



INSTITUTE *of*  
HEALTH EQUITY

REDUCING HEALTH INEQUITIES THROUGH ACTION  
ON THE SOCIAL DETERMINANTS OF HEALTH

# Inequalities Update

Prof. Sir Michael Marmot, Dr Angela Donkin,  
Prof. Peter Goldblatt

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- In 2010 the Marmot review set out 6 clear policy recommendations to help improve health and reduce inequalities.
  - Since then IHE has monitored progress. This year PHE agreed to start collating the Marmot indicators, for local authorities as part of routine data work.
  - This presentation provides an update on inequalities in health and progress on social determinants within England since the Marmot review.
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# Life expectancy and health expectancy

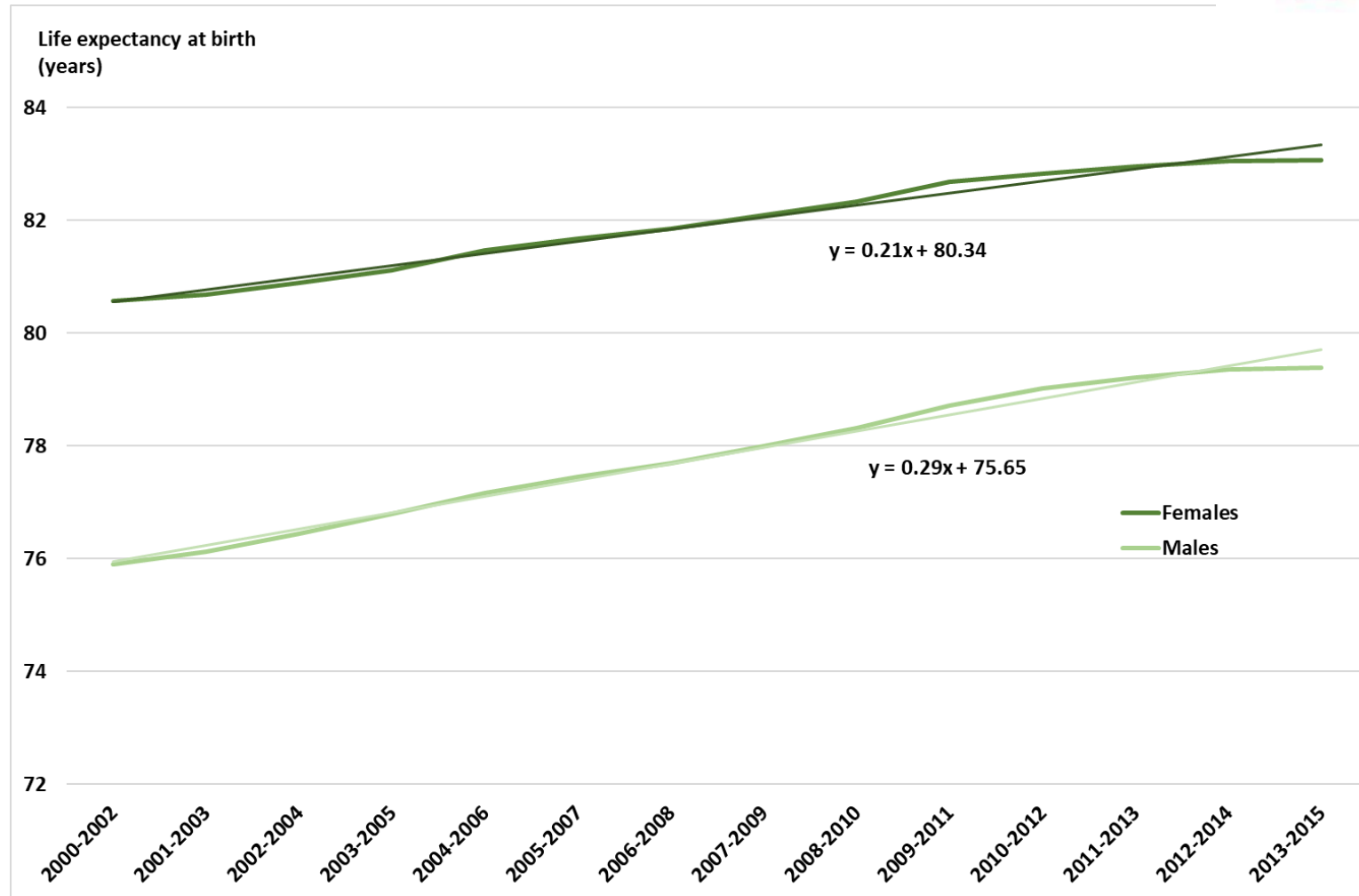


# Life expectancy at birth, England, 2000-2015



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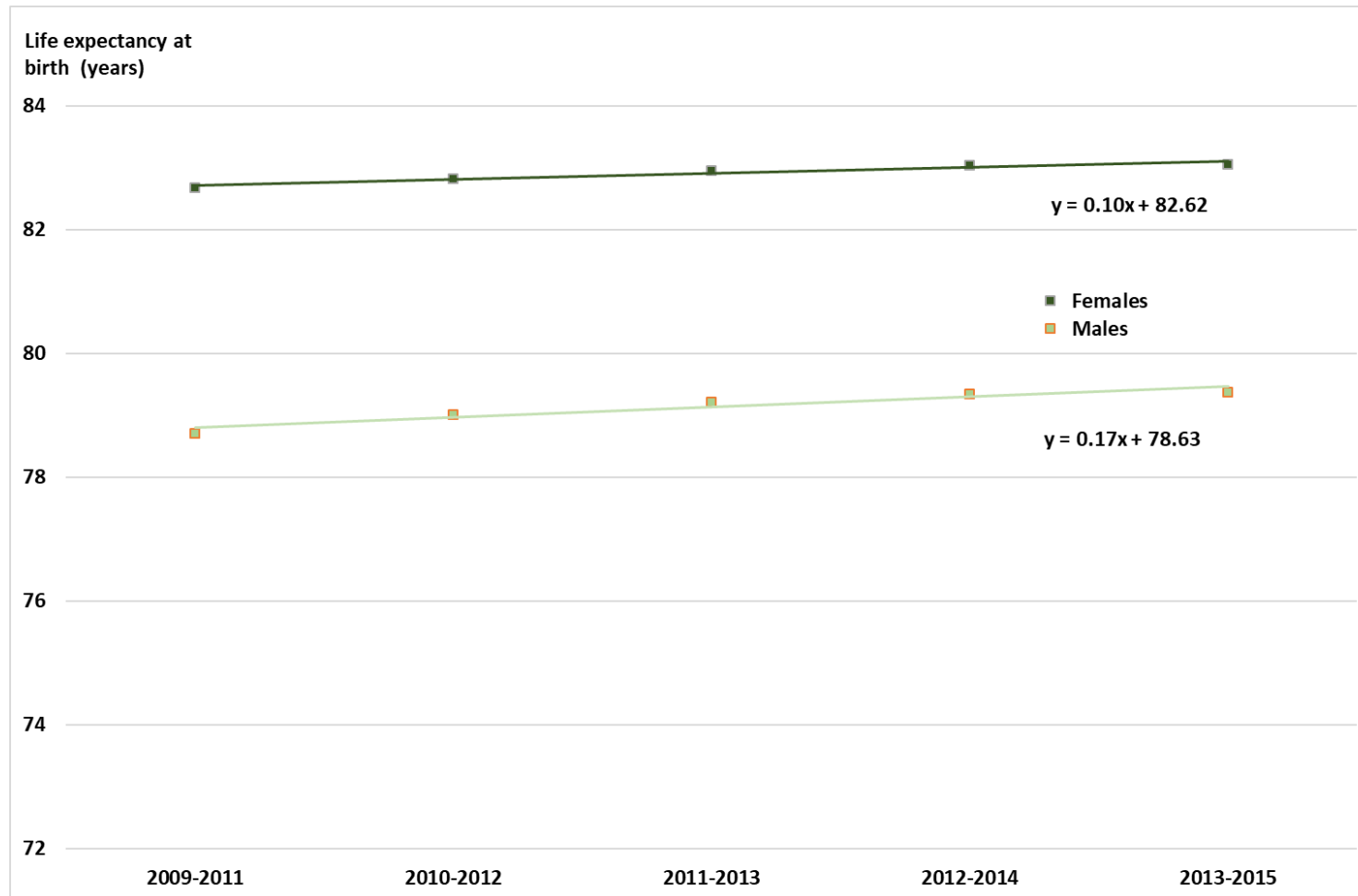
Figures based on  
National Life tables using  
single years of age

# Life expectancy at birth, England, 2009-2015



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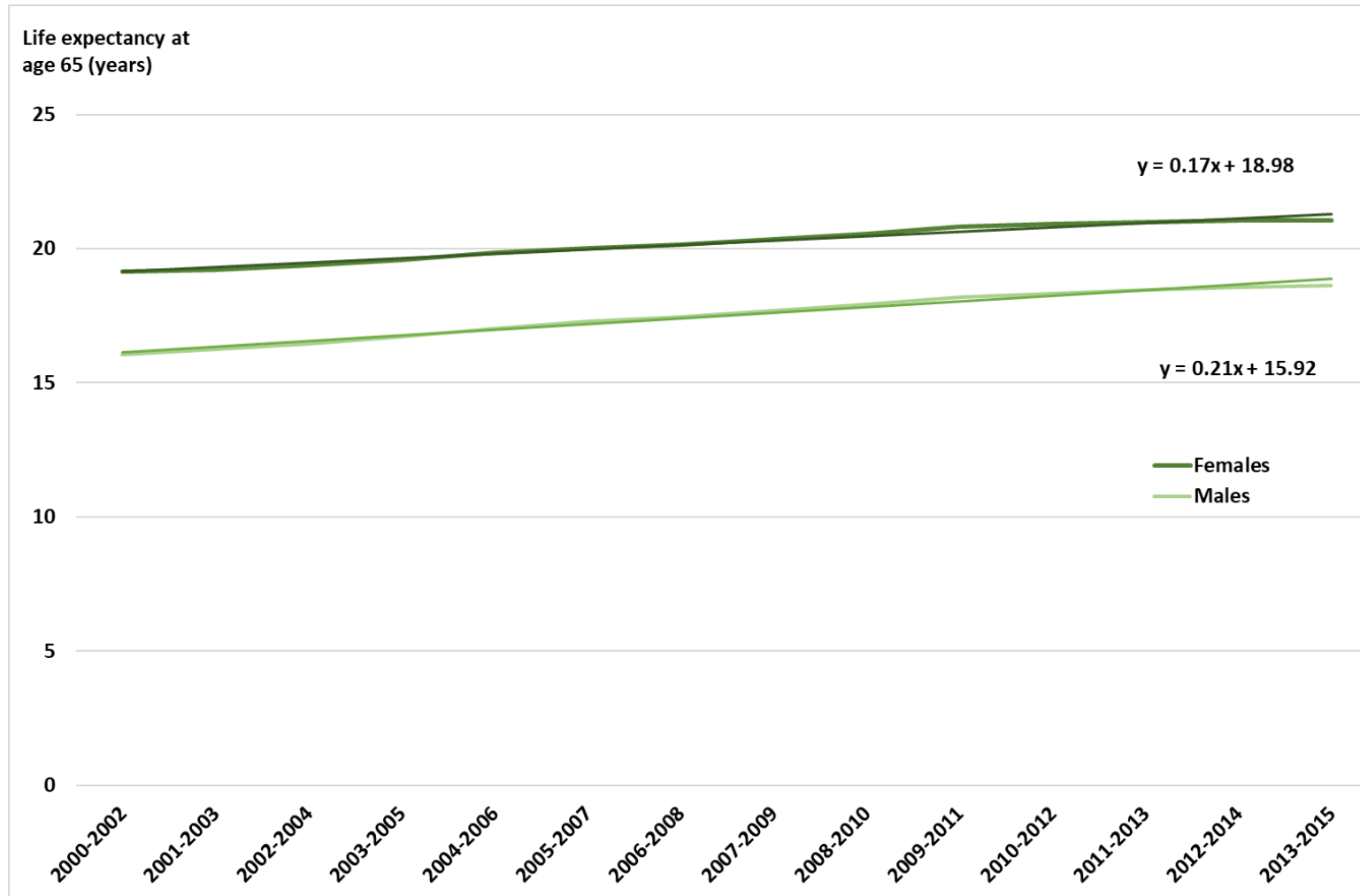
Figures based on National Life tables using single years of age

