

# Health analysis at ONS

Jamie Jenkins  
@statsjamie

# Demographic context

---

- Sustained and continuing population growth
- The ageing population – “baby boomers” leaving working age population combined with increasing life expectancy
- Life expectancy v healthy life expectancy
- Inequality in life expectancy – geographical, socioeconomic class, deprivation, gender
- Impact of migration on OADR

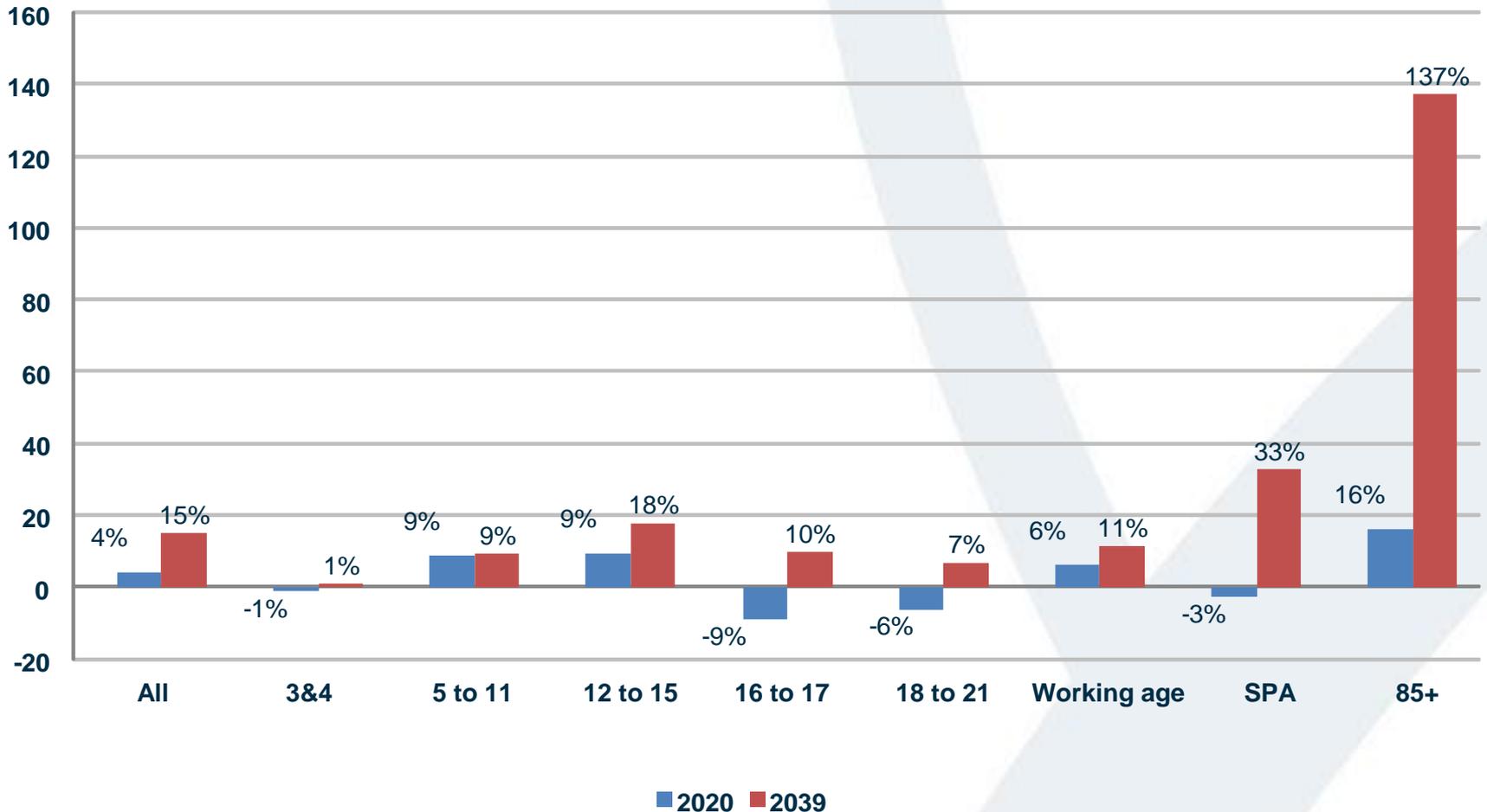
# The UK population in 2014

---

- Mid-year population estimate was 64.6 million
- Population aged 15 and under = 18.8%
- Population aged 16 to 64 = 63.5%
- Population aged 65+ = 17.6%
- Population aged 66+ = 16.5%
- Population aged 67+ = 15.4%
- Old-age dependency ratio = 310 per 1000

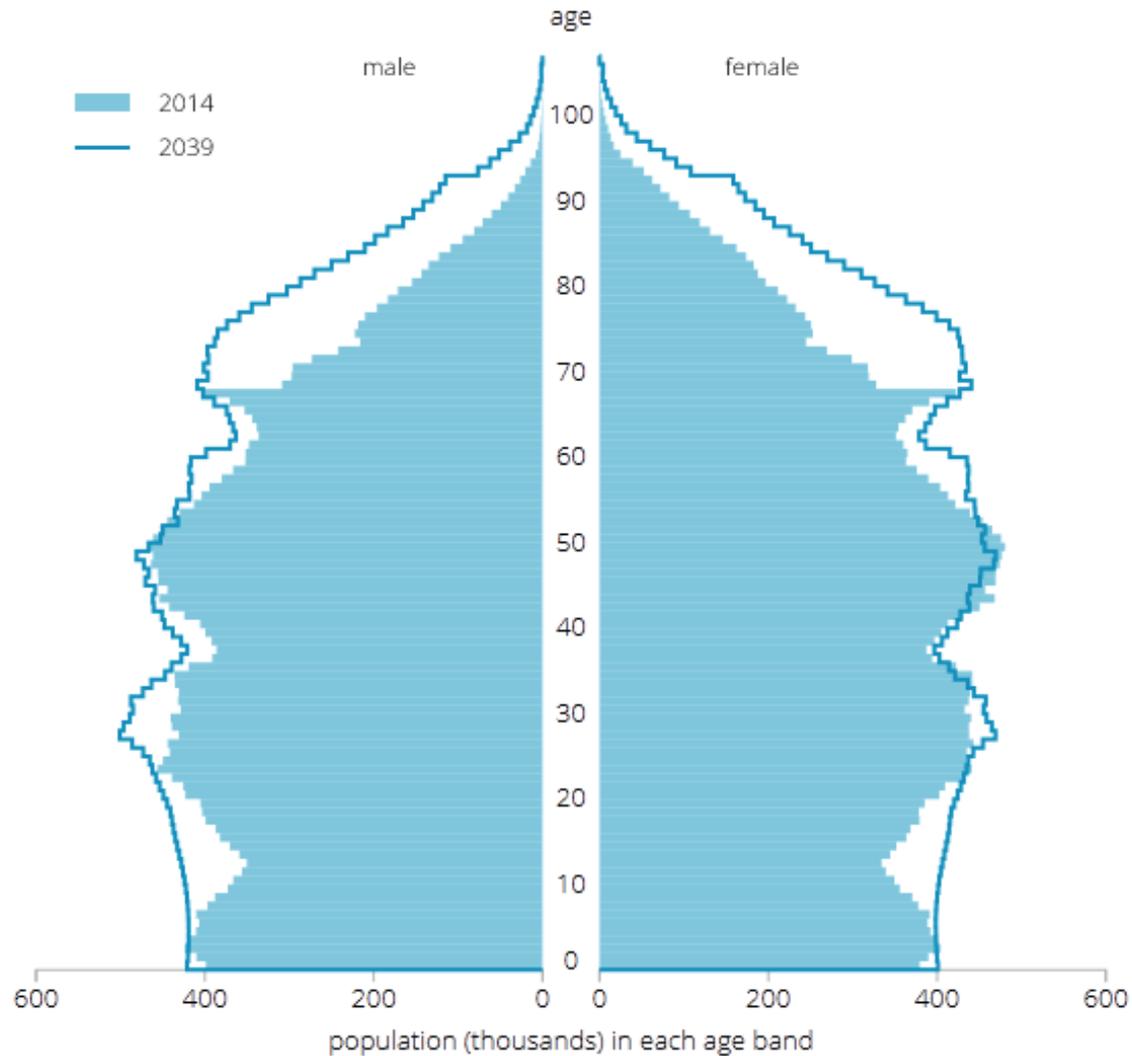
# UK Population to grow: short term falls in some age groups

