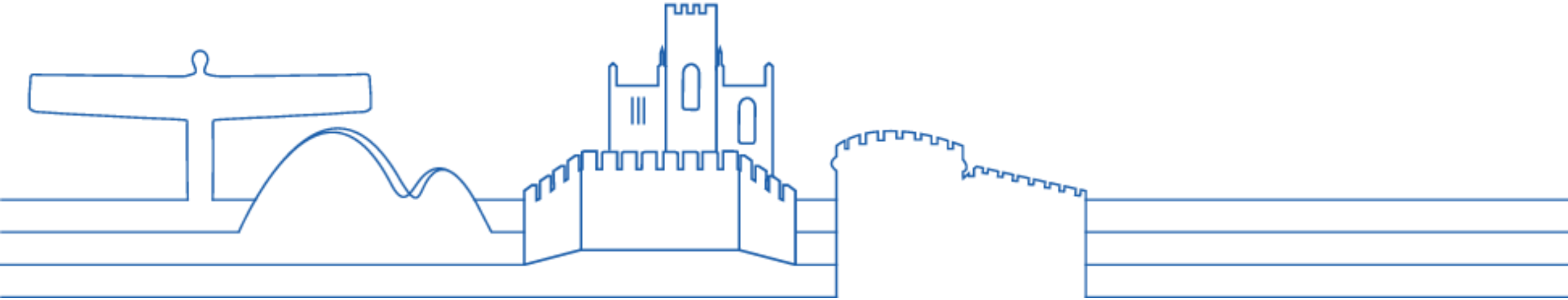
NHS
North East &
North Cumbria

Opioids and the Impact on Population Health and healthcare inequalities

Prof Edward Kunonga
Director of Population Health Management and PH Consultant



National Context, Vision and Priorities

Exceptional health care for all with equitable access, excellent experience and optimal outcomes

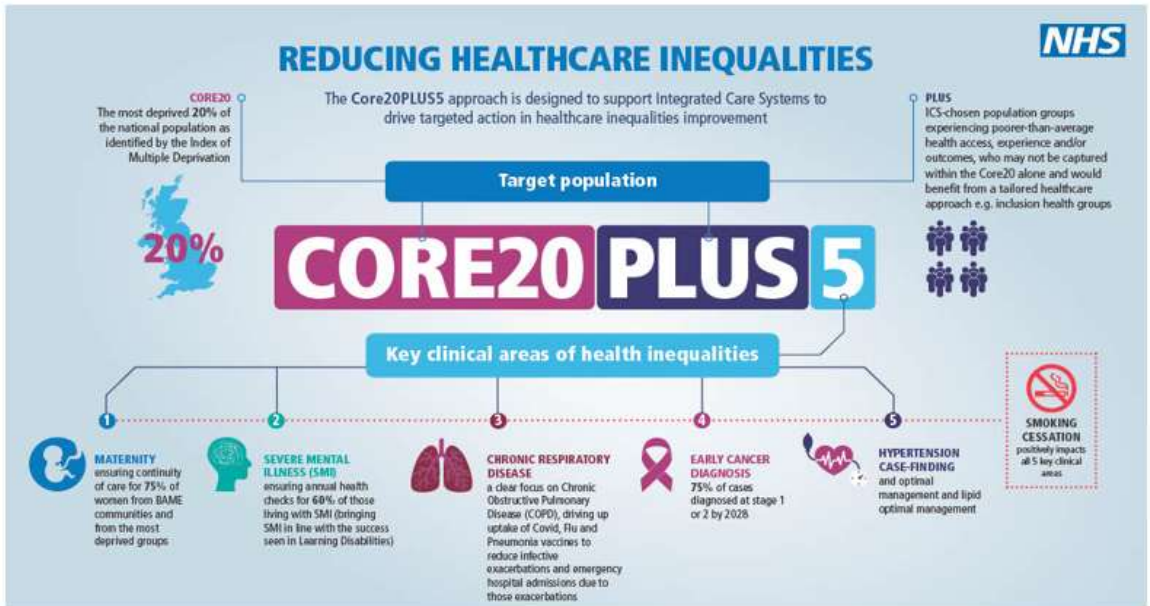
Priority 1: **Restore NHS services inclusively** – with a focus on ethnicity and deprivation

Priority 2: **Mitigate against digital exclusion**

Priority 3: **Ensure datasets are complete and timely** - continuing to improve the collection and recording of ethnicity data in all health settings

Priority 4: **Accelerate preventative programmes that proactively engage those at greatest risk of poor health outcomes** including a culturally competent approach to COVID & flu vaccination delivery, Continuity of Carer in maternity for targeted groups, a focus on LTCs and health checks for people with a LD and/or SMI

Priority 5: **Strength leadership and accountability** - including system Health Inequality SRO



ICB aims:

1. **improve outcomes** in population health and healthcare
2. **tackle inequalities** in outcomes, experience and access
3. enhance **productivity and value for money**
4. help the NHS support broader **social and economic development**.

Role of the NHS at 3 levels

Commissioner & Provider of Healthcare

Integrated Care System Partner

Anchor institution role & contributor to wider determinants of health

Office for Health Improvement & Disparities

Life expectancy gap:

The causes of death that drive disparities in life expectancy by deprivation

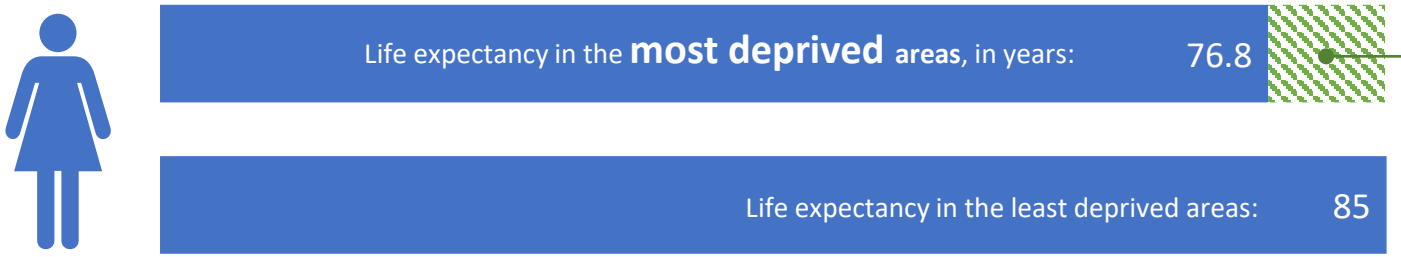
Segment tool update: North East region

July 2022

Health inequalities by deprivation: Life expectancy in the region

NHS North East & North Cumbria

- Health inequalities are avoidable, unfair and systematic differences in health between different groups of people. There is a large body of evidence that shows wide differences in death rates and life expectancy by area deprivation (1), confirmed by the latest data for the North East:



8.1 years

difference in life expectancy between women living in the least and most deprived areas. North East 2020 to 2021

10.4 years

difference in life expectancy between men living in the least and most deprived areas. North East 2020 to 2021

Life expectancy in years by the least and most deprived quintiles - **the difference** is the absolute difference between the least and most deprived quintile. Source: OHID. Segment Tool. 2022. Gap figures are calculated using unrounded life expectancy figures. The absolute gap between the most and least deprived quintile used in the Segment Tool differs from the slope index of inequality measure presented in Public Health Outcomes Framework and CHIME which compares deprivation deciles.

