

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Updated May 2016



Key results for South East

Introduction

The Segment Tool has been developed by Public Health England's (PHE) Epidemiology and Surveillance team and provides information on the causes of death that are driving inequalities in life expectancy at local area level. Targeting the causes of death which contribute most to the life expectancy gap should have the biggest impact on reducing inequalities.

This document presents key results for South East and provides data tables and charts showing the breakdown of the life expectancy gap in 2012-14 for two comparisons:

1. The gap between the region as a whole and England as a whole.
2. The gap between the most deprived quintile of the region and the least deprived quintile of the region.

The tool, along with a user guide and technical document, can be downloaded from <http://fingertips.phe.org.uk/profile/segment>

Due to changes made in this version of the Segment Tool, the results presented here are not directly comparable with previous versions.

Interpreting the charts

Two types of chart are included below.

The scarf charts show, for each broad cause of death, the percentage contribution that it makes to the overall life expectancy gap between the areas selected. This could be between the region as a whole and England, or between the most deprived quintile of the region and the least deprived quintile of the region, depending on which comparison has been selected. If a cause shows a contribution of 0, this means that the cause of death does not make any contribution to the life expectancy gap.

The bar charts show, for a more detailed breakdown of causes of death, the years of life expectancy that would be gained or lost in the selected area, if it had the same mortality rates as the comparator area.

The tables show the percentage contributions and years of life gained for each cause of death. The number of deaths occurring in the area in 2012-14 are shown, and alongside, the number of excess deaths. Excess deaths are the number of 'extra' deaths that occur in the selected area because it has a higher mortality rate for that cause of death than the comparator area. If these deaths were prevented, then the contribution of that cause of death to the overall life expectancy gap would be eliminated. For some causes of death, there are no excess deaths in the selected area, and therefore no impact is made to the life expectancy gap. If this is the case the table shows a value of "..".

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Contextual information for South East

Information on inequalities in life expectancy between South East and England

	Male	Female
Life expectancy at birth in South East, 2012-2014	80.5	84.0
Life expectancy at birth in England, 2012-2014	79.6	83.2
Absolute gap in life expectancy between South East and England in years*	0.9	0.8

*A value below 0 indicates a lower life expectancy in the selected area compared to England.

Information on inequalities in life expectancy within South East

	Male	Female
Life expectancy at birth in the most deprived quintile of South East, 2012-2014	76.8	81.2
Life expectancy at birth in the least deprived quintile of South East, 2012-2014	83.3	86.1
Absolute gap in life expectancy between most deprived and least deprived areas within South East*	-6.5	-4.9

*A value below 0 indicates a lower life expectancy in the most deprived quintile compared with the least deprived quintile.

Sources:

- Life expectancies for regions - Office for National Statistics (ONS), life expectancy at birth for local areas in England and Wales
- Life Expectancies for deprivation quintiles within each local authority - Analysis by Public Health England Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2015

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Between area inequalities: Life expectancy gap between South East as a whole and England

Chart 1: Scarf chart showing the breakdown of the life expectancy gap between South East as a whole and England as a whole, by broad cause of death, 2012-2014

