 Yorkshire and The Humber	113	22.6	0.39	0.32	0.46
Q33 East Midlands	84	16.8	0.33	0.26	0.40
Q34 West Midlands	126	25.2	0.42	0.34	0.49
Q35 East of England	107	21.4	0.32	0.25	0.38
Q36 London	160	32.0	0.46	0.39	0.54
Q37 South East Coast	96	19.2	0.38	0.30	0.46
Q38 South Central	95	19.0	0.42	0.34	0.51
Q39 South West	146	29.2	0.45	0.38	0.53

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Incidence of palate cancer by Cancer Network, 2002–2006

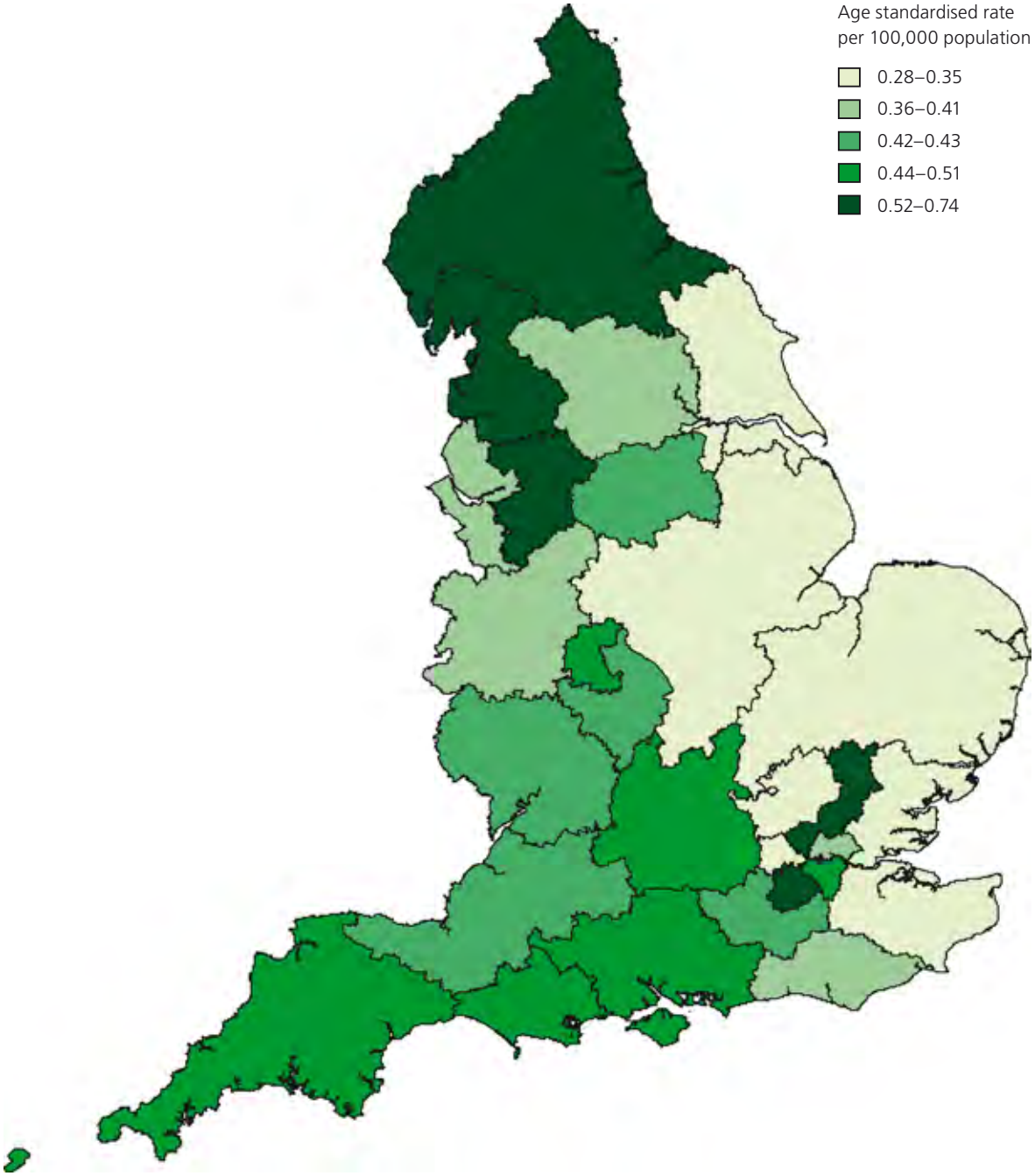
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1241**	**248.2**	**0.43**	**0.41**	**0.46**
N01 Lancashire and South Cumbria	51	10.2	0.60	0.43	0.77
N02 Greater Manchester and Cheshire	126	25.2	0.74	0.60	0.87
N03 Merseyside and Cheshire	47	9.4	0.38	0.27	0.50
N06 Yorkshire	58	11.6	0.40	0.30	0.51
N07 Humber and Yorkshire Coast	20	4.0	0.28	0.15	0.41
N08 North Trent	43	8.6	0.43	0.30	0.56
N11 Pan Birmingham	50	10.0	0.51	0.36	0.66
N12 Arden	23	4.6	0.42	0.24	0.59
N20 Mount Vernon	24	4.8	0.35	0.21	0.50
N21 West London	27	5.4	0.32	0.19	0.44
N22 North London	42	8.4	0.58	0.40	0.77
N23 North East London	26	5.2	0.36	0.22	0.50
N24 South East London	34	6.8	0.47	0.30	0.63
N25 South West London	44	8.8	0.58	0.41	0.76
N26 Peninsula	50	10.0	0.44	0.31	0.57
N27 Dorset	21	4.2	0.47	0.26	0.69
N28 Avon, Somerset and Wiltshire	46	9.2	0.42	0.29	0.54
N29 3 Counties	28	5.6	0.42	0.26	0.59
N30 Thames Valley	59	11.8	0.45	0.33	0.57
N31 Central South Coast	48	9.6	0.44	0.31	0.56
N32 Surrey, West Sussex and Hampshire	28	5.6	0.42	0.26	0.58
N33 Sussex	30	6.0	0.41	0.26	0.57
N34 Kent and Medway	27	5.4	0.28	0.17	0.39
N35 Greater Midlands	42	8.4	0.38	0.26	0.49
N36 North of England	90	18.0	0.52	0.41	0.63
N37 Anglia	48	9.6	0.30	0.21	0.39
N38 Essex	31	6.2	0.35	0.22	0.48
N39 East Midlands CN	78	15.6	0.34	0.26	0.41

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of incidence rates for patients diagnosed with palate cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

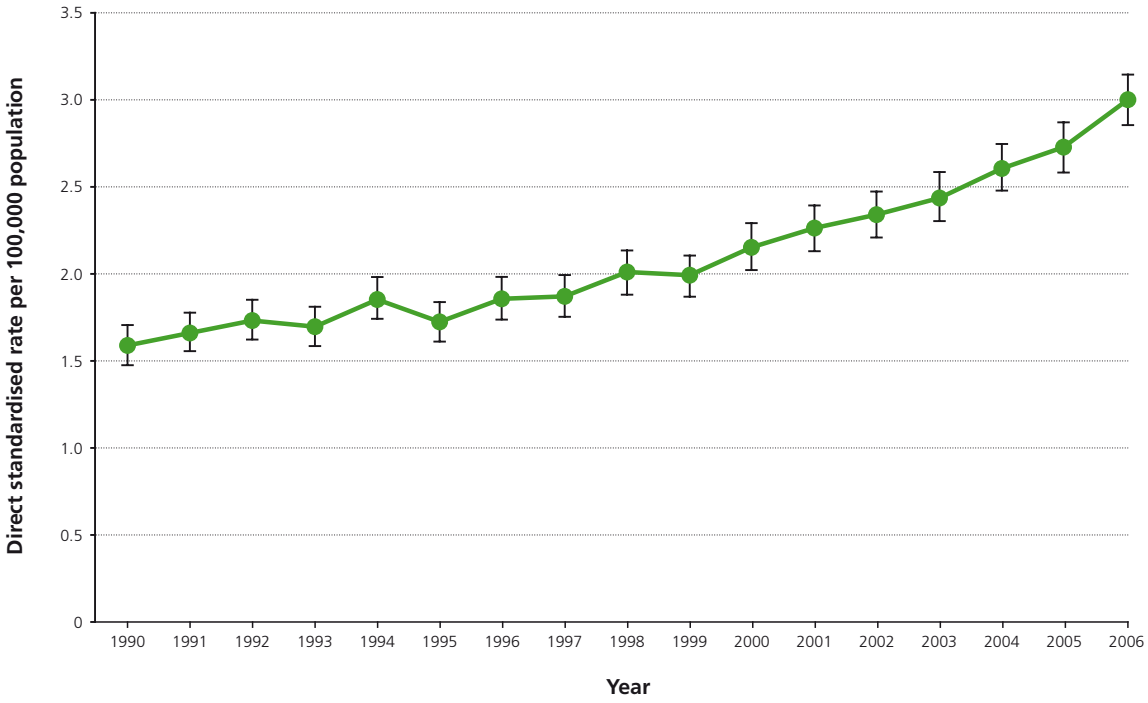


Summary

- The incidence of palate cancer has increased by 66% in the study period.
- Reasons for this are unclear and further work is needed to see if this reflects a rise in cancers of the soft (matching oropharynx cancer) or hard palate.
- Age standardised rates (per 100,000 population) vary from 0.74 in Greater Manchester and Cheshire Cancer Network to 0.28 in Kent and Medway. Greater Manchester and Cheshire Cancer Network has the greatest total number of cases.
- The trends and variations should be interpreted with caution due to small numbers.

Thyroid gland cancer (ICD-10 C73)

Trends in the incidence of thyroid gland cancer in England, 1990–2006



Incidence of thyroid gland cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**7301**	**1460.2**	**2.63**	**2.57**	**2.69**
Q30 North East	397	79.4	2.82	2.53	3.10
Q31 North West	943	188.6	2.50	2.34	2.67
Q32 Yorkshire and The Humber	747	149.4	2.69	2.49	2.88
Q33 East Midlands	616	123.2	2.60	2.49	2.88
Q34 West Midlands	807	161.4	2.78	2.58	2.98
Q35 East of England	827	165.4	2.69	2.50	2.88
Q36 London	1068	213.6	2.72	2.55	2.89
Q37 South East Coast	523	104.6	2.18	1.99	2.38
Q38 South Central	610	122.0	2.83	2.60	3.06
Q39 South West	763	152.4	2.59	2.40	2.78

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Incidence of thyroid gland cancer by Cancer Network, 2002–2006

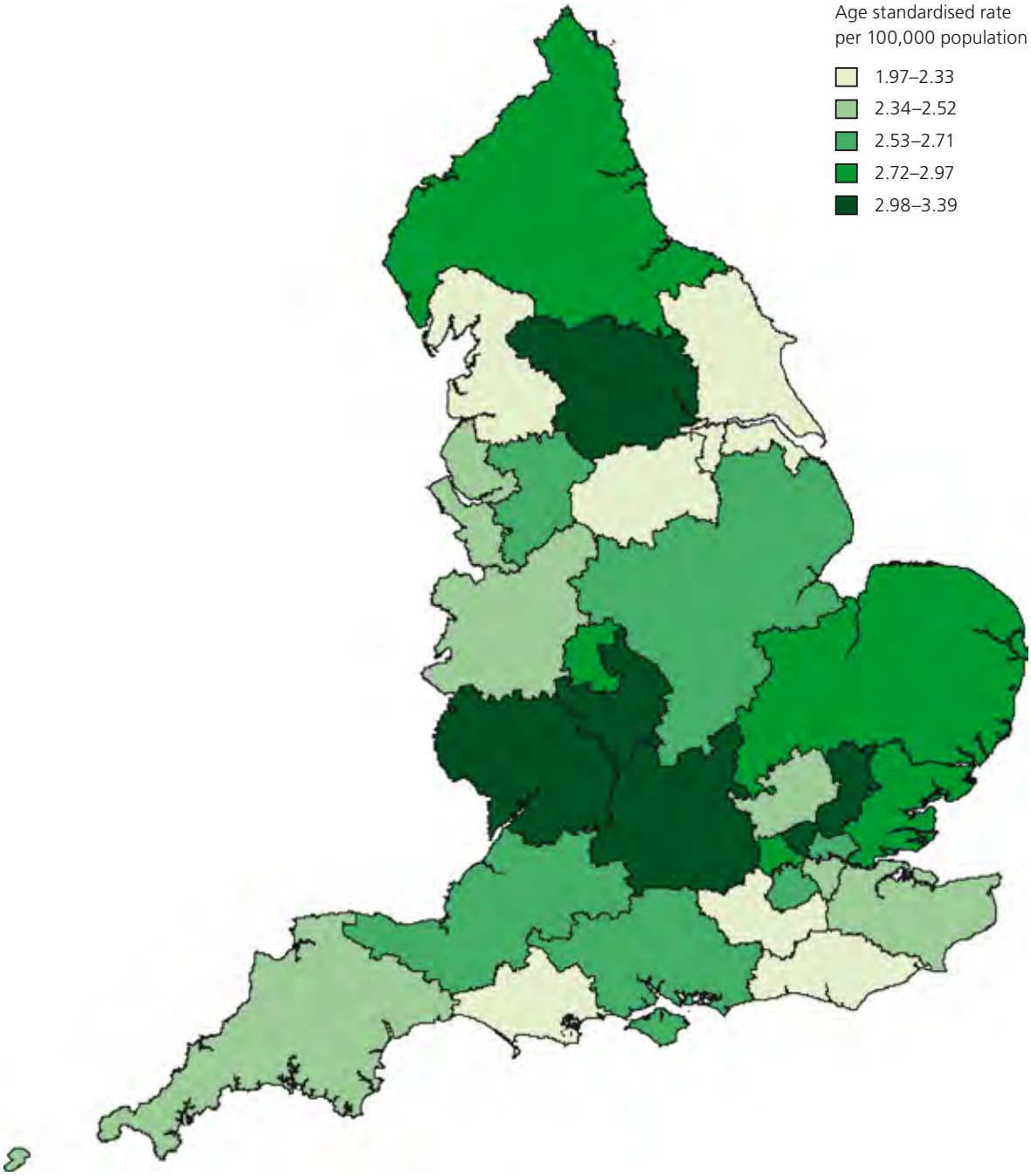
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**7301**	**1460.2**	**2.63**	**2.57**	**2.69**
N01 Lancashire and South Cumbria	179	35.8	2.19	1.86	2.52
N02 Greater Manchester and Cheshire	412	82.4	2.54	2.29	2.79
N03 Merseyside and Cheshire	283	56.6	2.50	2.20	2.80
N06 Yorkshire	455	91.0	3.24	2.93	3.54
N07 Humber and Yorkshire Coast	131	26.2	2.17	1.78	2.56
N08 North Trent	204	40.8	2.06	1.76	2.35
N11 Pan Birmingham	281	56.2	2.84	2.50	3.18
N12 Arden	180	36.0	3.39	2.88	3.89
N20 Mount Vernon	167	33.4	2.50	2.12	2.89
N21 West London	284	56.8	2.91	2.57	3.26
N22 North London	236	47.2	2.98	2.59	3.37
N23 North East London	201	40.2	2.57	2.20	2.93
N24 South East London	200	40.0	2.40	2.06	2.75
N25 South West London	213	42.6	2.53	2.18	2.88
N26 Peninsula	240	48.0	2.46	2.13	2.79
N27 Dorset	97	19.4	2.09	1.63	2.54
N28 Avon, Somerset and Wiltshire	286	57.2	2.70	2.38	3.03
N29 3 Counties	167	33.4	3.02	2.55	3.49
N30 Thames Valley	384	76.8	3.11	2.79	3.42
N31 Central South Coast	284	56.8	2.56	2.25	2.87
N32 Surrey, West Sussex and Hampshire	138	27.6	2.06	1.71	2.42
N33 Sussex	136	27.2	1.97	1.62	2.33
N34 Kent and Medway	206	41.2	2.34	2.01	2.67
N35 Greater Midlands	262	52.4	2.45	2.14	2.76
N36 North of England	482	96.4	2.88	2.61	3.14
N37 Anglia	411	82.2	2.78	2.51	3.06
N38 Essex	212	42.4	2.72	2.34	3.10
N39 East Midlands CN	570	114.0	2.64	2.42	2.86

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of incidence rates for patients diagnosed with thyroid gland cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.