# Life expectancy at age 65, England, 2000-2015



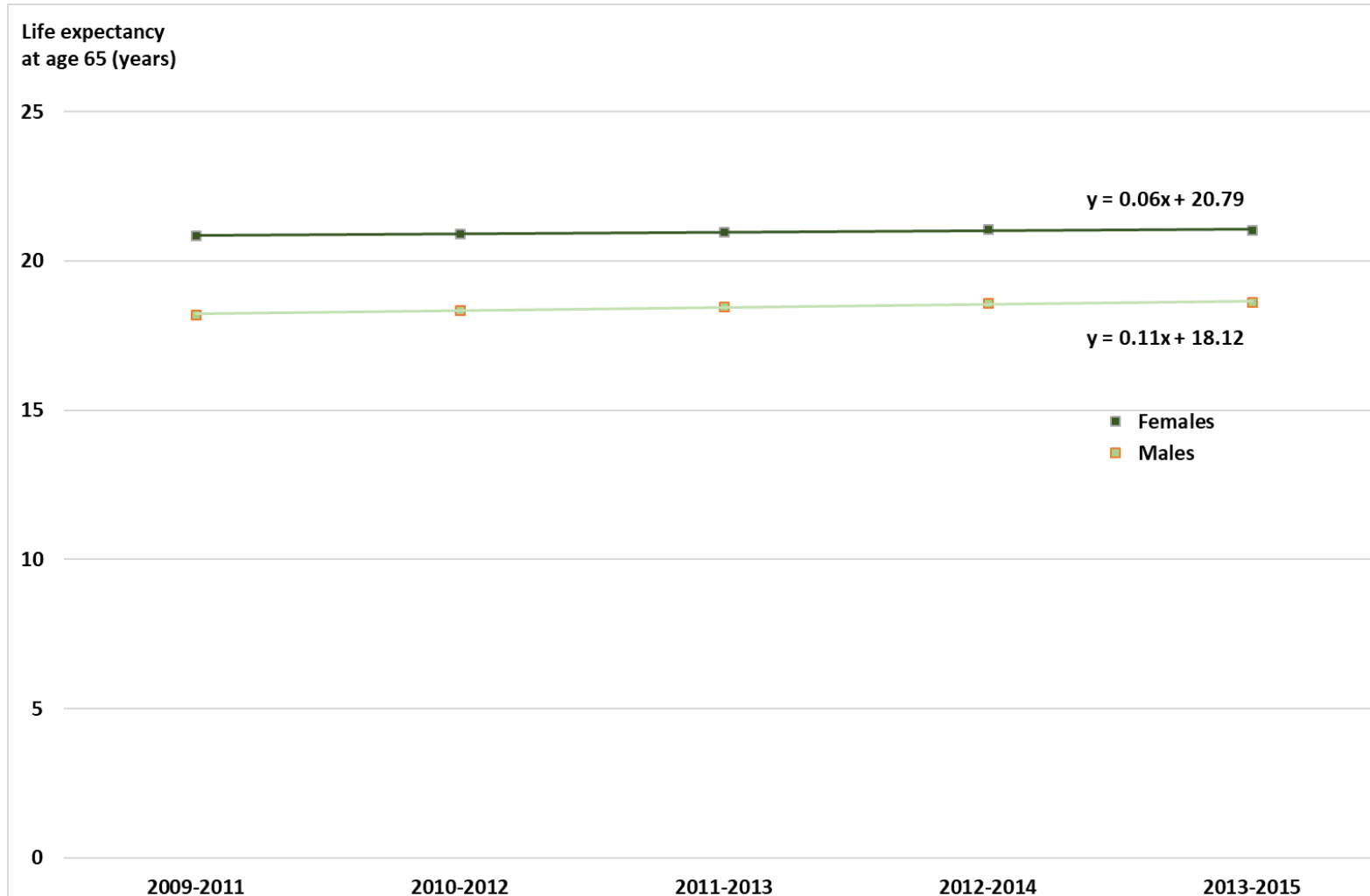
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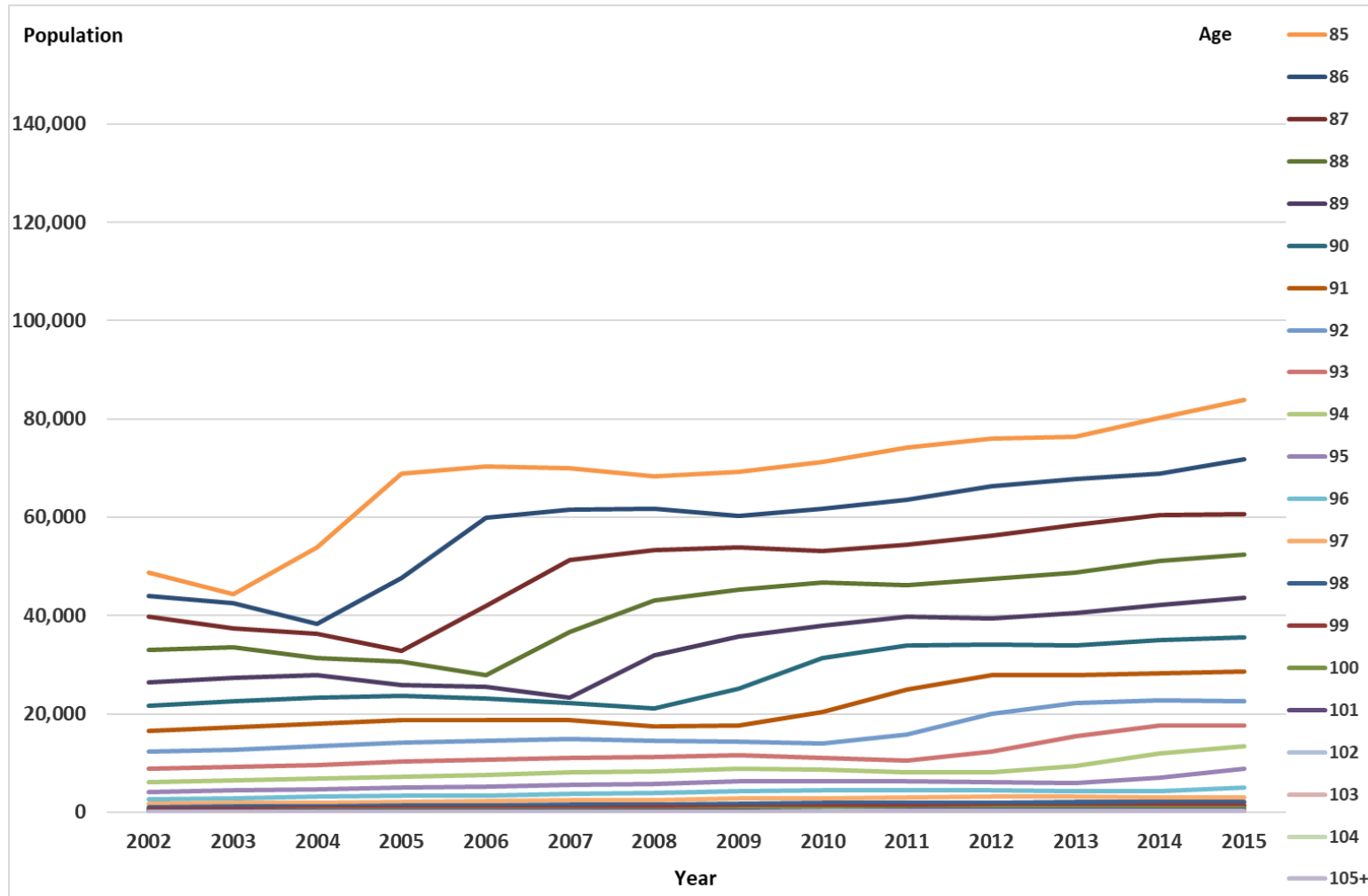
Figures based on National Life tables using single years of age