****This chart is not available as life expectancy is higher in South East than in England as a whole****



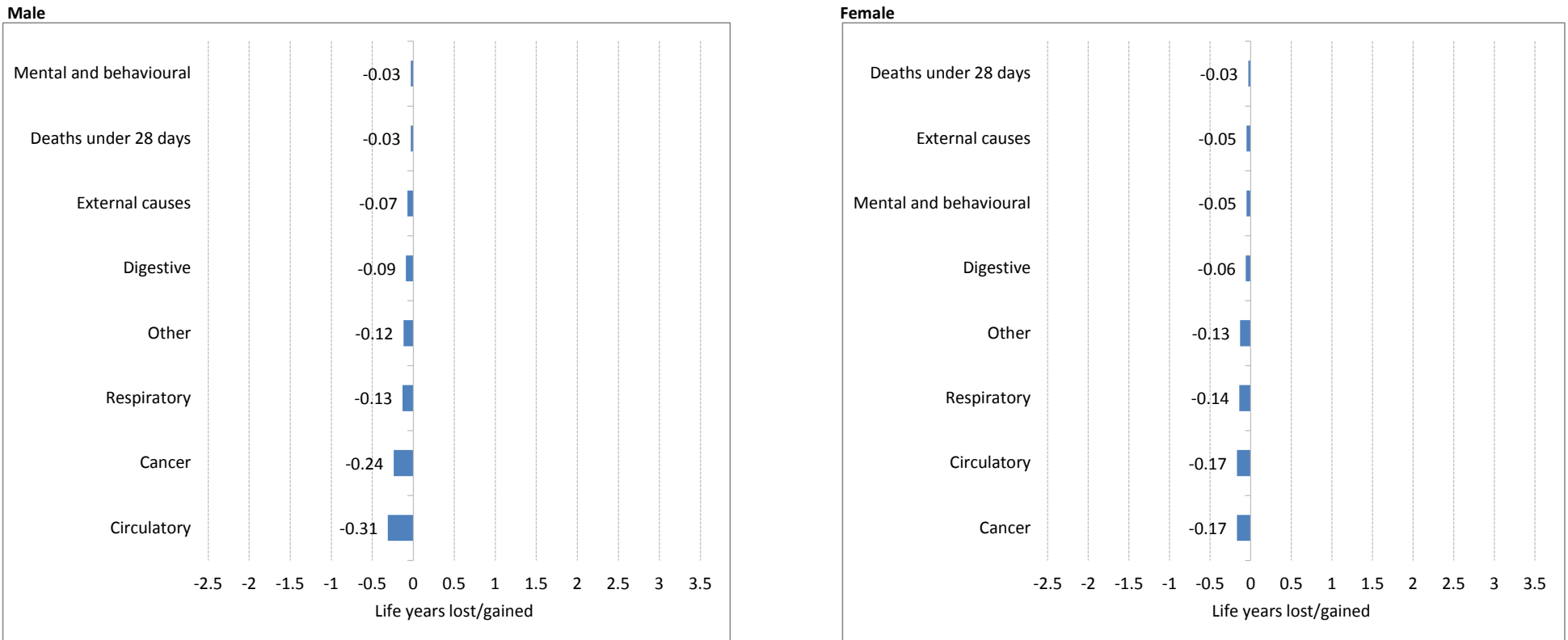
Footnote: Circulatory diseases includes coronary heart disease and stroke. Respiratory diseases includes flu, pneumonia and chronic obstructive airways disease. Digestive diseases includes alcohol-related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide. Mental and behavioural includes dementia and Alzheimer's disease.

Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Chart 2: Bar chart showing life expectancy years gained or lost if South East as a whole had the same mortality rates as England as a whole, by broad cause of death, 2012-2014



Footnote: Circulatory diseases includes coronary heart disease and stroke. Respiratory diseases includes flu, pneumonia and chronic obstructive airways disease. Digestive diseases includes alcohol-related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide. Mental and behavioural includes dementia and Alzheimer's disease.

Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates.

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Table 1: Breakdown of the life expectancy gap between South East as a whole and England as a whole, by broad cause of death, 2012-2014

Broad cause of death	Male				Female			
	Number of deaths in region	Number of excess deaths in region	Number of years of life gained/lost*	Contribution to the gap (%)	Number of deaths in region	Number of excess deaths in region	Number of years of life gained/lost*	Contribution to the gap (%)
Circulatory	31,085	-2,713	-0.31	++	33,277	-1,293	-0.17	++
Cancer	34,455	-2,249	-0.24	++	30,998	-1,514	-0.17	++
Respiratory	15,163	-1,231	-0.13	++	16,638	-1,320	-0.14	++
Digestive	5,093	-609	-0.09	++	5,692	-415	-0.06	++
External causes	5,121	-335	-0.07	++	3,161	-371	-0.05	++
Mental and behavioural	8,127	-337	-0.03	++	16,352	-692	-0.05	++
Other	10,894	-1,012	-0.12	++	14,543	-1,542	-0.13	++
Deaths under 28 days	417	-67	-0.03	++	319	-61	-0.03	++
Total	110,355			++	120,980			++

Counts of deaths have been adjusted take account of changes in ICD-10 coding made in 2014. This means totals may differ between tables. Further details can be found in the technical document.