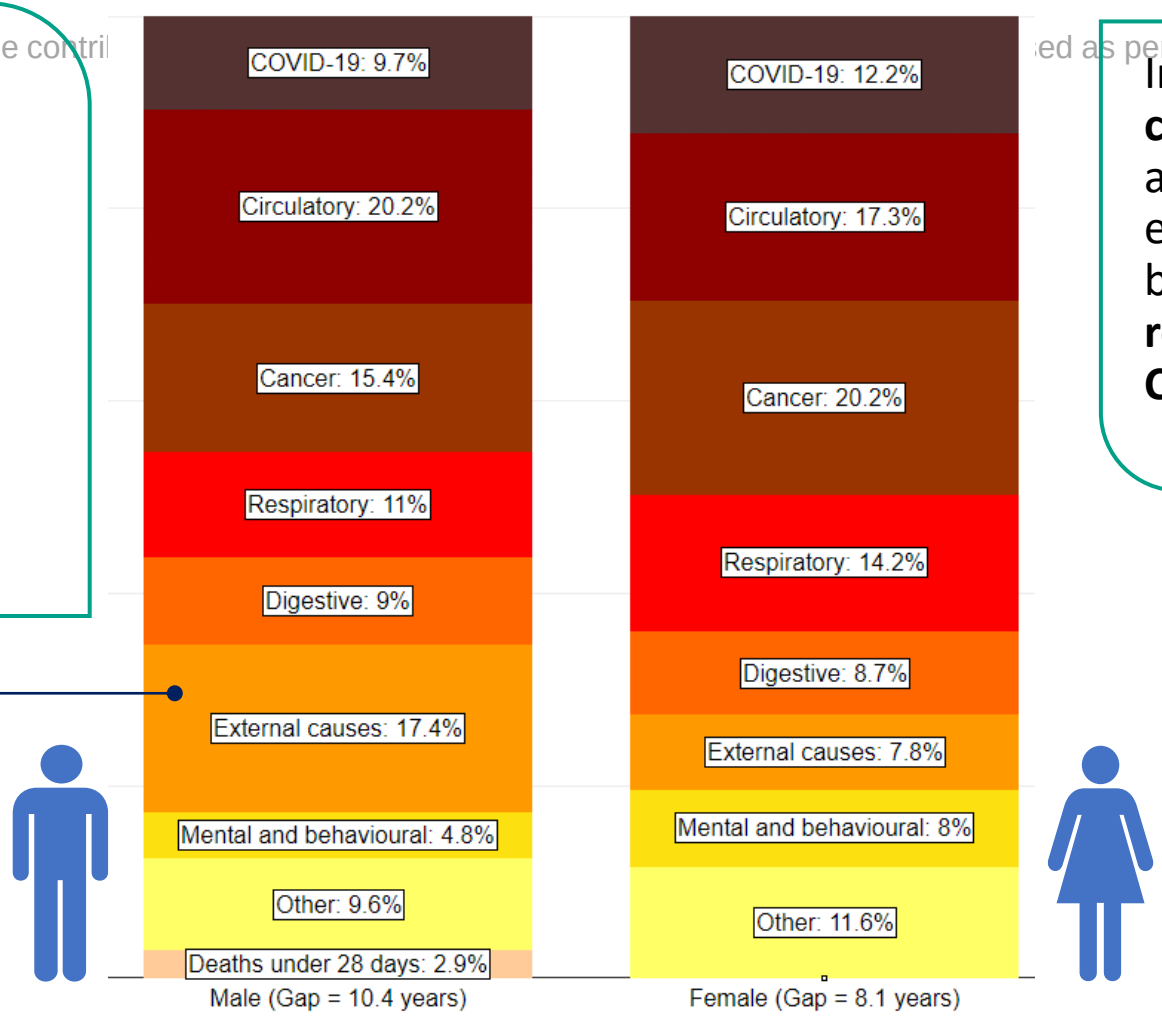
(1) OHID Inequalities tools

Life expectancy gap by deprivation: Causes of death

NHS North East & North Cumbria

In males, the gap in life expectancy between the least and most deprived areas in the region was mostly due to higher mortality in **circulatory disease,** followed by **external causes, cancer, respiratory disease*** and **COVID-19.**

- The proportion by external causes in males was highest in the North East than in any other region (1).



In females, higher mortality in **cancer** in the most deprived areas contributed to the life expectancy gap most, followed by **circulatory disease, respiratory disease** and **COVID-19**

* External includes deaths from injury, poisoning and suicide. Circulatory includes heart disease and stroke. Respiratory includes flu, pneumonia, and chronic lower respiratory disease. Digestive includes alcohol-related conditions such as chronic liver disease and cirrhosis. Mental and behavioural includes dementia and Alzheimer's disease. Percentages may not sum to 100 due to rounding.

Source: OHID. Segment Tool. 2022.
The gap is life expectancy in the least deprived quintile minus life expectancy in the most deprived quintile. (1)
Segment Tool: statistical commentary, May 2022

Detailed breakdown of the causes of death

Breakdown of the life expectancy gap between the most and least deprived quintiles of North East by cause of death, 2020 to 2021 (Provisional), contribution to the gap expressed in years

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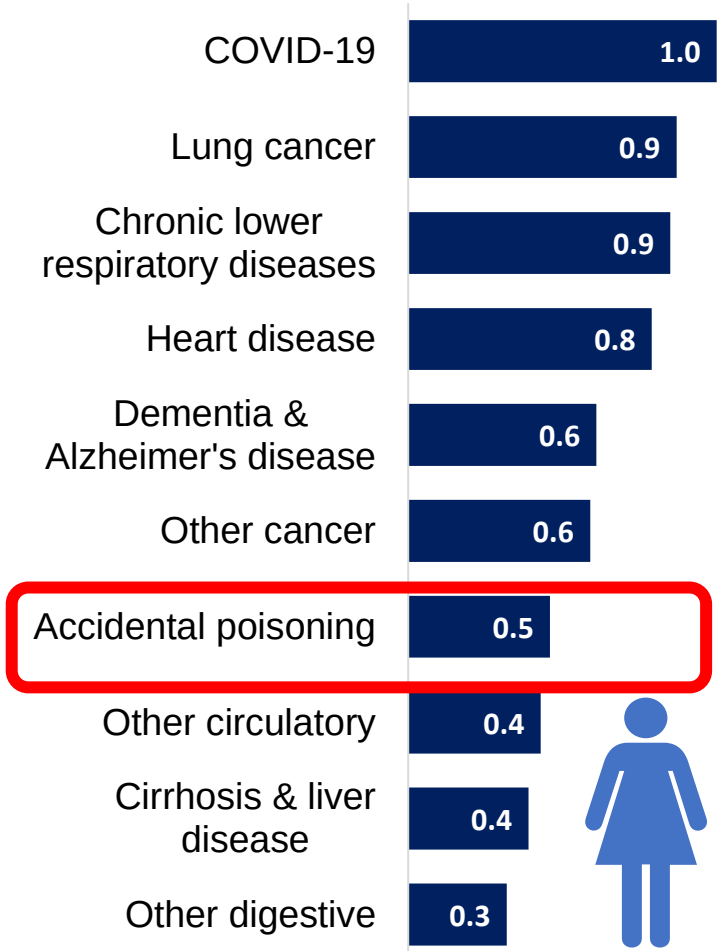
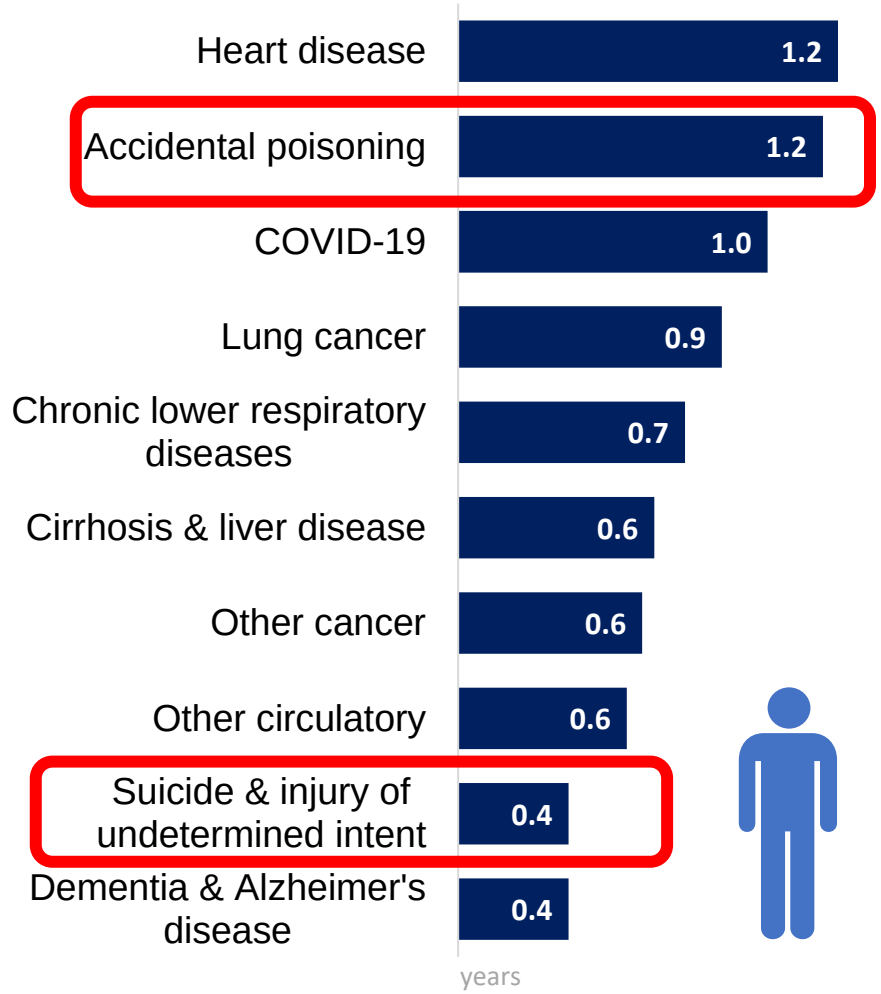
- A more detailed breakdown shows that the top four causes in:
- females are COVID-19, lung cancer, chronic lower respiratory disease and heart disease
- males are heart disease, accidental poisoning, COVID-19 and lung cancer