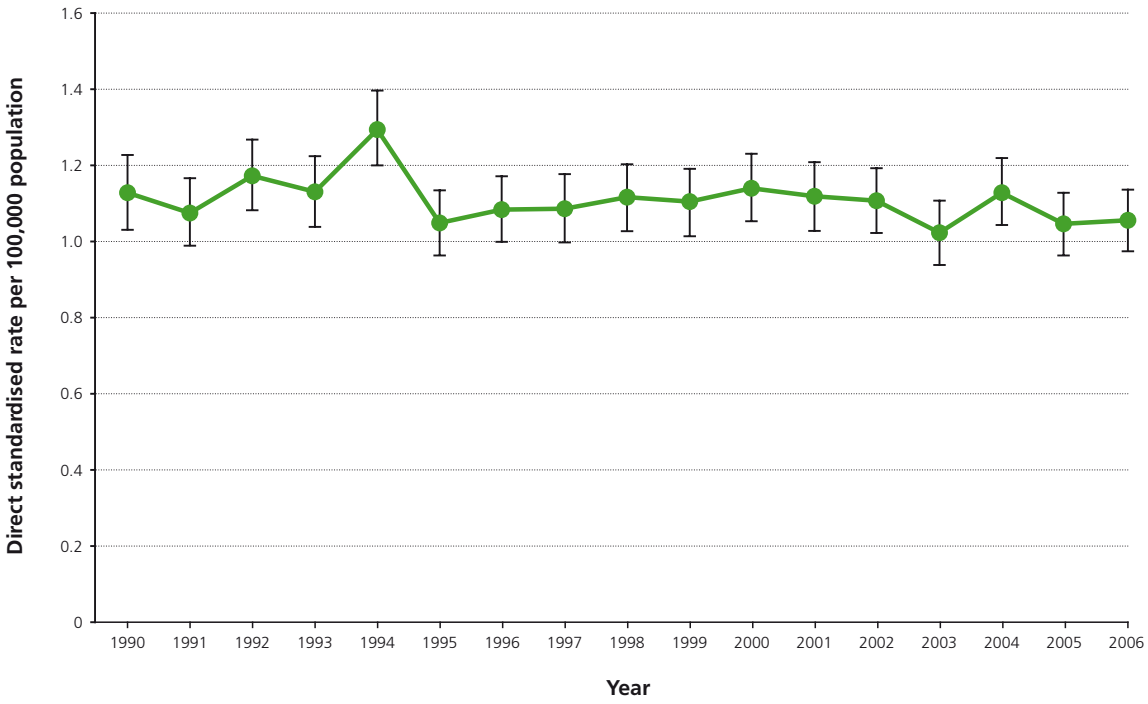
Summary

- The incidence of thyroid cancer has nearly doubled in the study period.
- This may in part be due to imaging of goitres and subsequent surgery leading to an increase in the number of small papillary carcinomas being detected.
- East Midland and North of England, the largest Cancer Networks, have as expected the greatest total number of cases.
- Age standardised rates (per 100,000 population) vary from 3.39 in Arden to 1.97 in Sussex.

2. Mortality

Oral cavity excluding inner part of lip and hard palate (ICD-10 C02, C03, C04 and C06)

Trends in the mortality of oral cavity cancer in England, 1990–2006



Mortality of oral cavity cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**3335**	**667.0**	**1.07**	**1.03**	**1.11**
Q30 North East	221	44.2	1.40	1.21	1.59
Q31 North West	567	113.4	1.36	1.24	1.47
Q32 Yorkshire and The Humber	320	64.0	0.99	0.88	1.11
Q33 East Midlands	267	53.4	0.97	0.85	1.10
Q34 West Midlands	330	66.0	0.98	0.87	1.10
Q35 East of England	363	72.6	0.98	0.88	1.09
Q36 London	424	84.8	1.21	1.09	1.33
Q37 South East Coast	279	55.8	0.95	0.83	1.07
Q38 South Central	219	43.8	0.88	0.76	1.01
Q39 South West	345	69.0	0.97	0.86	1.08

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Mortality of oral cavity cancer by Cancer Network, 2002–2006

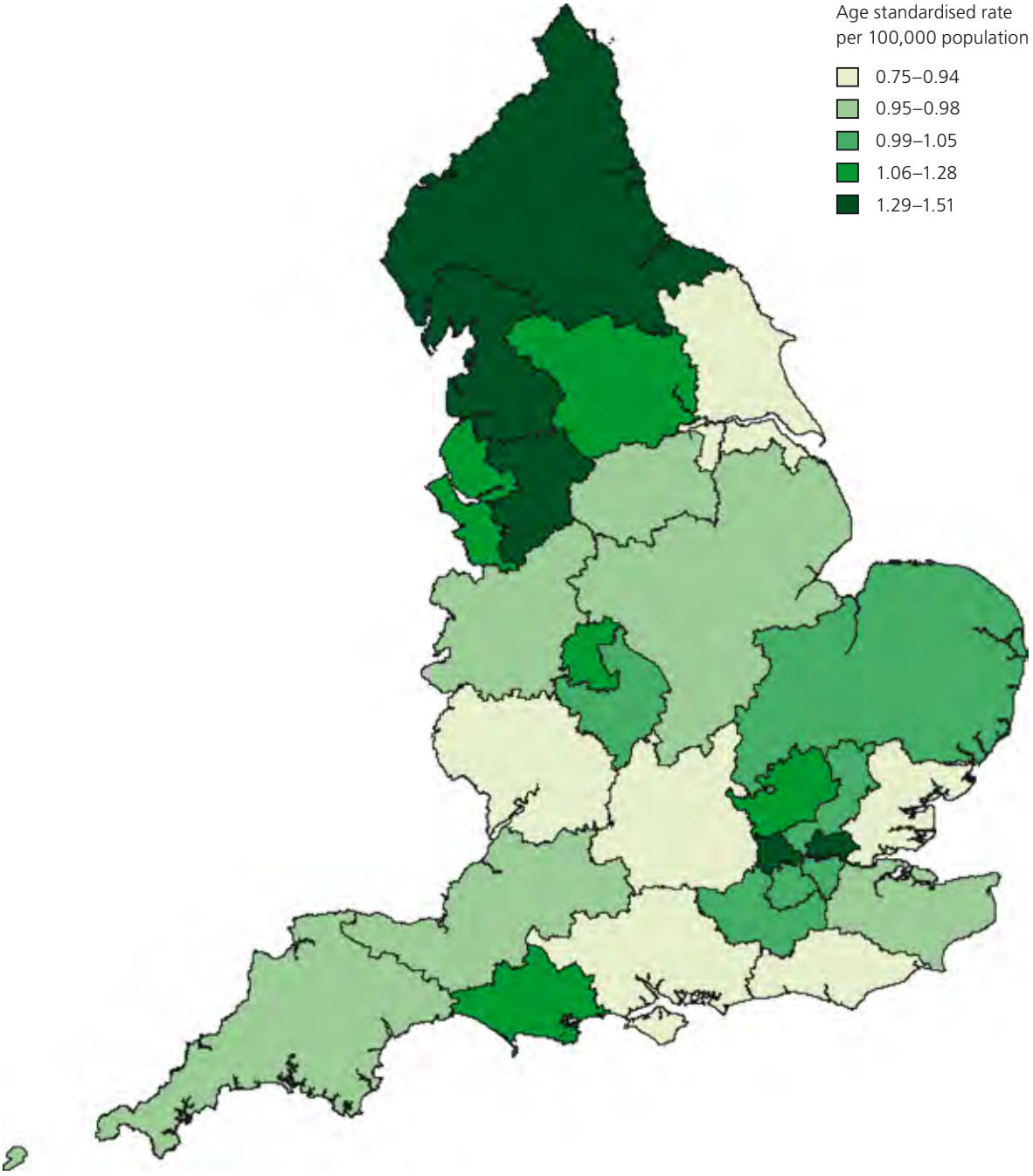
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**3335**	**667.0**	**1.07**	**1.03**	**1.11**
N01 Lancashire and South Cumbria	142	28.4	1.46	1.21	1.71
N02 Greater Manchester and Cheshire	256	51.2	1.45	1.27	1.64
N03 Merseyside and Cheshire	150	30.0	1.22	1.02	1.42
N06 Yorkshire	171	34.2	1.06	0.89	1.22
N07 Humber and Yorkshire Coast	68	13.6	0.89	0.67	1.12
N08 North Trent	103	20.6	0.96	0.77	1.16
N11 Pan Birmingham	116	23.2	1.09	0.88	1.29
N12 Arden	61	12.2	0.99	0.73	1.25
N20 Mount Vernon	91	18.2	1.23	0.97	1.49
N21 West London	130	26.0	1.51	1.24	1.77
N22 North London	79	15.8	1.05	0.81	1.29
N23 North East London	88	17.6	1.29	1.01	1.57
N24 South East London	76	15.2	1.03	0.79	1.28
N25 South West London	86	17.2	1.05	0.82	1.29
N26 Peninsula	118	23.6	0.97	0.78	1.15
N27 Dorset	62	12.4	1.12	0.81	1.43
N28 Avon, Somerset and Wiltshire	117	23.4	0.96	0.78	1.15
N29 3 Counties	60	12.0	0.81	0.59	1.03
N30 Thames Valley	124	24.8	0.92	0.75	1.09
N31 Central South Coast	123	24.6	0.89	0.72	1.06
N32 Surrey, West Sussex and Hampshire	75	15.0	1.00	0.77	1.24
N33 Sussex	67	13.4	0.77	0.57	0.98
N34 Kent and Medway	105	21.0	0.95	0.76	1.14
N35 Greater Midlands	118	23.6	0.95	0.77	1.13
N36 North of England	248	49.6	1.32	1.15	1.49
N37 Anglia	183	36.6	1.02	0.86	1.18
N38 Essex	73	14.6	0.75	0.57	0.93
N39 East Midlands CN	245	49.0	0.98	0.86	1.11

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of mortality rates for patients who died of oral cavity cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

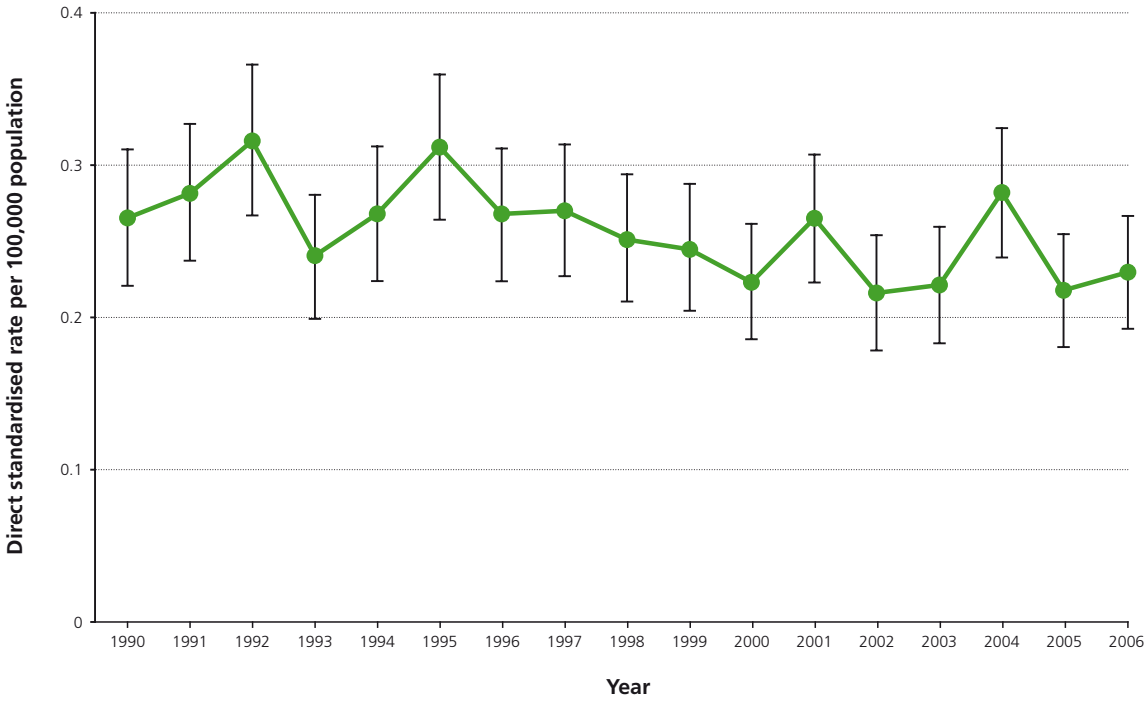


Summary

- Despite the rising incidence, mortality remains essentially static.
- Interpretation of the lack of improvement in the mortality rate needs to be made in conjunction with a review of any changes in stage at presentation.
- Age standardised rates (per 100,000 population) show some variation between Networks with the lowest mortality rates being found in the South East and an England average of 1.07.
- This may be influenced by variation in deprivation between Cancer Networks.

Salivary glands cancer (ICD-10 C07 and C08)

Trends in the mortality of salivary glands cancer in England, 1990–2006



Mortality of salivary glands cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**763**	**152.6**	**0.23**	**0.22**	**0.25**
Q30 North East	46	9.2	0.26	0.18	0.34
Q31 North West	125	25.0	0.28	0.23	0.33
Q32 Yorkshire and The Humber	77	15.4	0.24	0.19	0.30
Q33 East Midlands	66	13.2	0.25	0.19	0.31
Q34 West Midlands	91	18.2	0.27	0.21	0.33
Q35 East of England	85	17.0	0.23	0.18	0.28
Q36 London	73	14.6	0.19	0.15	0.24
Q37 South East Coast	67	13.4	0.20	0.15	0.25
Q38 South Central	50	10.0	0.19	0.13	0.25
Q39 South West	83	16.6	0.22	0.17	0.27

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Mortality of salivary glands cancer by Cancer Network, 2002–2006

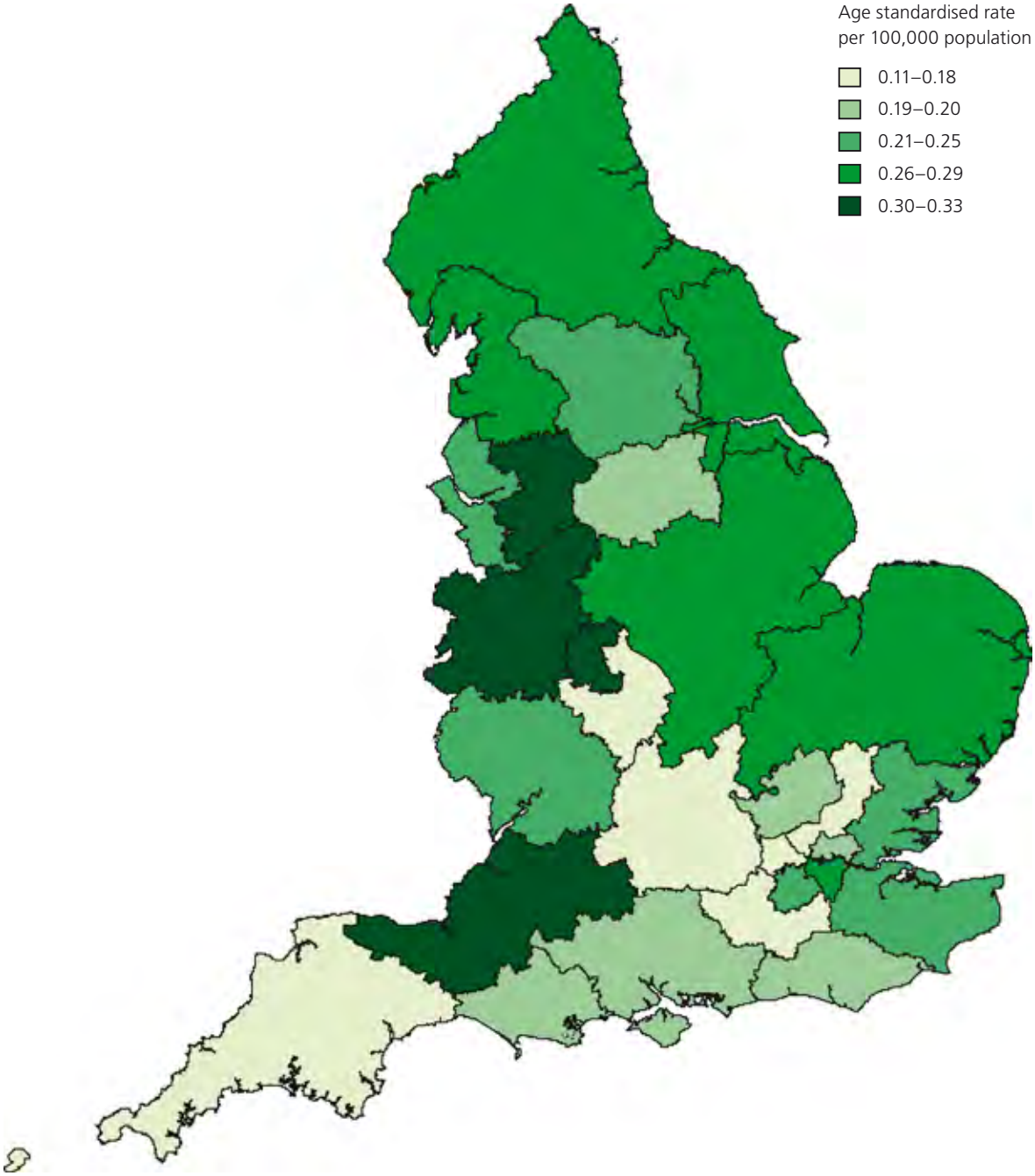
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**763**	**152.6**	**0.23**	**0.22**	**0.25**
N01 Lancashire and South Cumbria	32	6.4	0.29	0.19	0.40
N02 Greater Manchester and Cheshire	57	11.4	0.30	0.22	0.38
N03 Merseyside and Cheshire	31	6.2	0.23	0.14	0.31
N06 Yorkshire	34	6.8	0.22	0.15	0.30
N07 Humber and Yorkshire Coast	19	3.8	0.29	0.15	0.42
N08 North Trent	25	5.0	0.19	0.11	0.27
N11 Pan Birmingham	34	6.8	0.33	0.21	0.44
N12 Arden	9	1.8	0.14	0.05	0.24
N20 Mount Vernon	15	3.0	0.19	0.09	0.29
N21 West London	12	2.4	0.12	0.05	0.19
N22 North London	13	2.6	0.16	0.07	0.25
N23 North East London	15	3.0	0.20	0.10	0.31
N24 South East London	22	4.4	0.27	0.15	0.39
N25 South West London	17	3.4	0.21	0.11	0.32
N26 Peninsula	19	3.8	0.15	0.08	0.22
N27 Dorset	13	2.6	0.20	0.08	0.31
N28 Avon, Somerset and Wiltshire	40	8.0	0.31	0.21	0.41
N29 3 Counties	15	3.0	0.23	0.11	0.35
N30 Thames Valley	24	4.8	0.17	0.10	0.24
N31 Central South Coast	29	5.8	0.20	0.12	0.28
N32 Surrey, West Sussex and Hampshire	13	2.6	0.18	0.08	0.28
N33 Sussex	22	4.4	0.20	0.11	0.30
N34 Kent and Medway	29	5.8	0.21	0.13	0.30
N35 Greater Midlands	40	8.0	0.30	0.20	0.40
N36 North of England	54	10.8	0.27	0.20	0.35
N37 Anglia	47	9.4	0.26	0.18	0.33
N38 Essex	20	4.0	0.21	0.11	0.31
N39 East Midlands CN	63	12.6	0.26	0.19	0.33

