

# Know your numbers: Premature mortality

Quantifying major causes of  
premature death in Tees Valley

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19th March 2014



## Introduction

Premature mortality is a symptom of high disease burden in the population as well as underlying health inequalities. If we can tackle the underlying causes of ill health we can prevent people from dying earlier than they do at present. This report uses a standard definition of premature mortality: death before age 75 years.

Premature death is more common in Tees Valley than in England. For example, in Middlesbrough, a man can expect to live 3 years less than the England average, and a woman nearly two years less. However, the gaps within each area are wider still, with the most affluent men in Middlesbrough outliving the least affluent by more than 16 years, and the most affluent women outliving their deprived counterparts by 12 years.

This report presents some of the main causes of premature death and estimates how many of these deaths would need to be prevented for each area to achieve similar rates to the North East and England.

### Life expectancy and range of life expectancy in Tees Valley and England

	Darlington	Hartlepool	Middlesbrough	Redcar & Cleveland	Stockton	England
Male life expectancy (years)	78.0	76.6	75.8	78.4	78.0	78.9
Range of male life expectancy from least to most deprived (years)	13.3	12.5	16.4	13.4	16.3	8.9
Female life expectancy (years)	82.4	81.2	80.1	82.0	81.9	82.9
Range of female life expectancy from least to most deprived (years)	10.1	7.1	12.3	6.7	12.4	5.9

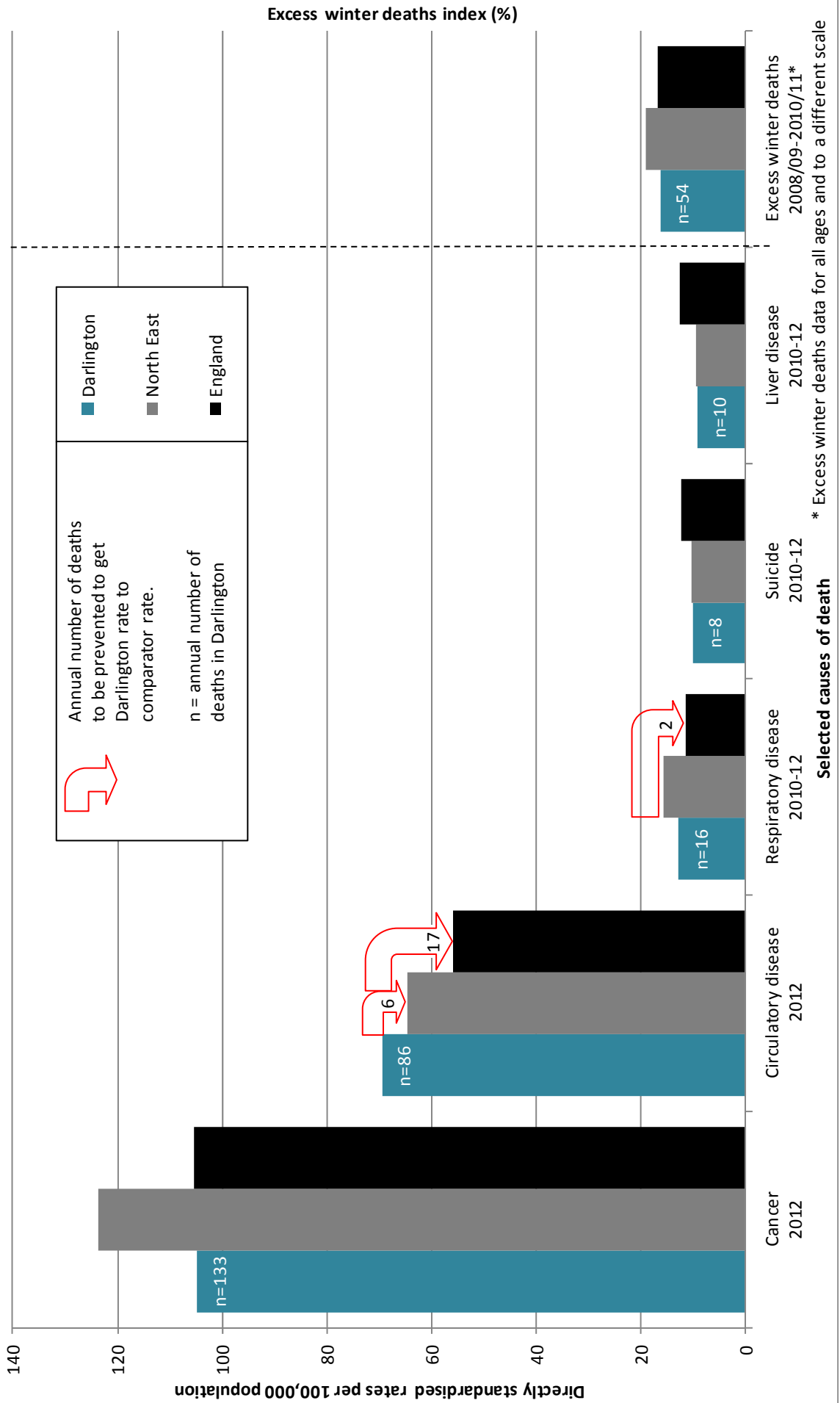
Source: Public Health England, The Segment Tool