Percentage difference from 2014

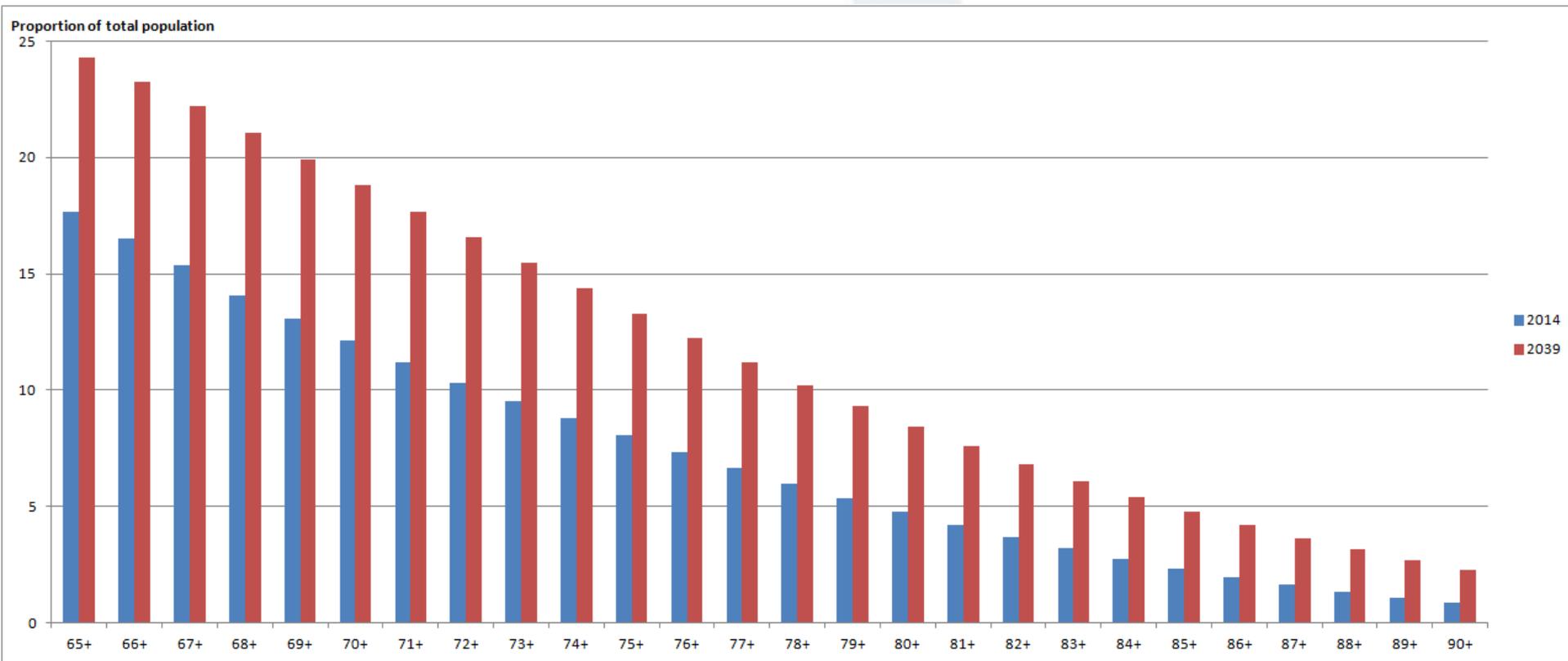


Note: These figures take into account the change in State Pension Age under existing legislation.

# UK Population, 2014 and 2039



# Age distribution, 2014 and 2039

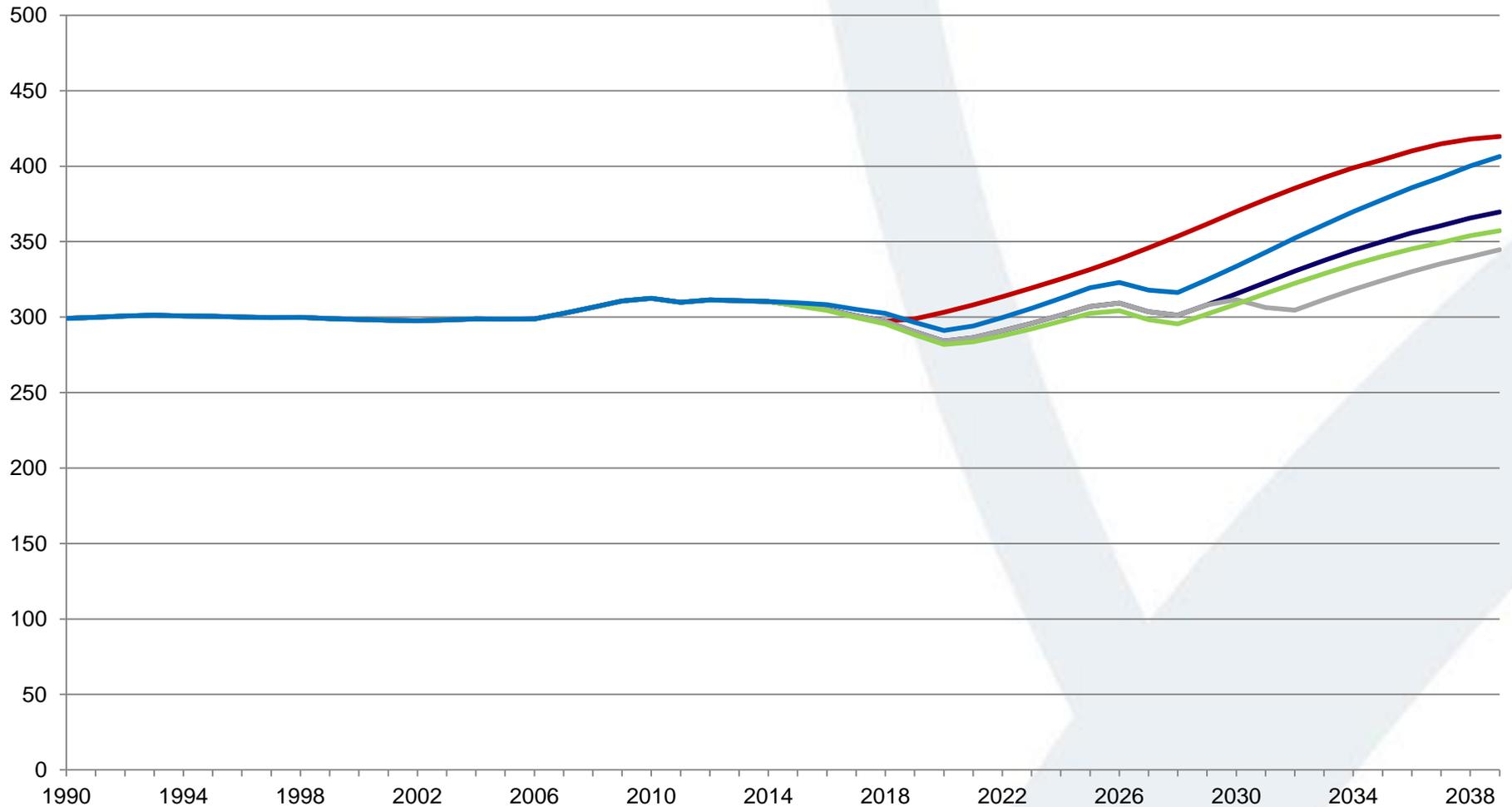


# The ageing population

---

|                     | 2014                  |                | 2039                  |                |
|---------------------|-----------------------|----------------|-----------------------|----------------|
|                     | Population (millions) | Proportion (%) | Population (millions) | Proportion (%) |
| Population aged 65+ | 11.4                  | 17.6           | 18.1                  | 24.3           |
| Population aged 85+ | 1.5                   | 2.3            | 3.6                   | 4.8            |