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of mortality rates for patients who died of salivary glands cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

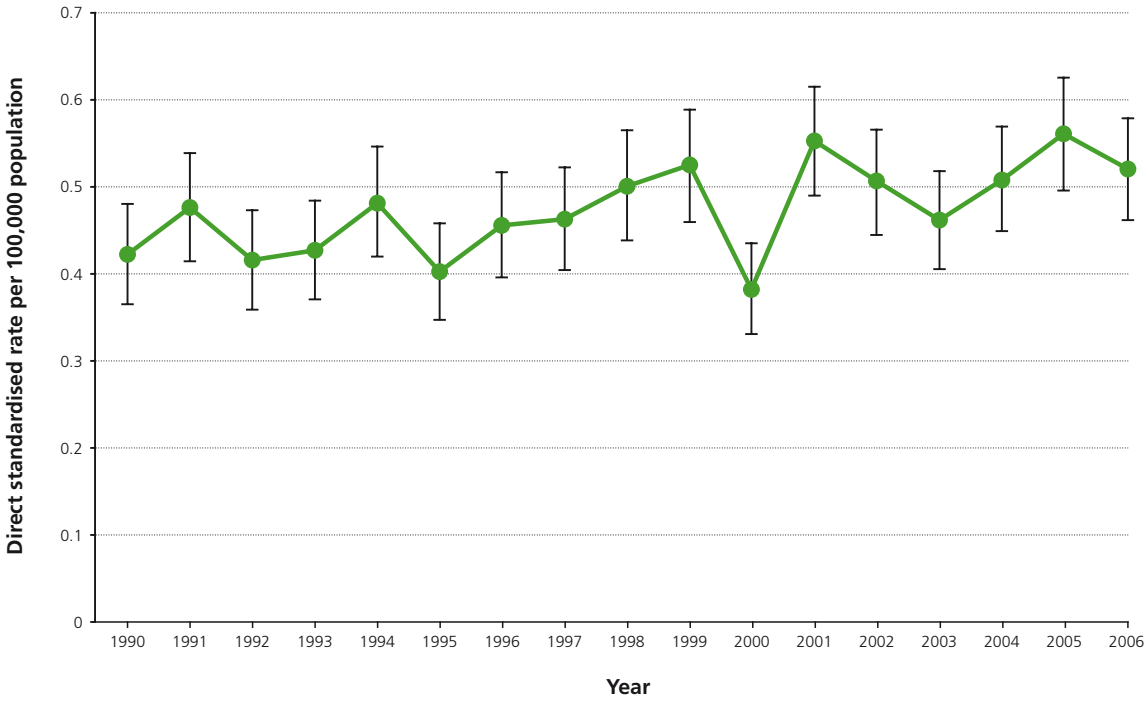


Summary

- Mortality from salivary gland cancer has shown no significant change over the study period.
- Salivary gland cancer has a prolonged clinical course and thus there may be a considerable lag from diagnosis to death. These data include patients diagnosed before the study period and do not relate directly to the rise in incidence over the same period.
- Age standardised rates (per 100,000 population) show little variation between Networks but with small numbers the confidence intervals are wide, with an England average of 0.23 per 100,000.

Oropharynx cancer excluding soft palate (ICD-10 C01, C09 and C10)

Trends in the mortality of oropharynx cancer in England, 1990–2006



Mortality of oropharynx cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1458**	**291.6**	**0.51**	**0.48**	**0.54**
Q30 North East	101	20.2	0.67	0.54	0.81
Q31 North West	270	54.0	0.70	0.62	0.79
Q32 Yorkshire and The Humber	151	30.2	0.52	0.43	0.61
Q33 East Midlands	113	22.6	0.43	0.35	0.52
Q34 West Midlands	149	29.8	0.47	0.39	0.55
Q35 East of England	129	25.8	0.39	0.32	0.46
Q36 London	193	38.6	0.59	0.50	0.68
Q37 South East Coast	113	22.6	0.43	0.35	0.51
Q38 South Central	103	20.6	0.47	0.38	0.56
Q39 South West	136	27.2	0.44	0.36	0.51

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Mortality of oropharynx cancer by Cancer Network, 2002–2006

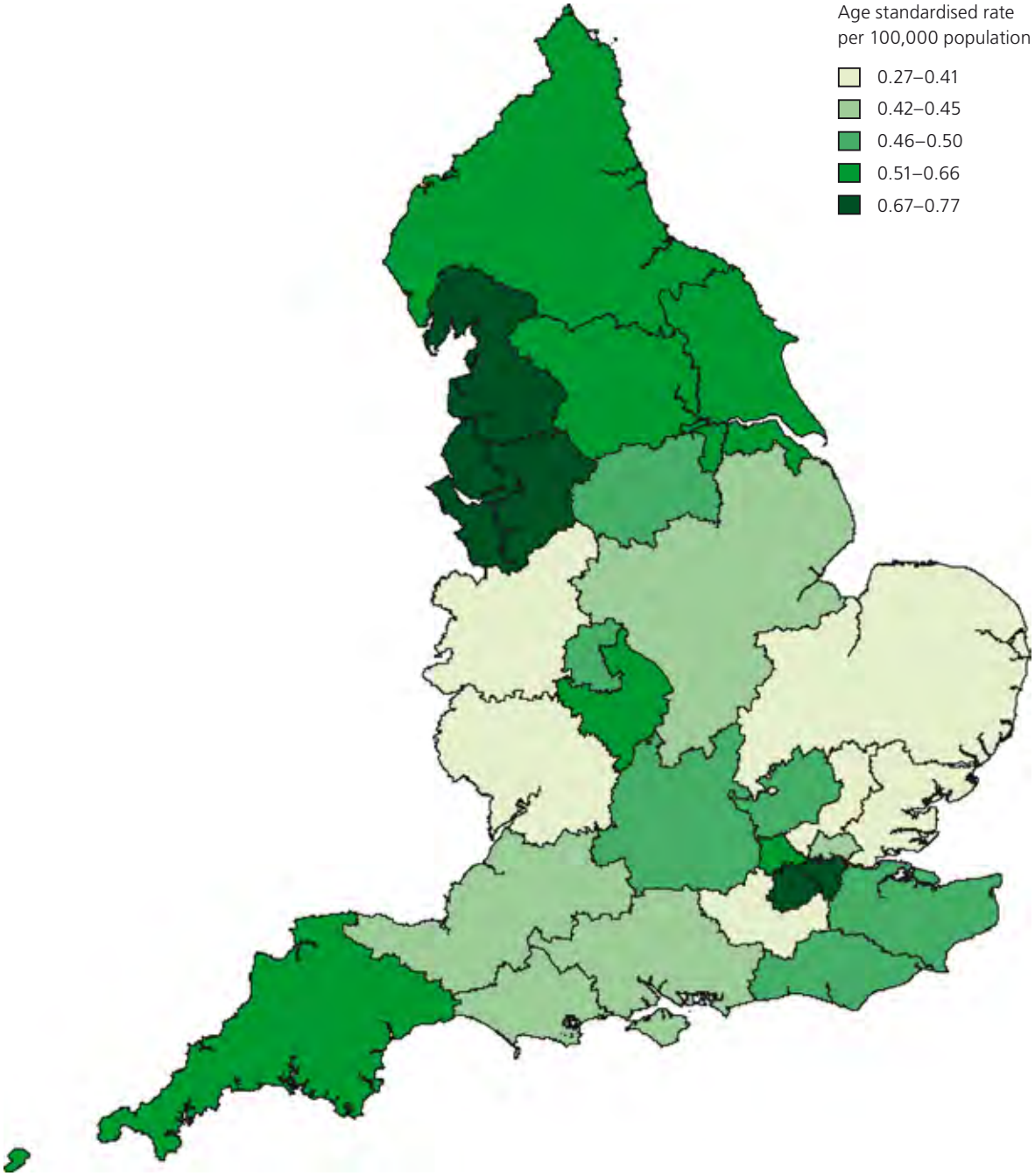
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1458**	**291.6**	**0.51**	**0.48**	**0.54**
N01 Lancashire and South Cumbria	64	12.8	0.74	0.55	0.92
N02 Greater Manchester and Cheshire	124	24.8	0.77	0.63	0.91
N03 Merseyside and Cheshire	78	15.6	0.67	0.52	0.82
N06 Yorkshire	78	15.6	0.54	0.41	0.66
N07 Humber and Yorkshire Coast	35	7.0	0.54	0.35	0.72
N08 North Trent	48	9.6	0.46	0.33	0.60
N11 Pan Birmingham	48	9.6	0.47	0.33	0.61
N12 Arden	37	7.4	0.65	0.44	0.86
N20 Mount Vernon	32	6.4	0.48	0.31	0.65
N21 West London	47	9.4	0.58	0.41	0.74
N22 North London	27	5.4	0.35	0.21	0.49
N23 North East London	27	5.4	0.42	0.26	0.59
N24 South East London	47	9.4	0.71	0.50	0.92
N25 South West London	51	10.2	0.70	0.50	0.90
N26 Peninsula	52	10.4	0.51	0.37	0.65
N27 Dorset	20	4.0	0.45	0.24	0.66
N28 Avon, Somerset and Wiltshire	46	9.2	0.43	0.30	0.55
N29 3 Counties	19	3.8	0.27	0.14	0.40
N30 Thames Valley	57	11.4	0.46	0.34	0.58
N31 Central South Coast	51	10.2	0.44	0.32	0.57
N32 Surrey, West Sussex and Hampshire	26	5.2	0.38	0.23	0.53
N33 Sussex	38	7.6	0.49	0.32	0.66
N34 Kent and Medway	46	9.2	0.48	0.33	0.62
N35 Greater Midlands	50	10.0	0.41	0.30	0.53
N36 North of England	107	21.4	0.60	0.48	0.72
N37 Anglia	67	13.4	0.40	0.30	0.50
N38 Essex	29	5.8	0.36	0.23	0.49
N39 East Midlands CN	107	21.4	0.45	0.37	0.54

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of mortality rates for patients who died of oropharynx cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

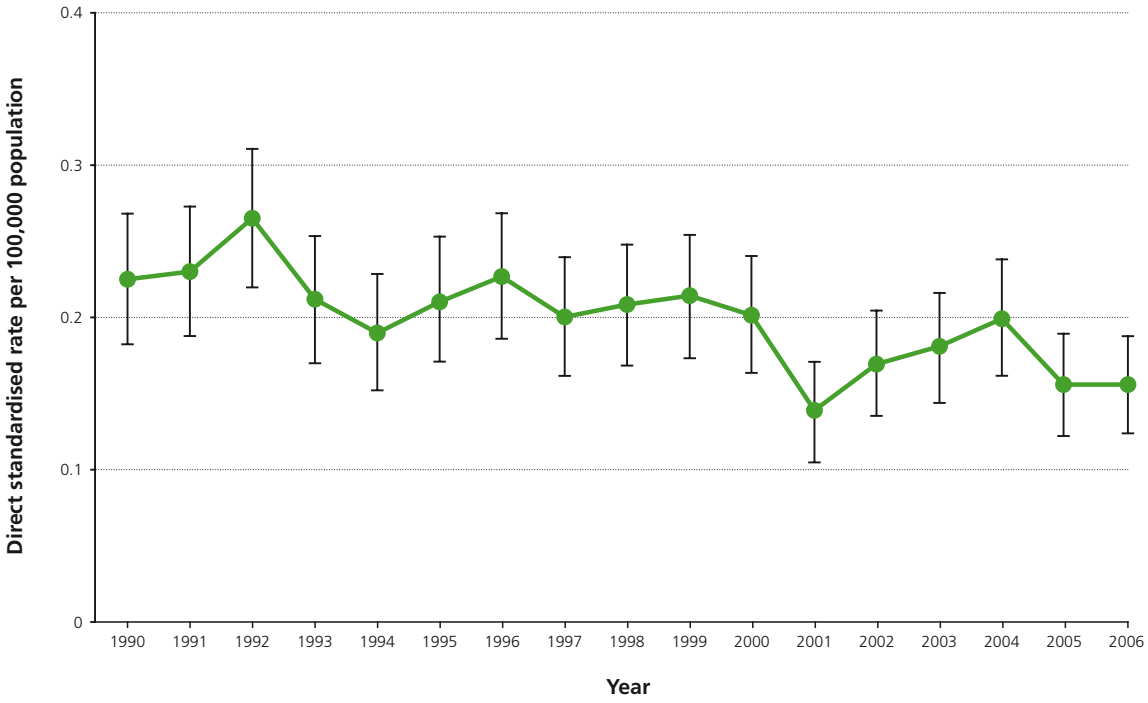


Summary

- Age standardised rates (per 100,000 population) show a rising trend in mortality.
- The increase in mortality is much less than the rise in incidence.
- This probably reflects the use of more effective treatments, but needs to be looked at alongside information about any changes in stage at diagnosis. Use of combined therapy may have contributed.
- The highest mortality rate, 0.77 per 100,000, is in Greater Manchester and Cheshire, and the lowest, 0.27, is in 3 Counties, with an England average of 0.51.