* A positive figure indicates that life expectancy years would be gained if the region had the same mortality rate as England as a whole (ie the mortality rate in the region for the cause is higher than England as a whole). A negative figure indicates that life expectancy years would be lost if the region had the same mortality rate as England as a whole.

.. The calculated contribution to the gap is negative

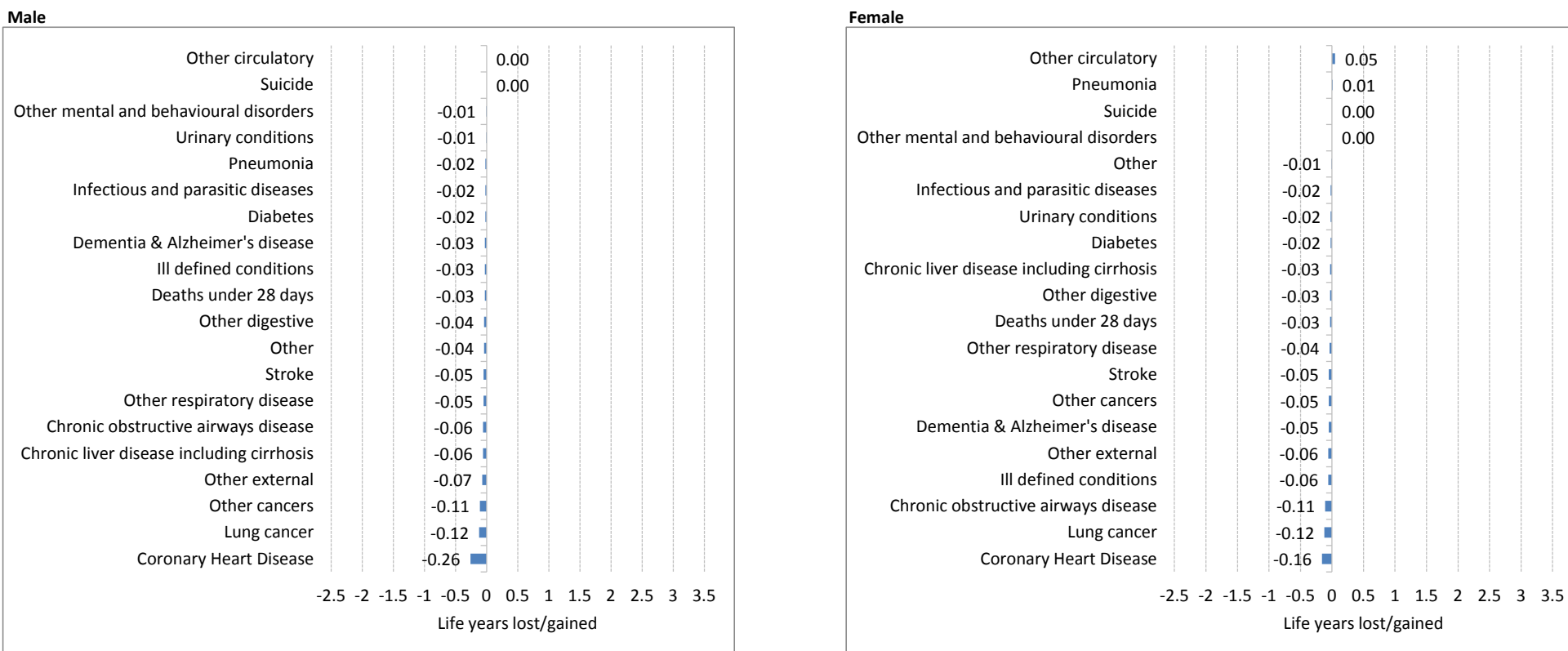
++ The figures have not been calculated as life expectancy is higher than England

Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates.