The following charts present, for each local authority in Tees Valley, rates of premature mortality for selected causes. They have been sorted by decreasing rates for each authority, so the order of the categories varies from one area to another. The causes of death considered are:

- Cancer - mortality from all cancers aged <75 years, 2012
- Circulatory - mortality from all circulatory diseases aged <75 years, 2012
- Respiratory - mortality from bronchitis, emphysema and other COPD aged <75 years, 2010-12 (3-year average)
- Liver disease - mortality from chronic liver disease including cirrhosis aged <75 years, 2010-12 (3-year average)
- Suicide - mortality from suicide and injury undetermined aged 15-74 years, 2010-12 (3-year average)
- Excess winter deaths - all ages, 2008/09 to 2010/11 (3-year average)

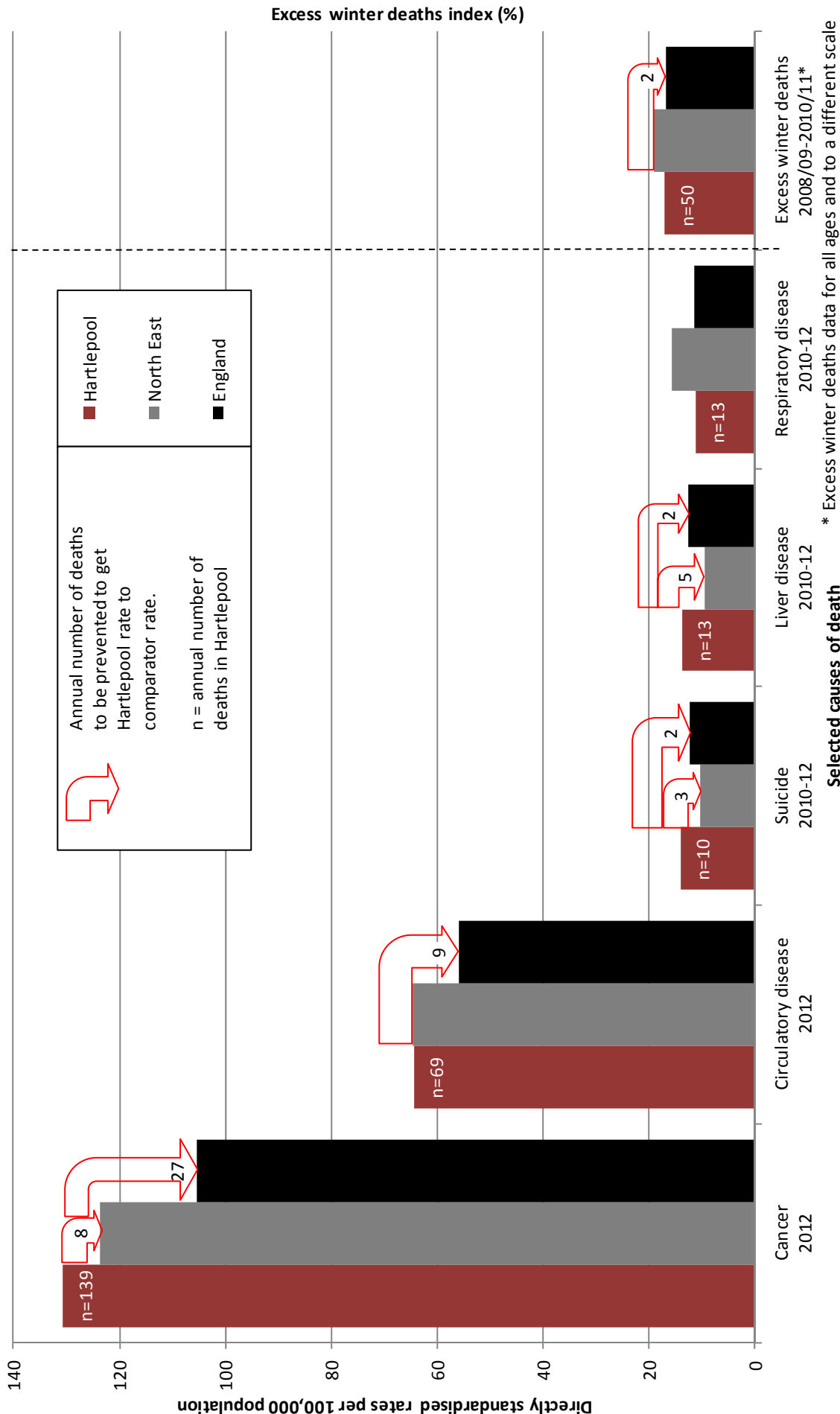
Each chart shows the standardised rate and excess winter deaths index for the local authority, the North East region and England. Where the local rate is higher than the regional or national rate, an estimate is provided of the annual number of premature deaths that would need to be prevented in order for the local rate to reach the comparator rate.

# Estimated annual number of deaths under 75 years that would need to be prevented for Darlington to achieve the same rates as the North East and England