Nasopharynx cancer (ICD-10 C11)

Trends in the mortality of nasopharynx cancer in England, 1990–2006



Mortality of nasopharynx cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**488**	**97.6**	**0.17**	**0.16**	**0.19**
Q30 North East	36	7.2	0.24	0.16	0.32
Q31 North West	66	13.2	0.17	0.13	0.21
Q32 Yorkshire and The Humber	49	9.8	0.17	0.12	0.21
Q33 East Midlands	29	5.8	0.11	0.07	0.16
Q34 West Midlands	56	11.2	0.18	0.13	0.22
Q35 East of England	47	9.4	0.14	0.10	0.19
Q36 London	82	16.4	0.24	0.18	0.29
Q37 South East Coast	41	8.2	0.16	0.11	0.21
Q38 South Central	34	6.8	0.16	0.11	0.22
Q39 South West	48	9.6	0.15	0.10	0.19

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Mortality of nasopharynx cancer by Cancer Network, 2002–2006

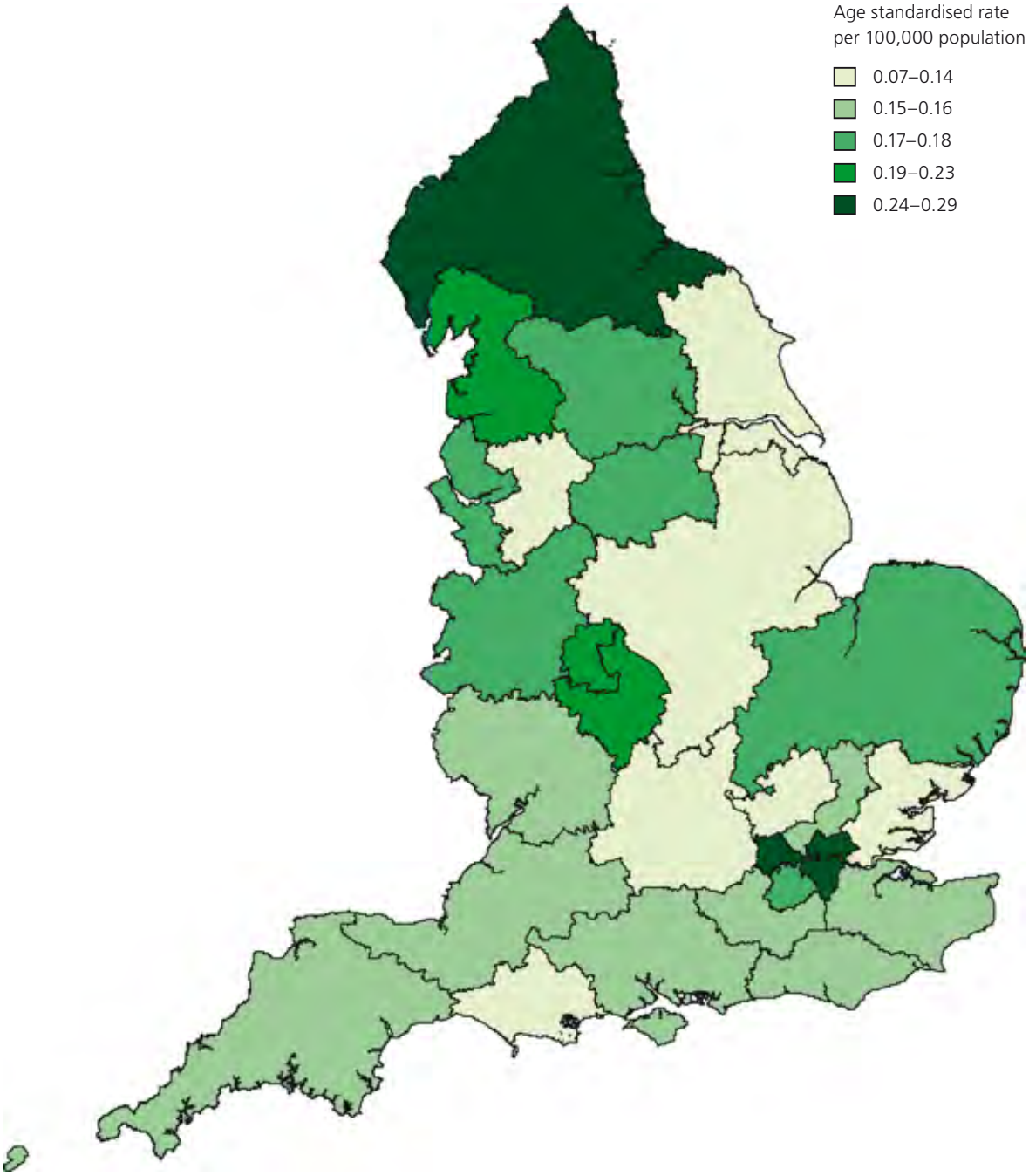
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**488**	**97.6**	**0.17**	**0.16**	**0.19**
N01 Lancashire and South Cumbria	21	4.2	0.23	0.13	0.33
N02 Greater Manchester and Cheshire	21	4.2	0.14	0.08	0.20
N03 Merseyside and Cheshire	21	4.2	0.17	0.10	0.25
N06 Yorkshire	27	5.4	0.18	0.11	0.25
N07 Humber and Yorkshire Coast	<10	1–2	0.08	0.01	0.14
N08 North Trent	16	3.2	0.17	0.08	0.25
N11 Pan Birmingham	19	3.8	0.19	0.10	0.28
N12 Arden	12	2.4	0.20	0.08	0.32
N20 Mount Vernon	<10	1–2	0.09	0.02	0.16
N21 West London	20	4.0	0.24	0.13	0.35
N22 North London	13	2.6	0.16	0.07	0.25
N23 North East London	20	4.0	0.28	0.16	0.41
N24 South East London	20	4.0	0.29	0.16	0.41
N25 South West London	12	2.4	0.17	0.07	0.27
N26 Peninsula	16	3.2	0.15	0.07	0.22
N27 Dorset	<10	<1	0.08	0.00	0.17
N28 Avon, Somerset and Wiltshire	19	3.8	0.16	0.08	0.24
N29 3 Counties	12	2.4	0.16	0.06	0.26
N30 Thames Valley	17	3.4	0.14	0.07	0.22
N31 Central South Coast	18	3.6	0.16	0.08	0.23
N32 Surrey, West Sussex and Hampshire	11	2.2	0.15	0.06	0.25
N33 Sussex	12	2.4	0.16	0.06	0.26
N34 Kent and Medway	15	3.0	0.16	0.08	0.25
N35 Greater Midlands	21	4.2	0.18	0.10	0.25
N36 North of England	42	8.4	0.24	0.16	0.31
N37 Anglia	28	5.6	0.18	0.11	0.25
N38 Essex	13	2.6	0.14	0.06	0.23
N39 East Midlands CN	27	5.4	0.11	0.07	0.16

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of mortality rates for patients who died of nasopharynx cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

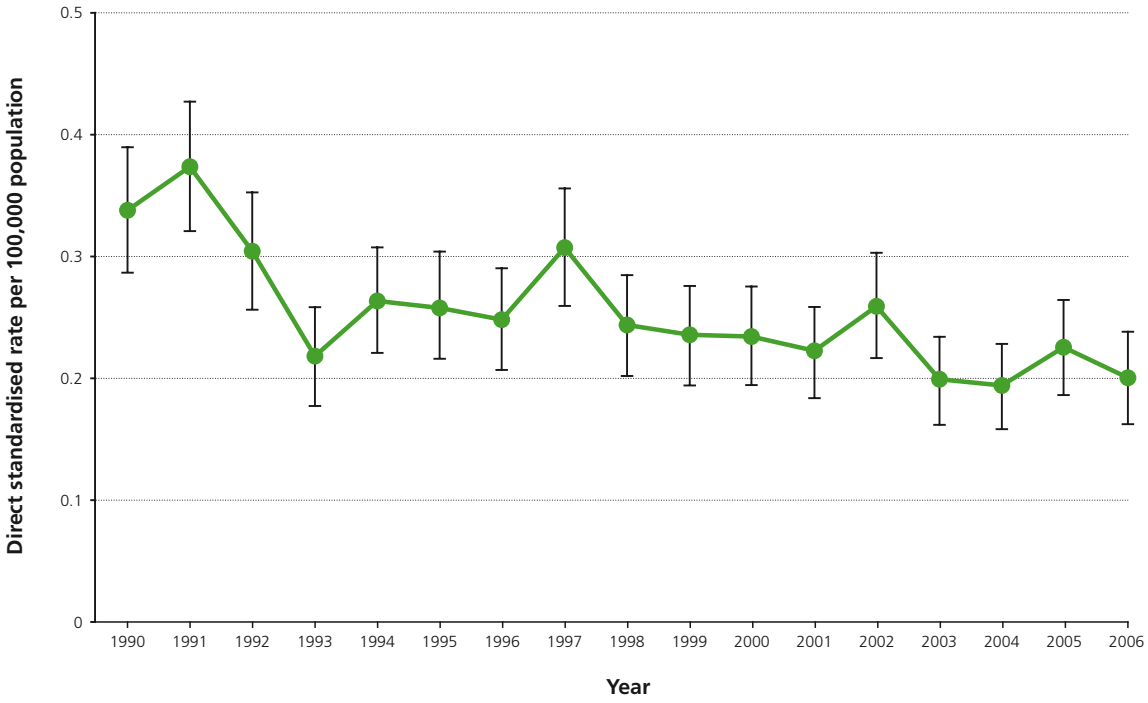


Summary

- Age standardised rates (per 100,000 population) show a falling trend in mortality but should be interpreted with caution due to small numbers and wide confidence intervals.
- This may reflect improvements in combined delivery of chemo-radiotherapy.
- Age standardised rates (per 100,000 population) show little variation between Networks but with small numbers the confidence intervals are wide, with an England average of 0.17 per 100,000.

Hypopharynx cancer (ICD-10 C12 and C13)

Trends in the mortality of hypopharynx cancer in England, 1990–2006



Mortality of hypopharynx cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**649**	**129.8**	**0.21**	**0.20**	**0.23**
Q30 North East	58	11.6	0.37	0.27	0.47
Q31 North West	128	25.6	0.31	0.25	0.36
Q32 Yorkshire and The Humber	84	16.8	0.28	0.22	0.34
Q33 East Midlands	58	11.6	0.22	0.16	0.28
Q34 West Midlands	74	14.8	0.22	0.17	0.28
Q35 East of England	54	10.8	0.15	0.11	0.19
Q36 London	68	13.6	0.21	0.16	0.26
Q37 South East Coast	41	8.2	0.14	0.10	0.19
Q38 South Central	39	7.8	0.17	0.12	0.22
Q39 South West	45	9.0	0.12	0.08	0.16

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Mortality of hypopharynx cancer by Cancer Network, 2002–2006

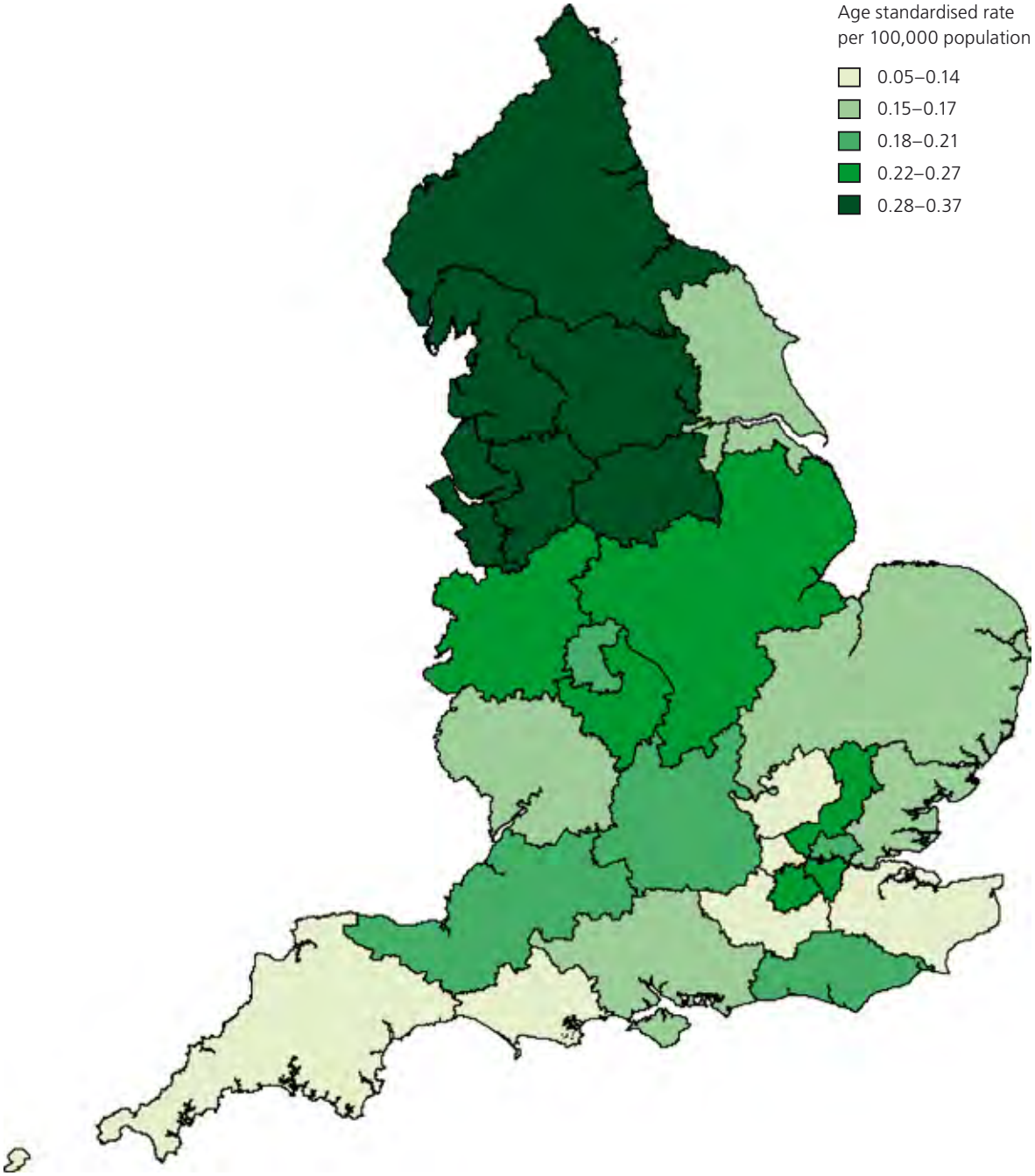
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**649**	**129.8**	**0.21**	**0.20**	**0.23**
N01 Lancashire and South Cumbria	28	5.6	0.28	0.17	0.38
N02 Greater Manchester and Cheshire	53	10.6	0.30	0.22	0.38
N03 Merseyside and Cheshire	43	8.6	0.36	0.25	0.47
N06 Yorkshire	48	9.6	0.33	0.23	0.42
N07 Humber and Yorkshire Coast	11	2.2	0.16	0.06	0.25
N08 North Trent	33	6.6	0.30	0.19	0.40
N11 Pan Birmingham	22	4.4	0.20	0.12	0.29
N12 Arden	17	3.4	0.24	0.12	0.36
N20 Mount Vernon	8	1.6	0.12	0.04	0.21
N21 West London	10	2.0	0.13	0.05	0.21
N22 North London	18	3.6	0.25	0.13	0.37
N23 North East London	14	2.8	0.19	0.09	0.30
N24 South East London	14	2.8	0.22	0.10	0.33
N25 South West London	17	3.4	0.22	0.11	0.33
N26 Peninsula	7	1.4	0.05	0.01	0.09
N27 Dorset	6	1.2	0.12	0.02	0.23
N28 Avon, Somerset and Wiltshire	25	5.0	0.19	0.11	0.28
N29 3 Counties	12	2.4	0.16	0.07	0.26
N30 Thames Valley	22	4.4	0.18	0.10	0.26
N31 Central South Coast	21	4.2	0.16	0.08	0.23
N32 Surrey, West Sussex and Hampshire	10	2.0	0.13	0.05	0.22
N33 Sussex	15	3.0	0.19	0.09	0.29
N34 Kent and Medway	12	2.4	0.11	0.05	0.18
N35 Greater Midlands	26	5.2	0.22	0.14	0.31
N36 North of England	62	12.4	0.33	0.25	0.42
N37 Anglia	28	5.6	0.16	0.10	0.22
N38 Essex	15	3.0	0.15	0.07	0.23
N39 East Midlands CN	52	10.4	0.22	0.16	0.28

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of mortality rates for patients who died of hypopharynx cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

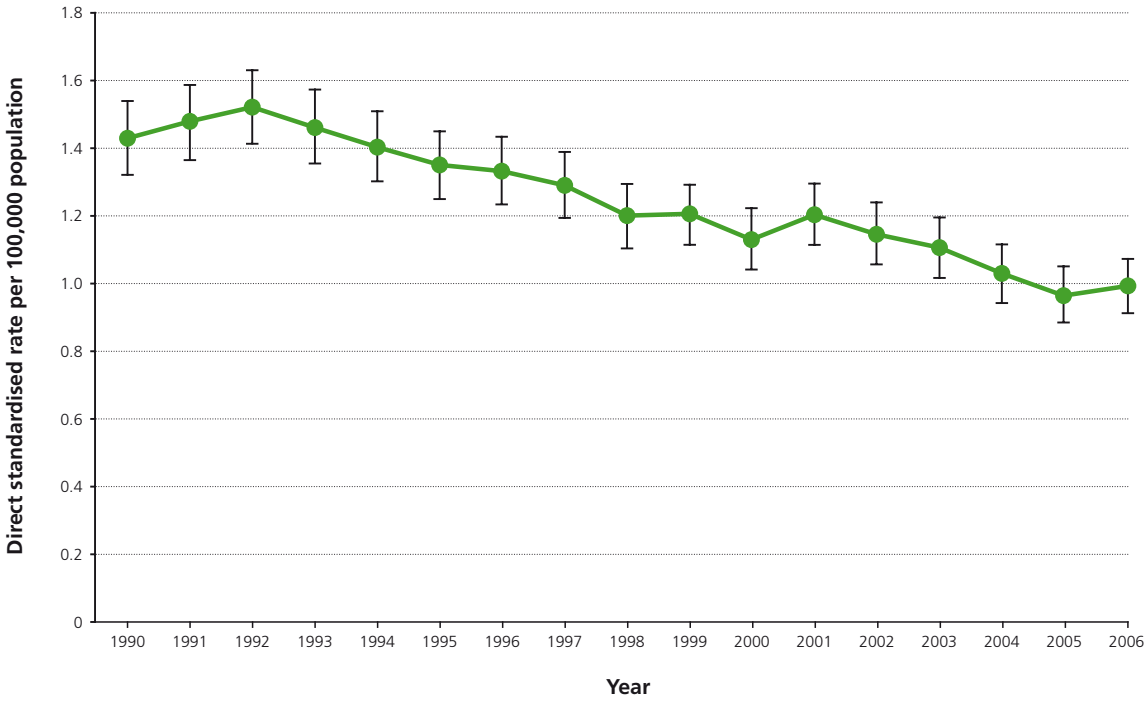


Summary

- Age standardised rates (per 100,000 population) show a falling trend in mortality with almost a 50% reduction in the study period.
- Reasons for this are unclear though it may relate to more aggressive surgical and non-surgical treatment particularly at the start of the study period.
- Age standardised rates (per 100,000 population) show little variation between Networks but with small numbers the confidence intervals are wide, with an England average of 0.21.