# Old age dependency ratio



Equalise female and male at 65

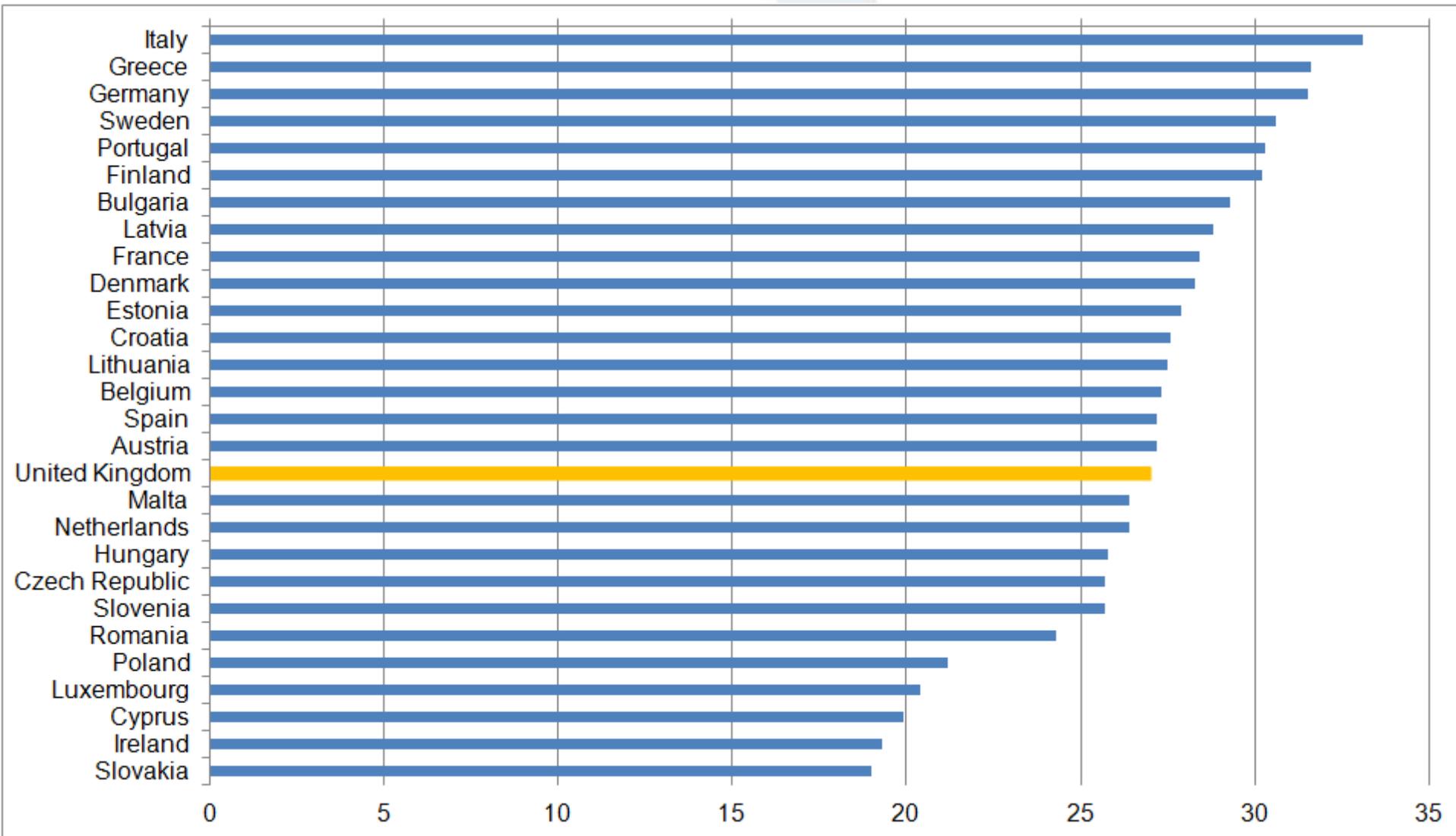
High migration, current policy

Principal projection, current policy

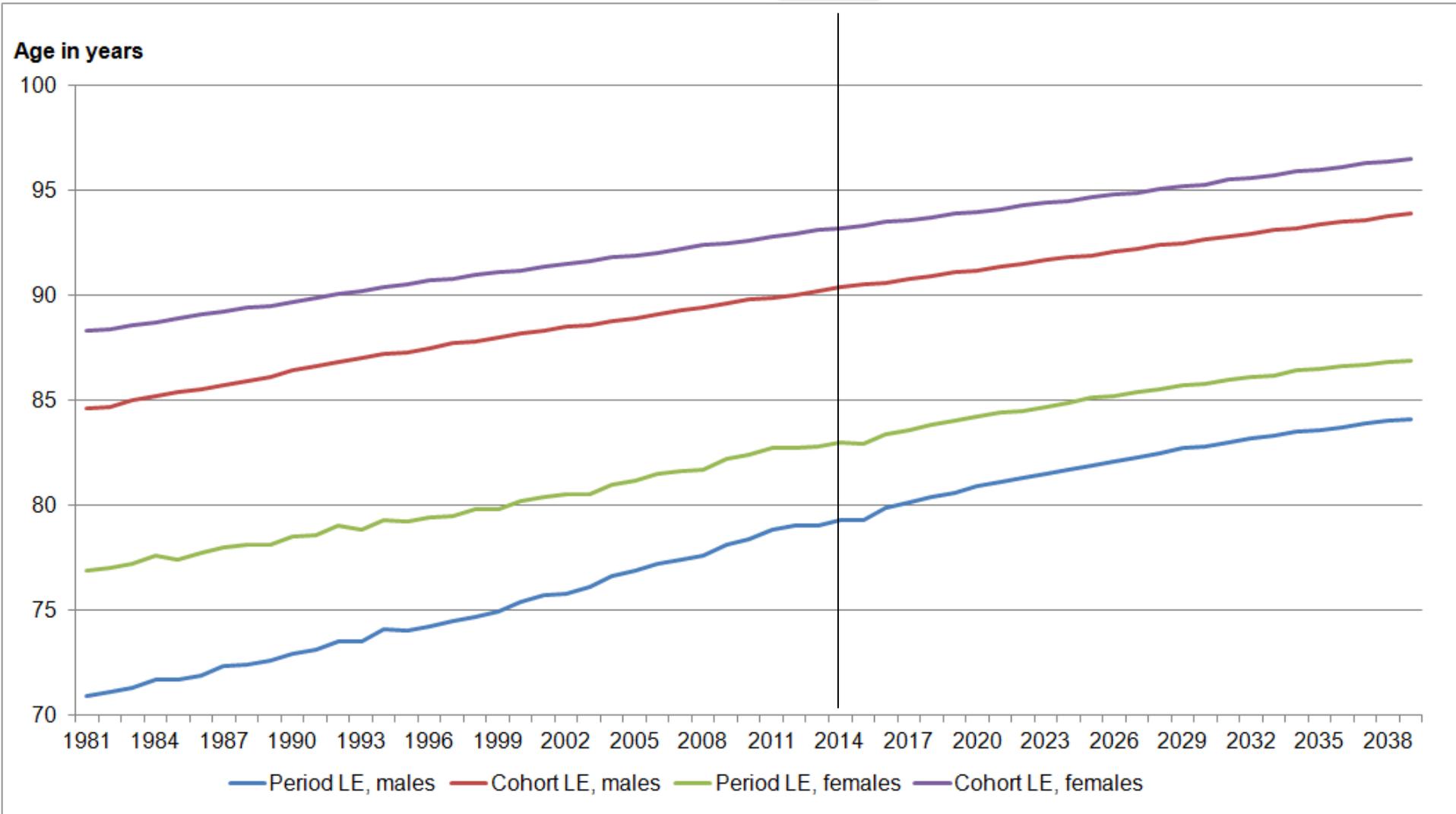
Zero migration, current policy