# Life expectancy at age 65, England, 2009-2015



Figures based on National Life tables using single years of age

# Male population aged 85 and over, single years of age, England, 2002-2015



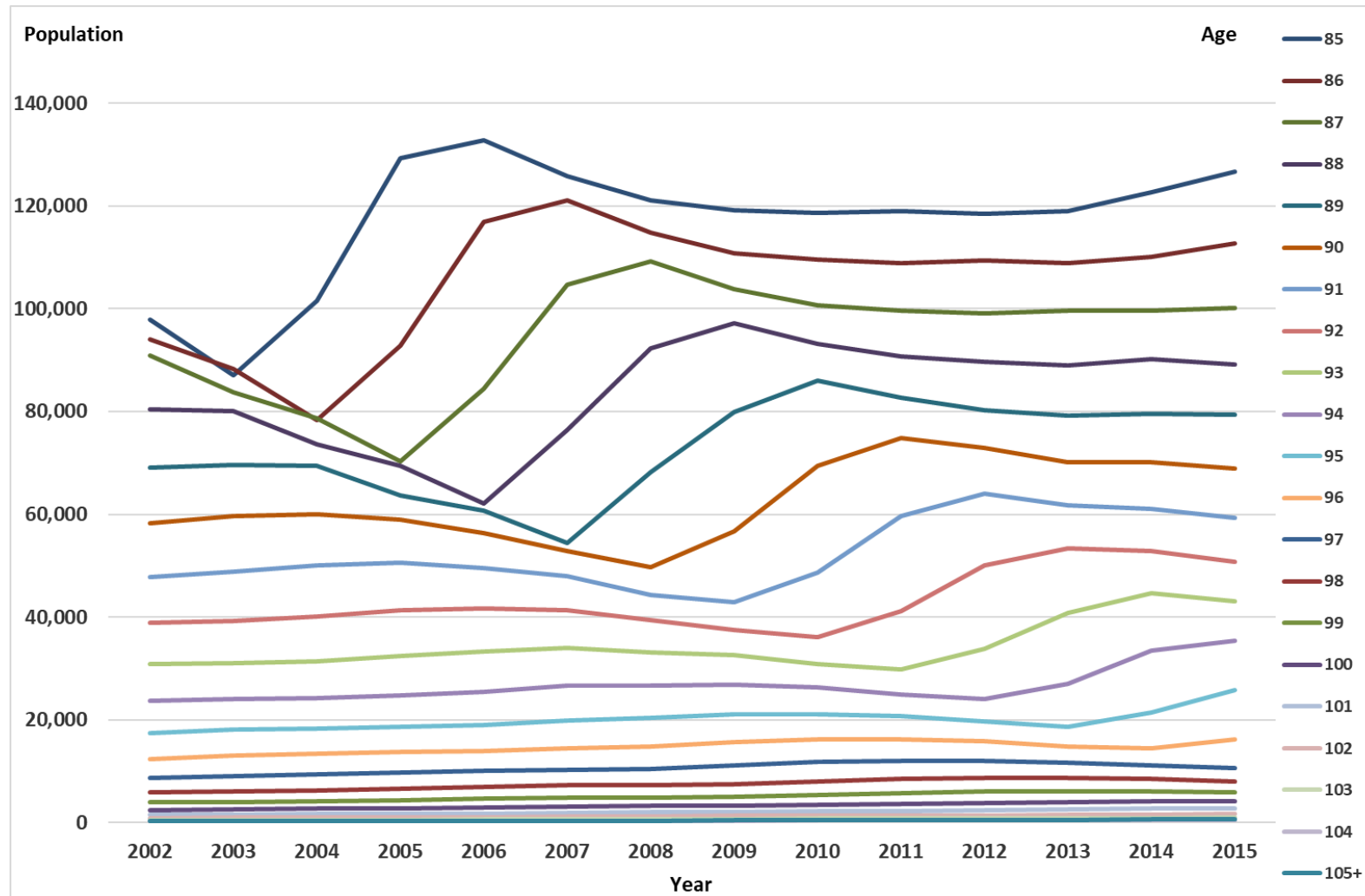


# Female population aged 85 and over, single years of age, England, 2002-2015



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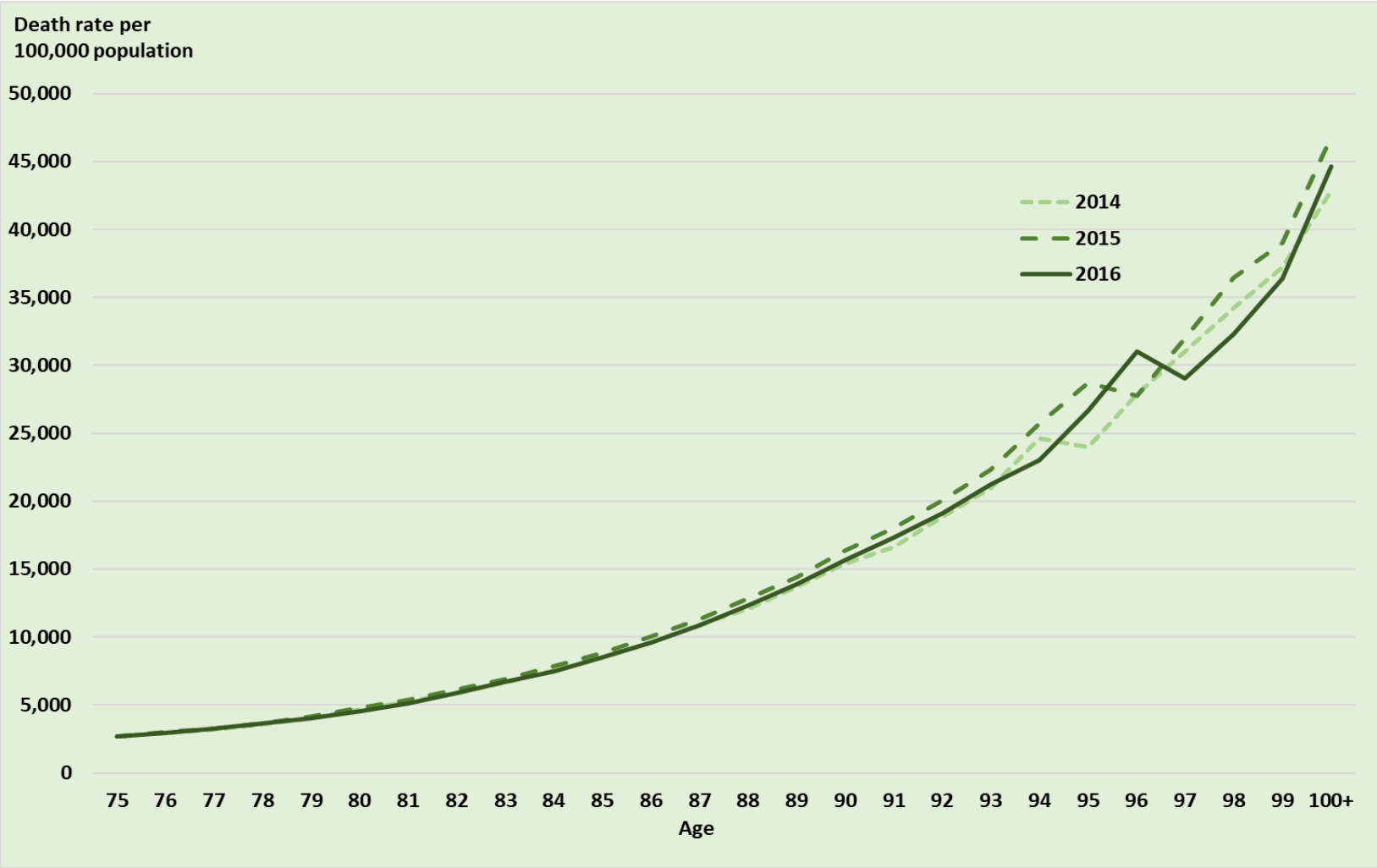


# Mortality rates by single year of age, ages 75 and over, 2014 to 2016



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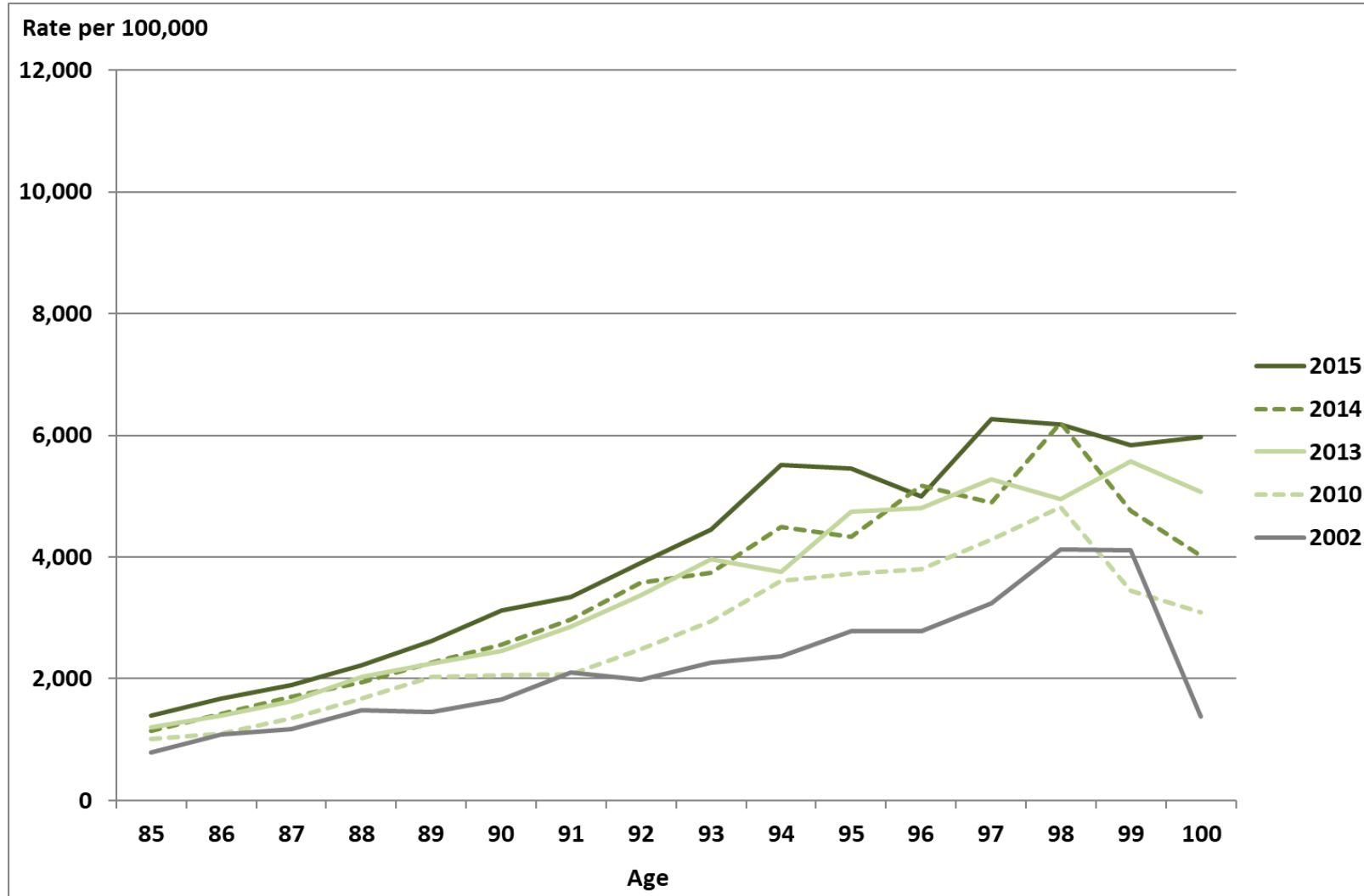


# Leading causes of death by sex and age-group, England and Wales, 2015



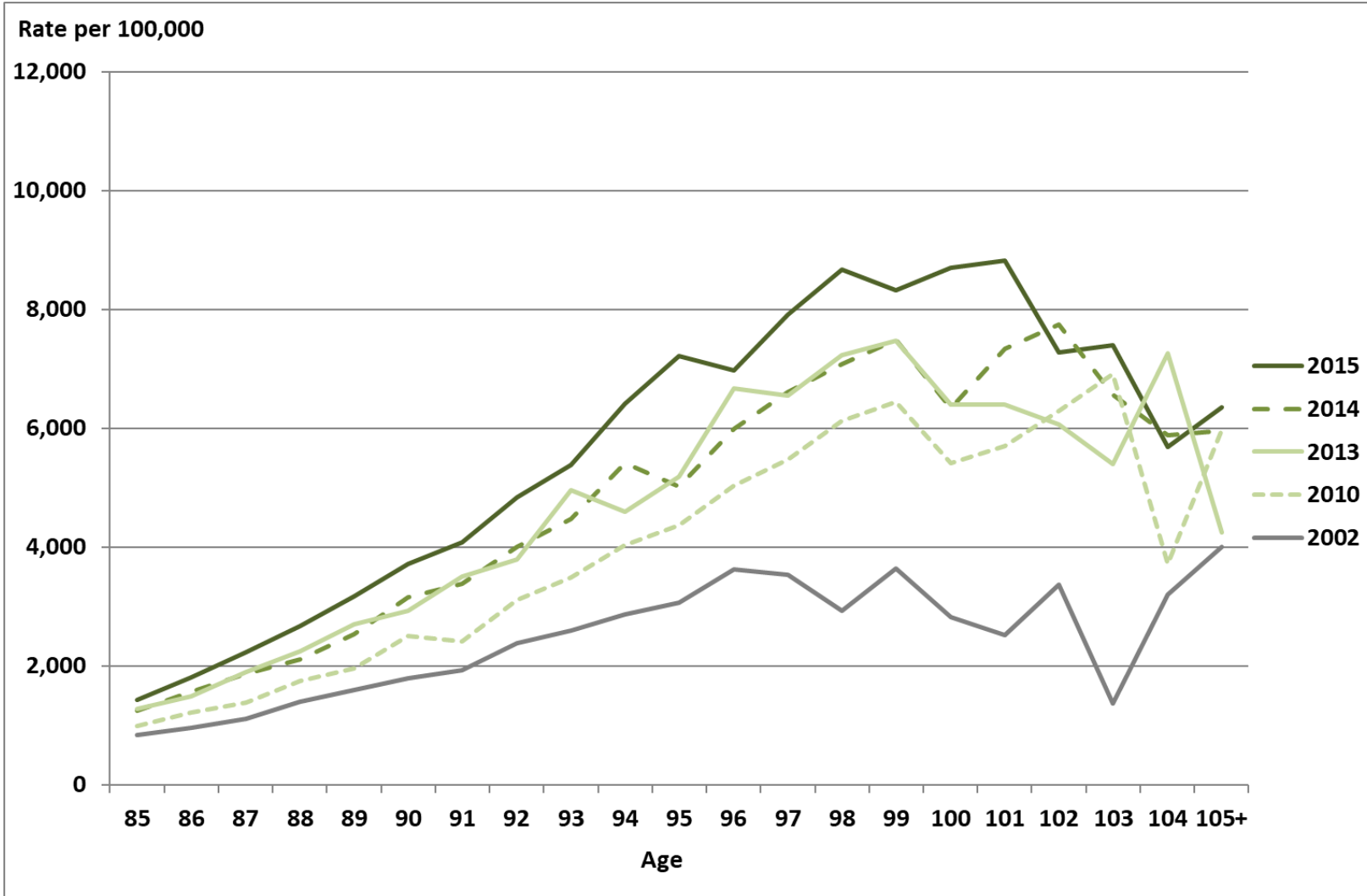
| Age   | Males   |        | Females   |        |
|-------|---|--------|---|--------|
|       | Cause   | Deaths | Cause   | Deaths |
| 01-04 | Congenital malformations etc                        | 27     | Congenital malformations etc                        | 23     |
| 05-09 | Congenital malformations etc                        | 21     | Malignant neoplasm of brain                         | 13     |
| 10-14 | Land transport accidents                            | 15     | Congenital malformations etc                        | 12     |
| 15-19 | Suicide and injury/poisoning of undetermined intent | 135    | Suicide and injury/poisoning of undetermined intent | 51     |
| 20-24 | Suicide and injury/poisoning of undetermined intent | 271    | Suicide and injury/poisoning of undetermined intent | 68     |
| 25-29 | Suicide and injury/poisoning of undetermined intent | 291    | Suicide and injury/poisoning of undetermined intent | 93     |
| 30-34 | Suicide and injury/poisoning of undetermined intent | 343    | Suicide and injury/poisoning of undetermined intent | 98     |
| 35-39 | Accidental poisoning                                | 377    | Malignant neoplasms of breast                       | 146    |
| 40-44 | Suicide and injury/poisoning of undetermined intent | 427    | Malignant neoplasms of breast                       | 270    |
| 45-49 | Ischaemic heart diseases                            | 726    | Malignant neoplasms of breast                       | 478    |
| 50-54 | Ischaemic heart diseases                            | 1,271  | Malignant neoplasms of breast                       | 729    |
| 55-59 | Ischaemic heart diseases                            | 1,756  | Malignant neoplasms of breast                       | 741    |
| 65-69 | Ischaemic heart diseases                            | 3,628  | Malignant neoplasm of trachea bronchus and lung     | 2,079  |
| 70-74 | Ischaemic heart diseases                            | 4,305  | Malignant neoplasm of trachea bronchus and lung     | 2,310  |
| 75-79 | Ischaemic heart diseases                            | 5,473  | Ischaemic heart diseases                            | 2,742  |
| 80-84 | Ischaemic heart diseases                            | 6,332  | Dementia and Alzheimer disease                      | 6,588  |
| 85+   | Dementia and Alzheimer disease                      | 12,248 | Dementia and Alzheimer disease                      | 30,664 |