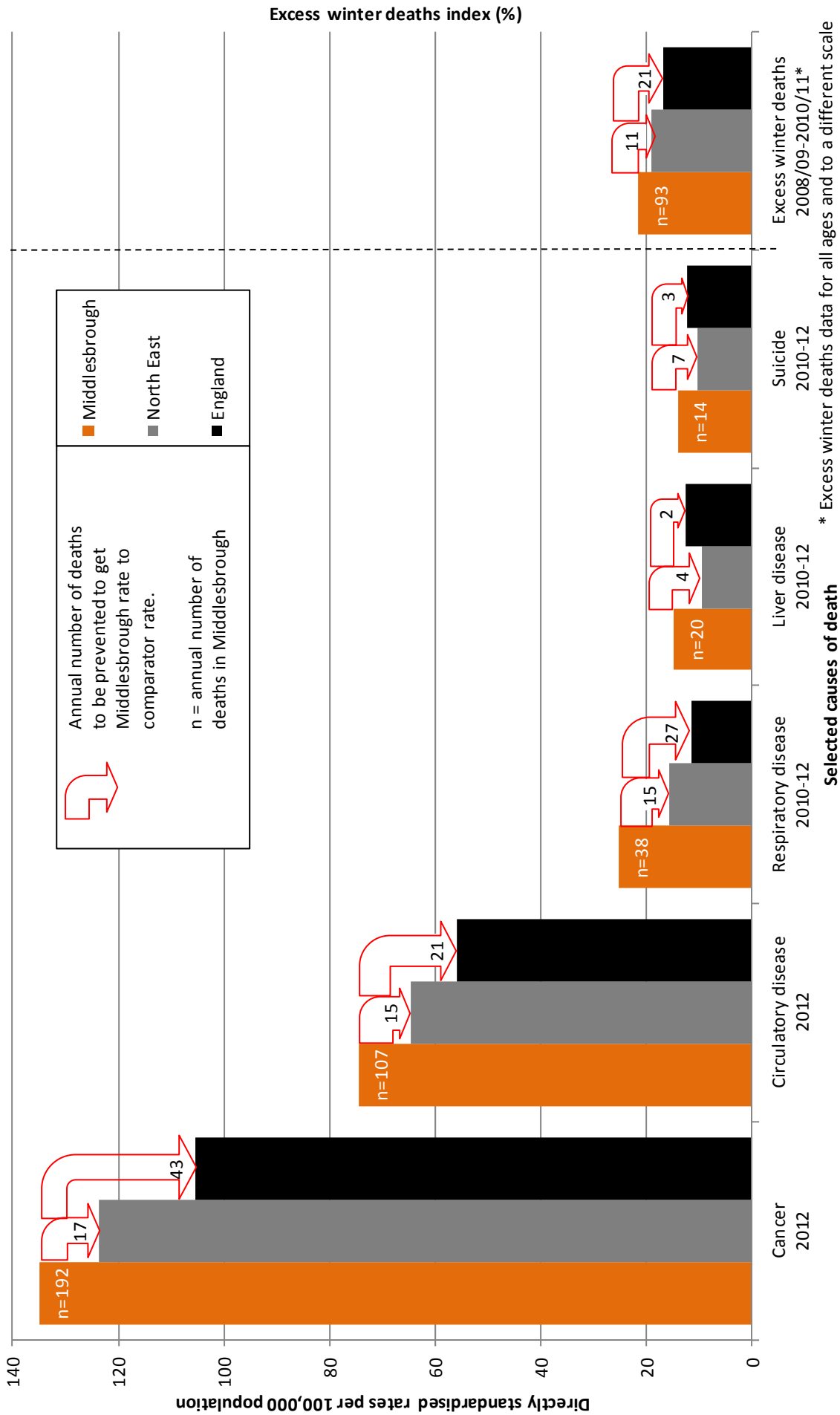




# Estimated annual number of deaths under 75 years that would need to be prevented for Hartlepool to achieve the same rates as the North East and England

