

Respiratory Disease

Introduction

Respiratory disease is the third biggest cause of death in England after cancer and cardiovascular disease. Hospital admissions for respiratory disease have been rising over the last few years and at a higher rate than other admissions.

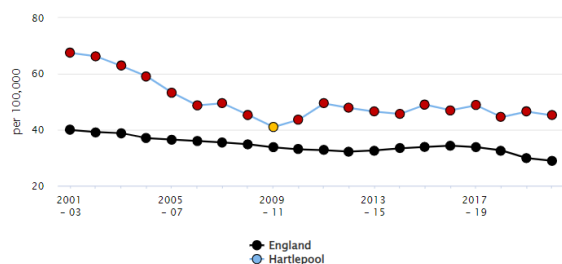
Examples of respiratory disease include Chronic Obstructive Pulmonary Disease (COPD), Asthma, Influenza and Pneumonia along with other respiratory infections.

Respiratory diseases have a major role to play in increasing winter pressures on NHS trusts – admissions double in winter. There are clear social gradients with respiratory disease. Incidence and mortality rates are higher in more deprived areas. This is linked to increased smoking rates, poor housing, exposure to poor air quality and occupational hazards.

Improvements to respiratory health can come from reducing smoking, increasing vaccination rates and improving diagnostic rates.

Main Issues

Hartlepool's under 75 mortality rate from respiratory disease declined steadily for the nine years from 2001/03 to 2009/11, falling 39.4%, from 67.5 per 100,000 to 40.9 per 100,000. After an initial two year increase, the Hartlepool rate has remained largely stable, and in 2020/22 the rate was 45.1 per 100,000. The Hartlepool rate is 56.1% larger than the England rate, and has remained statistically significantly worse than the England rate for 11 consecutive years. Hartlepool's 2020/22 rate is the 3rd largest in the north east and the 17th largest in England.



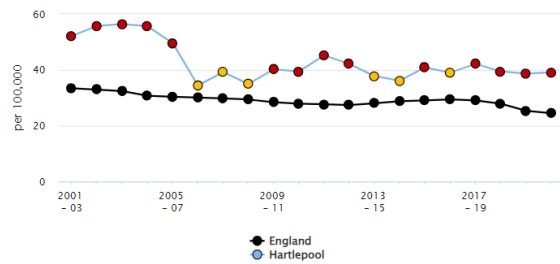
Period	Hartlepool				North East	England
	Count	Value	95% Lower CI	95% Upper CI		
2001 - 03	146	67.5	56.9	79.4	52.2	39.9
2002 - 04	146	66.2	55.9	77.9	50.9	38.8
2003 - 05	139	62.8	52.8	74.2	50.1	38.8
2004 - 06	131	59.1	49.4	70.2	47.6	37.0
2005 - 07	118	53.2	44.1	63.8	46.2	36.5
2006 - 08	108	48.7	39.9	58.8	45.9	36.0
2007 - 09	110	49.4	40.6	59.6	44.7	35.4
2008 - 10	101	45.3	36.9	55.1	43.3	34.8
2009 - 11	94	40.9	33.0	50.2	41.4	33.7
2010 - 12	100	43.6	35.4	53.0	41.5	33.0
2011 - 13	114	49.4	40.7	59.4	42.0	32.7
2012 - 14	110	47.8	39.2	57.6	40.7	32.1
2013 - 15	107	46.4	38.0	56.2	41.3	32.6
2014 - 16	107	45.7	37.4	55.2	42.5	33.3
2015 - 17	117	49.0	40.4	58.7	43.6	33.8
2016 - 18	116	46.9	38.8	56.3	43.6	34.3
2017 - 19	124	48.7	40.5	58.1	43.8	33.8
2018 - 20	116	44.5	36.7	53.4	42.2	32.6
2019 - 21	123	46.4	38.6	55.4	39.9	29.8
2020 - 22	122	45.1	37.4	53.9	37.8	28.9