# Deaths due to dementia, males by single years of age, England and Wales, 2002-2015



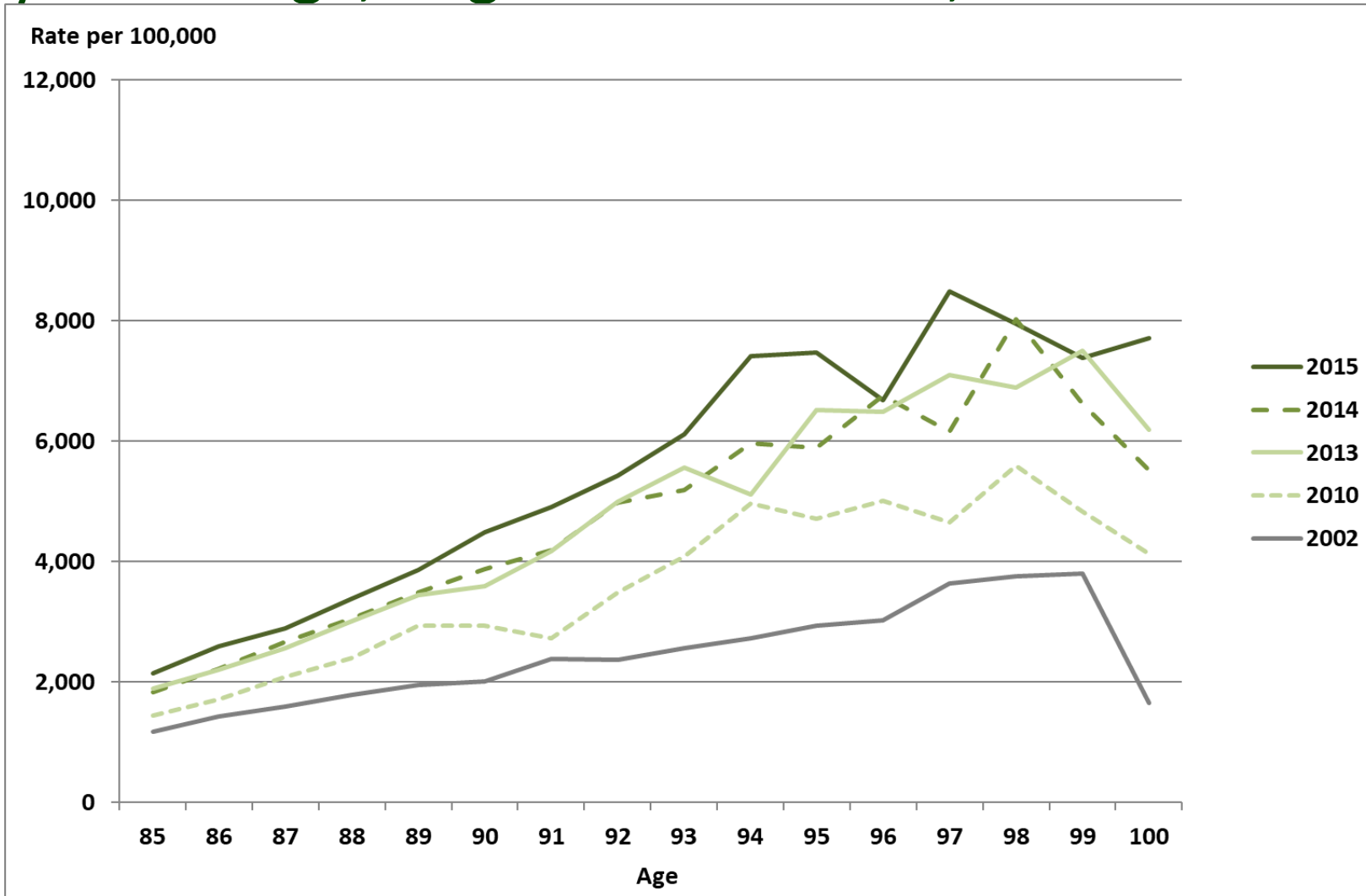
Historic rates shown are adjusted to match ONS current practices in coding underlying cause of death

# Deaths due to dementia, females by single years of age, England and Wales, 2002-2015



Historic rates shown are adjusted to match ONS current practices in coding underlying cause of death

# Deaths mentioning dementia, males by single years of age, England and Wales, 2002-2015

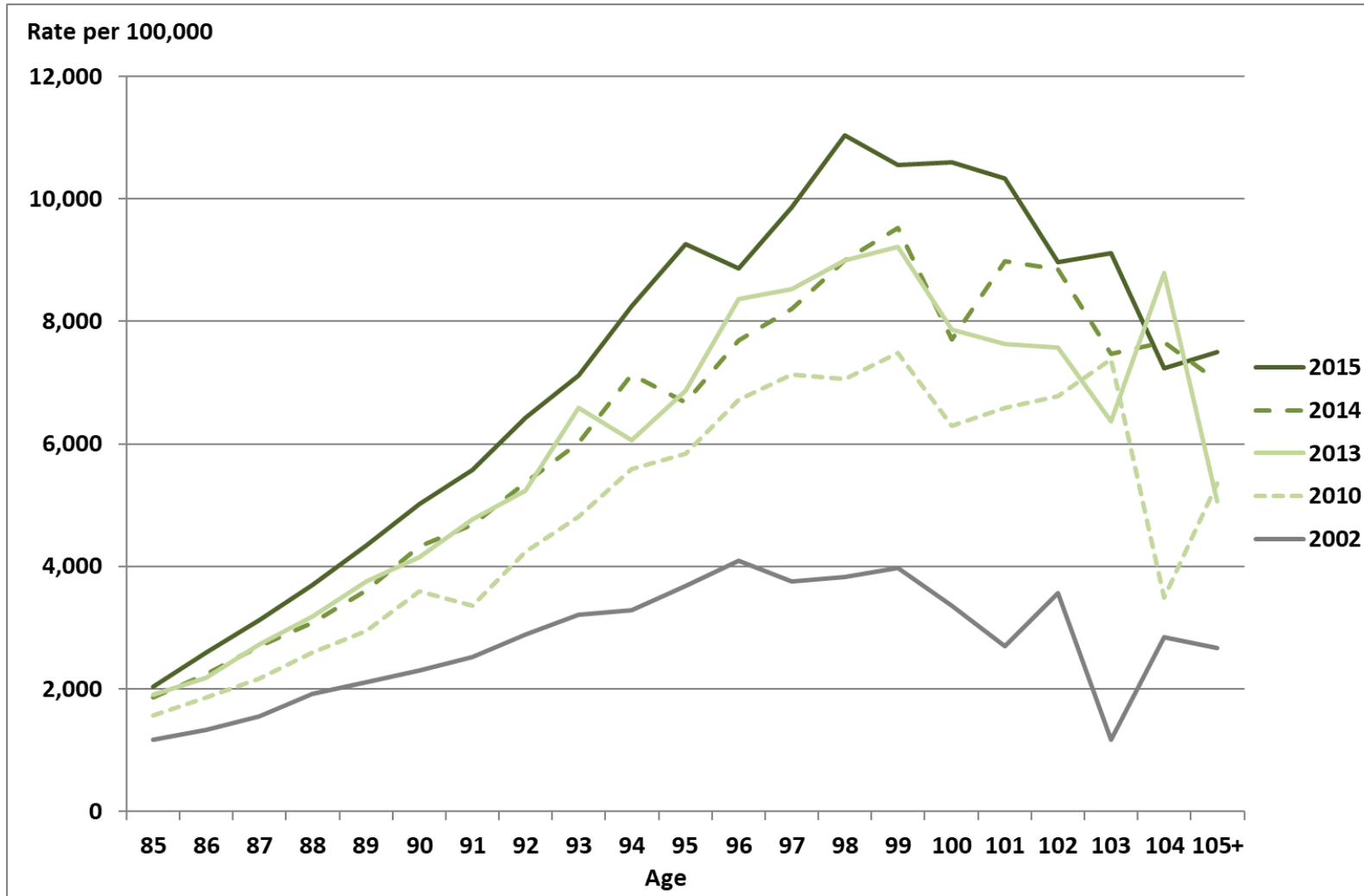


# Deaths mentioning dementia, females by single years of age, England and Wales, 2002-2015



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# Reasons for the increase in deaths due to dementia at ages 85 and over by sex, England and Wales, 2002 to 2015



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|   | Males  | Females |
|---|--------|---------|
| Deaths due to dementia in 2002                      | 4,051  | 11,786  |
| Increase in 2015 due to:                            |        |         |
| death rate rise alone                               | 3,001  | 12,404  |
| population increase alone                           | 2,916  | 3,057   |
| effect of death rate rise<br>on a larger population | 2,280  | 3,417   |
| Deaths due to dementia in 2015                      | 12,248 | 30,664  |

Rates used in calculations are adjusted to match ONS current practices in coding underlying cause of death



# Reasons for the increase in deaths with dementia mentioned at ages 85 and over by sex, England and Wales, 2002 to 2015



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|   | Males  | Females |
|---|--------|---------|
| Deaths with dementia mentioned in 2002              | 5,088  | 15,173  |
| Increase in 2015 due to:                            |        |         |
| death rate rise alone                               | 5,253  | 17,468  |
| population increase alone                           | 3,611  | 3,817   |
| effect of death rate rise<br>on a larger population | 3,921  | 4,776   |
| Deaths with dementia mentioned in 2015              | 17,873 | 41,234  |



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# Marmot indicators: life expectancy and health expectancy

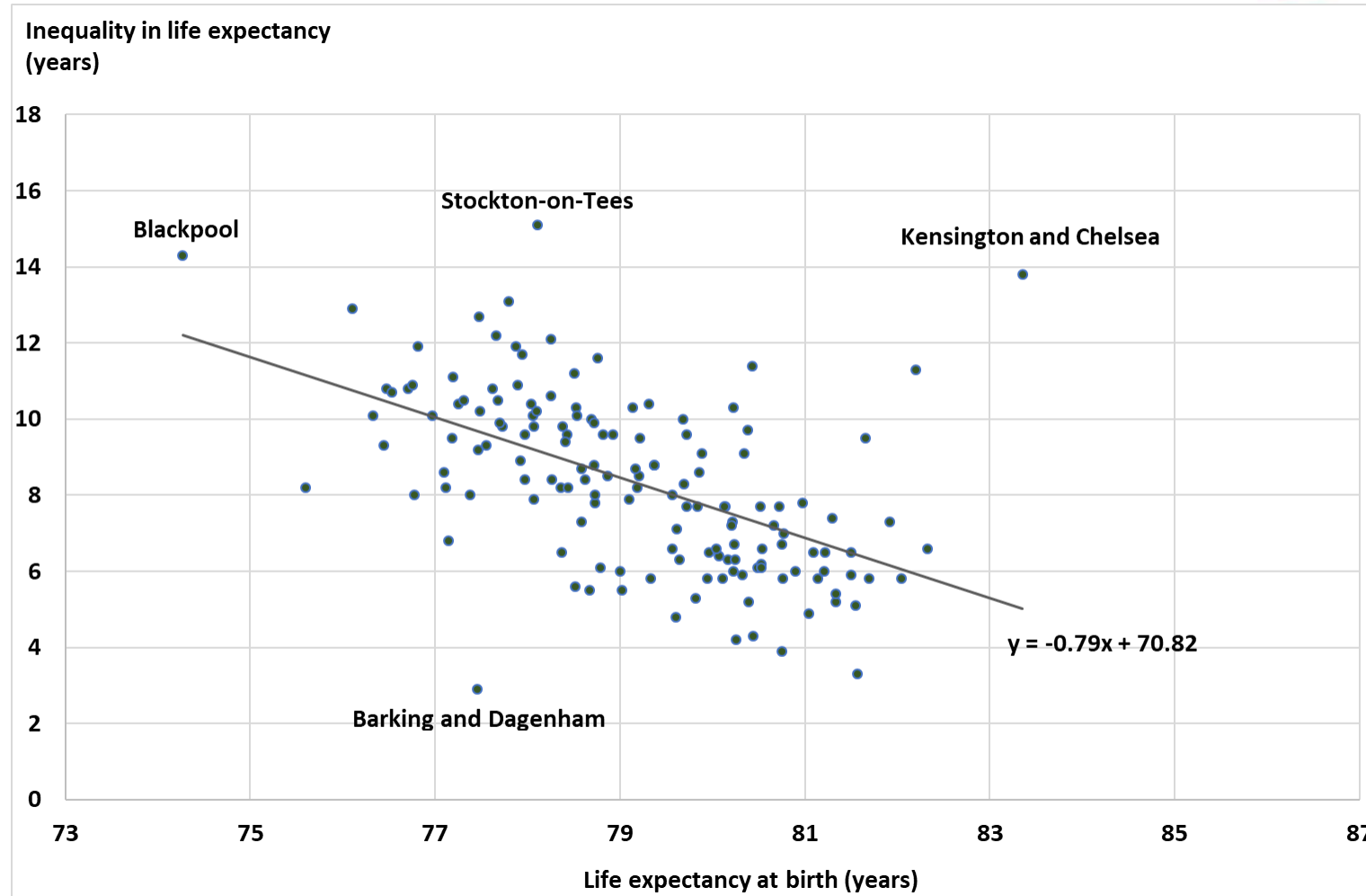
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# Male life expectancy at birth and inequalities in life expectancy by local authority