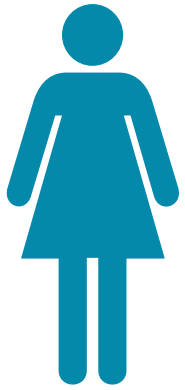


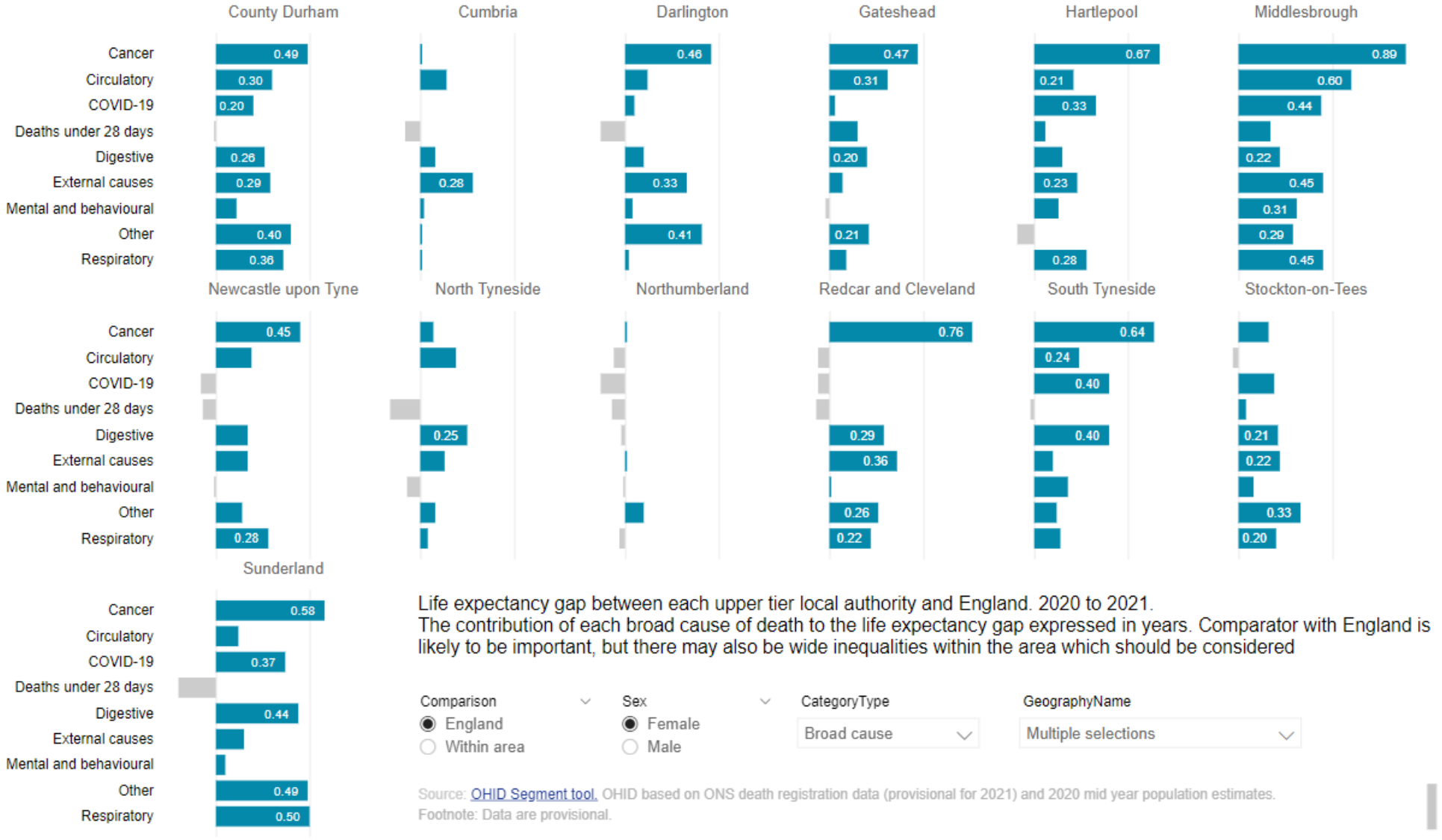


The charts show the top ten diseases and the 'Other' category that includes 'all other disease codes' is excluded. For the full breakdown see the Segment tool. Source: OHID. Segment Tool. 2022.

Drivers of life expectancy gap between LAs and England by broad cause of death.