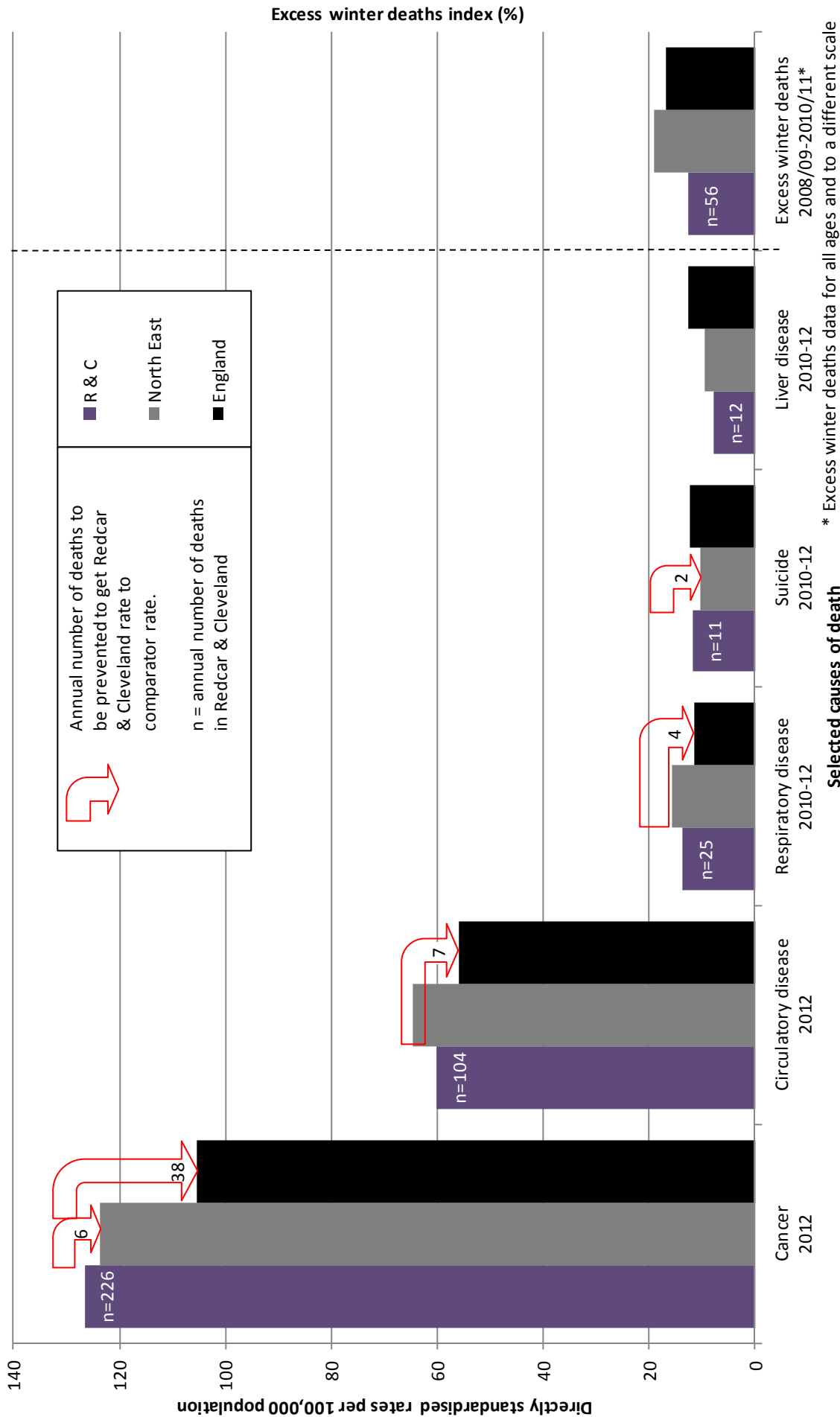


# Estimated annual number of deaths under 75 years that would need to be prevented for Middlesbrough to achieve the same rates as the North East and England