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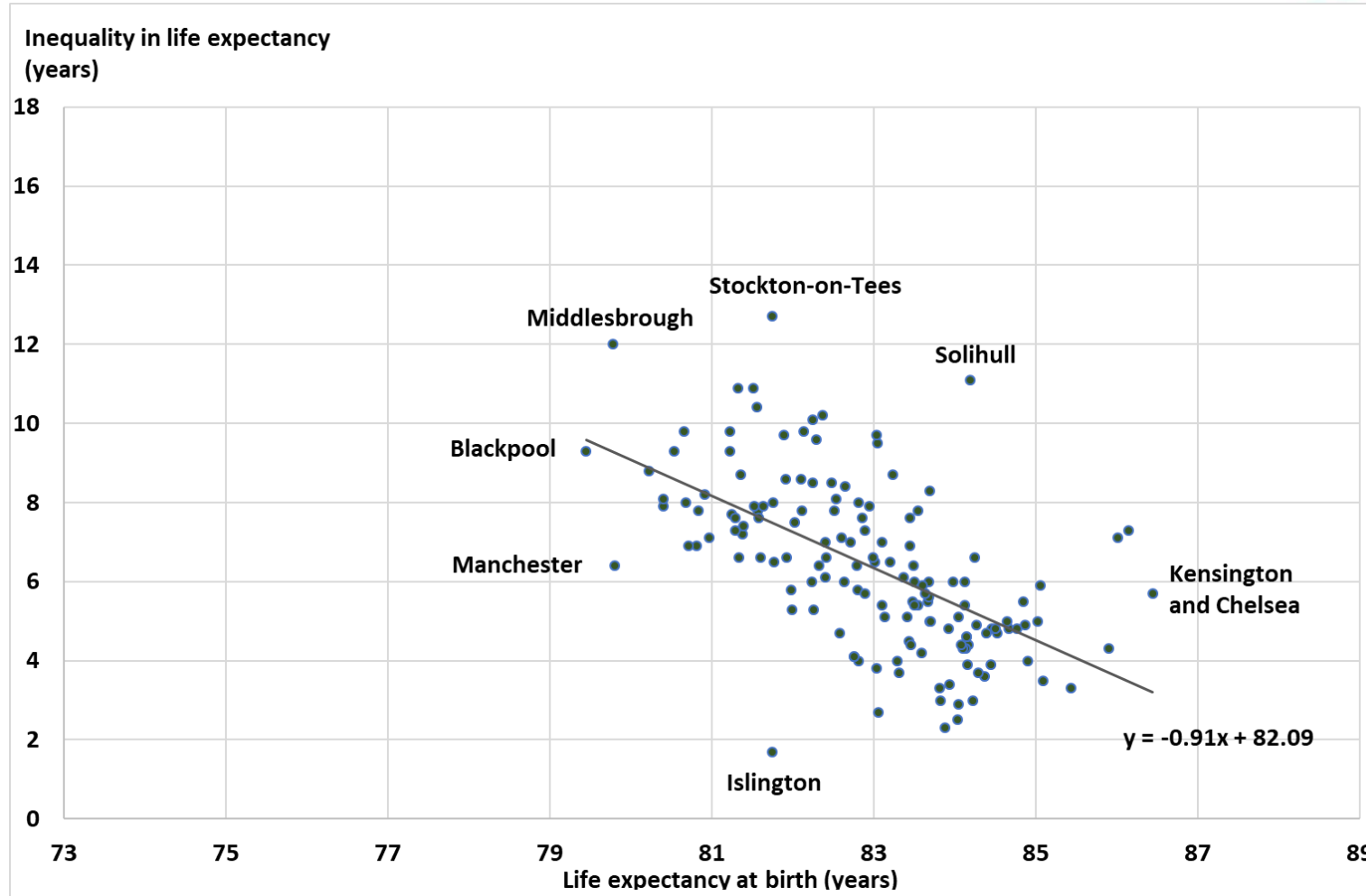


# Female life expectancy at birth and inequalities in life expectancy by local authority



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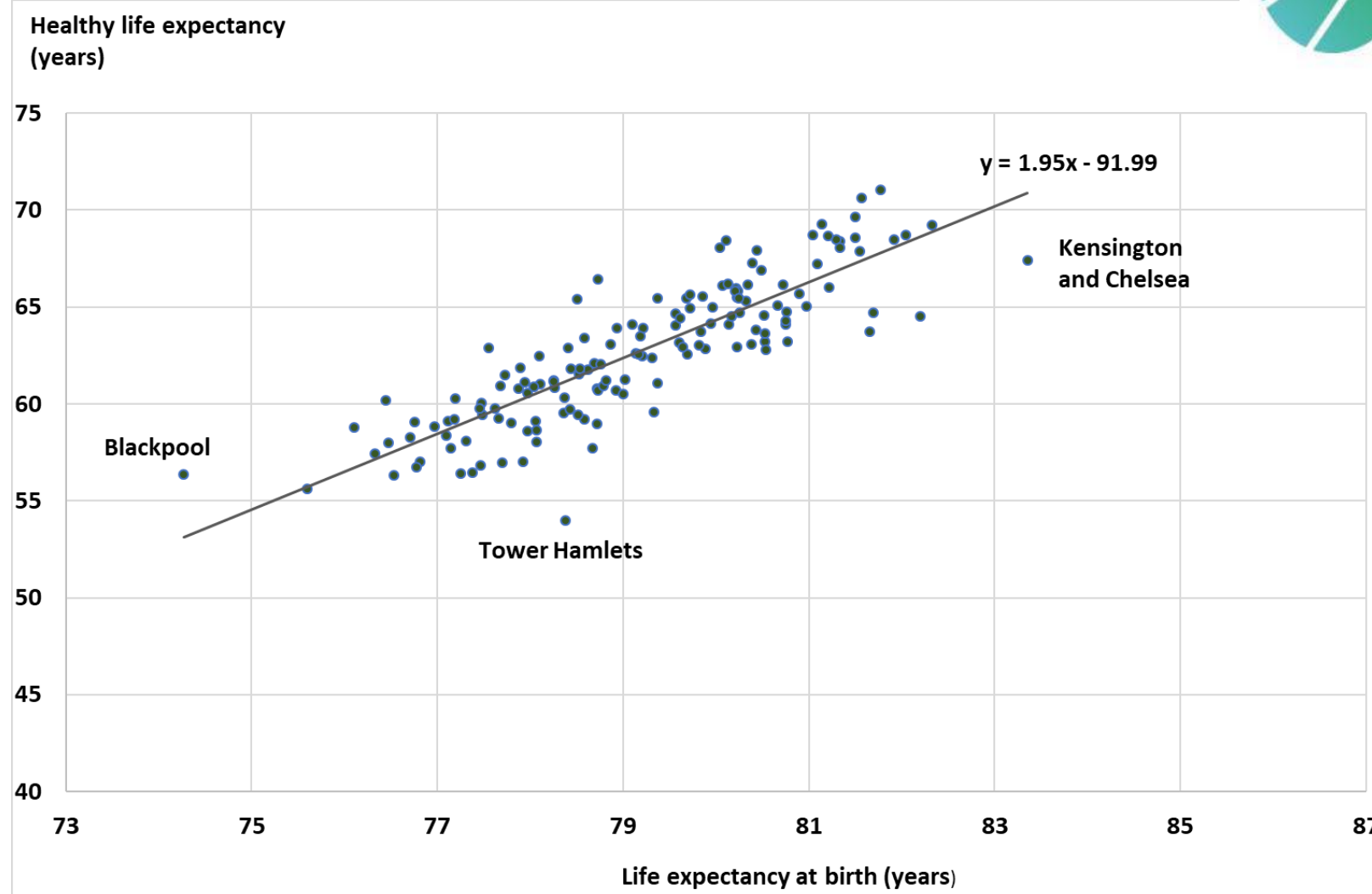


# Male life expectancy at birth and healthy life expectancy by local authority



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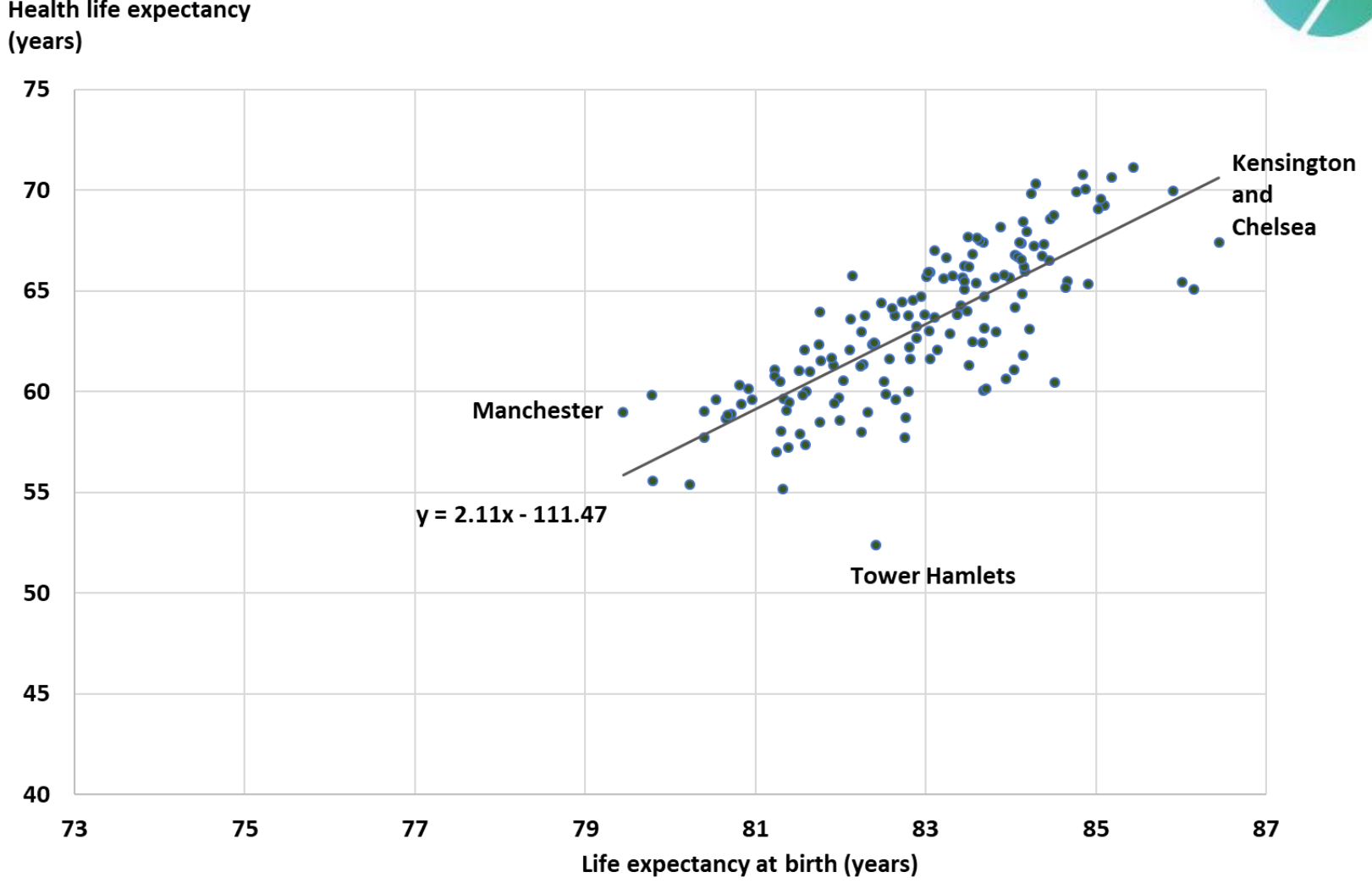