2020 to 2021 females
UTLA (North East region and Cumbria)





Life expectancy gap between each upper tier local authority and England. 2020 to 2021.
The contribution of each broad cause of death to the life expectancy gap expressed in years. Comparator with England is likely to be important, but there may also be wide inequalities within the area which should be considered

Comparison
- (●) England
- ( ) Within area

Sex
- (●) Female
- ( ) Male

CategoryType: Broad cause

GeographyName: Multiple selections

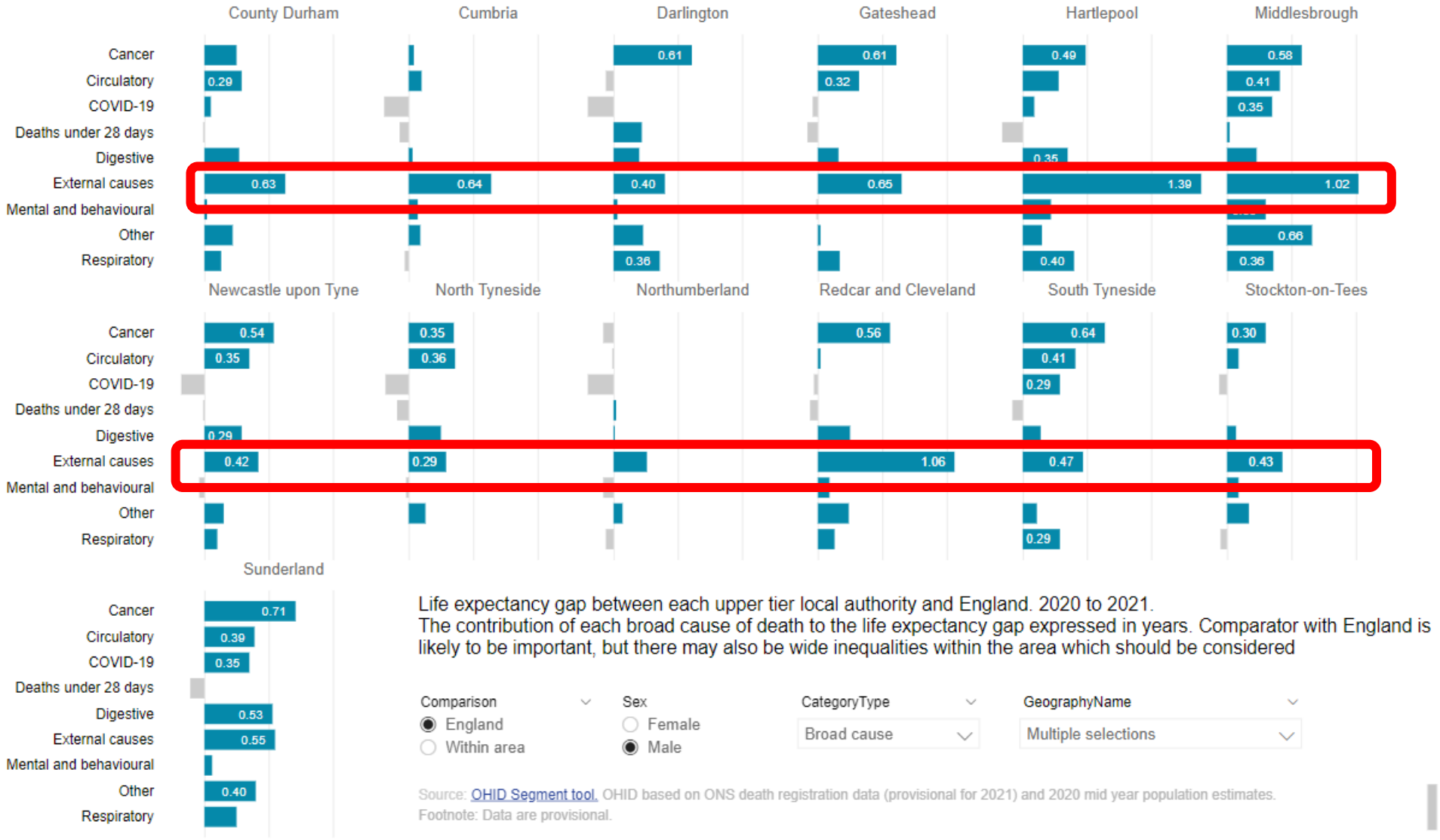
Source: OHID Segment tool, OHID based on ONS death registration data (provisional for 2021) and 2020 mid year population estimates.
Footnote: Data are provisional.

= Lower mortality in selected area, offsetting the gap

= Higher mortality in selected area, contributing to life expectancy gap

Drivers of life expectancy gap between LAs and England by broad cause of death

2020 to 2021 males
UTLA (North East region and Cumbria)



Life expectancy gap between each upper tier local authority and England. 2020 to 2021.
The contribution of each broad cause of death to the life expectancy gap expressed in years. Comparator with England is likely to be important, but there may also be wide inequalities within the area which should be considered

Comparison: England / Within area
Sex: Female / Male
CategoryType: Broad cause
GeographyName: Multiple selections

Source: OHID Segment tool, OHID based on ONS death registration data (provisional for 2021) and 2020 mid year population estimates.
Footnote: Data are provisional.

= Lower mortality in selected area, offsetting the gap

= Higher mortality in selected area, contributing to life expectancy gap

Office for Health Improvement & Disparities

Data to inform drug strategy targets and needs assessments

October 2022

Public Health England

Healthmatters Drug misuse deaths by substance

All drug poisoning deaths registered in England and Wales in 2016
3,744 (3,450 of which were in England)

Opiates (including heroin, methadone)

2,038

Benzodiazepines

406

Amphetamines

160

Anti-depressants (in combination)

460

Cocaine

371

1/3

of drug misuse deaths involve alcohol

National context

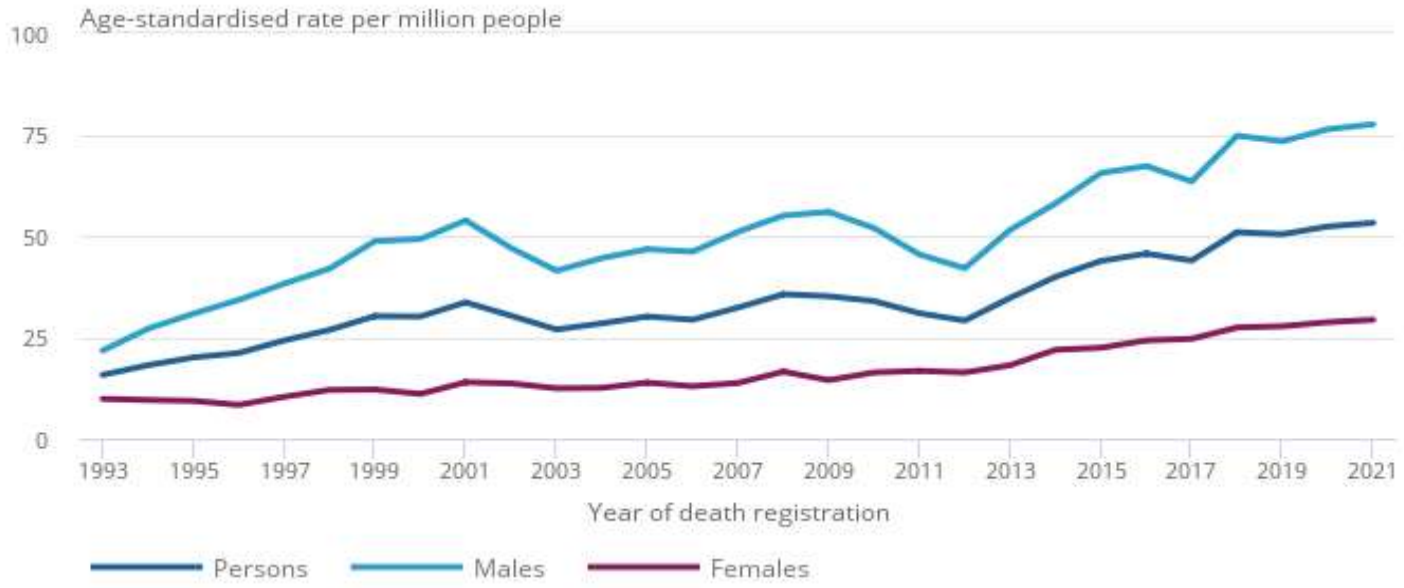
- The rate of drug misuse deaths has rose from rose from 16.0 per million in 1993 to 53.2 per million in 2021