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Chart 3: Bar chart showing life expectancy years gained or lost if South East as a whole had the same mortality rates as England as a whole, by detailed cause of death, 2012-2014



Footnote: See table below for details of cause groupings. Details of causes of death included in the 'other' category can be found in the Technical Document. Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates.

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Table 2: Table showing life expectancy years gained or lost if South East as a whole had the same mortality rates as England as a whole, by detailed cause of death, 2012-2014

Broad cause of death	Detailed cause of death	Male			Female		
		Number of deaths in region	Number of excess deaths in region	Number of years of life gained/lost*	Number of deaths in region	Number of excess deaths in region	Number of years of life gained/lost*
Circulatory	Coronary Heart Disease	15,450	-2,494	-0.26	10,906	-1,698	-0.16
	Stroke	6,592	-425	-0.05	10,057	-436	-0.05
	Other circulatory	9,035	199	0.00	12,373	843	0.05
Cancer	Lung cancer	6,896	-1,237	-0.12	5,436	-1,189	-0.12
	Other cancers	27,559	-1,012	-0.11	25,562	-325	-0.05
Respiratory	Pneumonia	5,849	-97	-0.02	8,032	305	0.01
	Chronic obstructive airways disease	6,187	-547	-0.06	5,115	-1,213	-0.11
	Other respiratory disease	3,106	-518	-0.05	3,446	-354	-0.04
Digestive	Chronic liver disease including cirrhosis	1,551	-303	-0.06	892	-153	-0.03
	Other digestive	3,501	-303	-0.04	4,800	-262	-0.03
External	Suicide	1,769	-6	0.00	561	27	0.00
	Other external	3,352	-329	-0.07	2,606	-408	-0.06
Mental and behavioural	Dementia & Alzheimer's disease	7,899	-316	-0.03	16,166	-695	-0.05
	Other mental and behavioural disorders	229	-21	-0.01	182	2	0.00
Other	Infectious and parasitic diseases	1,018	-145	-0.02	1,163	-225	-0.02
	Urinary conditions	1,601	-140	-0.01	2,241	-258	-0.02
	Ill defined conditions	1,128	-349	-0.03	3,305	-884	-0.06
	Diabetes	1,036	-206	-0.02	1,113	-211	-0.02
	Other	6,086	-180	-0.04	6,630	27	-0.01
< 28 days	Deaths under 28 days	417	-67	-0.03	319	-61	-0.03
Total		110,260			120,904		

Counts of deaths have been adjusted take account of changes in ICD-10 coding made in 2014. This means totals may differ between tables. Further details can be found in the technical document.

* A positive figure indicates that life expectancy years would be gained if the region had the same mortality rate as England as a whole (ie the mortality rate in the region for the cause is higher than England as a whole). A negative figure indicates that life expectancy years would be lost if the region had the same mortality rate as England as a whole.