Increase to 68 in 2032

# OADR across EU, 2014

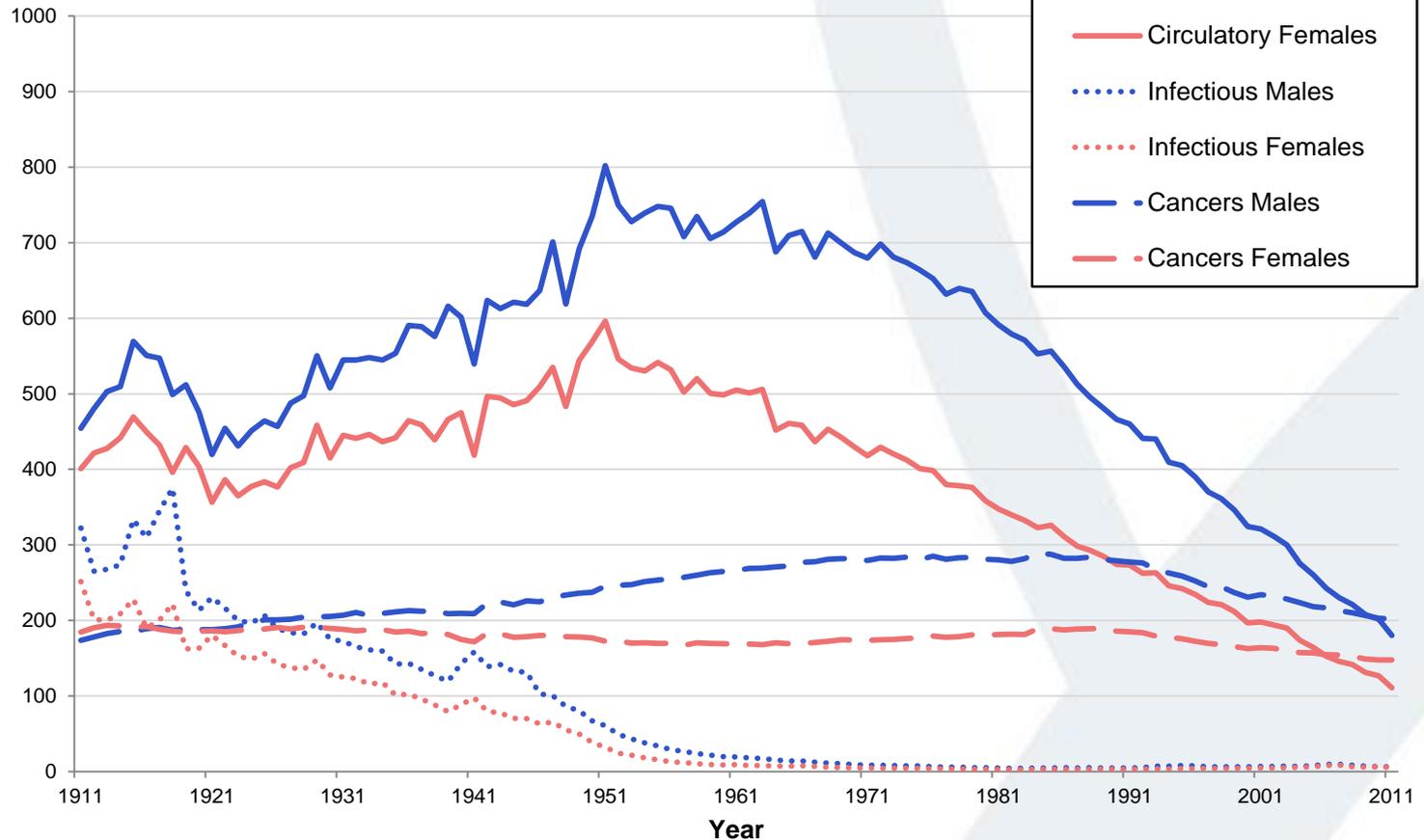


# Life expectancy at birth, principal projection, 1981-2039



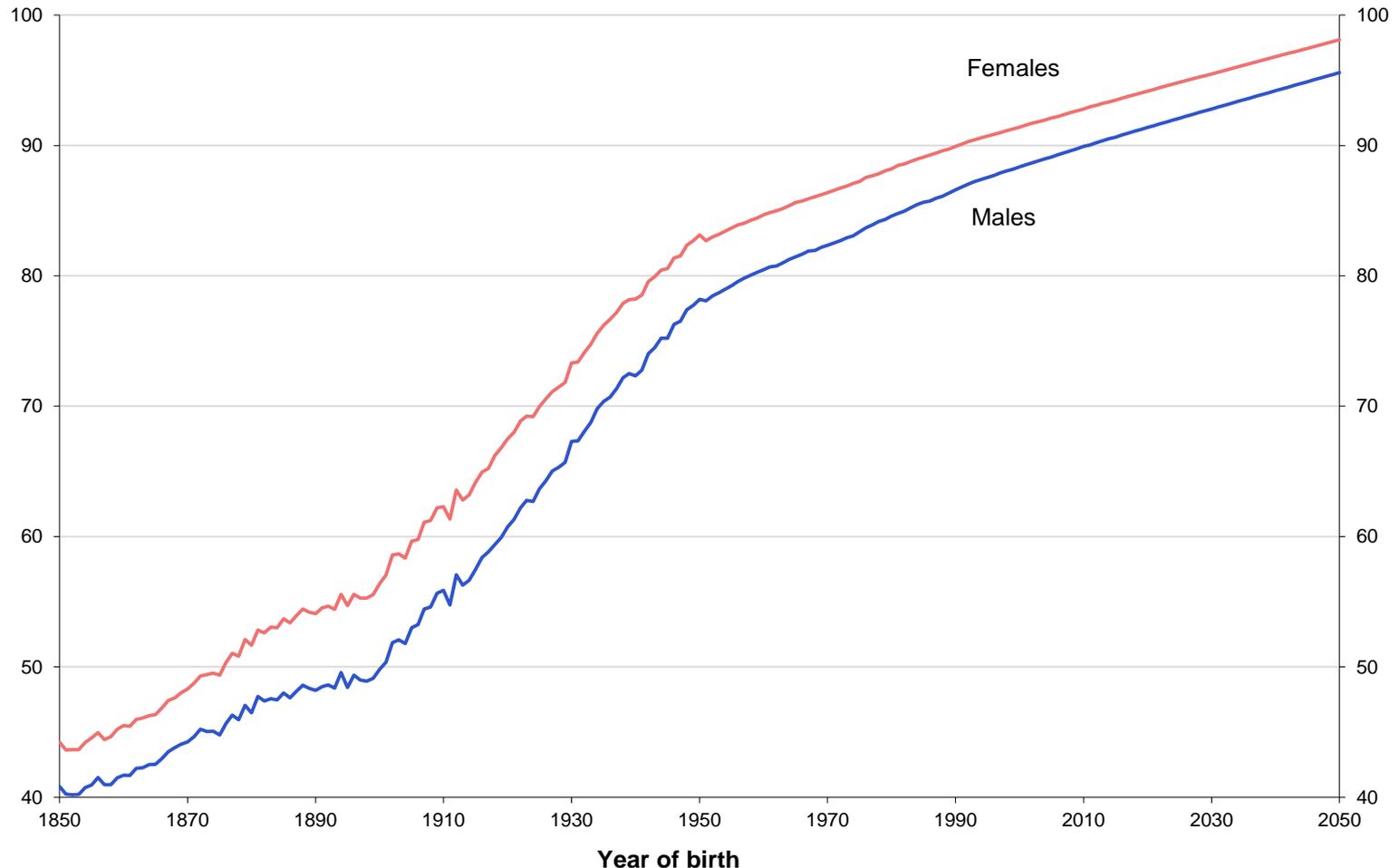
# Age-standardised mortality rates by major cause, 1911-2011