  Drug misuse deaths rates for men was 38% higher than for women (age standardised rate of 77.5 / 29.3 deaths per million respectively)

  The government has set a target as part of the 10 year drugs plan for England to have “prevented nearly 1000 deaths, reversing the upward trend in drug deaths for the time in a decade” by the end of 20024-25

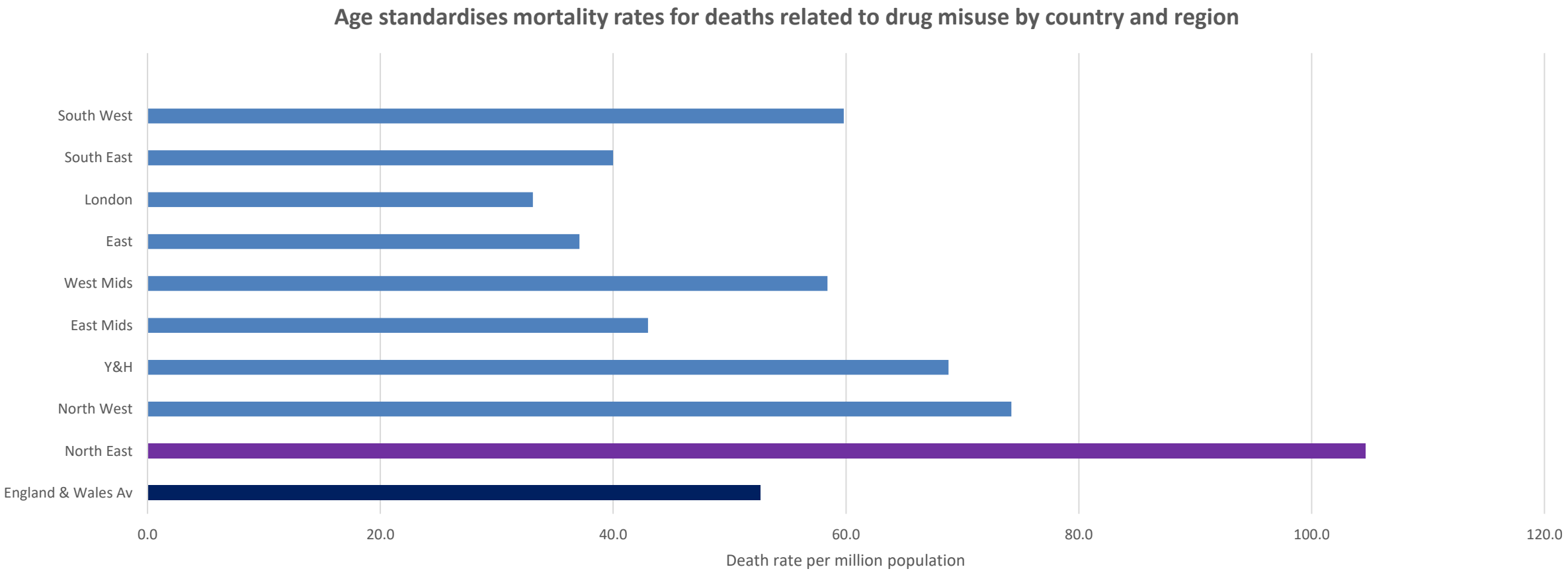
Figure 2: Rates of drug misuse deaths increased in 2021

Age-standardised mortality rates for deaths related to drug misuse, by sex, England and Wales, registered between 1993 and 2021

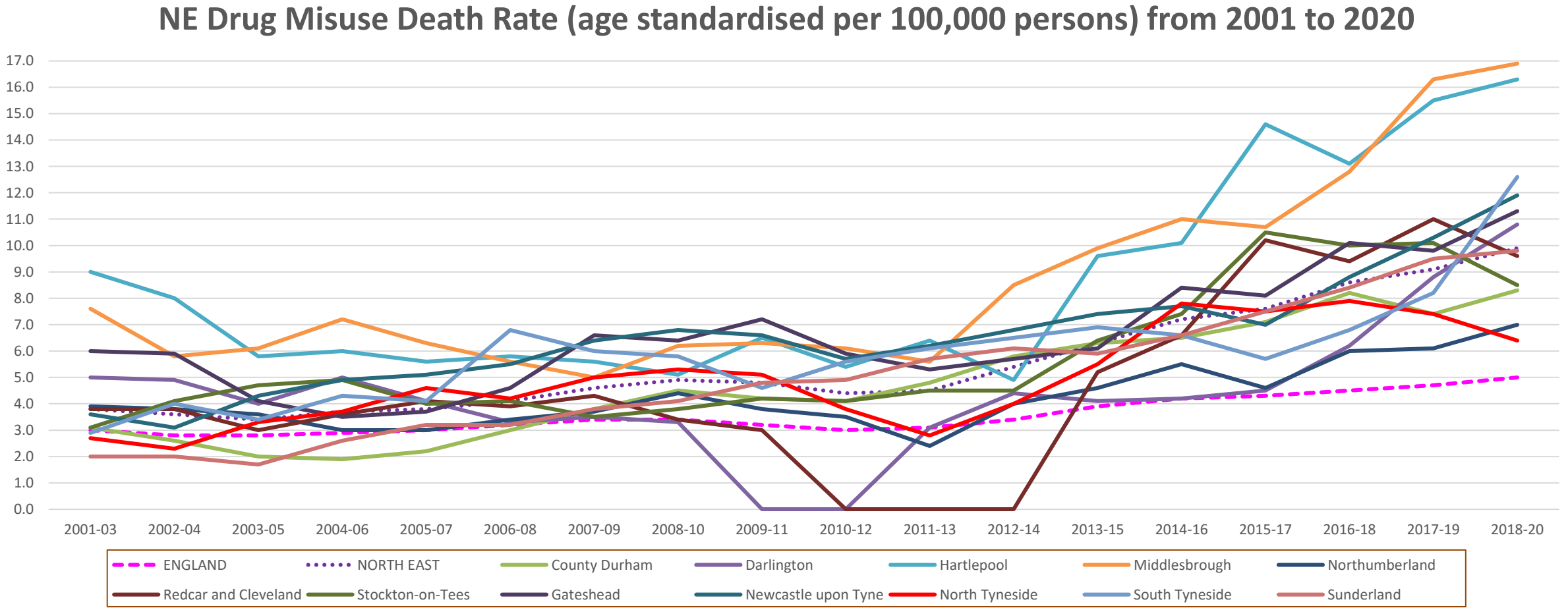


Source: Office for National Statistics – Deaths related to drug poisoning in England and Wales