Larynx cancer (ICD-10 C32)

Trends in the mortality of larynx cancer in England, 1990–2006



Mortality of larynx cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**3229**	**645.8**	**1.05**	**1.01**	**1.09**
Q30 North East	217	43.4	1.36	1.18	1.55
Q31 North West	595	119.0	1.42	1.31	1.54
Q32 Yorkshire and The Humber	382	76.4	1.23	1.10	1.35
Q33 East Midlands	217	43.4	0.79	0.68	0.90
Q34 West Midlands	362	72.4	1.09	0.97	1.21
Q35 East of England	301	60.2	0.84	0.74	0.93
Q36 London	429	85.8	1.25	1.13	1.37
Q37 South East Coast	251	50.2	0.86	0.75	0.97
Q38 South Central	192	38.4	0.81	0.70	0.93
Q39 South West	283	56.6	0.78	0.68	0.87

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Mortality of larynx cancer by Cancer Network, 2002–2006

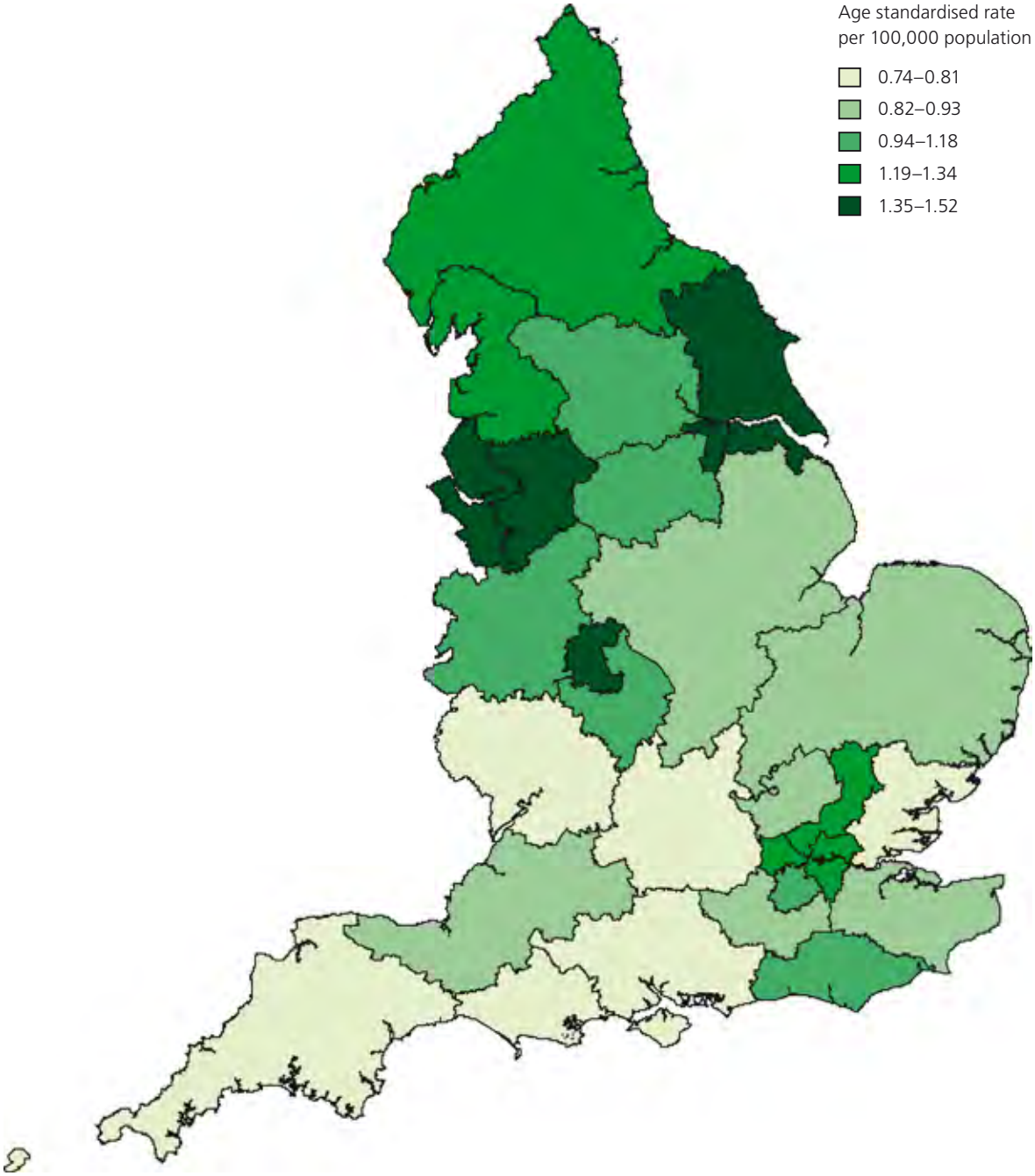
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**3229**	**645.8**	**1.05**	**1.01**	**1.09**
N01 Lancashire and South Cumbria	122	24.4	1.30	1.06	1.53
N02 Greater Manchester and Cheshire	262	52.4	1.51	1.33	1.70
N03 Merseyside and Cheshire	178	35.6	1.38	1.17	1.59
N06 Yorkshire	172	34.4	1.11	0.94	1.28
N07 Humber and Yorkshire Coast	106	21.2	1.50	1.21	1.80
N08 North Trent	124	24.8	1.10	0.90	1.30
N11 Pan Birmingham	146	29.2	1.35	1.12	1.58
N12 Arden	66	13.2	1.10	0.83	1.38
N20 Mount Vernon	59	11.8	0.85	0.63	1.07
N21 West London	112	22.4	1.29	1.04	1.53
N22 North London	88	17.6	1.19	0.93	1.45
N23 North East London	85	17.0	1.30	1.02	1.58
N24 South East London	94	18.8	1.34	1.06	1.61
N25 South West London	73	14.6	0.94	0.72	1.16
N26 Peninsula	93	18.6	0.74	0.58	0.90
N27 Dorset	47	9.4	0.75	0.52	0.97
N28 Avon, Somerset and Wiltshire	100	20.0	0.83	0.66	0.99
N29 3 Counties	53	10.6	0.75	0.54	0.96
N30 Thames Valley	94	18.8	0.74	0.59	0.89
N31 Central South Coast	108	21.6	0.79	0.64	0.95
N32 Surrey, West Sussex and Hampshire	63	12.6	0.87	0.65	1.09
N33 Sussex	87	17.4	1.00	0.77	1.23
N34 Kent and Medway	95	19.0	0.89	0.71	1.08
N35 Greater Midlands	120	24.0	0.97	0.79	1.15
N36 North of England	253	50.6	1.34	1.17	1.51
N37 Anglia	157	31.4	0.87	0.73	1.01
N38 Essex	70	14.0	0.75	0.57	0.93
N39 East Midlands CN	202	40.4	0.82	0.71	0.94

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of mortality rates for patients who died of larynx cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

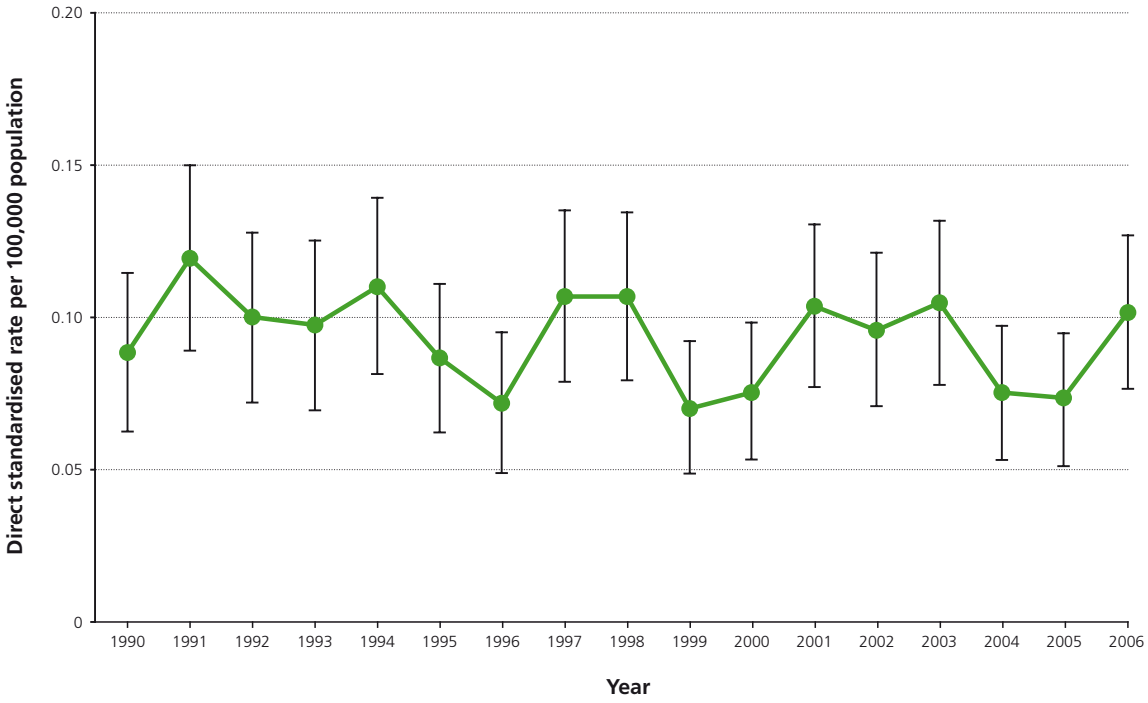


Summary

- Age standardised rates (per 100,000 population) show a falling trend in mortality with an approximate 33% reduction in the study period.
- The reasons for this are unclear. Stage and treatment information is needed to explore this further.
- Age standardised rates (per 100,000 population) show a variation between Networks.
- The highest mortality rate of 1.51 per 100,000 is in Greater Manchester and Cheshire and the lowest is 0.74 in Thames Valley and Peninsula, with an England average of 1.05 per 100,000.

Palate cancer (ICD-10 C05)

Trends in the mortality of palate cancer in England, 1990–2006



Mortality of palate cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**289**	**57.8**	**0.09**	**0.08**	**0.10**
Q30 North East	15	3.0	0.09	0.04	0.14
Q31 North West	56	11.2	0.12	0.09	0.15
Q32 Yorkshire and The Humber	25	5.0	0.08	0.05	0.12
Q33 East Midlands	15	3.0	0.06	0.03	0.09
Q34 West Midlands	35	7.0	0.11	0.07	0.14
Q35 East of England	24	4.8	0.06	0.04	0.09
Q36 London	31	6.2	0.09	0.06	0.12
Q37 South East Coast	27	5.4	0.09	0.05	0.12
Q38 South Central	19	3.8	0.07	0.04	0.10
Q39 South West	42	8.4	0.11	0.08	0.15

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Mortality of palate cancer by Cancer Network, 2002–2006

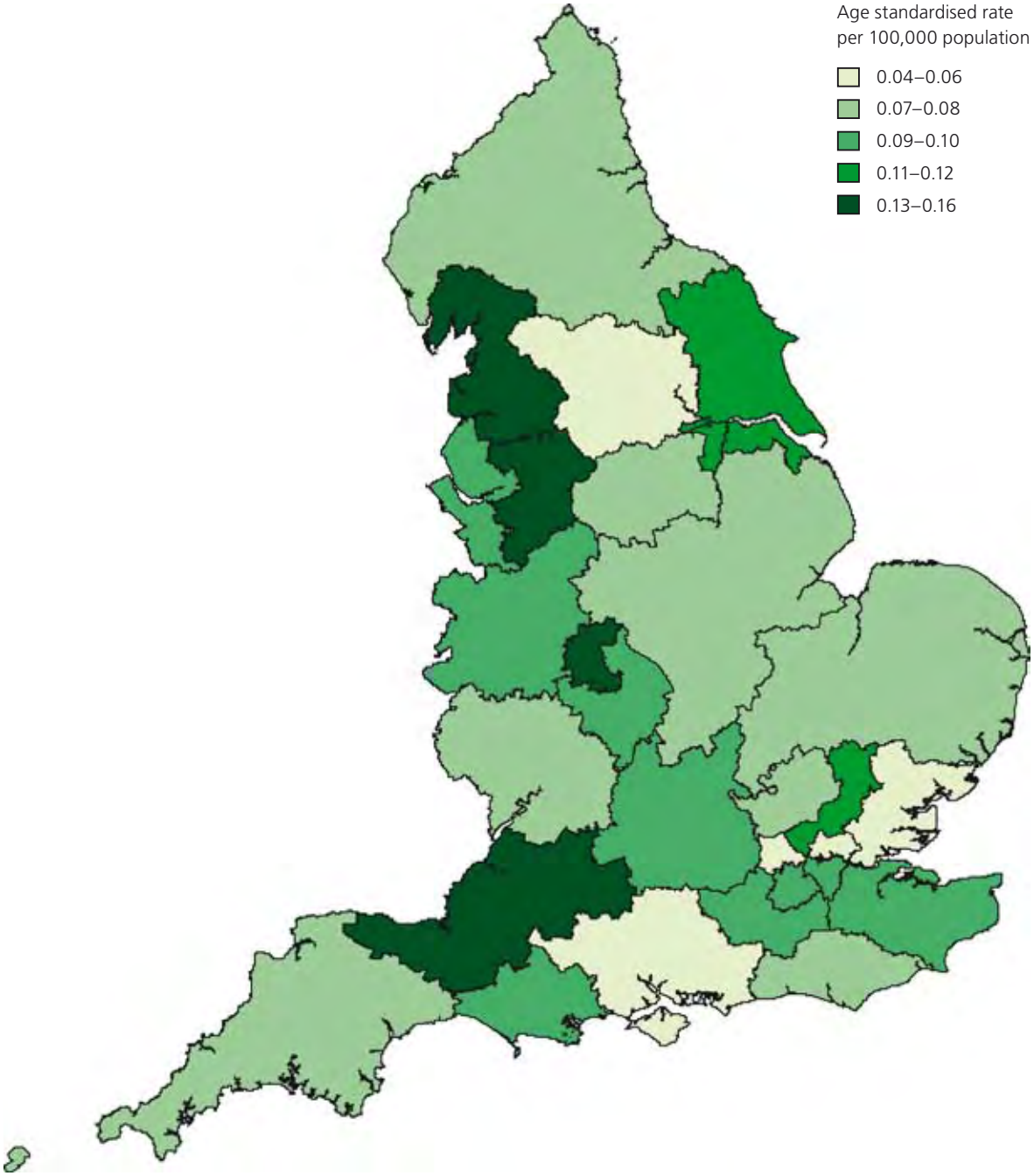
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**289**	**57.8**	**0.09**	**0.08**	**0.10**
N01 Lancashire and South Cumbria	12	2.4	0.13	0.05	0.20
N02 Greater Manchester and Cheshire	28	5.6	0.14	0.08	0.19
N03 Merseyside and Cheshire	15	3.0	0.10	0.05	0.15
N06 Yorkshire	9	1.8	0.06	0.02	0.10
N07 Humber and Yorkshire Coast	7	1.4	0.11	0.03	0.19
N08 North Trent	8	1.6	0.07	0.02	0.13
N11 Pan Birmingham	13	2.6	0.13	0.06	0.20
N12 Arden	6	1.2	0.09	0.01	0.16
N20 Mount Vernon	6	1.2	0.08	0.01	0.15
N21 West London	5	1.0	0.06	0.01	0.11
N22 North London	8	1.6	0.12	0.03	0.20
N23 North East London	<5	<1	0.05	0.00	0.11
N24 South East London	7	1.4	0.10	0.02	0.17
N25 South West London	9	1.8	0.10	0.03	0.16
N26 Peninsula	12	2.4	0.08	0.03	0.13
N27 Dorset	<5	<1	0.10	0.00	0.19
N28 Avon, Somerset and Wiltshire	18	3.6	0.15	0.08	0.23
N29 3 Counties	7	1.4	0.08	0.02	0.15
N30 Thames Valley	15	3.0	0.10	0.05	0.16
N31 Central South Coast	7	1.4	0.05	0.01	0.08
N32 Surrey, West Sussex and Hampshire	7	1.4	0.10	0.02	0.17
N33 Sussex	7	1.4	0.08	0.02	0.15
N34 Kent and Medway	12	2.4	0.10	0.04	0.16
N35 Greater Midlands	13	2.6	0.10	0.05	0.16
N36 North of England	16	3.2	0.08	0.04	0.12
N37 Anglia	11	2.2	0.07	0.03	0.11
N38 Essex	7	1.4	0.06	0.01	0.11
N39 East Midlands CN	16	3.2	0.07	0.03	0.10

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of mortality rates for patients who died of palate cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.