Rates per 100,000 population



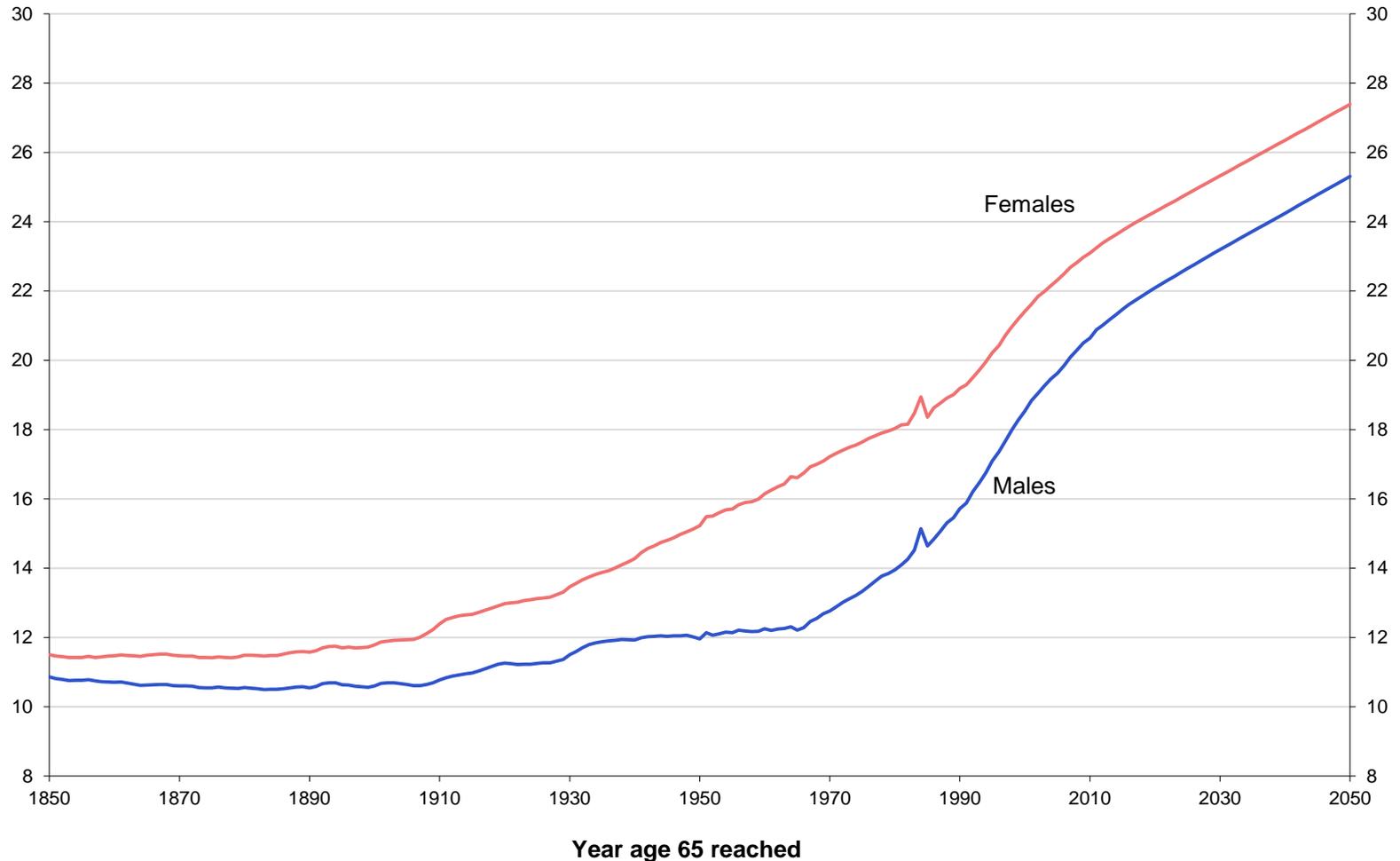
# Cohort expectation of life at birth, historic and projected mortality rates, 1850-2050, E+W

Cohort expectation of life at birth (years)



# Cohort expectation of life at age 65, historic and projected mortality rates, 1850-2050, E+W

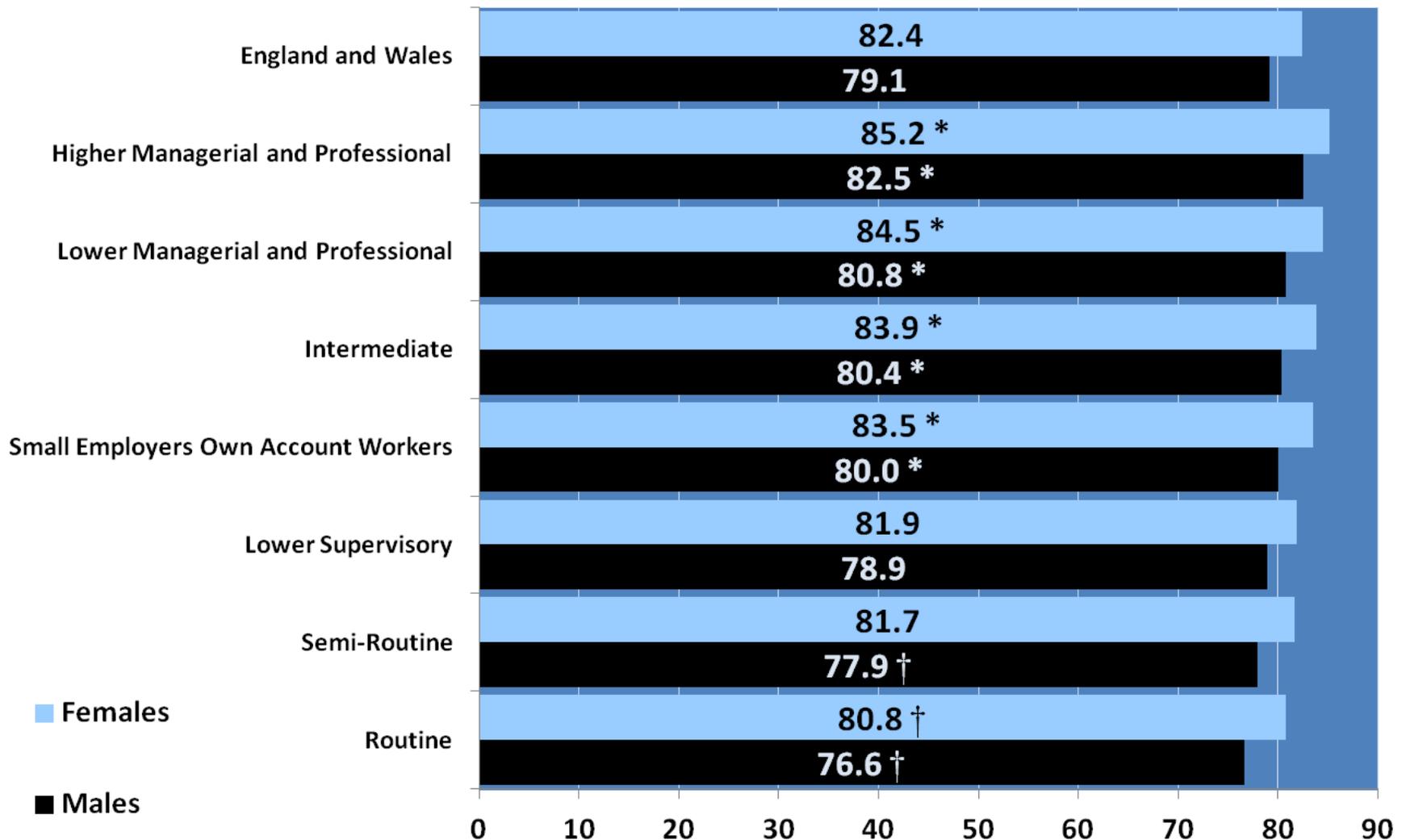
Cohort expectation of life at 65 (years)