# Female life expectancy at birth and healthy life expectancy by local authority



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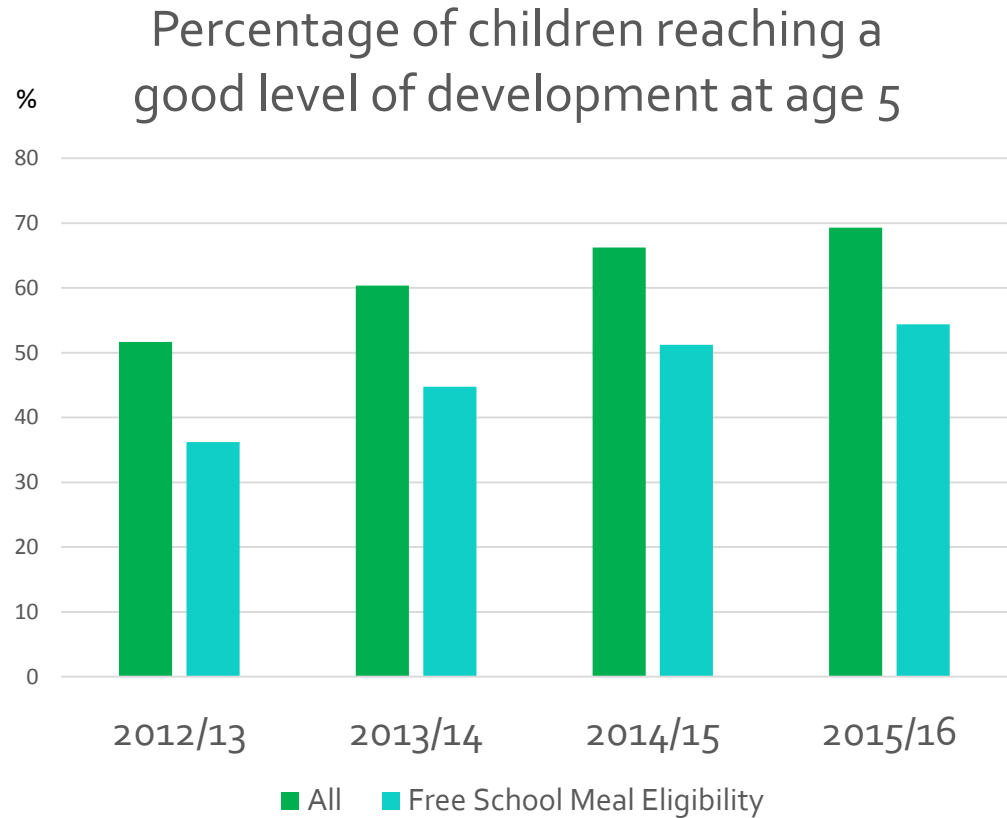


# Drivers of inequitable health outcomes

40-50% of variation in health outcomes is caused by unequal distribution of social and environmental Factors, to improve health and reduce inequalities we must:

- A. Give every child the best start in life
  - B. Enable all children, young people and adults to maximise their capabilities and have control over their lives.
  - C. Create fair employment and good work for all
  - D. Ensure a healthy standard of living for all
  - E. Create and develop healthy and sustainable places and communities
  - F. Strengthen the role and impact of ill-health prevention
-

# A. Give every child the best start in life



GAP

|         |      |
|---------|------|
| 2012/13 | 15.5 |
| 2013/14 | 15.6 |
| 2014/15 | 15.1 |
| 2015/16 | 14.9 |

Good level of Development and eligible for FSM

>67% Haringey, Lewisham, Bexley, Greenwich

c. 40% Stockton on Tees, Blackburn and Darwen, and Leicestershire

GOOD

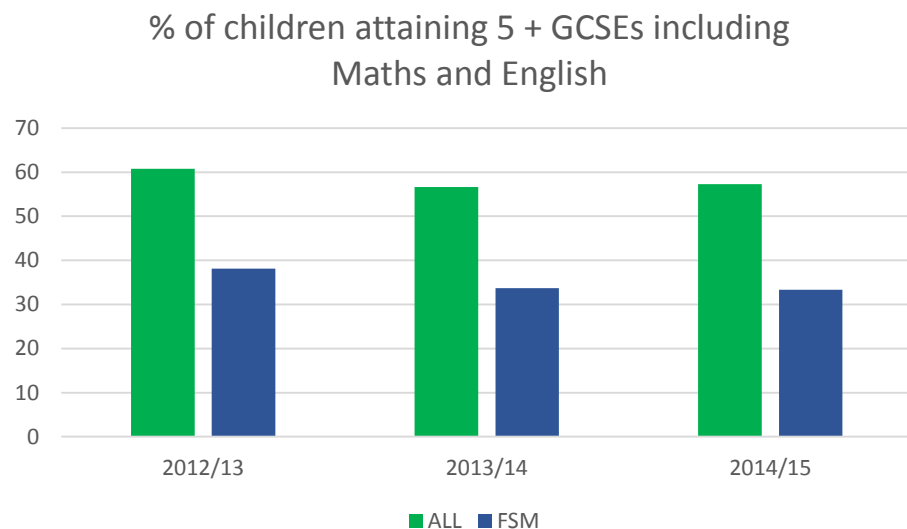
But room for improvement



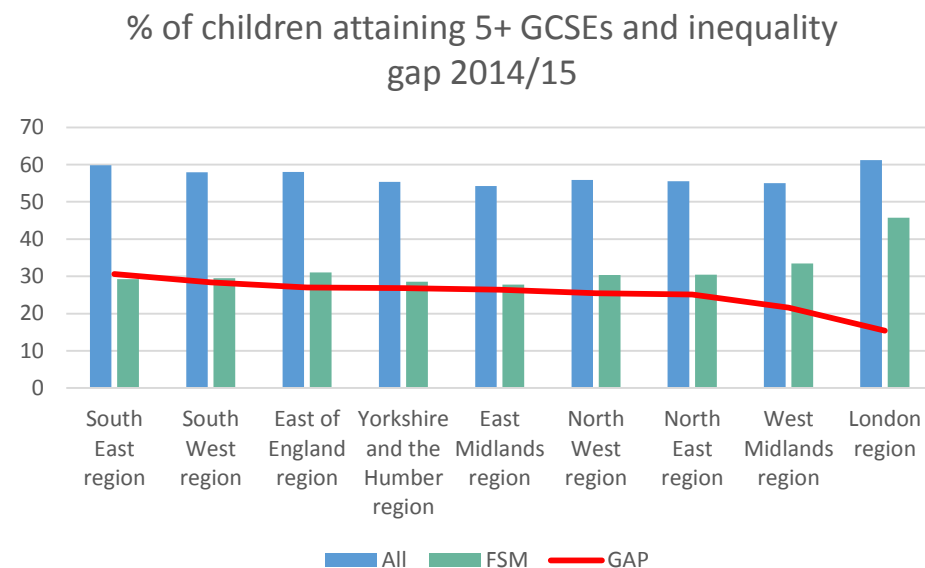
## B. Enable all children, young people and adults to maximise their capabilities and have control over their lives.

# Percentage of children achieving 5 or more GCSEs\*, all and children eligible for free school meals

\* No GCSEs count as more than one, taken first time. New criteria for statistic introduced in 2014



Of concern



And room for improvement

If the success of children eligible for free school meals in London is shared across the country....

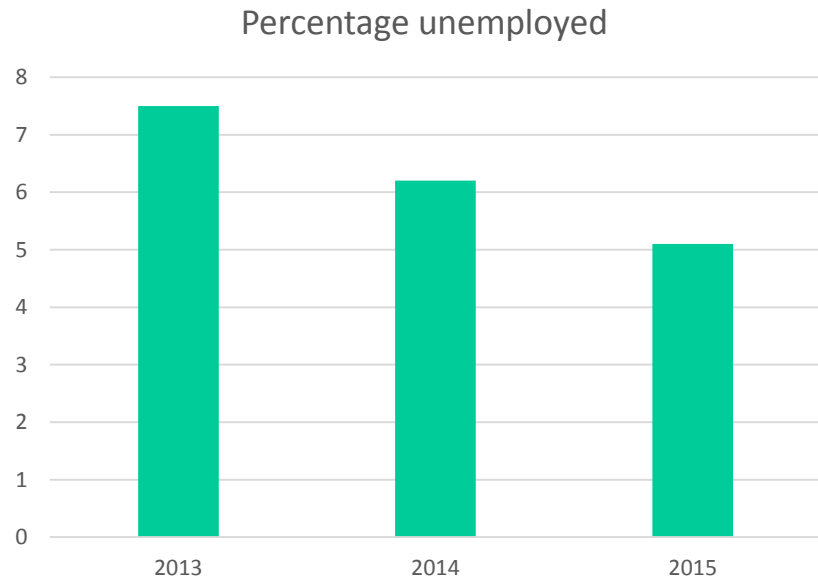
## MORE GET 5+ GCSEs IF COPY LONDON



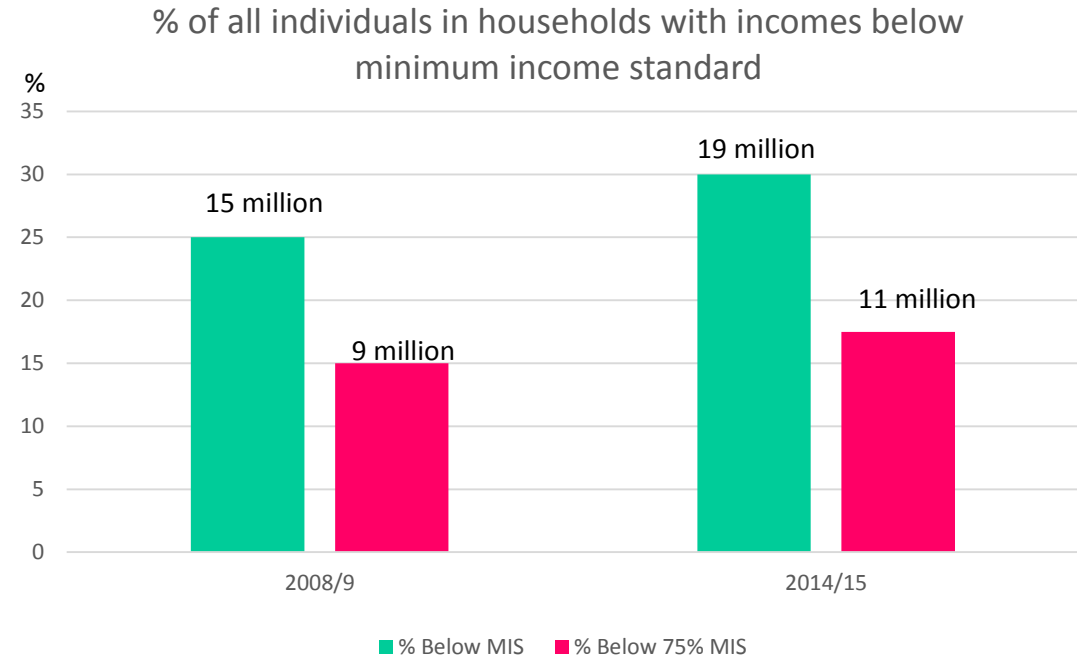
Copying London formula to reduce inequalities

School funding per pupil has been frozen in cash terms between 2015–16 and 2019–20, resulting in a real-terms cut of 6.5%. London the largest loser. (IFS)