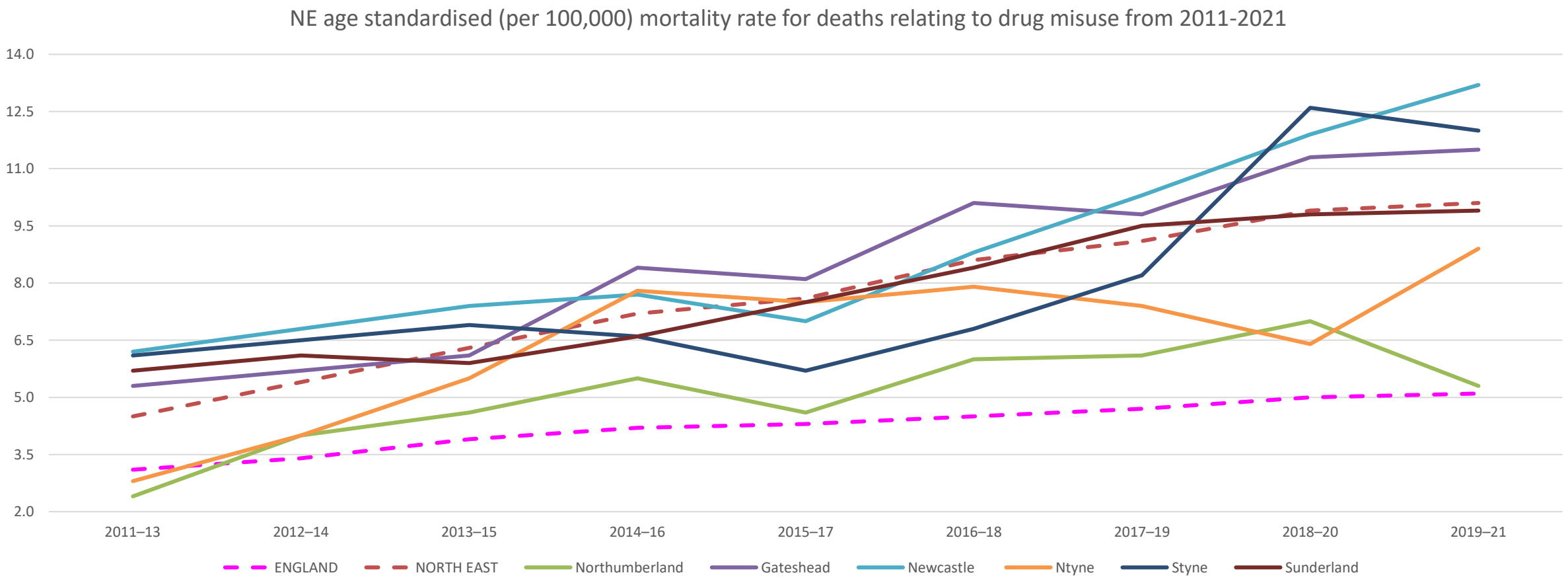
Mortality rates for deaths related to drug misuse by country and region