# Life Expectancy at birth by socioeconomic class, 2007-11

\* Statistically significantly higher than E&W

† Statistically significantly lower than E&W

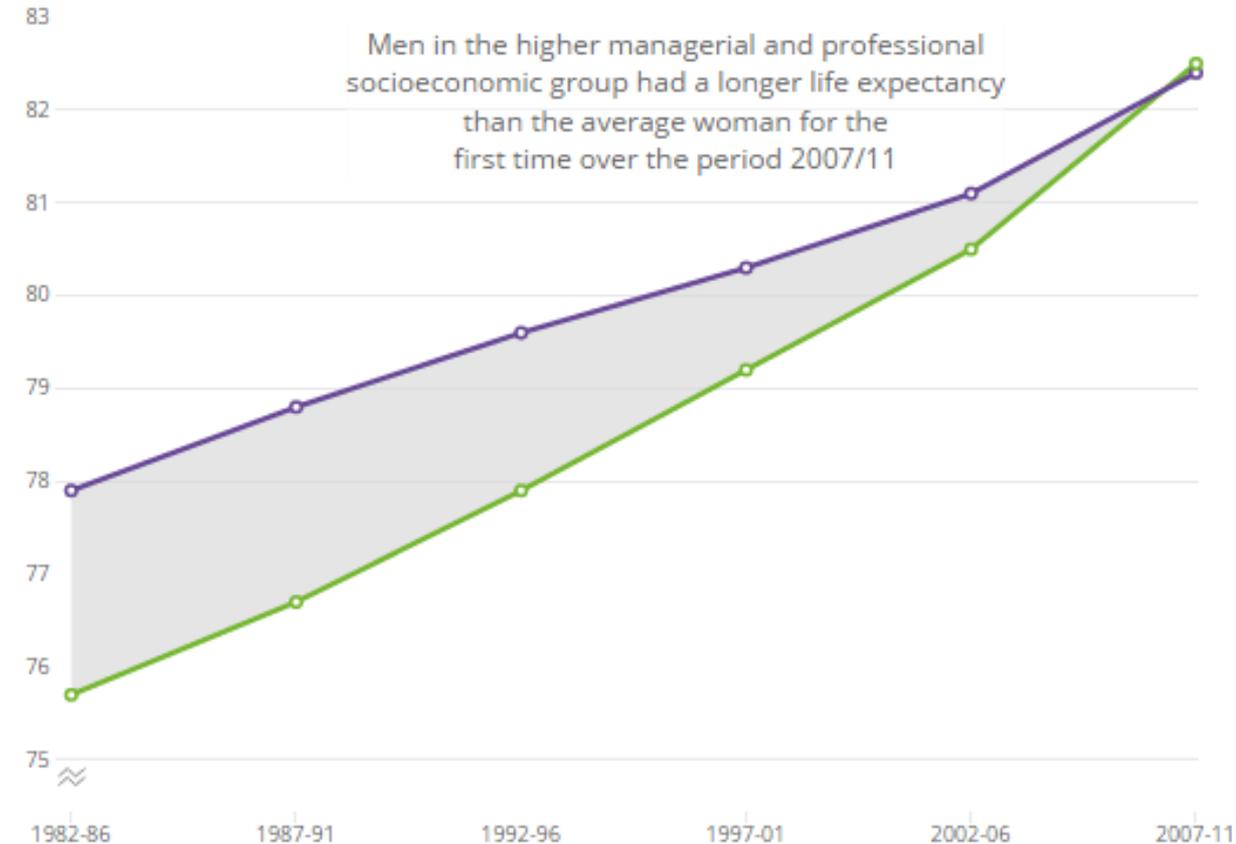


# Life Expectancy at birth by socioeconomic class

## Life expectancy, highest socioeconomic group and the average women, England and Wales, 1982-86 to 2007-11

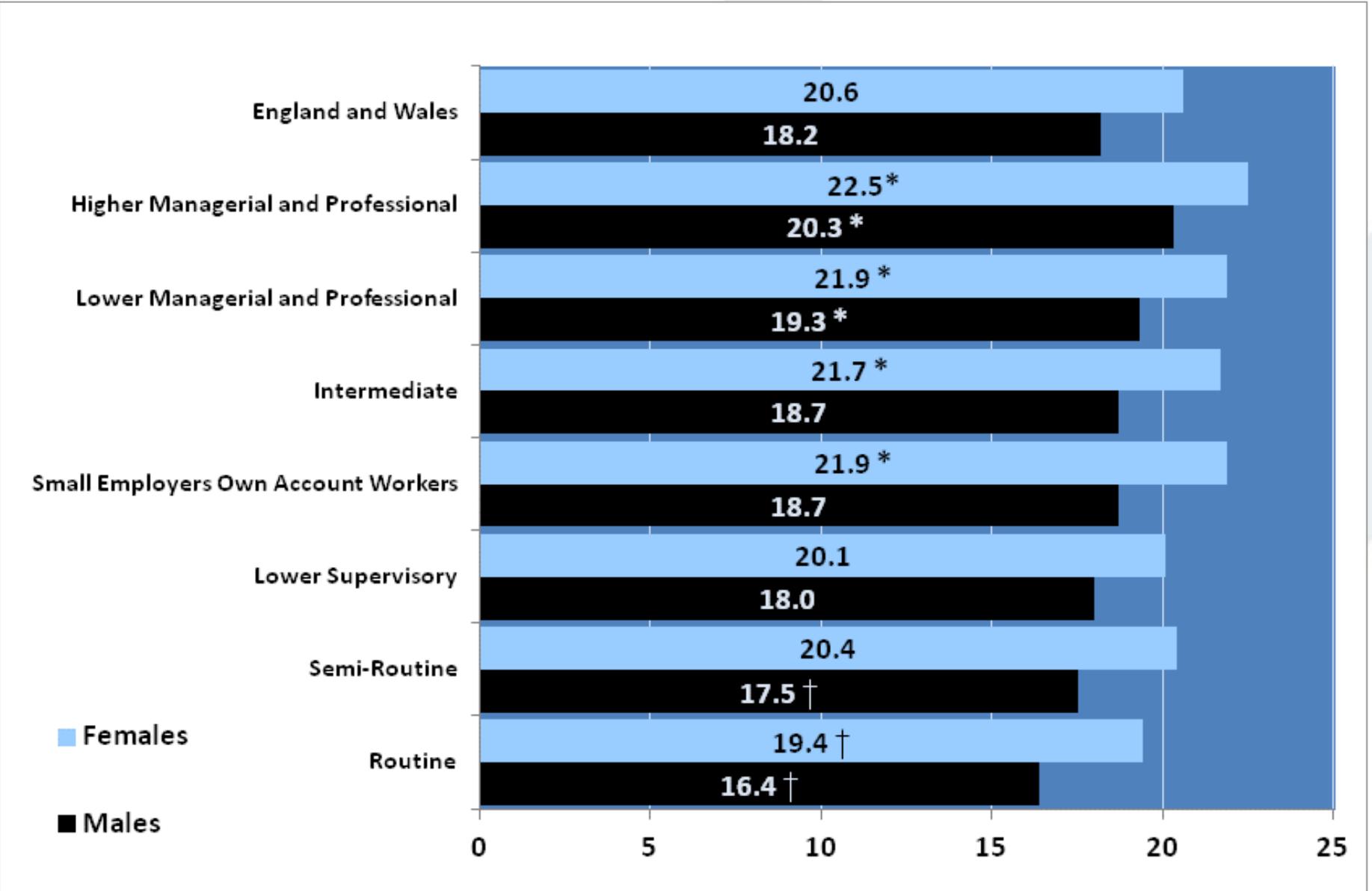
— men in the highest socioeconomic group — the average woman