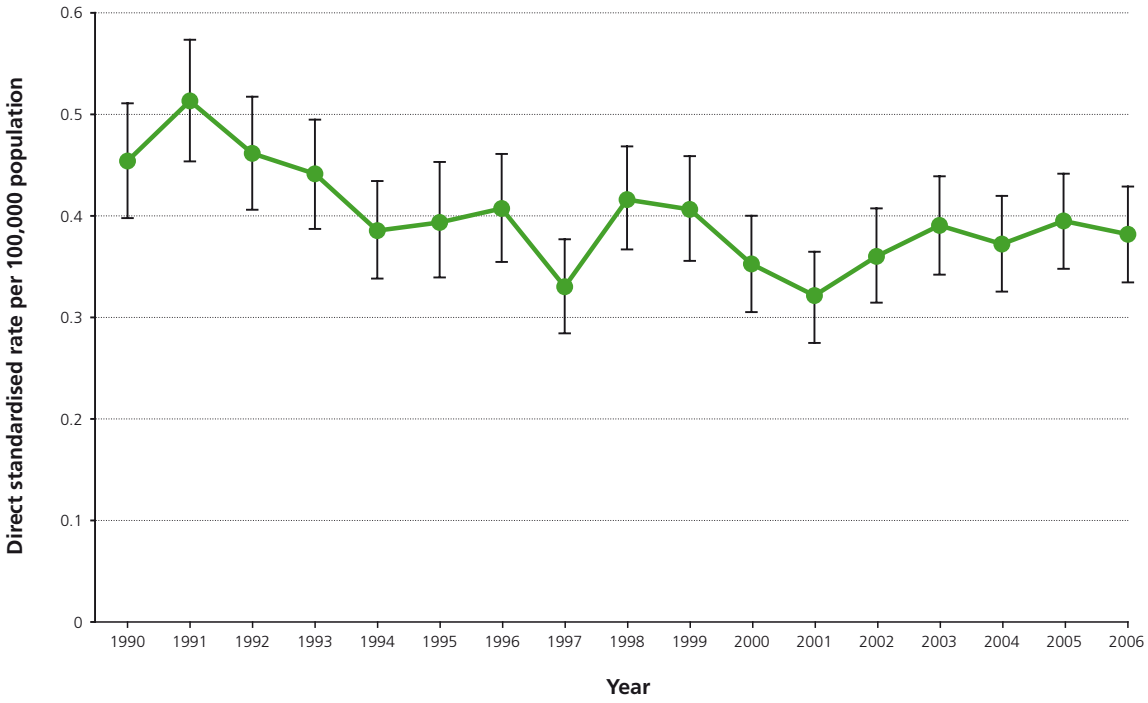


Summary

- The mortality rate from palate cancer has not changed significantly over the study period.
- Age standardised rates (per 100,000 population) show little variation between Networks but with small numbers the confidence intervals are wide. The England average is 0.09 per 100,000.

Thyroid gland cancer (ICD-10 C73)

Trends in the mortality of thyroid gland cancer in England, 1990–2006



Mortality of thyroid gland cancer by SHA, 2002–2006

	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1382**	**276.4**	**0.38**	**0.36**	**0.40**
Q30 North East	72	14.4	0.37	0.28	0.46
Q31 North West	160	32.0	0.34	0.28	0.39
Q32 Yorkshire and The Humber	145	29.0	0.38	0.32	0.45
Q33 East Midlands	113	22.6	0.35	0.29	0.42
Q34 West Midlands	141	28.2	0.35	0.29	0.42
Q35 East of England	193	38.6	0.48	0.41	0.55
Q36 London	181	36.2	0.45	0.38	0.52
Q37 South East Coast	140	28.0	0.41	0.33	0.48
Q38 South Central	92	18.4	0.34	0.27	0.41
Q39 South West	145	29.0	0.33	0.27	0.39

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Mortality of thyroid gland cancer by Cancer Network, 2002–2006

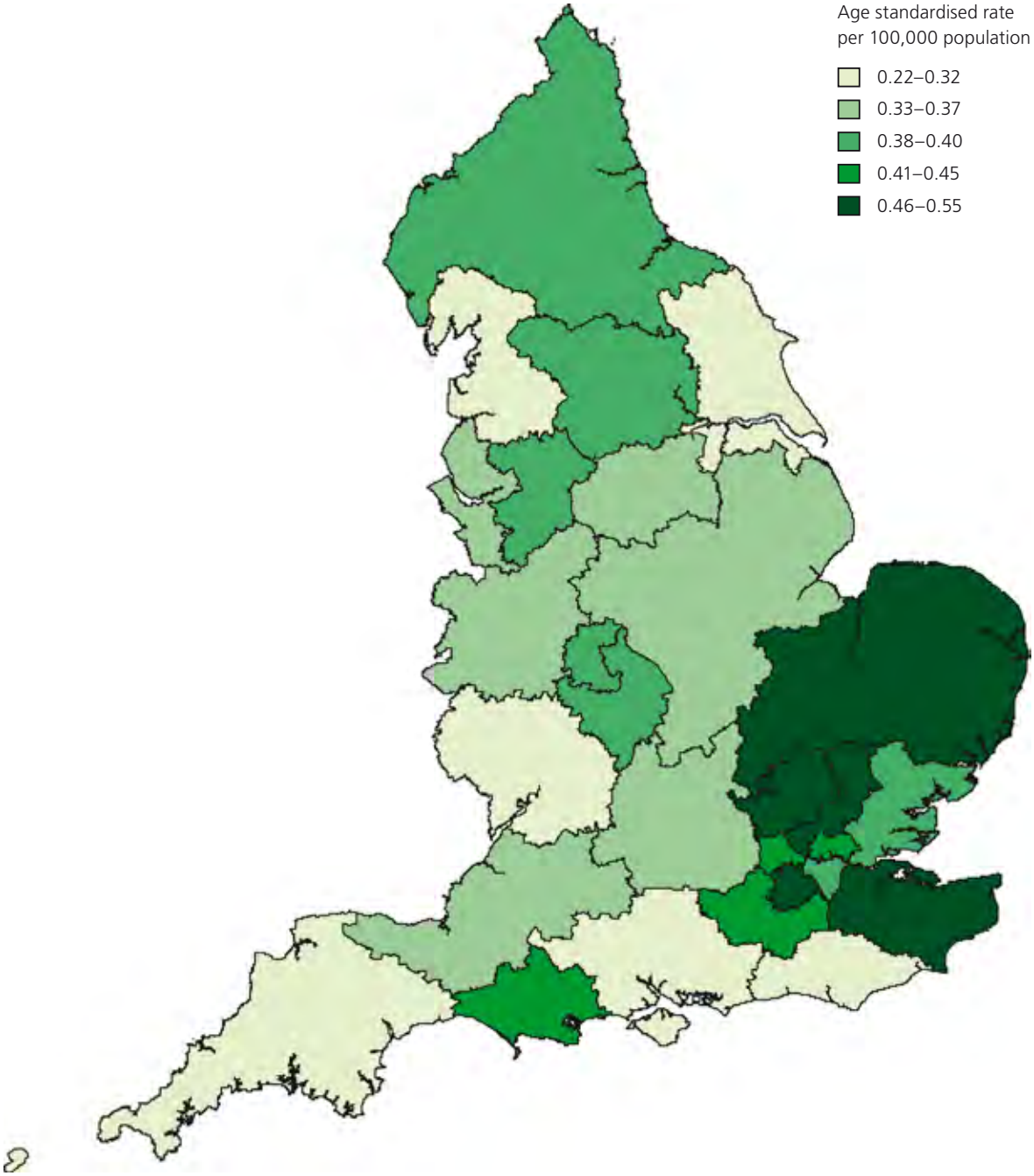
	Total cases	Cases per Year	ASIR*	95% CI	
				Lower	Upper
England	**1382**	**276.4**	**0.38**	**0.36**	**0.40**
N01 Lancashire and South Cumbria	25	5.0	0.23	0.13	0.32
N02 Greater Manchester and Cheshire	78	15.6	0.40	0.31	0.50
N03 Merseyside and Cheshire	46	9.2	0.33	0.23	0.43
N06 Yorkshire	71	14.2	0.38	0.29	0.48
N07 Humber and Yorkshire Coast	28	5.6	0.30	0.18	0.43
N08 North Trent	49	9.8	0.35	0.25	0.46
N11 Pan Birmingham	49	9.8	0.38	0.26	0.50
N12 Arden	29	5.8	0.40	0.25	0.55
N20 Mount Vernon	38	7.6	0.46	0.31	0.62
N21 West London	41	8.2	0.43	0.29	0.56
N22 North London	47	9.4	0.54	0.38	0.71
N23 North East London	33	6.6	0.41	0.26	0.56
N24 South East London	34	6.8	0.40	0.26	0.54
N25 South West London	52	10.4	0.53	0.38	0.69
N26 Peninsula	51	10.2	0.32	0.23	0.42
N27 Dorset	27	5.4	0.42	0.24	0.59
N28 Avon, Somerset and Wiltshire	50	10.0	0.33	0.23	0.43
N29 3 Counties	20	4.0	0.25	0.13	0.37
N30 Thames Valley	50	10.0	0.34	0.24	0.44
N31 Central South Coast	50	10.0	0.31	0.22	0.40
N32 Surrey, West Sussex and Hampshire	36	7.2	0.45	0.30	0.61
N33 Sussex	36	7.2	0.29	0.18	0.40
N34 Kent and Medway	54	10.8	0.46	0.33	0.58
N35 Greater Midlands	55	11.0	0.36	0.26	0.46
N36 North of England	91	18.2	0.39	0.31	0.48
N37 Anglia	94	18.8	0.49	0.39	0.60
N38 Essex	45	9.0	0.40	0.28	0.53
N39 East Midlands CN	103	20.6	0.36	0.28	0.43

*ASIR is (directly) age-standardised rate per 100,000 population

Source: National Cancer Information Service

Map of mortality rates for patients who died of thyroid gland cancer by Cancer Network, 2002–2006

Produced by Oxford Cancer Intelligence Unit on behalf of Department of Health. Based on Ordnance Survey material.



Summary

- Despite the rising incidence over the study period, the mortality rate has remained essentially static.
- This may in part be due to an increase in the number of small papillary carcinomas being detected which have high cure rates.
- Age standardised rates (per 100,000 population) show little significant variation between Networks but with small numbers the confidence intervals are wide.

3. Survival

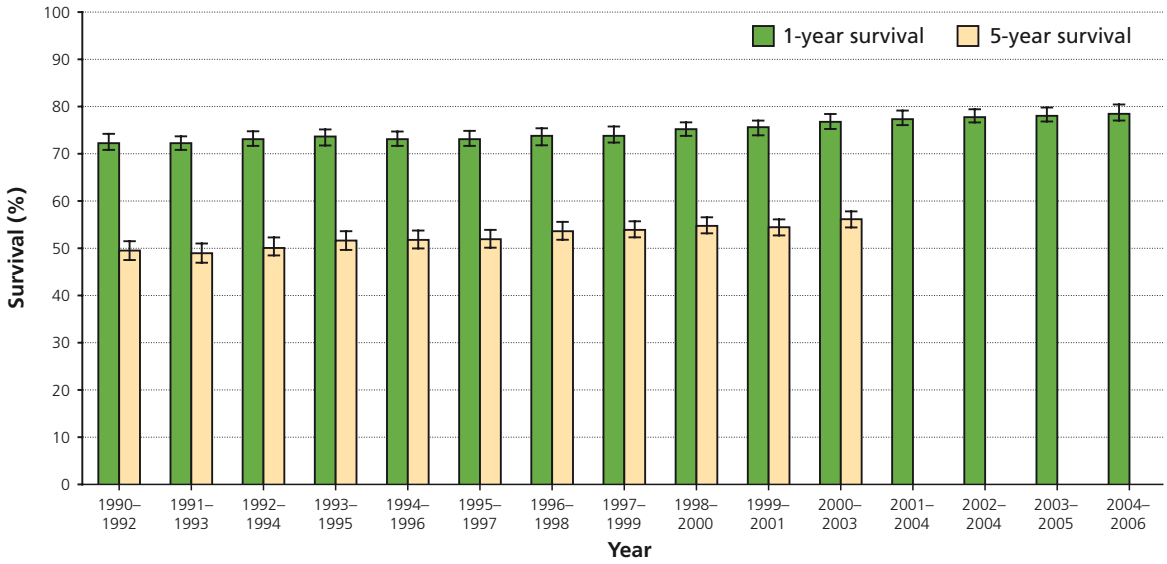
Oral cavity cancer excluding inner part of lip and hard palate (ICD-10 C02, C03, C04 and C06)

Trends in 1-year and 5-year relative survival for oral cavity cancer in England, 1990–92 to 2004–06

Year	Number in cohort	*1-year survival*				*5-year survival*			
		Cumulative deaths	%	95% LCI	95% UCI	Cumulative deaths	%	95% LCI	95% UCI
1990–1992	3587	1087	72.50	70.91	74.10	2143	49.57	47.55	51.59
1991–1993	3627	1113	72.12	70.52	73.71	2183	48.90	46.91	50.90
1992–1994	3701	1098	73.16	71.60	74.72	2173	50.36	48.39	52.33
1993–1995	3727	1090	73.58	72.03	75.13	2142	51.61	49.64	53.58
1994–1996	3863	1142	73.16	71.64	74.69	2210	51.77	49.85	53.70
1995–1997	3995	1176	73.13	71.63	74.62	2265	52.05	50.17	53.94
1996–1998	4151	1193	73.74	72.29	75.20	2293	53.69	51.84	55.54
1997–1999	4293	1223	73.98	72.55	75.40	2358	53.97	52.15	55.79
1998–2000	4404	1208	75.11	73.72	76.51	2397	54.73	52.93	56.53
1999–2001	4589	1240	75.51	74.15	76.87	2508	54.35	52.59	56.11
2000–2002	4535	1162	76.89	75.55	78.23	2409	55.95	54.18	57.72
2001–2003	4646	1162	77.45	76.14	78.77	–	–	–	–
2002–2004	4699	1152	77.97	76.68	79.27	–	–	–	–
2003–2005	4876	1178	78.35	77.08	79.62	–	–	–	–
2004–2006	4964	1185	78.69	77.44	79.94	–	–	–	–

Source: National Cancer Intelligence Service

Trends in 1-year and 5-year relative survival for oral cavity cancer in England, 1990–92 to 2004–06



Summary

- Trends in 1- and 5-year relative survival for oral cavity cancer show a significant improvement over the study period.
- The 5-year relative survival rate for the most recent period is 56%.

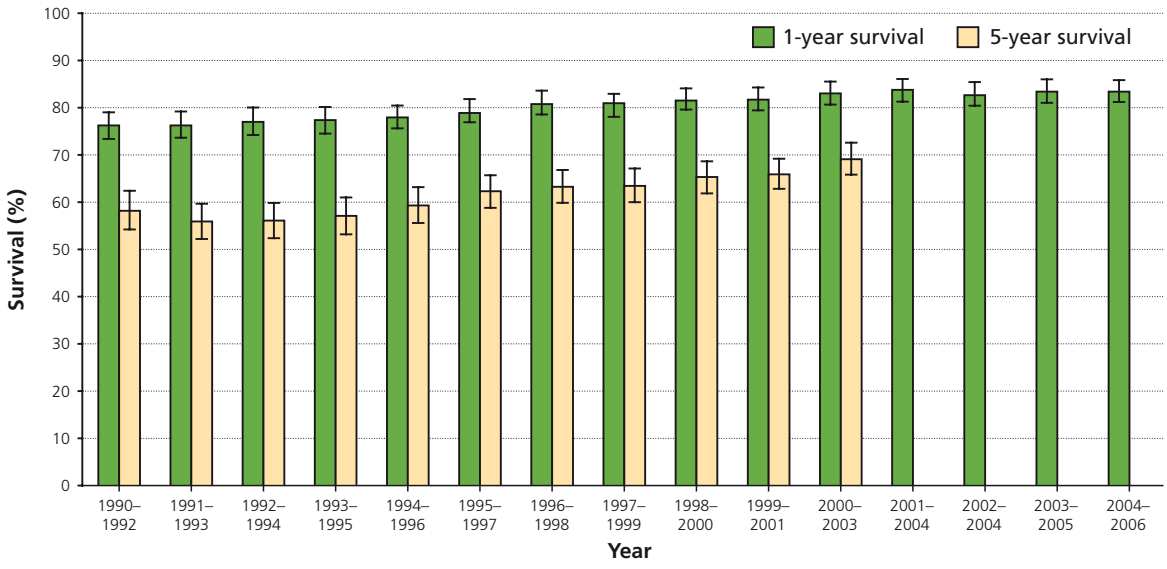
Salivary glands cancer (ICD-10 C07 and C08)

Trends in 1-year and 5-year relative survival for salivary glands cancer in England, 1990–92 to 2004–06

Year	Number in cohort	*1-year survival*				*5-year survival*			
		Cumulative deaths	%	95% LCI	95% UCI	Cumulative deaths	%	95% LCI	95% UCI
1990–1992	1032	280	76.19	73.29	79.08	554	58.45	54.53	62.37
1991–1993	1070	290	76.36	73.51	79.21	596	56.22	52.37	60.08
1992–1994	1105	290	77.22	74.45	79.99	610	56.26	52.50	60.01
1993–1995	1100	288	77.44	74.66	80.23	600	57.19	53.41	60.97
1994–1996	1124	283	78.15	75.44	80.85	584	59.43	55.74	63.12
1995–1997	1151	274	79.41	76.80	82.03	569	62.29	58.66	65.92
1996–1998	1170	254	81.24	78.74	83.74	559	63.53	59.97	67.08
1997–1999	1198	265	80.84	78.35	83.33	571	63.68	60.16	67.19
1998–2000	1188	250	82.01	79.55	84.47	549	65.47	61.94	68.99
1999–2001	1211	255	82.08	79.64	84.52	556	66.12	62.61	69.62
2000–2002	1166	233	83.23	80.80	85.67	505	69.33	65.78	72.88
2001–2003	1146	222	83.91	81.48	86.34	–	–	–	–
2002–2004	1149	234	82.85	80.38	85.33	–	–	–	–
2003–2005	1217	242	83.40	81.02	85.79	–	–	–	–
2004–2006	1295	254	83.68	81.38	85.98	–	–	–	–

Source: National Cancer Intelligence Service

Trends in 1-year and 5-year relative survival for salivary glands cancer in England, 1990–92 to 2004–06



Summary

- One year relative survival rates for salivary gland cancer have increased by around 7% over the study period and 5-year relative survival rates have increased by 10%.
- This may reflect the more frequent use of post-operative radiotherapy for salivary gland cancers.
- The 5-year relative survival rate for the most recently diagnosed cases is 69%.
- Unlike other head and neck cancers, in salivary gland cancer the disease course is often long, and 10-, 15- or 25-year survival are better indicators of survival.