Source: Office for Health Improvement and Disparities (based on Office for National Statistics source data)

When broken down by sex, the differences between the male and female rates in Hartlepool in 2020/22 is 23.6%, with the female rate at 39.2 per 100,000 and the male rate 51.3 per 100,000. Across the reporting period, while the male trend is similar to the overall pattern, the female rate has had six years of statistical similarity to England, compared to the male rates two years. There was no overlap between the years when the male and female rates were statistically similar to England. Both male and female rates have remained largely stable over the recent years in the reporting period, though neither rate has been statistically similar to England for at least four years.

Under 75 mortality rate from respiratory disease (Female, 3 year range)

Directly standardised rate - per 100,000

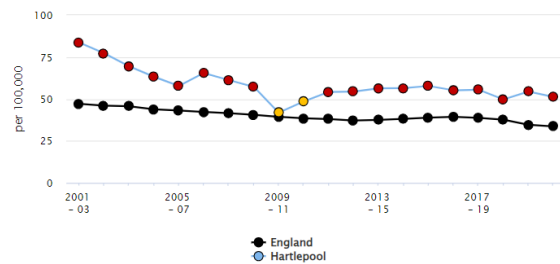


Period	Hartlepool				North East	England
	Count	Value	95% Lower CI	95% Upper CI		
2001 - 03	59	52.2	39.8	67.3	46.3	33.4
2002 - 04	64	55.8	43.0	71.2	44.9	33.0
2003 - 05	65	56.4	43.6	71.9	42.9	32.5
2004 - 06	65	55.7	43.0	71.0	41.0	30.8
2005 - 07	58	49.6	37.7	64.2	40.9	30.4
2006 - 08	41	34.4	24.6	46.8	41.7	30.1
2007 - 09	47	39.3	28.8	52.3	39.6	29.8
2008 - 10	42	35.0	25.1	47.4	38.8	29.4
2009 - 11	49	40.2	29.7	53.3	36.6	28.4
2010 - 12	48	39.5	29.1	52.4	37.9	27.9
2011 - 13	55	45.3	34.1	59.0	38.6	27.7
2012 - 14	51	42.2	31.3	55.5	38.6	27.4
2013 - 15	46	37.8	27.6	50.5	38.8	28.0
2014 - 16	45	36.2	26.3	48.5	39.4	28.8
2015 - 17	51	40.9	30.4	53.8	40.2	29.1
2016 - 18	50	39.1	29.0	51.6	40.3	29.5
2017 - 19	55	42.1	31.7	54.9	40.8	29.1
2018 - 20	53	39.5	29.5	51.6	38.4	27.9
2019 - 21	53	38.7	29.0	50.7	36.7	25.3
2020 - 22	55	39.2	29.5	51.0	34.9	24.5

Source: Office for Health Improvement and Disparities (based on Office for National Statistics source data)

Under 75 mortality rate from respiratory disease (Male, 3 year range)

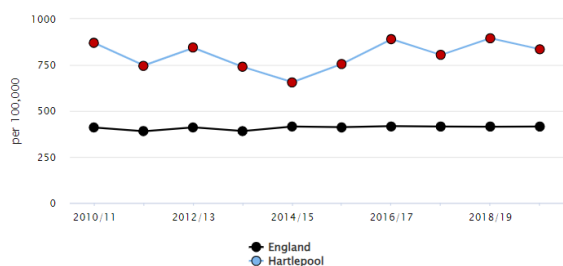
Directly standardised rate - per 100,000