life expectancy

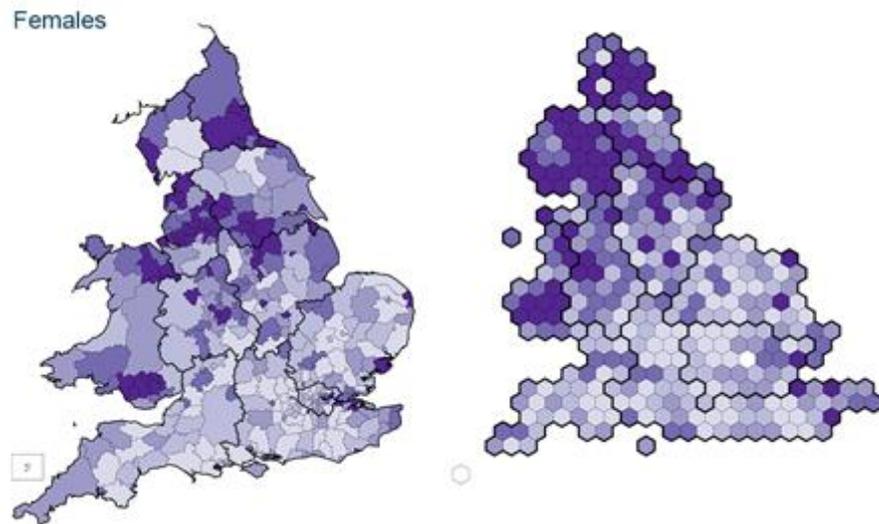
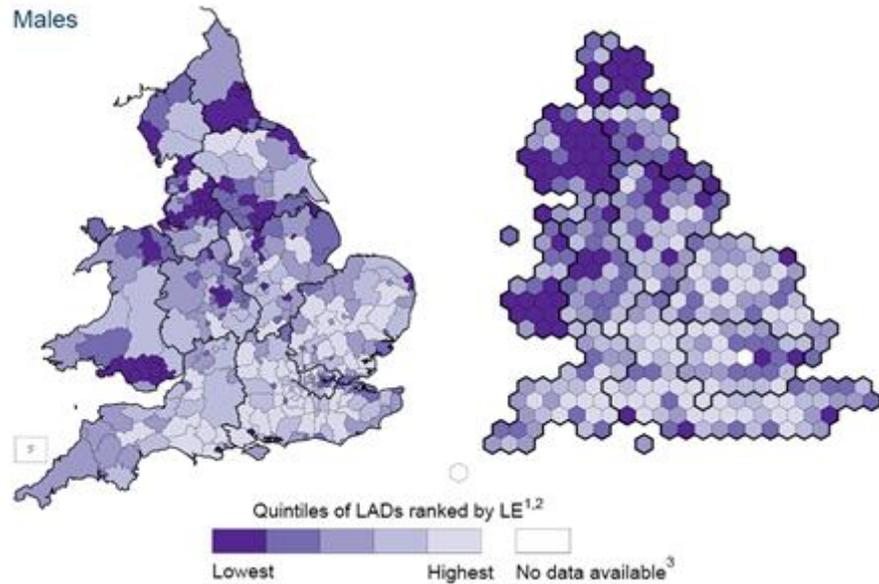


# Life expectancy at age 65 by socioeconomic class, 2007-11

\* Statistically significantly higher than E&W      † Statistically significantly lower than E&W