Drug misuse deaths - Regional



Drug misuse deaths – Northumbria LCPD



Drug misuse deaths Durham/Darlo & Cleveland LCDPs

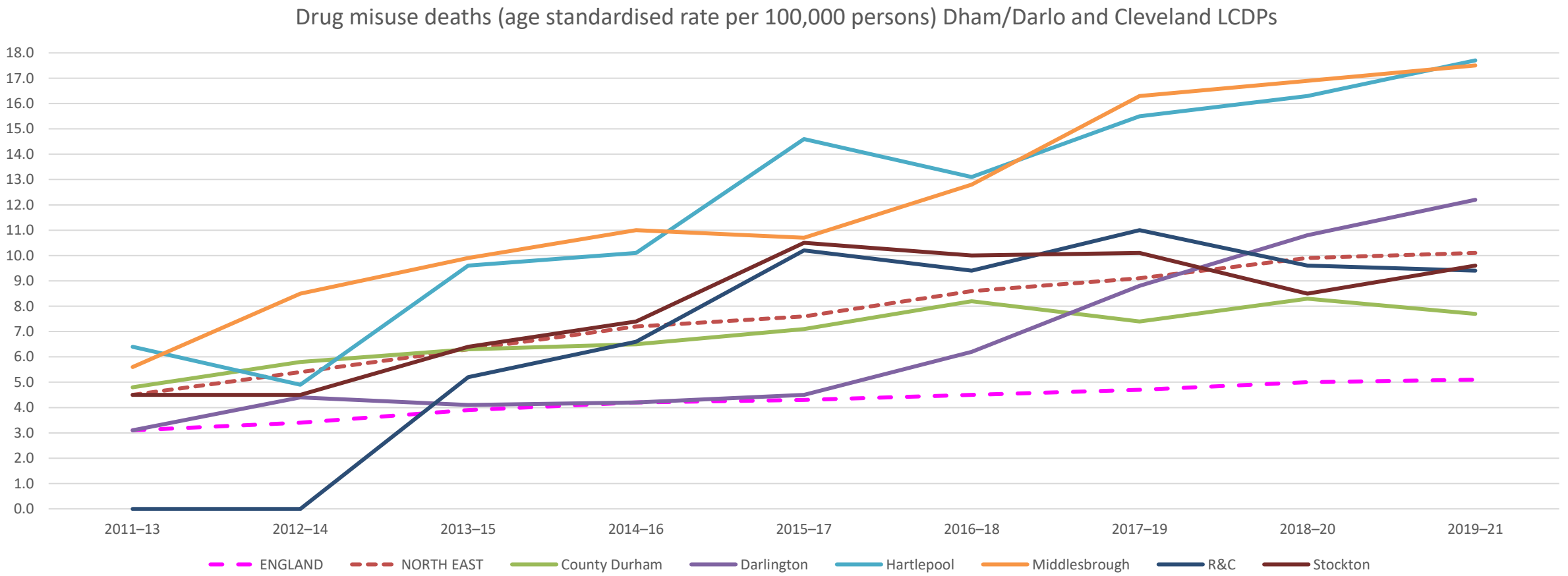


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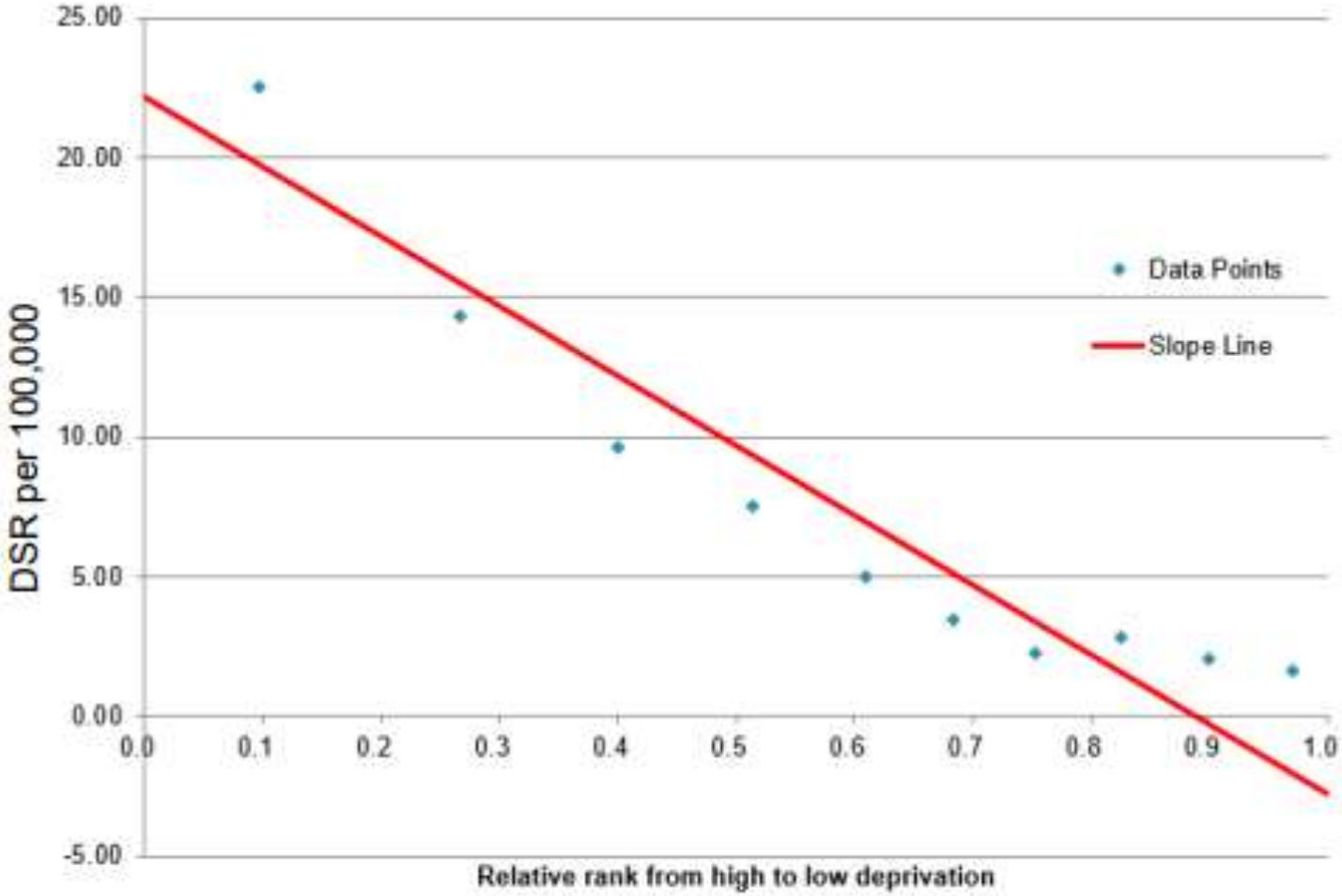
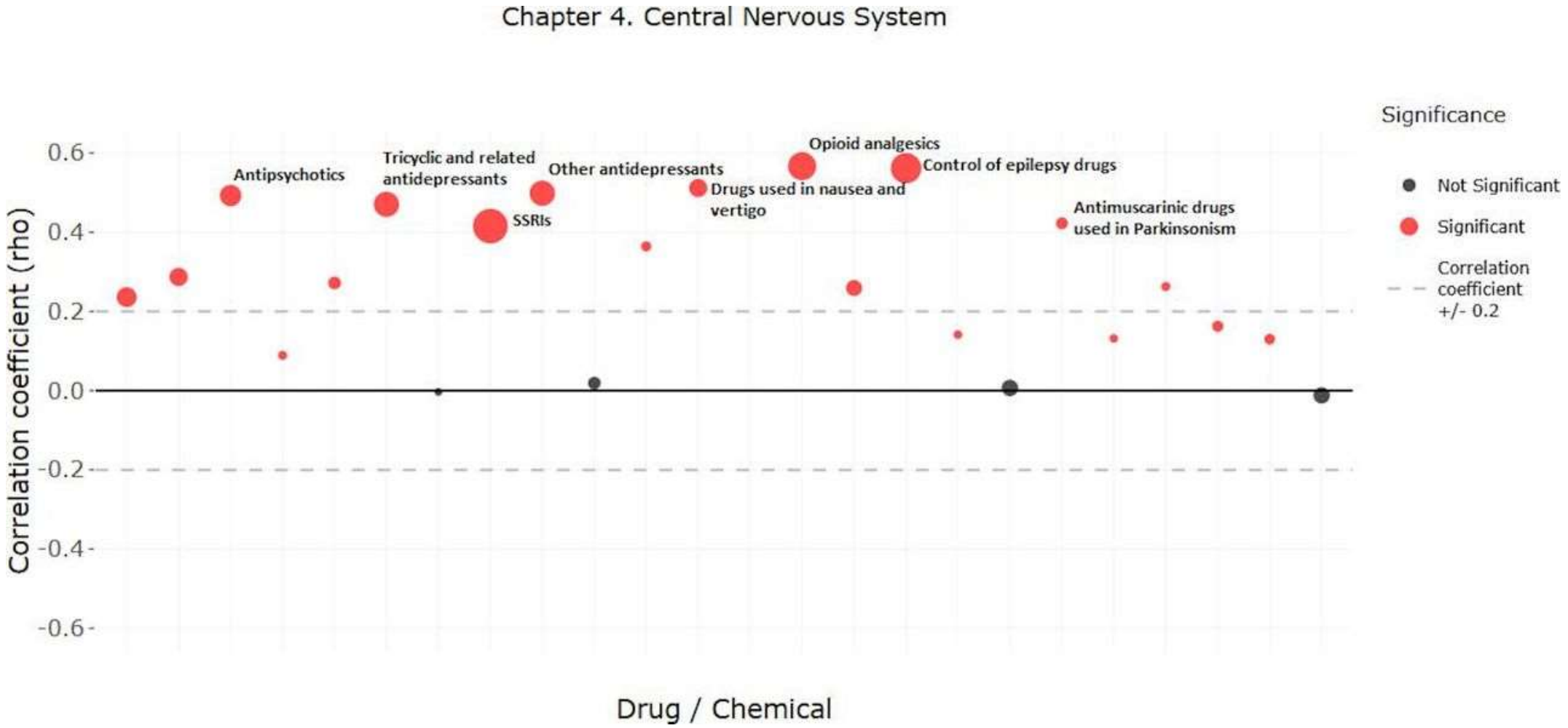
Figure 3; Slope Index of Inequality chart for Drug-related death rates in the North East

Drug-related deaths (direct standardised rates per 100,000) per relative deprivation decile (0.1 = Most Deprived, 1.0 = Least Deprived).



Correlation coefficients of central nervous system drug classes and their association with Index of Multiple Deprivation score.



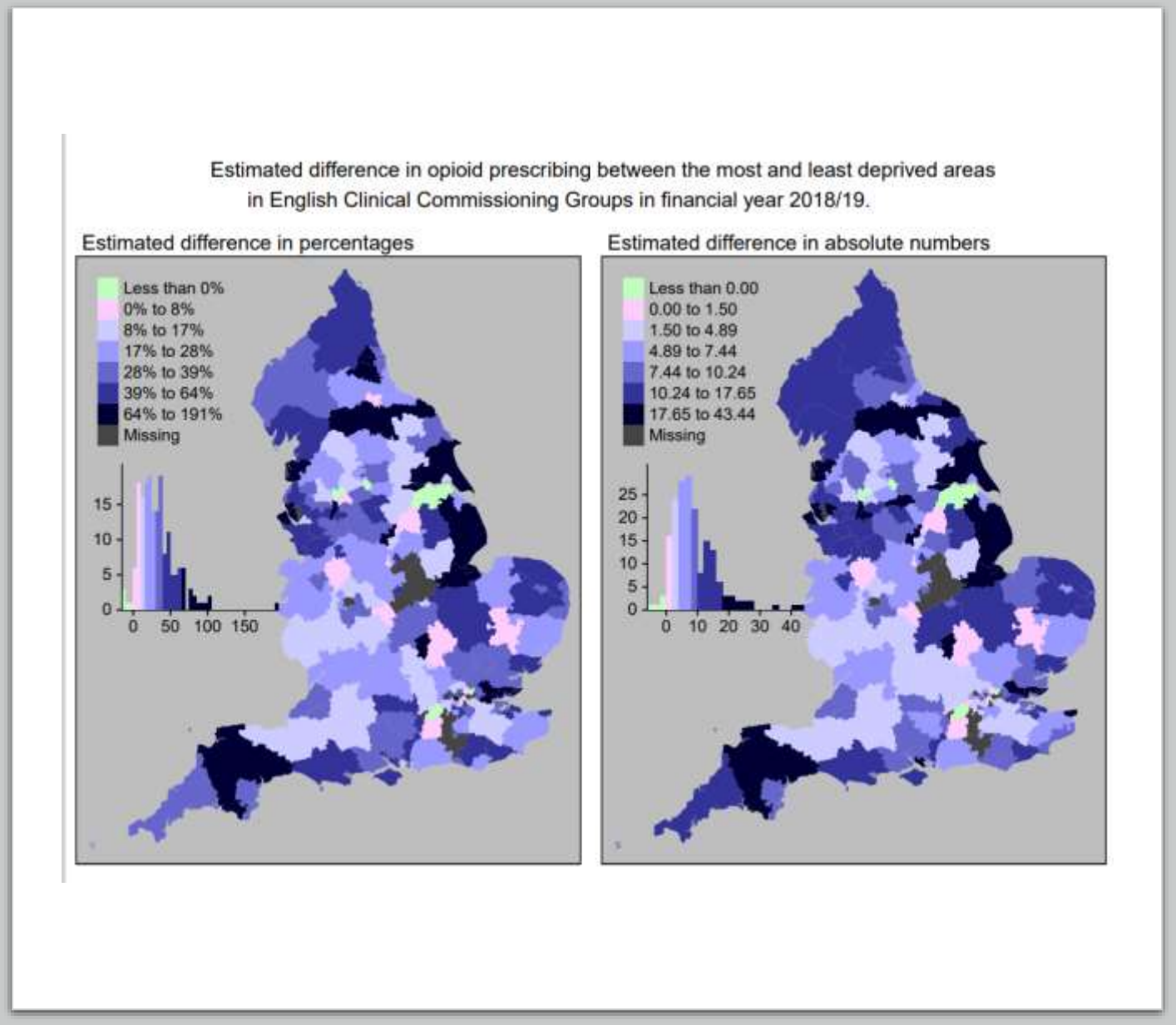
Jessica Mooney et al. Postgrad Med J 2022;98:193-198