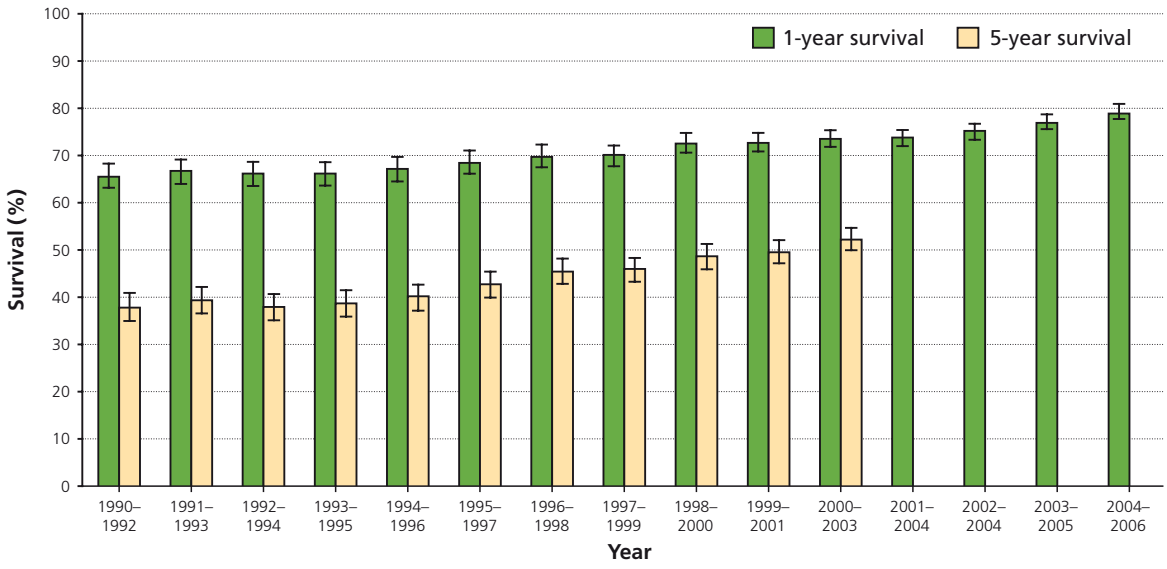
Oropharynx cancer excluding soft palate (ICD-10 C01, C09 and C10)

Trends in 1-year and 5-year relative survival for oropharynx cancer in England, 1990–92 to 2004–06

Year	Number in cohort	*1-year survival*				*5-year survival*			
		Cumulative deaths	%	95% LCI	95% UCI	Cumulative deaths	%	95% LCI	95% UCI
1990–1992	1422	517	65.62	62.99	68.25	964	38.03	35.10	40.95
1991–1993	1431	504	66.67	64.07	69.26	949	39.29	36.38	42.21
1992–1994	1534	548	66.13	63.61	68.64	1033	37.85	35.08	40.63
1993–1995	1540	550	66.09	63.58	68.60	1024	38.52	35.76	41.29
1994–1996	1582	547	67.17	64.71	69.62	1029	40.00	37.26	42.75
1995–1997	1626	538	68.52	66.13	70.91	1014	42.69	39.96	45.41
1996–1998	1793	567	69.89	67.65	72.14	1071	45.46	42.85	48.08
1997–1999	1973	623	69.99	67.85	72.13	1174	45.84	43.34	48.34
1998–2000	2136	620	72.58	70.57	74.59	1213	48.81	46.39	51.23
1999–2001	2267	657	72.60	70.66	74.55	1270	49.61	47.26	51.96
2000–2002	2388	665	73.69	71.82	75.56	1279	52.13	49.84	54.42
2001–2003	2567	715	73.60	71.80	75.41	–	–	–	–
2002–2004	2720	716	75.14	73.42	76.87	–	–	–	–
2003–2005	2904	708	77.04	75.42	78.67	–	–	–	–
2004–2006	3108	694	79.15	77.63	80.67	–	–	–	–

Source: National Cancer Intelligence Service

Trends in 1-year and 5-year relative survival for oropharynx cancer in England, 1990–92 to 2004–06



Summary

- Trends in 1- and 5-year relative survival for oropharynx cancer show an increase of approximately 13–14% over the study period.
- In this time period the principal treatments have been surgery and radiotherapy. The figures do not yet reflect the more recent use of chemotherapy, and reduction of surgery in some units.
- The 5-year relative survival rate for the most recently diagnosed cases is 52%.

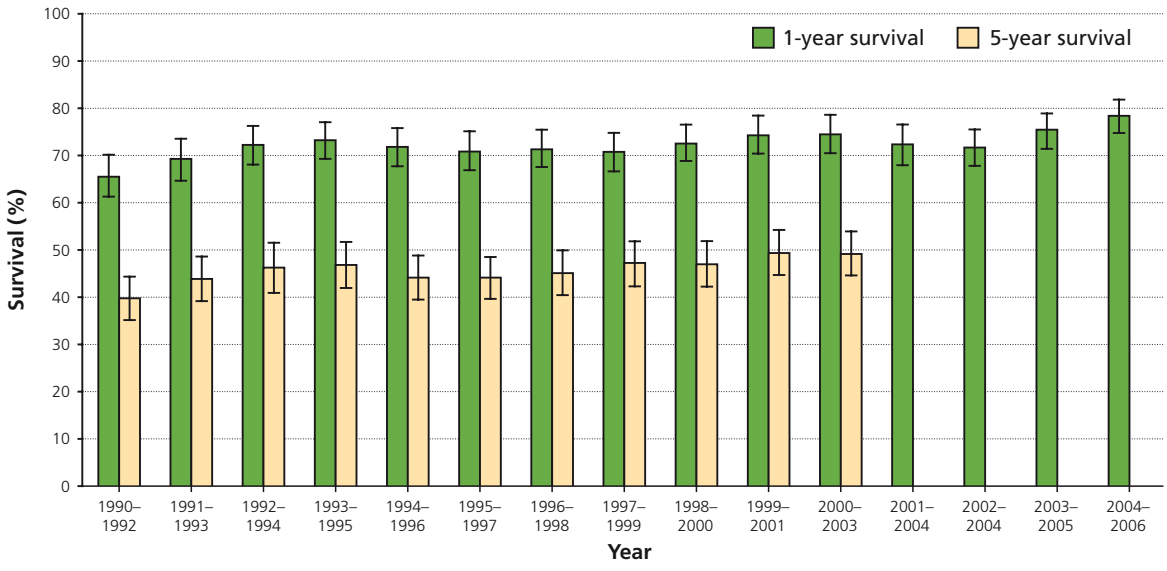
Nasopharynx cancer (ICD-10 C11)

Trends in 1-year and 5-year relative survival for nasopharynx cancer in England, 1990–92 to 2004–06

Year	Number in cohort	*1-year survival*				*5-year survival*			
		Cumulative deaths	%	95% LCI	95% UCI	Cumulative deaths	%	95% LCI	95% UCI
1990–1992	496	176	65.89	61.50	70.28	320	39.77	34.95	44.58
1991–1993	502	162	69.16	64.90	73.42	304	44.07	39.19	48.94
1992–1994	508	149	72.23	68.10	76.36	296	46.72	41.82	51.62
1993–1995	512	144	73.51	69.45	77.58	297	47.02	42.13	51.90
1994–1996	557	165	72.03	68.07	75.99	337	44.44	39.78	49.11
1995–1997	567	171	71.37	67.43	75.31	344	44.03	39.44	48.63
1996–1998	546	163	71.61	67.61	75.61	325	45.29	40.59	49.99
1997–1999	527	161	70.85	66.76	74.95	303	47.38	42.58	52.18
1998–2000	527	151	72.75	68.73	76.77	303	47.24	42.45	52.03
1999–2001	535	143	74.70	70.80	78.60	297	49.40	44.63	54.17
2000–2002	519	138	74.92	70.96	78.88	289	49.38	44.52	54.24
2001–2003	536	156	72.38	68.37	76.38	–	–	–	–
2002–2004	558	165	71.92	67.98	75.87	–	–	–	–
2003–2005	594	155	75.40	71.72	79.07	–	–	–	–
2004–2006	599	138	78.45	74.94	81.96	–	–	–	–

Source: National Cancer Intelligence Service

Trends in 1-year and 5-year relative survival for nasopharynx cancer in England, 1990–92 to 2004–06



Summary

- One-year relative survival for nasopharynx cancer has increased by approximately 12% over the study period and 5-year relative survival has increased by around 10%.
- This reflects improvements in chemo-radiotherapy combined delivery.
- The 5-year relative survival rate for the most recently diagnosed cases is 49%.

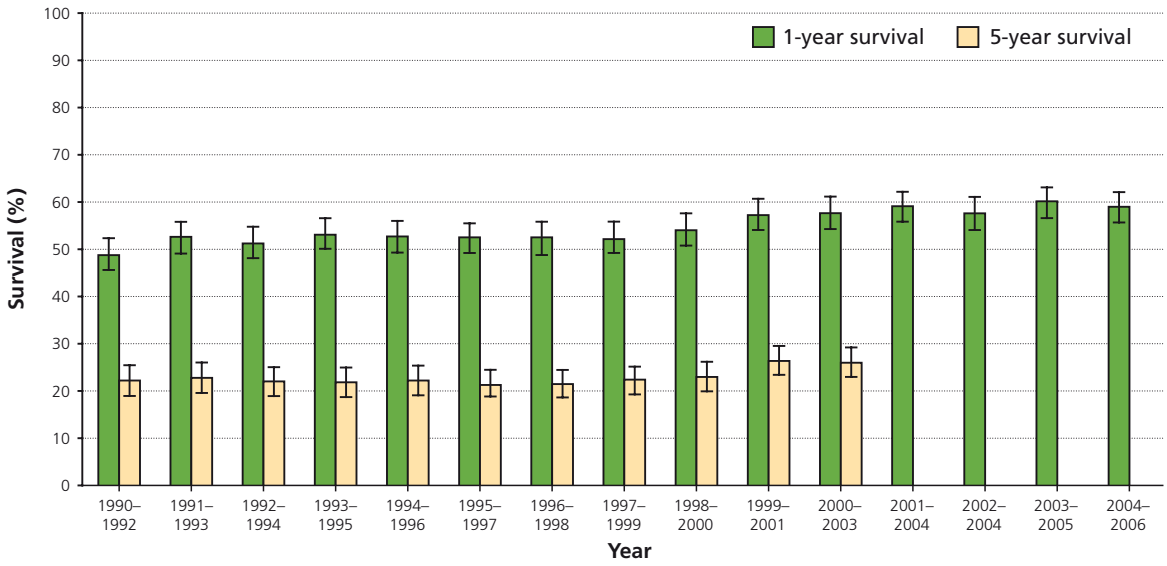
Hypopharynx cancer (ICD-10 C12 and C13)

Trends in 1-year and 5-year relative survival for hypopharynx cancer in England, 1990–92 to 2004–06

Year	Number in cohort	1-year survival				5-year survival			
		Cumulative deaths	%	95% LCI	95% UCI	Cumulative deaths	%	95% LCI	95% UCI
1990–1992	1037	549	49.01	45.78	52.24	851	22.29	19.33	25.26
1991–1993	1044	516	52.67	49.45	55.90	853	22.68	19.71	25.65
1992–1994	1035	523	51.50	48.26	54.74	850	22.04	19.10	24.98
1993–1995	1000	487	53.42	50.12	56.71	822	21.83	18.87	24.80
1994–1996	985	488	52.54	49.22	55.85	807	22.23	19.22	25.25
1995–1997	972	481	52.53	49.19	55.86	800	21.71	18.71	24.72
1996–1998	970	481	52.27	48.94	55.60	800	21.37	18.39	24.34
1997–1999	1002	495	52.46	49.18	55.73	818	22.37	19.39	25.36
1998–2000	1016	485	54.17	50.92	57.41	823	23.11	20.12	26.11
1999–2001	1008	450	57.25	54.01	60.49	787	26.40	23.26	29.54
2000–2002	970	428	57.74	54.45	61.04	759	26.05	22.88	29.22
2001–2003	986	420	59.32	56.06	62.57	–	–	–	–
2002–2004	989	439	57.59	54.31	60.86	–	–	–	–
2003–2005	959	404	59.87	56.57	63.17	–	–	–	–
2004–2006	962	414	58.94	55.64	62.24	–	–	–	–

Source: National Cancer Intelligence Service

Trends in 1-year and 5-year relative survival for hypopharynx cancer in England, 1990–92 to 2004–06



Summary

- One-year relative survival for hypopharynx cancer has increased by approximately 10%, with most of the increase occurring in the later part of the study period.
- Reasons for this are unclear though it may relate to more aggressive non-surgical treatment.
- Five-year relative survival rates remain poor at 26% for the most recently diagnosed cases. A long-term survival benefit of newer treatments has not yet been demonstrated.