Period	Hartlepool				North East	England
	Count	Value	95% Lower CI	95% Upper CI		
2001 - 03	86	83.7	67.0	103.4	59.0	47.1
2002 - 04	81	77.3	61.3	96.1	57.7	46.1
2003 - 05	74	69.5	54.5	87.4	58.1	45.7
2004 - 06	66	63.3	48.9	80.5	54.8	43.8
2005 - 07	60	57.8	44.1	74.4	52.0	43.1
2006 - 08	67	65.5	50.7	83.1	50.6	42.3
2007 - 09	63	61.3	47.1	78.4	50.3	41.5
2008 - 10	59	57.2	43.5	73.8	48.4	40.6
2009 - 11	45	41.9	30.5	56.1	46.6	39.3
2010 - 12	52	48.5	36.1	63.7	45.5	38.4
2011 - 13	59	54.2	41.2	70.0	45.7	38.0
2012 - 14	59	54.4	41.3	70.3	42.8	37.2
2013 - 15	61	56.4	43.0	72.6	44.0	37.5
2014 - 16	62	56.4	43.1	72.5	45.8	38.2
2015 - 17	66	57.7	44.6	73.5	47.3	38.9
2016 - 18	66	55.2	42.6	70.3	47.1	39.4
2017 - 19	69	55.5	43.2	70.3	47.1	38.8
2018 - 20	63	49.7	38.1	63.7	46.2	37.6
2019 - 21	70	54.4	42.4	68.8	43.3	34.6
2020 - 22	67	51.3	39.7	65.2	40.9	33.6

Source: Office for Health Improvement and Disparities (based on Office for National Statistics source data)

Looking at Chronic Obstructive Pulmonary Disease (COPD) individually, Hartlepool's rate of emergency hospital admissions for COPD in 2019/20 of 835 per 100,000 population is the 5th highest England and the highest in the north east. Hartlepool's rate has been statistically worse than the England average throughout the 10 year reporting period, but has fluctuated up and down across these years. Comparatively the England rate has remained quite stable, moving no more than 6.4% year to year. The Hartlepool rate regularly moves by more than 10% year to year across this period, with the 17.8% increase in 2016/17 the largest in the period. Hartlepool has remained statistically significantly worse than England throughout the reporting period.

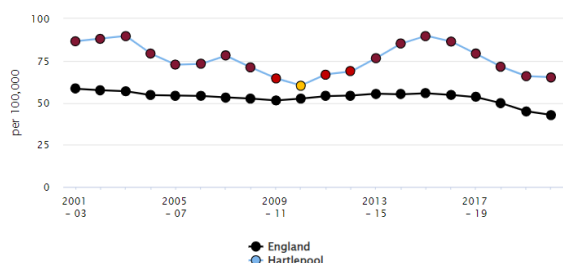


Recent trend: No significant change

Period	Hartlepool				North East	England
	Count	Value	95% Lower CI	95% Upper CI		
2010/11	431	869	788	956	685	410
2011/12	381	747	674	826	644	389
2012/13	433	843	765	927	663	411
2013/14	387	739	667	817	594	390
2014/15	349	656	589	729	646	415
2015/16	405	755	683	833	634	411
2016/17	481	890	812	974	673	417
2017/18	443	805	731	884	643	415
2018/19	500	895	818	978	655	414
2019/20	470	835	761	915	638	415

Source: Hospital Episode Statistics (HES)

The mortality rate from COPD in Hartlepool has decreased year on year for five years from 89.8 per 100,000 in 2015/17 to 65.2 per 100,000 in 2020/22, a decrease of 27.4%. Throughout the 19 year reporting period there is only a single year, 2010/12, where Hartlepool’s rate has not been statistically significantly worse than the England rate, currently Hartlepool has been significantly worse than England for the last 10 consecutive years. Hartlepool’s 2020/22 rate is the 16th highest in England and the 3rd highest in the north east.