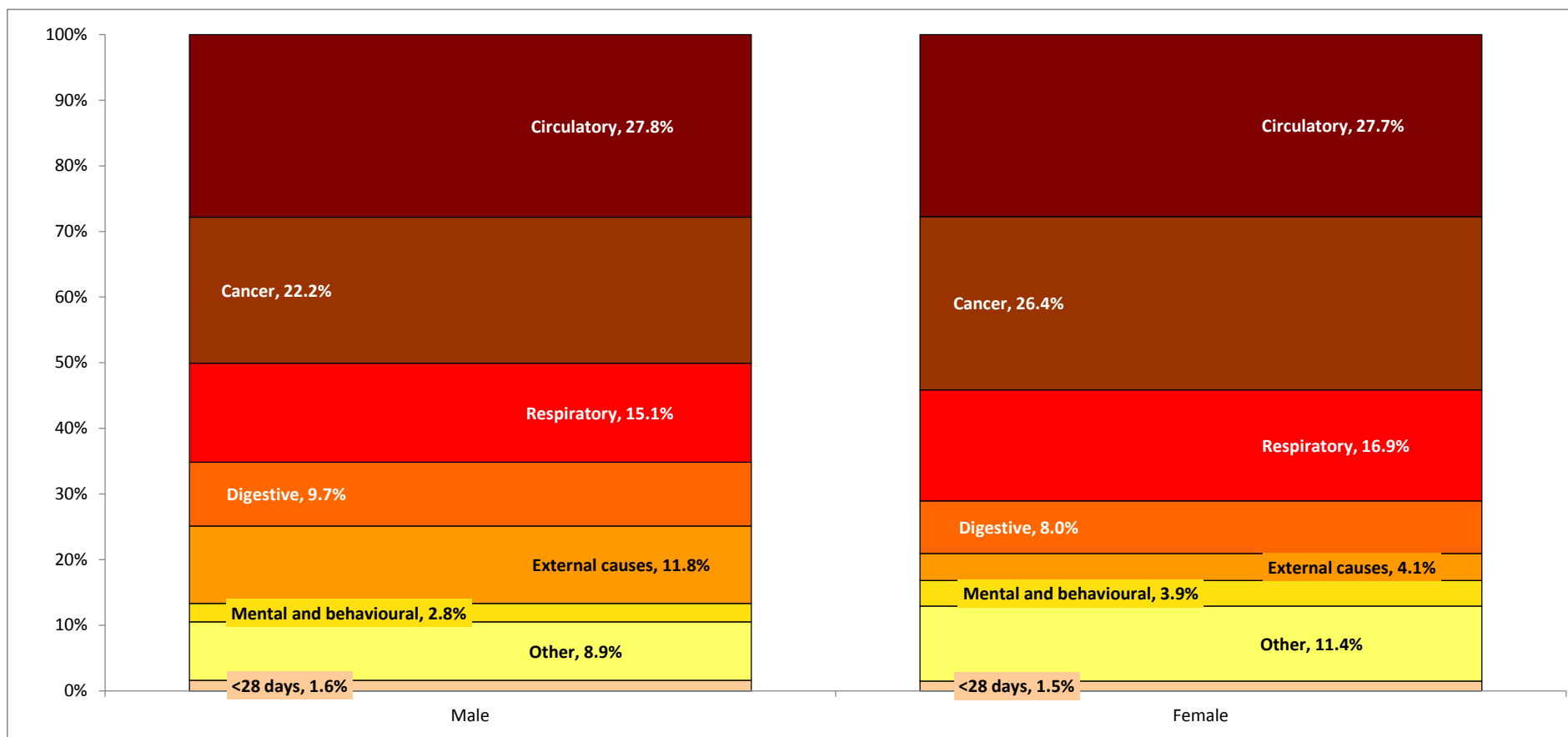
Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates.

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Within area inequalities: Life expectancy gap between the most deprived quintile and least deprived quintile of South East

Chart 4: Scarf chart showing the breakdown of the life expectancy gap between South East most deprived quintile and South East least deprived quintile, by broad cause of death, 2012-2014