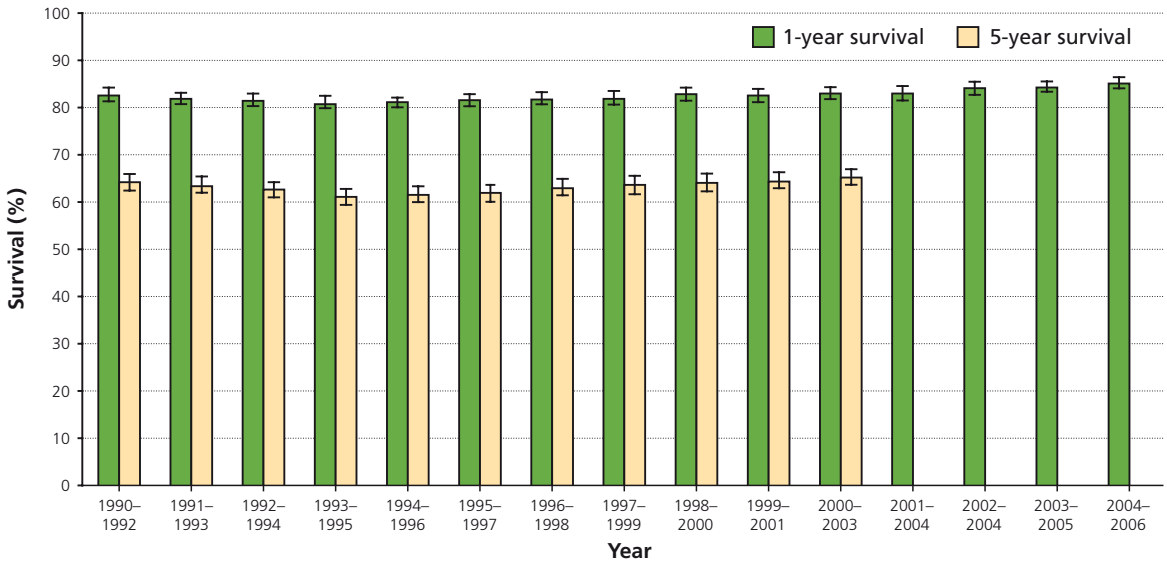
Larynx cancer (ICD-10 C32)

Trends in 1-year and 5-year relative survival for larynx cancer in England, 1990–92 to 2004–06

Year	Number in cohort	*1-year survival*				*5-year survival*			
		Cumulative deaths	%	95% LCI	95% UCI	Cumulative deaths	%	95% LCI	95% UCI
1990–1992	5271	1083	82.75	81.59	83.91	2557	64.22	62.51	65.94
1991–1993	5280	1120	82.07	80.90	83.25	2568	63.85	62.14	65.56
1992–1994	5417	1176	81.58	80.41	82.75	2666	62.78	61.10	64.45
1993–1995	5329	1176	81.24	80.06	82.42	2670	61.39	59.70	63.07
1994–1996	5260	1141	81.51	80.33	82.69	2614	61.66	59.97	63.35
1995–1997	5083	1091	81.57	80.38	82.77	2500	62.05	60.34	63.76
1996–1998	5058	1060	81.95	80.76	83.14	2444	63.13	61.41	64.84
1997–1999	4990	1047	81.99	80.79	83.18	2398	63.65	61.91	65.38
1998–2000	5056	1023	82.83	81.65	84.00	2411	64.30	62.57	66.03
1999–2001	5085	1036	82.63	81.46	83.81	2397	64.68	62.96	66.39
2000–2002	5002	996	83.03	81.86	84.20	2322	65.26	63.54	66.98
2001–2003	4858	961	83.12	81.94	84.31	–	–	–	–
2002–2004	4709	888	84.09	82.91	85.27	–	–	–	–
2003–2005	4717	876	84.45	83.27	85.62	–	–	–	–
2004–2006	4664	836	85.10	83.94	86.27	–	–	–	–

Source: National Cancer Intelligence Service

Trends in 1-year and 5-year relative survival for larynx cancer in England, 1990–92 to 2004–06



Summary

- One-year relative survival for larynx cancer has shown a small but significant increase between the earliest and latest cohorts increasing from 82.75% to 85.10%. Five-year relative survival rates have remained unchanged over the study period.
- The absence of any significant new therapies in the study period is a likely factor.
- The 5-year relative survival rate for the most recently diagnosed cases is 65%.
- Although survival has not improved, there is evidence of improved quality of life with advances such as surgical voice restoration.

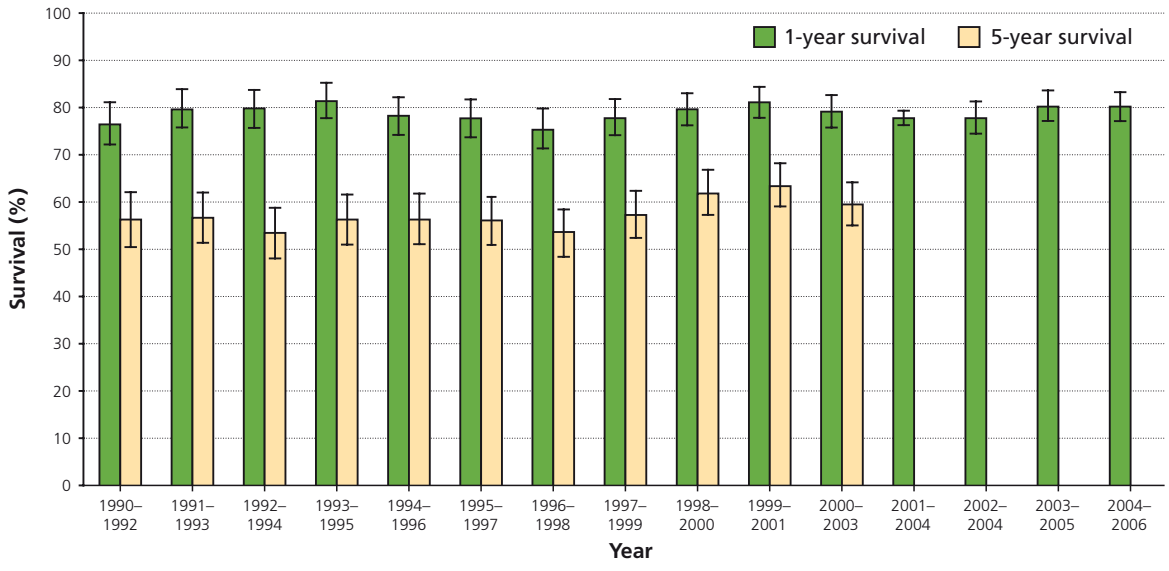
Palate cancer (ICD-10 C05)

Trends in 1-year and 5-year relative survival for palate cancer in England, 1990–92 to 2004–06

Year	Number in cohort	*1-year survival*				*5-year survival*			
		Cumulative deaths	%	95% LCI	95% UCI	Cumulative deaths	%	95% LCI	95% UCI
1990–1992	459	119	76.68	72.44	80.91	243	56.51	50.92	62.11
1991–1993	463	104	80.14	76.13	84.15	241	57.05	51.53	62.58
1992–1994	476	109	79.71	75.73	83.69	261	53.65	48.24	59.07
1993–1995	466	98	81.54	77.65	85.44	242	56.58	51.13	62.03
1994–1996	478	115	78.33	74.30	82.37	247	56.74	51.37	62.11
1995–1997	493	120	77.89	73.91	81.86	255	56.37	51.11	61.63
1996–1998	537	143	75.56	71.63	79.49	292	53.54	48.50	58.59
1997–1999	573	139	78.00	74.31	81.69	292	57.41	52.52	62.30
1998–2000	601	134	80.08	76.58	83.58	282	62.22	57.45	67.00
1999–2001	620	131	81.23	77.85	84.61	282	63.69	59.02	68.36
2000–2002	617	142	79.50	76.00	83.00	305	59.74	54.98	64.50
2001–2003	608	148	78.10	74.50	81.69	–	–	–	–
2002–2004	610	149	78.08	74.49	81.67	–	–	–	–
2003–2005	664	145	80.46	77.16	83.76	–	–	–	–
2004–2006	720	158	80.37	77.19	83.54	–	–	–	–

Source: National Cancer Intelligence Service

Trends in 1-year and 5-year relative survival for palate cancer in England, 1990–92 to 2004–06



Summary

- One- and five-year relative survival rates for palate cancer have not changed significantly over the study period.
- The 5-year relative survival rate for the most recently diagnosed cases is 60%.

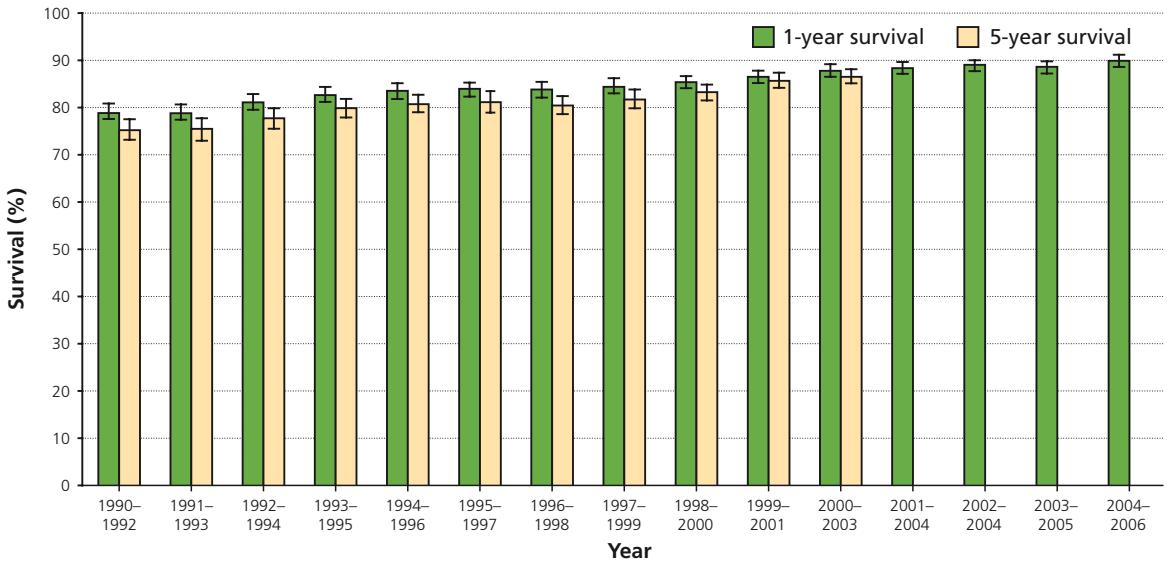
Thyroid gland cancer (ICD-10 C73)

Trends in 1-year and 5-year relative survival for thyroid gland cancer in England, 1990–92 to 2004–06

Year	Number in cohort	*1-year survival*				*5-year survival*			
		Cumulative deaths	%	95% LCI	95% UCI	Cumulative deaths	%	95% LCI	95% UCI
1990–1992	2554	576	79.31	77.61	81.00	853	75.46	73.35	77.58
1991–1993	2618	595	79.16	77.48	80.84	873	75.51	73.43	77.60
1992–1994	2703	551	81.44	79.85	83.03	825	77.99	76.00	79.97
1993–1995	2666	502	82.97	81.42	84.52	752	80.03	78.09	81.98
1994–1996	2746	489	83.89	82.40	85.38	739	81.06	79.18	82.94
1995–1997	2770	492	83.93	82.45	85.42	737	81.48	79.62	83.34
1996–1998	2938	522	83.90	82.46	85.34	807	80.69	78.86	82.52
1997–1999	3009	510	84.75	83.36	86.15	791	82.05	80.26	83.83
1998–2000	3142	509	85.53	84.19	86.87	788	83.40	81.68	85.12
1999–2001	3288	487	86.93	85.66	88.19	745	85.89	84.26	87.51
2000–2002	3462	467	88.15	86.97	89.34	736	86.84	85.31	88.38
2001–2003	3603	461	88.79	87.65	89.92	–	–	–	–
2002–2004	3781	466	89.17	88.09	90.26	–	–	–	–
2003–2005	4010	505	88.91	87.85	89.98	–	–	–	–
2004–2006	4354	496	90.07	89.09	91.05	–	–	–	–

Source: National Cancer Intelligence Service

Trends in 1-year and 5-year relative survival for thyroid gland cancer in England, 1990–92 to 2004–06



Summary

- Trends in one and five year relative survival for thyroid cancer show an increase of approximately 11% over the study period.
- The reasons for this are unclear, although as outlined earlier, identifying and treating smaller cancers may be a factor.
- The 5-year relative survival rate for the most recently diagnosed cases is 87%.

Appendix I: National Cancer Intelligence Network Head & Neck Site Specific Clinical Reference Group Members

Mr Richard Wight FRCS (Chair)

Consultant Head and Neck Surgeon

Dr Monica Roche

Medical Director

Oxford Cancer Intelligence Unit

Tim Cooper

Associate Director for Hospital Services

National Cancer Action Team

Jean Fraser

Development Worker

National Association of Laryngectomees Clubs

Dr Tim Helliwell

Reader in Pathology at the University of Liverpool, and Consultant Histopathologist at the Royal Liverpool University Hospital and Aintree University Hospital

Mr Simon Hodder,

Chair of the All Wales Head and Neck Cancer Advisory Group

Mr Patrick Magennis

Consultant Head and Neck Surgeon

Aintree University Hospitals NHS Foundation Trust

Dr Chris Nutting

Consultant Medical Oncologist

Royal Marsden Hospital

Christine Piff

Founder/Chief Executive

Let's Face It

Di Riley

Associate Director for Clinical Outcomes

National Cancer Intelligence Network

James Salt

Higher Business Analyst

National Datasets Service

The NHS Information Centre for Health and Social Care

Julie Taylor-Clark

Cancer Network Director

Humber and Yorkshire Coast Cancer Network

John Watkinson

Consultant ENT Surgeon

University Hospitals Birmingham NHS Foundation Trust

Mark Watson

Consultant ENT/Head & Neck Surgeon

Doncaster Royal Infirmary

Dr Julie Olliff

Consultant Radiologist,

Queen Elizabeth Hospital

University Hospital Birmingham NHS Foundation Trust

Appendix II: Data Sources and Methods

Data Sources

Cancer Incidence, Mortality and Survival

All data on cancer incidence, mortality and survival was taken from the National Cancer Information Service (NCIS) provided by the National Cancer Intelligence Network. The NCIS provides comparative views of the information held by the cancer registries of England. The NCIS uses consistent methodologies across all cancer registries in England. The following data was extracted:

- trends in incidence in England for the years 1990 to 2006;
- incidence by Strategic Health Authority (SHA) and Cancer Network for 5-year rolling 2002–06;
- trends in mortality in England for the years 1990 to 2006;
- mortality by SHA and Cancer Network for 5-year rolling 2002–06;
- trends in survival in England for the years 1990–92 to 2004–06.

The ICD-10 codes used to extract the data are shown in Table I below.

Table I. ICD-10 codes used to extract data for the current report

Cancer Type	ICD-10 codes
Oral cavity	C02, C03, C04 and C06
Salivary glands	C07 and C08
Oropharynx	C01, C09 and C10
Nasopharynx	C11
Hypopharynx	C12 and C13
Larynx	C32
Palate	C05
Thyroid gland	C73

Methods

Incidence and Mortality

Incidence and mortality data are displayed using directly age-standardised rates, in order to account for age variation within the population when comparing different groups, such as SHAs and Cancer Networks. Rates are presented per 100,000 population, using European population as standard. Total number of cases (deaths) and cases (deaths) per year for the period of interest are also included in this report.

Survival

Relative survival is widely used as an outcome parameter in cancer epidemiology. It is survival probability adjusted for causes of death other than the specific cancer in question. It is calculated as the ratio of the observed survival to the expected survival, where expected survival is based on the overall population mortality rates.

In the NCIS, the actuarial method of calculating relative survival is used (D.M. Parkin and T. Hakulinen, pp159–176, Chapter 12 Analysis of Survival in Cancer Registration: Principles and

Methods, IARC Scientific Publications No. 95, Lyon, 1991). This method is also used by the International Agency for Research on Cancer in the EUROCARE and EUROCARE-2 studies (IARC Scientific Publications No. 132, Lyon, 1995 and No. 151, Lyon, 1999, respectively).

There are several different methods of calculating relative survival and not all cases are eligible for inclusion in the survival analyses. Therefore, differences in relative survival methods or exclusion criteria may cause discrepancies with relative survival rates presented in other publications. For these reasons, relative survival rates should not be compared across different publications (for example, survival rates presented in the NCIS should not be compared with survival rates published by the Office for National Statistics).

Confidence Intervals

Confidence Intervals (CIs) are a way of expressing how certain we are about a figure, such as an estimated prevalence based on results for a small sample of the population. CIs define a range of values which we are 95% certain contains the true value. They are shown on the charts as a shape like a capital I.

Appendix III: Guide to Cancer Networks Maps

Code	Name
N20	Mount Vernon
N21	West London
N22	North London
N23	North East London
N24	South East London
N25	South West London
N26	Peninsula
N27	Dorset
N28	Avon, Somerset and Wiltshire
N29	3 Counties

Code	Name
N30	Thames Valley
N31	Central South Coast
N32	Surrey, West Sussex and Hampshire
N33	Sussex
N34	Kent and Medway
N35	Greater Midlands
N36	North of England
N37	Anglia
N38	Essex
N39	East Midlands

The NCIN is a network which brings together the major cancer intelligence organisations, to drive improvements in cancer data, information, analysis and intelligence.

NCIN partners who contribute to the work of NCIN include:

NCRI National Cancer Research Institute

NWCIS North West Cancer Intelligence Service

NHS Northern and Yorkshire Cancer Registry and Information Service

King's College London

Trent NHS Cancer Registry

South West Public Health Observatory

West Midlands Cancer Intelligence Unit

ukacr United Kingdom Association of Cancer Registries

ecric Fighting cancer with information

Office for National Statistics

ociu Oxford Cancer Intelligence Unit

CANCER RESEARCH UK

WE ARE MACMILLAN. CANCER SUPPORT

OCIU working in partnership with **NCIN**

ociu
Oxford Cancer
Intelligence Unit

NCIN
national cancer
intelligence network
Using information to improve quality & choice

FIND OUT MORE

OCIU is the NCIN Lead Cancer Registry for Head and Neck Cancer.

For more information about the work of OCIU, please visit
www.ociu.nhs.uk or email **enquiries@ociu.nhs.uk**

Other useful resources within the NCIN partnership:

Cancer Research UK CancerStats – Key facts and detailed statistics for health professionals.
http://info.cancerresearchuk.org/cancerstats

The **NCIN** is a UK-wide initiative, working closely with cancer services in England, Scotland, Wales and Northern Ireland, and the NCRI (National Cancer Research Institute) to drive improvements in standards of cancer care and clinical outcomes by improving and using the information it collects for analysis, publication and research. In England, the NCIN is part of the National Cancer Programme.

www.ncin.org.uk