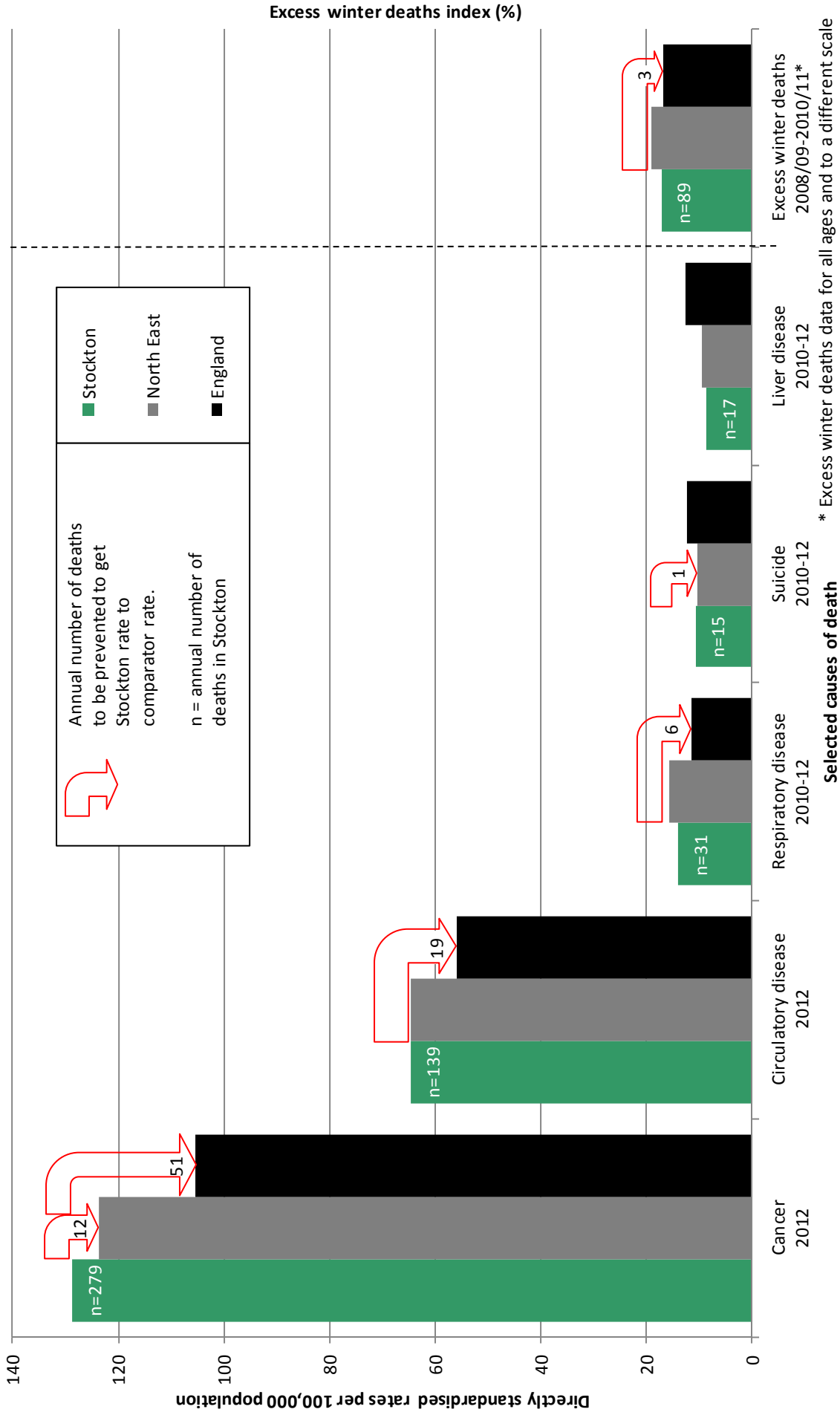




# Estimated annual number of deaths under 75 years that would need to be prevented for Redcar & Cleveland to achieve the same rates as the North East and England



# Estimated annual number of deaths under 75 years that would need to be prevented for Stockton to achieve the same rates as the North East and England





## Conclusion

In all areas of Tees Valley, cancer is the biggest cause of premature mortality. However, the numbers of deaths that need to be prevented to reach regional levels are not insurmountable, and Darlington has a rate below both the North East and England at present. The ambition of having premature cancer mortality at national levels is more challenging in areas other than Darlington.

In total, for the selected causes of death, Tees Valley would need to prevent just over 100 deaths annually to achieve the North East average, about 2 premature deaths per week. To reach the England rate, approximately 300 premature deaths would need to be averted annually, fewer than one per day.

### Estimated annual number of premature deaths that need to be prevented for Tees Valley authorities to reach North East and England rates

		Cancer	Circulatory disease	Respiratory disease	Liver disease	Suicide	Excess winter deaths*	Total
Darlington	to reach North East rate	-	6	-	-	-	-	6
	to reach England rate	-	17	2	-	-	-	19
Hartlepool	to reach North East rate	8	-	-	5	3	-	16
	to reach England rate	27	9	-	2	2	2	42
Middlesbrough	to reach North East rate	17	15	15	4	7	11	69
	to reach England rate	43	21	27	2	3	21	117
Redcar & Cleveland	to reach North East rate	6	-	-	-	2	-	8
	to reach England rate	38	7	4	-	-	-	49
Stockton	to reach North East rate	12	-	-	-	1	-	13
	to reach England rate	51	19	6	-	-	3	79
Tees Valley	to reach North East rate	43	21	15	9	13	11	112
	to reach England rate	159	73	39	4	5	26	306

#### Key

\* Deaths at all ages

- local rate is already at or below comparator rate



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