Period	Hartlepool				North East	England
	Count	Value	95% Lower CI	95% Upper CI		
2001 - 03	190	86.5	74.5	100.0	79.1	58.3
2002 - 04	194	88.1	75.9	101.7	79.4	57.5
2003 - 05	199	89.7	77.4	103.3	79.0	56.9
2004 - 06	180	79.1	67.8	91.8	75.9	54.5
2005 - 07	167	72.6	61.8	84.6	74.5	54.2
2006 - 08	165	73.1	62.1	85.4	74.7	54.0
2007 - 09	173	78.0	66.4	91.0	73.5	53.2
2008 - 10	161	71.0	60.1	83.2	72.3	52.5
2009 - 11	150	64.5	54.3	76.0	70.6	51.4
2010 - 12	147	60.3	50.8	71.0	71.9	52.4
2011 - 13	168	66.9	57.1	77.9	75.0	54.0
2012 - 14	174	68.6	58.7	79.6	74.1	54.3
2013 - 15	195	76.6	66.1	88.2	76.9	55.3
2014 - 16	221	85.2	74.2	97.3	77.4	55.0
2015 - 17	236	89.8	78.7	102.1	78.7	55.6
2016 - 18	232	86.4	75.6	98.3	76.4	54.6
2017 - 19	213	79.0	68.7	90.5	74.0	53.3
2018 - 20	195	71.4	61.7	82.3	68.0	49.7
2019 - 21	182	65.8	56.5	76.2	61.0	44.9
2020 - 22	184	65.2	56.0	75.4	57.0	42.8

Source: Office for Health Improvement and Disparities (based on Office for National Statistics source data)

Current Services

It is recognised that the current design, capacity and capability of current services is insufficient to cope with the projected increase in the number of people with COPD, from a registered prevalence of 2.7% in 2010 to 4.5% in 2020 in Hartlepool. The

CCG are working with primary care, secondary and community care to ensure patients are supported and empowered to manage their respiratory disease.

Locally, there is low awareness of lung health and COPD in sub-groups that are at high risk (for example current and ex-smokers and women). Incidence and mortality rates for those with a respiratory disease are higher in disadvantaged groups and areas of social deprivation.

There is inequitable access to high quality spirometry across primary and community care and by March 2021, any health professional performing and interpreting spirometry will be required to obtain an ARTTP qualification. The CCG are developing how spirometry services will be commissioned, working closely with the Primary Care Networks.

We have a high number of emergency admissions for respiratory conditions, implying a level of unmet need and increased requirements for support and education of this patient group. The Hospital at Home service provides a home support service to ensure that wherever possible, patient's symptoms are managed in their own homes thus reducing the need for a hospital stay

Future Intentions

Our intention for the future is to improve services and outcomes for respiratory disease. We will achieve this by taking an integrated approach to delivery which involves communities, voluntary organisations and the health and care system. We will focus on prevention, early detection and diagnosis and optimal treatment options, concentrating interventions initially on populations at greater risk.

The NHS Long Term Plan outlines a number of key milestones for respiratory care:

- Early and accurate diagnosis: to increase early and accurate diagnosis for people with respiratory disease.
- Medicines management: to promote appropriate prescribing of respiratory medication and inhaler use to promote better compliance and prevent avoidable acute admissions and deaths from poor self-management.
- Flexible learning: to develop an accredited education programme for individuals diagnosed with common respiratory diseases such as COPD, asthma and

bronchiectasis. Patients will be empowered to effectively self-manage offering innovative support such as digital solutions and enhanced group structured education programmes

- Expansion of pulmonary rehabilitation: to increase the number of patients who would benefit from Pulmonary Rehabilitation and are referred to and complete a good quality programme.
- Community-acquired pneumonia: to reduce avoidable admissions and bed days for patients with community acquired pneumonia, achieved through implementation of risk stratification tools and ambulatory care services such as nurse-led supported discharge services.
- Breathlessness models: A model of care for breathlessness management is designed for patients who have either cardiac or pulmonary disease and have symptoms of breathlessness in common, to include the diagnostic pathway and joint rehabilitation models.
- Effective care will be wrapped around patients in the community to reduce emergency admissions and support patients to be discharged following admission as quickly and safely as possible.