## C/D. Create fair employment and good work for all and a minimum income for healthy living

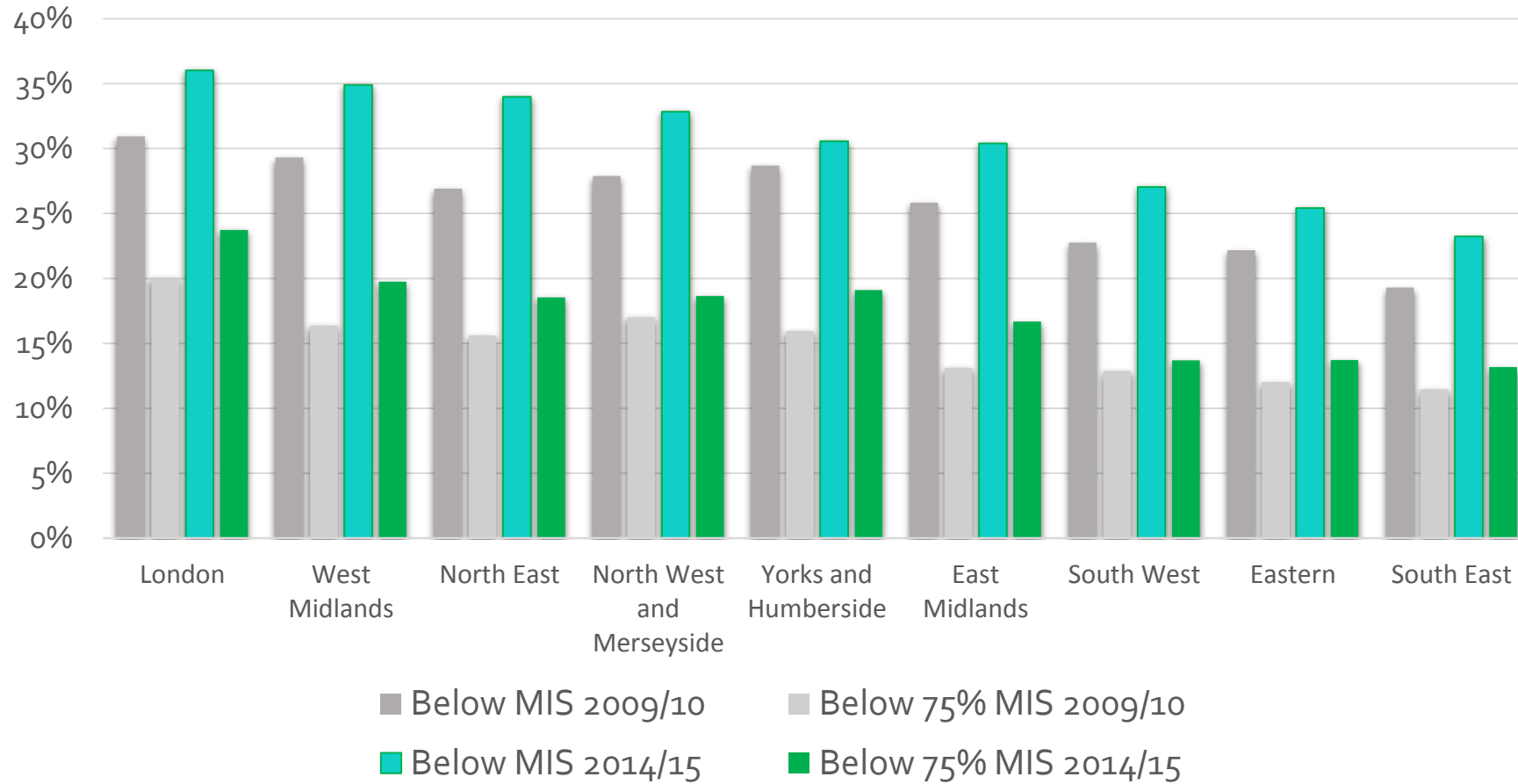


Good



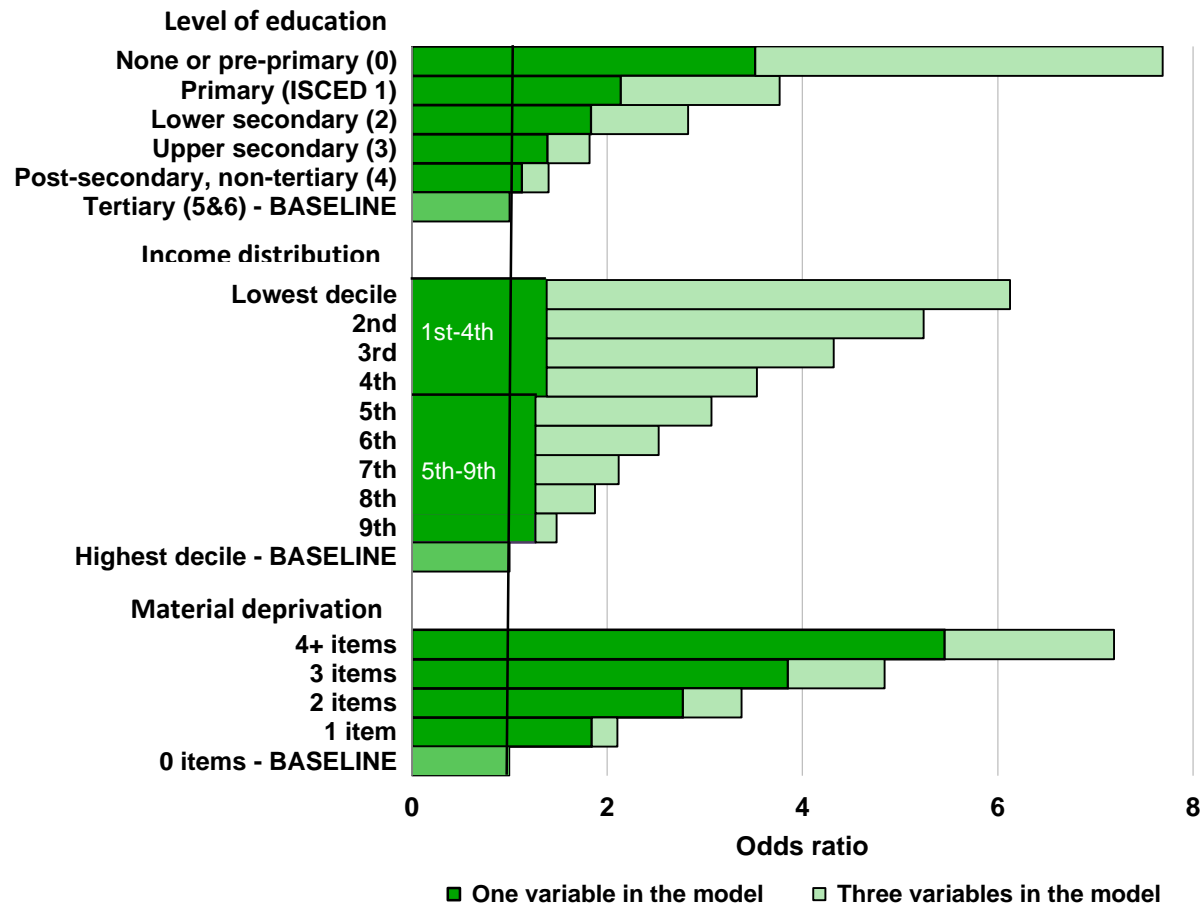
But increases in numbers of people with insufficient income of concern

## Minimum income for healthy living 2009/10 - 2014/15: Numbers below minimum income standard



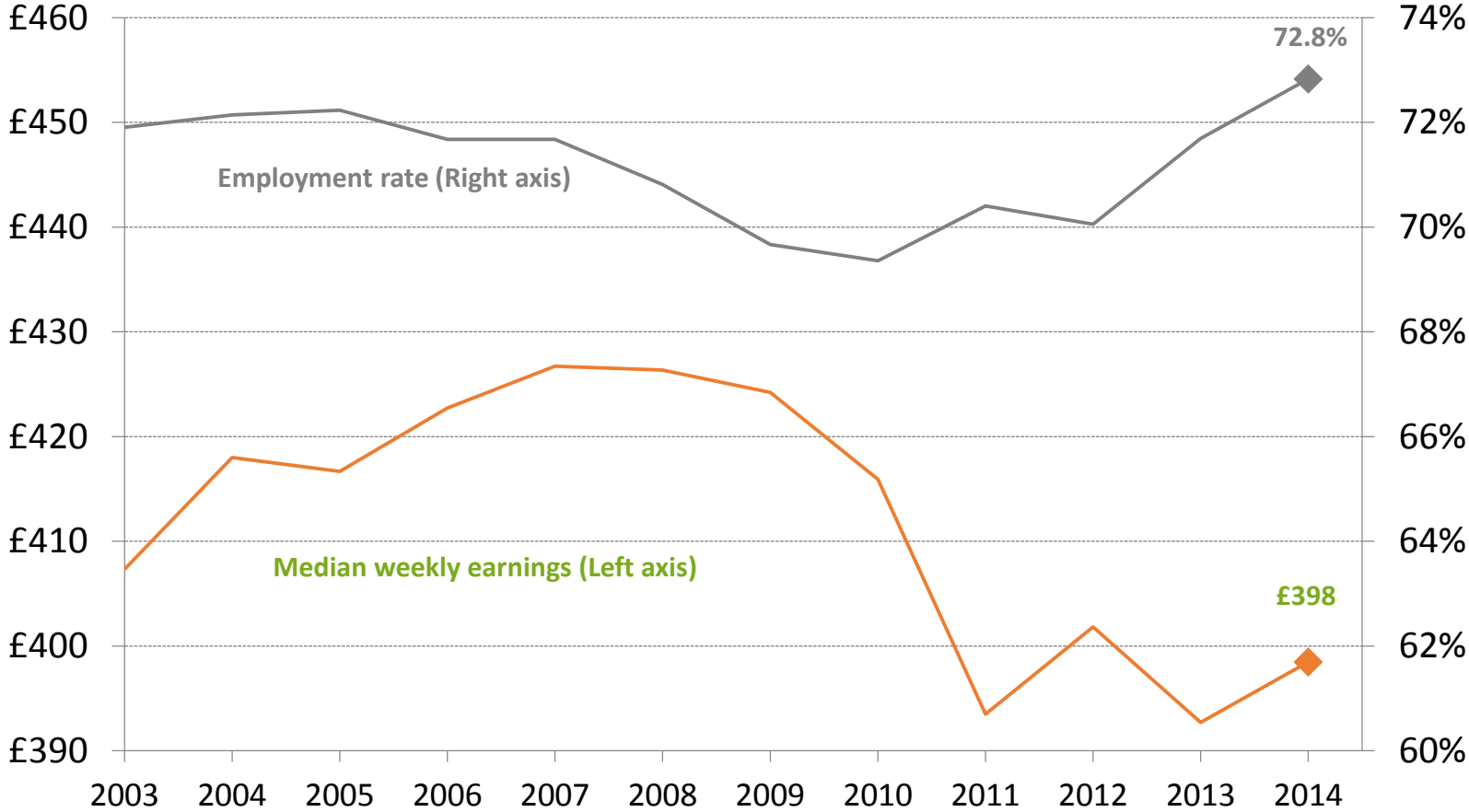
Data from Joseph Rowntree Foundation

# Estimated odds of reporting poor or very poor general health by socioeconomic characteristics, 25 EU Member States\*, 2010



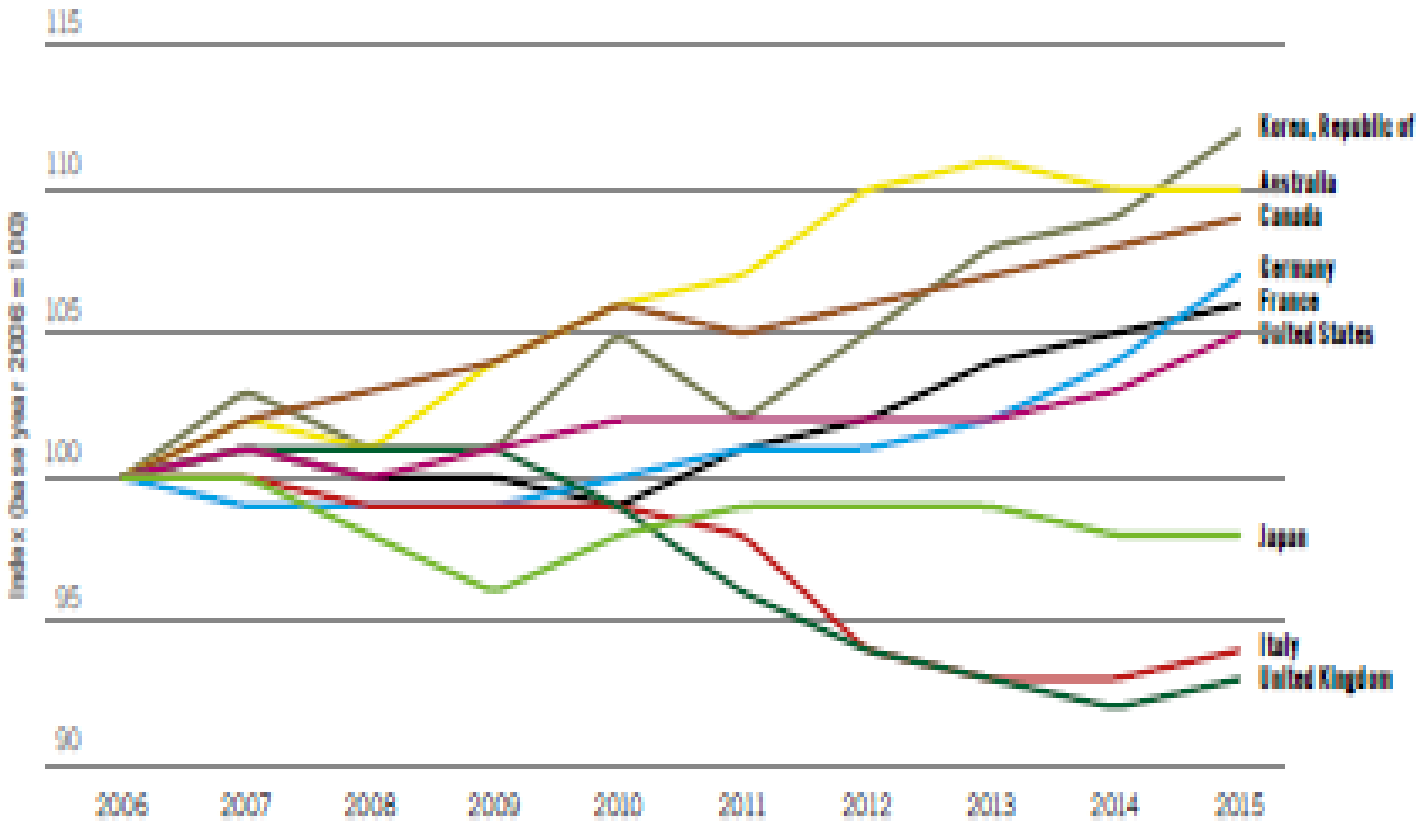
Source: Health inequalities in the EU

# Population are not benefiting from labour market progress



Source: Institute of Fiscal Studies. Figures 2.4 and 2.5 of *Living Standards, Poverty and Inequality: 2016*