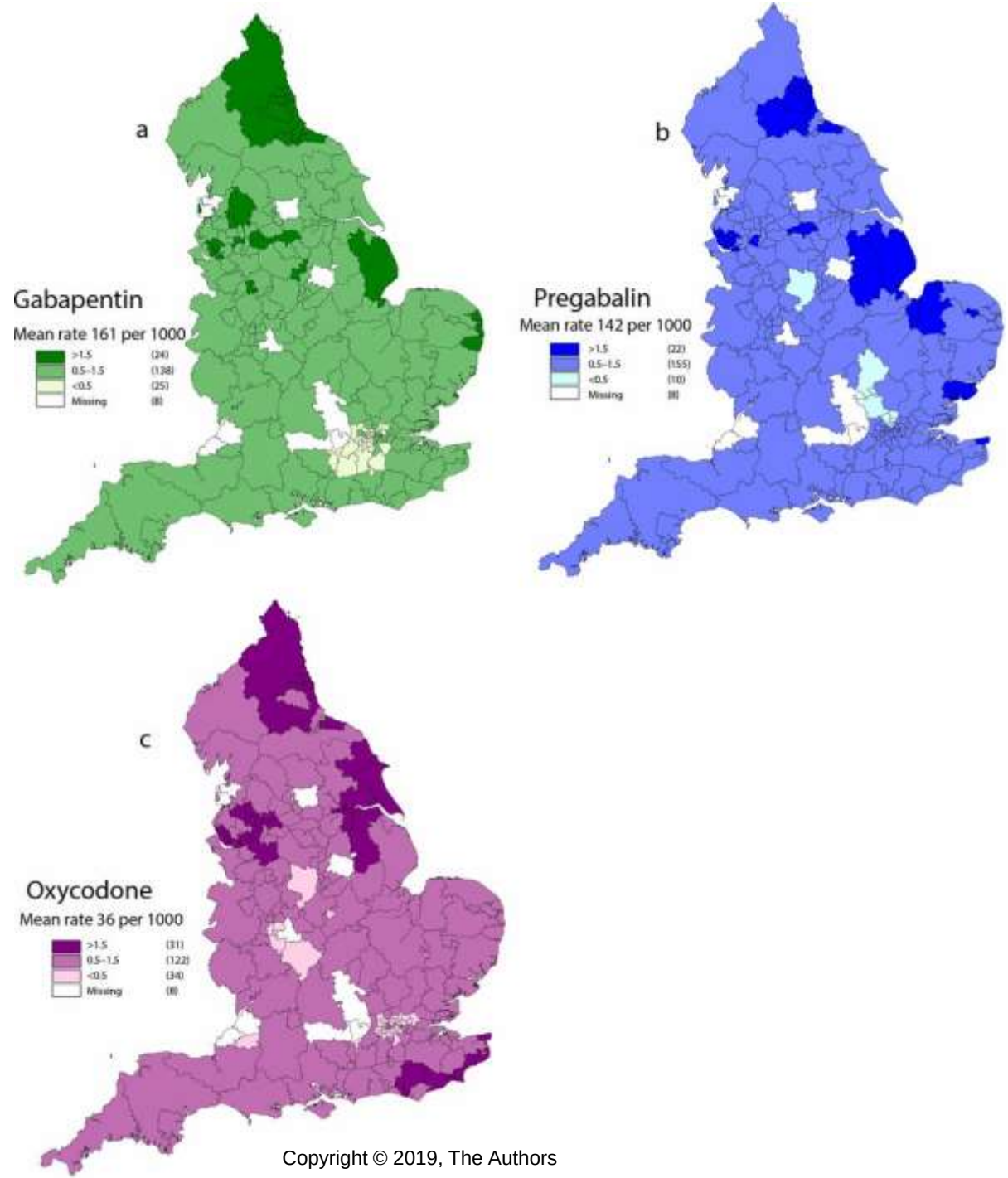
Table S1. The ten individual drugs with prescribing rates most positively correlated with Index of Multiple Deprivation score.

The prescribing rates of these drugs tend to be greater in more socioeconomically deprived practices. Ranking based on partial ρ values, adjusted for practice age and sex distribution and practice list size. Number of items are aggregated across all included practices in 2019.

		Unadjusted		Adjusted	
Drug	**Items Prescribed**	**rho (ρ)**	**p value**	**partial rho (ρ)**	**p value**
Tramadol	6,032,952	0.39	$< 1 \times 10^{-20}$	0.59	$< 1 \times 10^{-20}$
Gabapentin	7,253,259	0.37	$< 1 \times 10^{-20}$	0.57	$< 1 \times 10^{-20}$
Hyoscine butylbromide	1,499,716	0.35	$< 1 \times 10^{-20}$	0.55	$< 1 \times 10^{-20}$
Co-codamol	14,844,654	0.39	$< 1 \times 10^{-20}$	0.54	$< 1 \times 10^{-20}$
Mirtazapine	9,580,317	0.37	$< 1 \times 10^{-20}$	0.52	$< 1 \times 10^{-20}$
Alginic acid compound preparations (e.g. gaviscon)	4,021,684	0.34	$< 1 \times 10^{-20}$	0.50	$< 1 \times 10^{-20}$
Paracetamol	17,217,836	0.25	$< 1 \times 10^{-20}$	0.50	$< 1 \times 10^{-20}$
Coal Tar	582,852	0.46	$< 1 \times 10^{-20}$	0.50	$< 1 \times 10^{-20}$
Morphine sulfate	4,994,096	0.18	$< 1 \times 10^{-20}$	0.48	$< 1 \times 10^{-20}$
Thiamine (vitamin B1)	2,928,570	0.47	$< 1 \times 10^{-20}$	0.48	$< 1 \times 10^{-20}$

- Prescribing in the most deprived areas in North England was **1.2 times higher than the national average** for areas with **similar deprivation levels** and 3.3 times higher than the most deprived areas in London.
- Opiod prescribing in the most deprived areas substantially higher than the least deprived areas. On average it was **9.70 Defined Daily Doses/1000 people/day higher.**





GIS visualisation of CCG's mean rate of prescribing of
a) gabapentin,
b) pregabalin, and
c) oxycodone.

Missing CCGs are given in white and are excluded due to boundary changes or mergers that occurred during the time period of the study (n = 187).

Katlyn Green et al. BJGP Open 2019;3:bjgpopen19X101662

BJGP Open

Public Health England

Protecting and improving the nation's health

Healthmatters Preventing drug misuse deaths

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Questions?