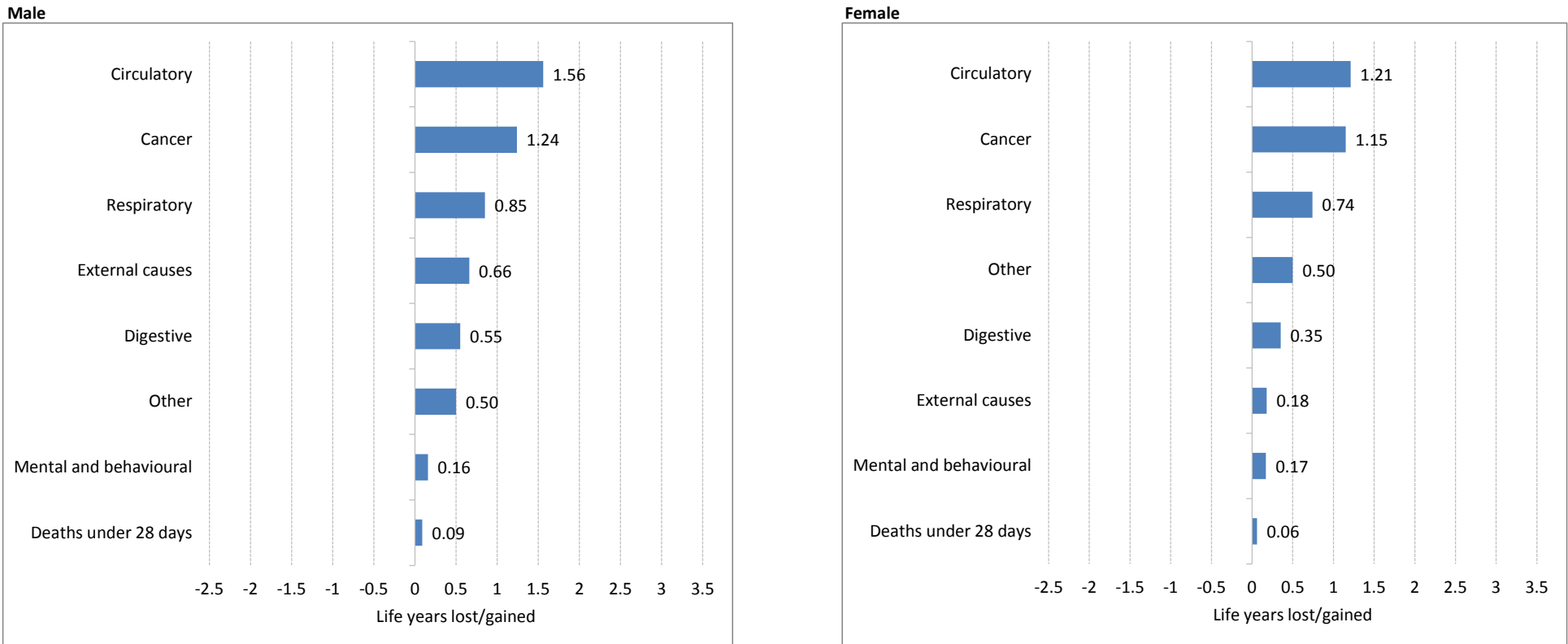
Footnote: Circulatory diseases includes coronary heart disease and stroke. Respiratory diseases includes flu, pneumonia and chronic obstructive airways disease. Digestive diseases includes alcohol-related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide. Mental and behavioural includes dementia and Alzheimer’s disease.

Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2015

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Chart 5: Bar chart showing life expectancy years gained or lost if South East most deprived quintile had the same mortality rates as South East least deprived quintile, by broad cause of death, 2012-2014



Footnote: Circulatory diseases includes coronary heart disease and stroke. Respiratory diseases includes flu, pneumonia and chronic obstructive airways disease. Digestive diseases includes alcohol-related conditions such as chronic liver disease and cirrhosis. External causes include deaths from injury, poisoning and suicide. Mental and behavioural includes dementia and Alzheimer's disease.

Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2015

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Table 3: Breakdown of the life expectancy gap between South East most deprived quintile and South East least deprived quintile, by broad cause of death, 2012-2014

Broad cause of death	Male				Female			
	Number of deaths in most deprived quintile	Number of excess deaths in most deprived quintile	Number of years of life gained/lost*	Contribution to the gap (%)	Number of deaths in most deprived quintile	Number of excess deaths in most deprived quintile	Number of years of life gained/lost*	Contribution to the gap (%)
Circulatory	6,543	2,710	1.56	27.8	6,710	2,170	1.21	27.7
Cancer	6,735	2,147	1.24	22.2	6,178	1,720	1.15	26.4
Respiratory	3,346	1,634	0.85	15.1	3,592	1,270	0.74	16.9
Digestive	1,350	818	0.55	9.7	1,266	521	0.35	8.0
External causes	1,360	707	0.66	11.8	672	164	0.18	4.1
Mental and behavioural	1,418	346	0.16	2.8	2,886	404	0.17	3.9
Other	2,139	707	0.50	8.9	2,796	721	0.50	11.4
Deaths under 28 days	137	50	0.09	1.6	89	31	0.06	1.5
Total	23,027			100	24,188			100

Counts of deaths have been adjusted take account of changes in ICD-10 coding made in 2014. This means totals may differ between tables. Further details can be found in the technical document.

* A positive figure indicates that life expectancy years would be gained if the most deprived quintile of the region had the same mortality rate as the least deprived quintile (ie the mortality rate in the most deprived quintile for the cause is higher than that of the least deprived quintile). A negative figure indicates that life expectancy years would be lost if the most deprived quintile in the region had the same mortality rate as the least deprived quintile.

.. The calculated contribution to the gap is negative

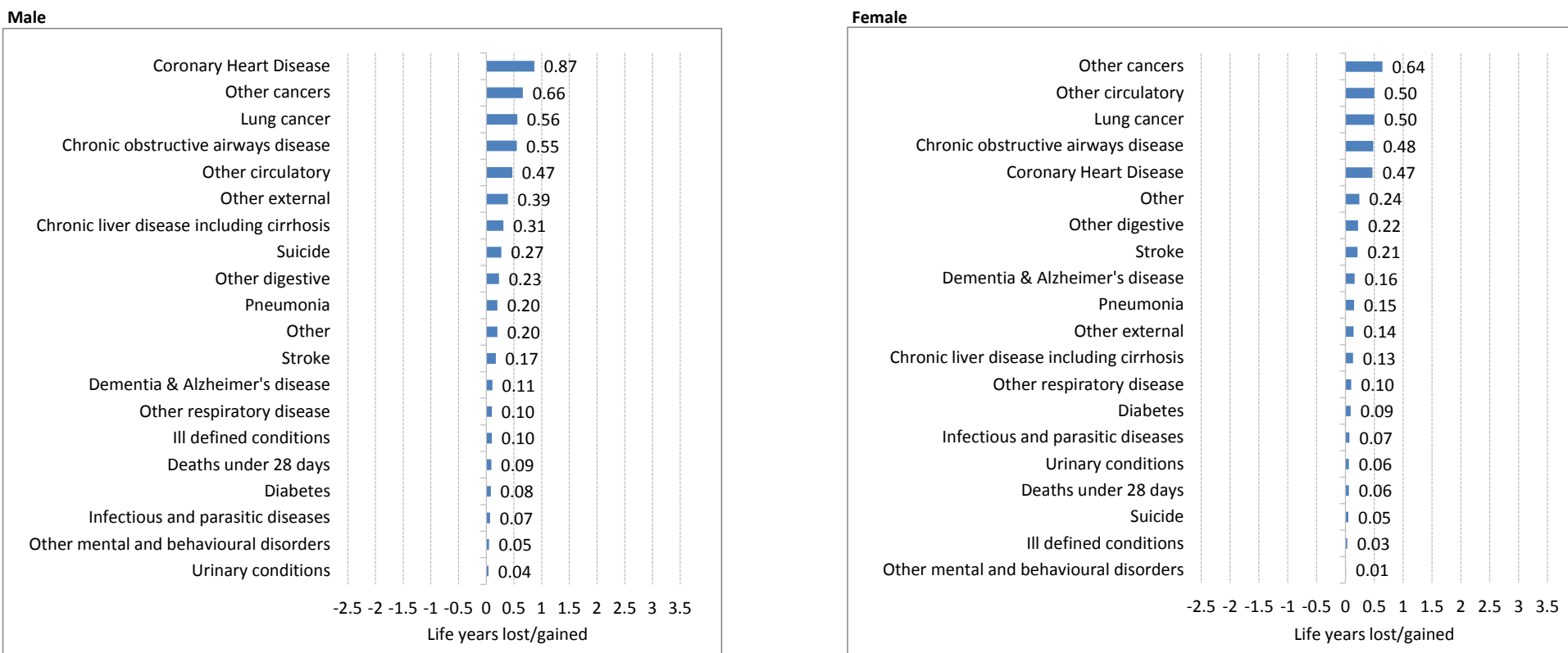
The figures have not been calculated as life expectancy in the most deprived quintile is higher than life expectancy in the least deprived quintile

Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2015

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Chart 6: Bar chart showing life expectancy years gained or lost if South East most deprived quintile had the same mortality rates as South East least deprived quintile, by detailed cause of death, 2012-2014



Footnote: See table below for details of cause groupings. Details of causes of death included in the 'other' category can be found in the Technical Document. Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2015

THE SEGMENT TOOL

SEGMENTING LIFE EXPECTANCY GAPS BY CAUSE OF DEATH

Table 4: Table showing life expectancy years gained or lost if South East most deprived quintile had the same mortality rates as South East least deprived quintile, by detailed cause of death, 2012-2014

Broad cause of death	Detailed cause of death	Male			Female		
		Number of deaths in most deprived quintile	Number of excess deaths in most deprived quintile	Number of years of life gained/lost*	Number of deaths in most deprived quintile	Number of excess deaths in most deprived quintile	Number of years of life gained/lost*
Circulatory	Coronary Heart Disease	3,396	1,499	0.87	2,362	849	0.47
	Stroke	1,198	339	0.17	1,805	364	0.21
	Other circulatory	1,947	869	0.47	2,556	965	0.50
Cancer	Lung cancer	1,732	1,011	0.56	1,400	796	0.50
	Other cancers	5,003	1,135	0.66	4,778	924	0.64
Respiratory	Pneumonia	1,110	376	0.20	1,494	253	0.15
	Chronic obstructive airways disease	1,652	1,098	0.55	1,393	844	0.48
	Other respiratory disease	588	176	0.10	692	169	0.10
Digestive	Chronic liver disease including cirrhosis	544	413	0.31	256	155	0.13
	Other digestive	793	397	0.23	1,011	366	0.22
External	Suicide	522	296	0.27	134	39	0.05
	Other external	838	411	0.39	541	129	0.14
Mental and behavioural	Dementia & Alzheimer's disease	1,331	272	0.11	2,852	397	0.16
	Other mental and behavioural disorders	87	73	0.05	34	7	0.01
Other	Infectious and parasitic diseases	223	95	0.07	277	126	0.07
	Urinary conditions	296	98	0.04	431	103	0.06
	Ill defined conditions	264	116	0.10	514	6	0.03
	Diabetes	241	121	0.08	297	158	0.09
	Other	1,110	275	0.20	1,259	324	0.24
< 28 days	Deaths under 28 days	137	50	0.09	89	31	0.06
Total		23,011			24,173		

Counts of deaths have been adjusted take account of changes in ICD-10 coding made in 2014. This means totals may differ between tables. Further details can be found in the technical document.

* A positive figure indicates that life expectancy years would be gained if the most deprived quintile of the region had the same mortality rate as the least deprived quintile (ie the mortality rate in the most deprived quintile for the cause is higher than that of the least deprived quintile). A negative figure indicates that life expectancy years would be lost if the most deprived quintile in the region had the same mortality rate as the least deprived quintile.

Analysis by Public Health England's (PHE) Epidemiology and Surveillance team based on ONS death registration data, and mid year population estimates, and DCLG Index of Multiple Deprivation, 2015