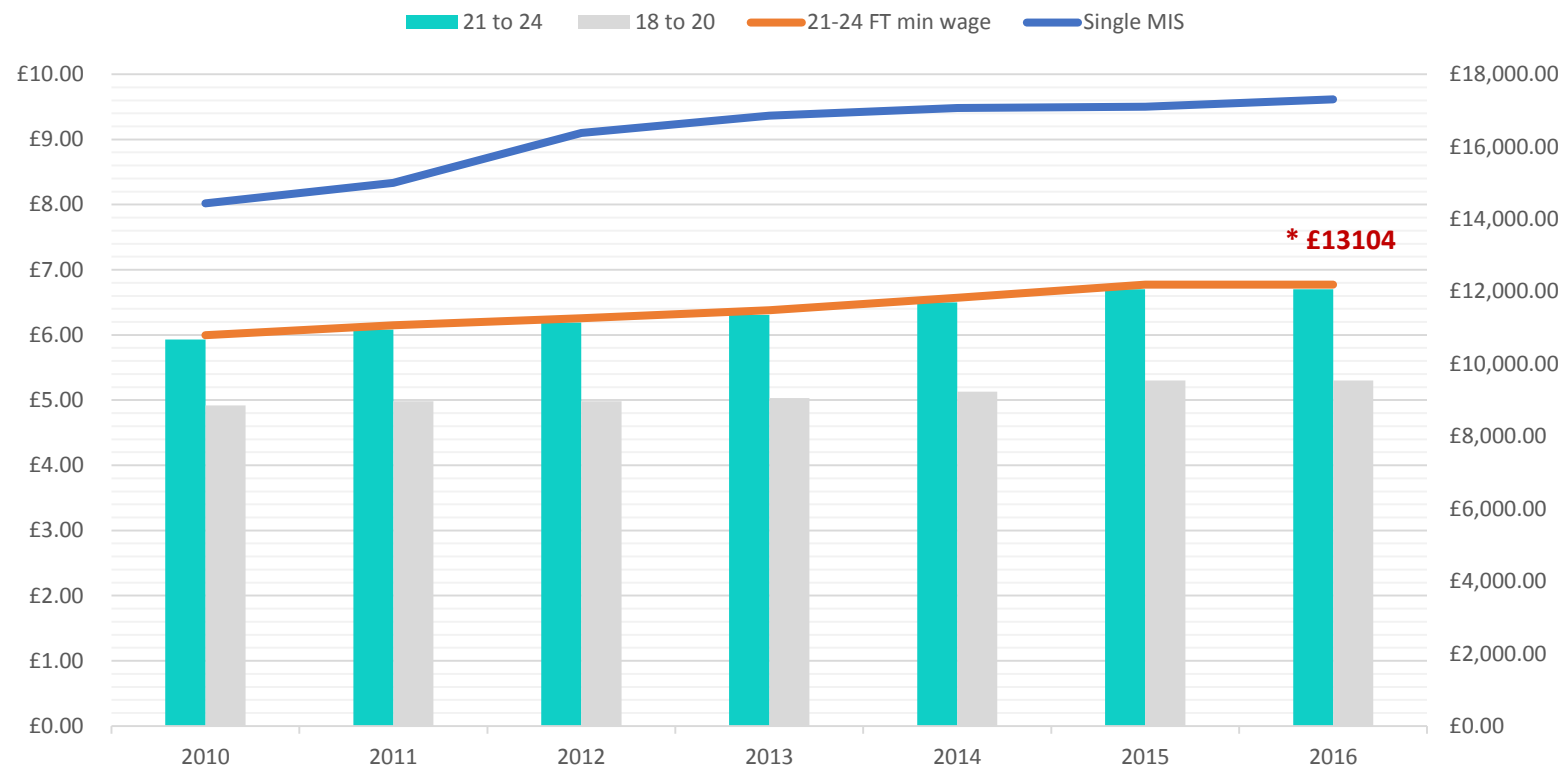
# Average Real Wage Index G20 Countries.



Note: 2015 figures are preliminary estimates as national estimates are not yet available for all countries.

Source: ILO estimates based on official national sources as recorded in the ILO Global Wage Database.

## Minimum Wage/National Living Wage vs Minimum Income Standard (JRF)



**Real Living Wage**  
 £8.45 Out of  
 London  
 (£9.75 in London)

**£13104 available to  
 over 25 year olds  
 from April 17**

National 'Living' Wage is insufficient and merely maintains same gradient as minimum wage.



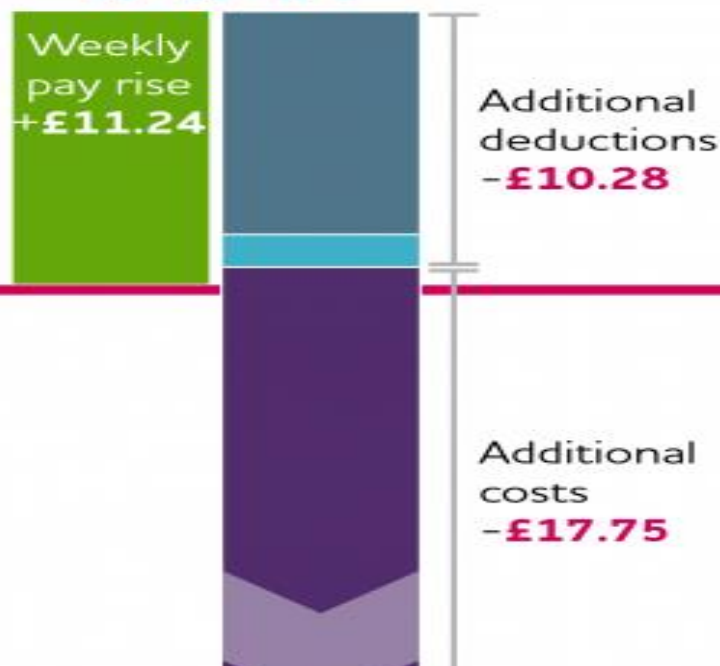
# Despite receiving a **pay rise**, rising **living costs** and the freeze on tax credits and benefits are making working families on the National Living Wage (NLW) **worse off in 2017**

Couple both full-time on NLW 2 children (age 3 and 7)



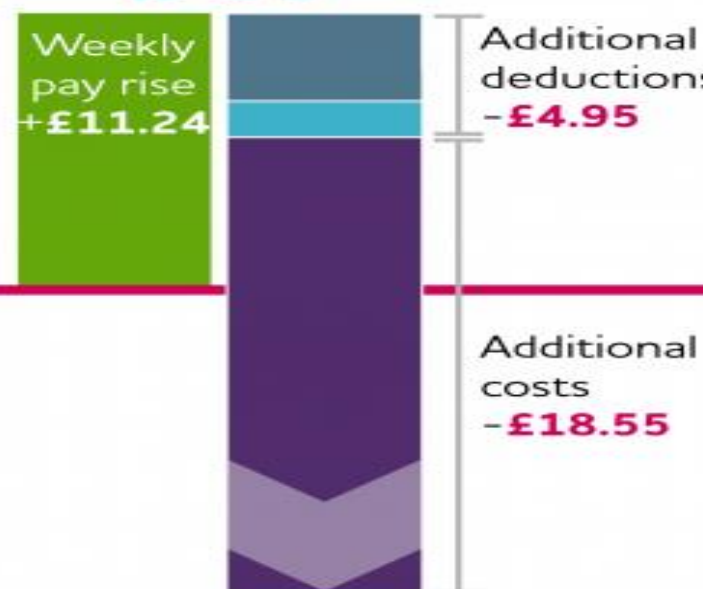
**£9** a week worse off and **£59** a week short of MIS

Couple one working full-time on NLW, one not working, 2 children (age 3 and 7)



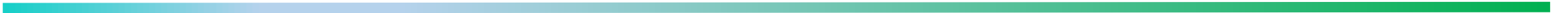
**£12** a week worse off and

Lone-parent full-time on NLW, 2 children (age 3 and 7)

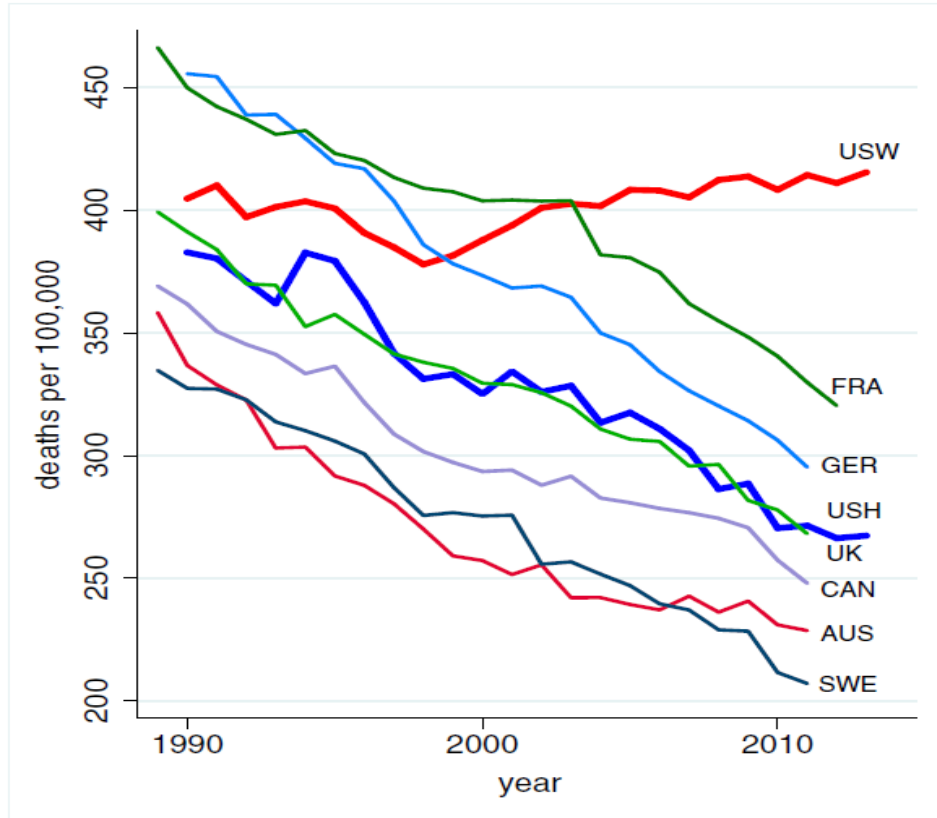


**£12** a week worse off and

# Inequalities in health outcomes



# All-cause mortality, ages 45–54 for US White non-Hispanics, US Hispanics and 6 comparison countries



US White non-Hispanics (USW),  
US Hispanics (USH),  
France (FRA),  
Germany (GER),  
United Kingdom (UK),  
Canada (CAN),  
Australia (AUS),  
Sweden (SWE).

Case & Deaton, PNAS, 2015

# Summary – social determinants

- Early Years** Impressive improvement in levels of development  
- small reduction in gap, but 30 percentage point difference between areas in terms of achievement on free school meals. More to be done to learn from areas where gap is small.
- GCSEs** GCSEs harder, those on FSM maybe falling behind. London formula could significantly reduce gap.
- Work** Increase in numbers in employment, but low incomes
- Income** Increasing numbers struggling, low wage levels, lagging behind other developed countries. National living wage insufficient.
- Enviro** Use of green space up, inequalities to be addressed