# Local area life expectancy at birth (2012-14)



## England

### MEN

Ken. & Chelsea 83.3

Blackpool 74.7

### WOMEN

Chiltern 86.7

Middlesbrough 79.8

## Wales

### MEN

Monmouthshire 80.7

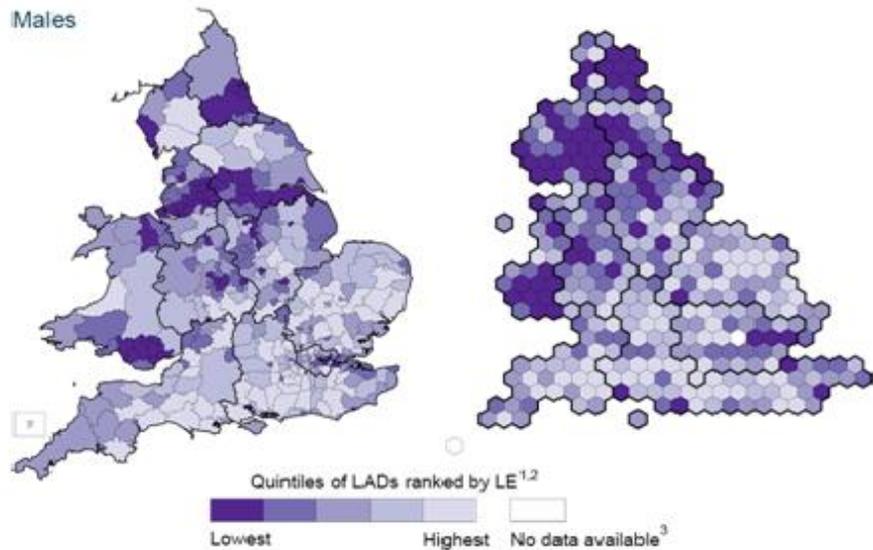
Blaenau Gwent 76.2

### WOMEN

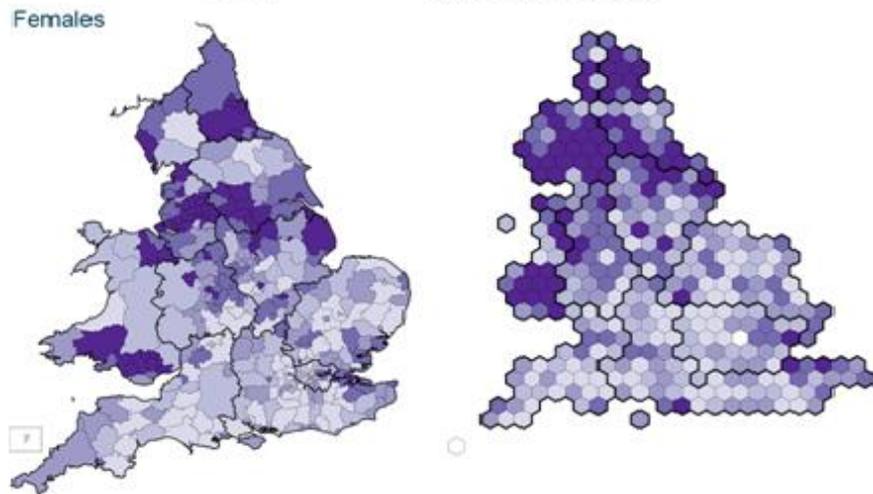
Ceredigion 84.1

Blaenau Gwent 80.3

# Local area life expectancy at age 65 (2012-14)

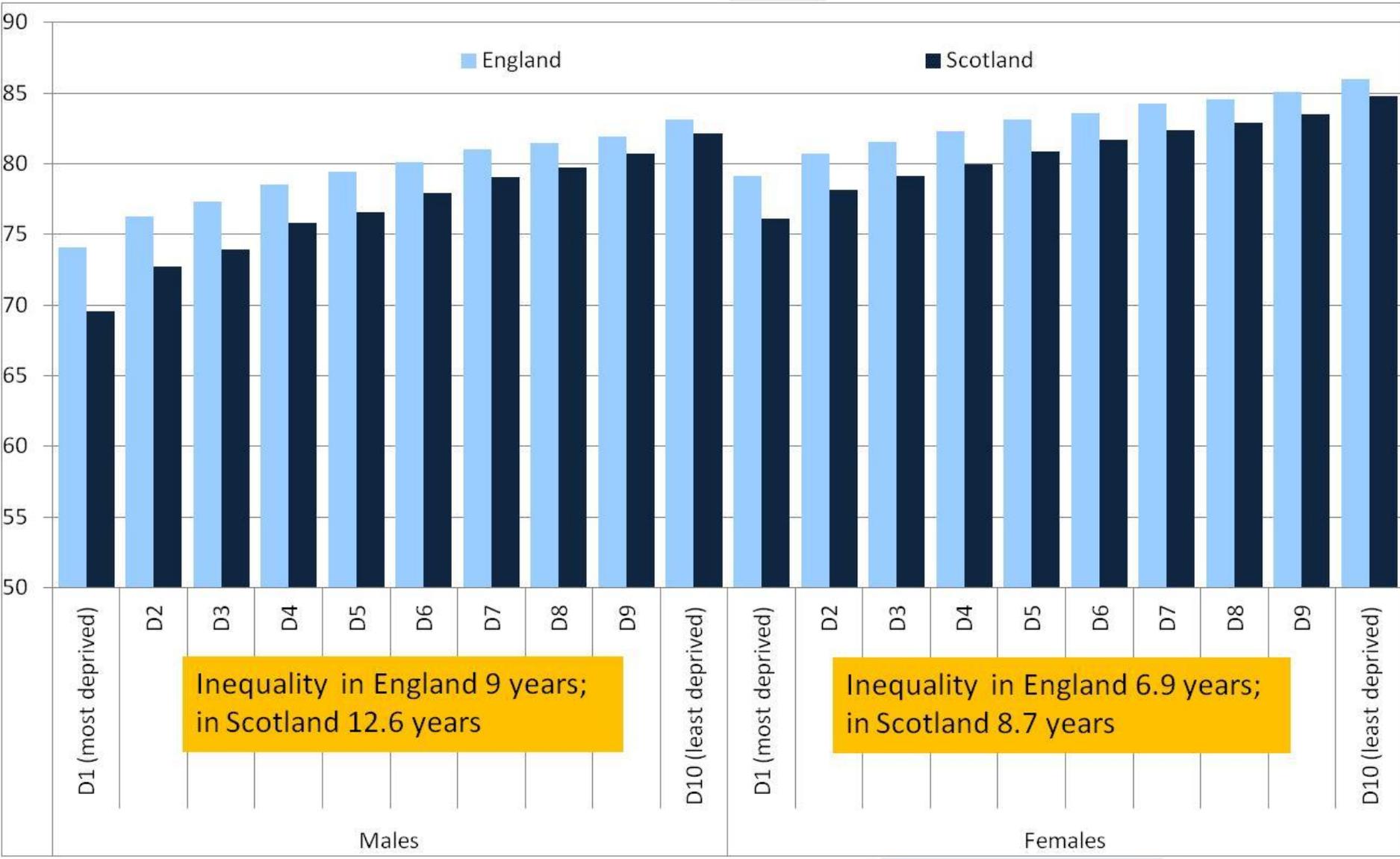


| England             |                 |
|---------------------|-----------------|
| MEN                 | WOMEN           |
| Ken. & Chelsea 21.6 | Camden 24.6     |
| Manchester 15.9     | Manchester 18.8 |

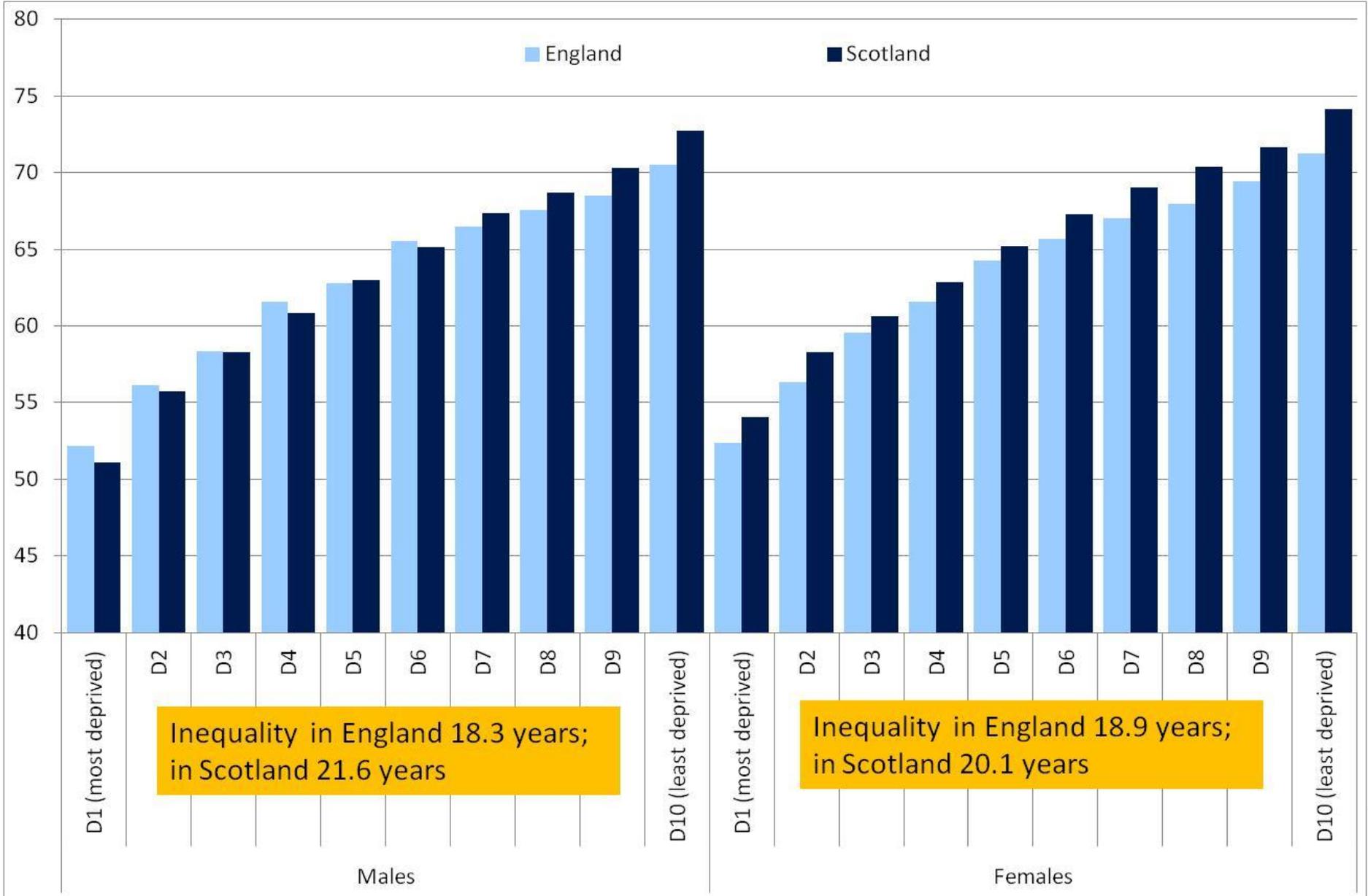


| Wales              |                    |
|--------------------|--------------------|
| MEN                | WOMEN              |
| Ceredigion 19.8    | Ceredigion 22.6    |
| Blaenau Gwent 16.7 | Blaenau Gwent 18.9 |

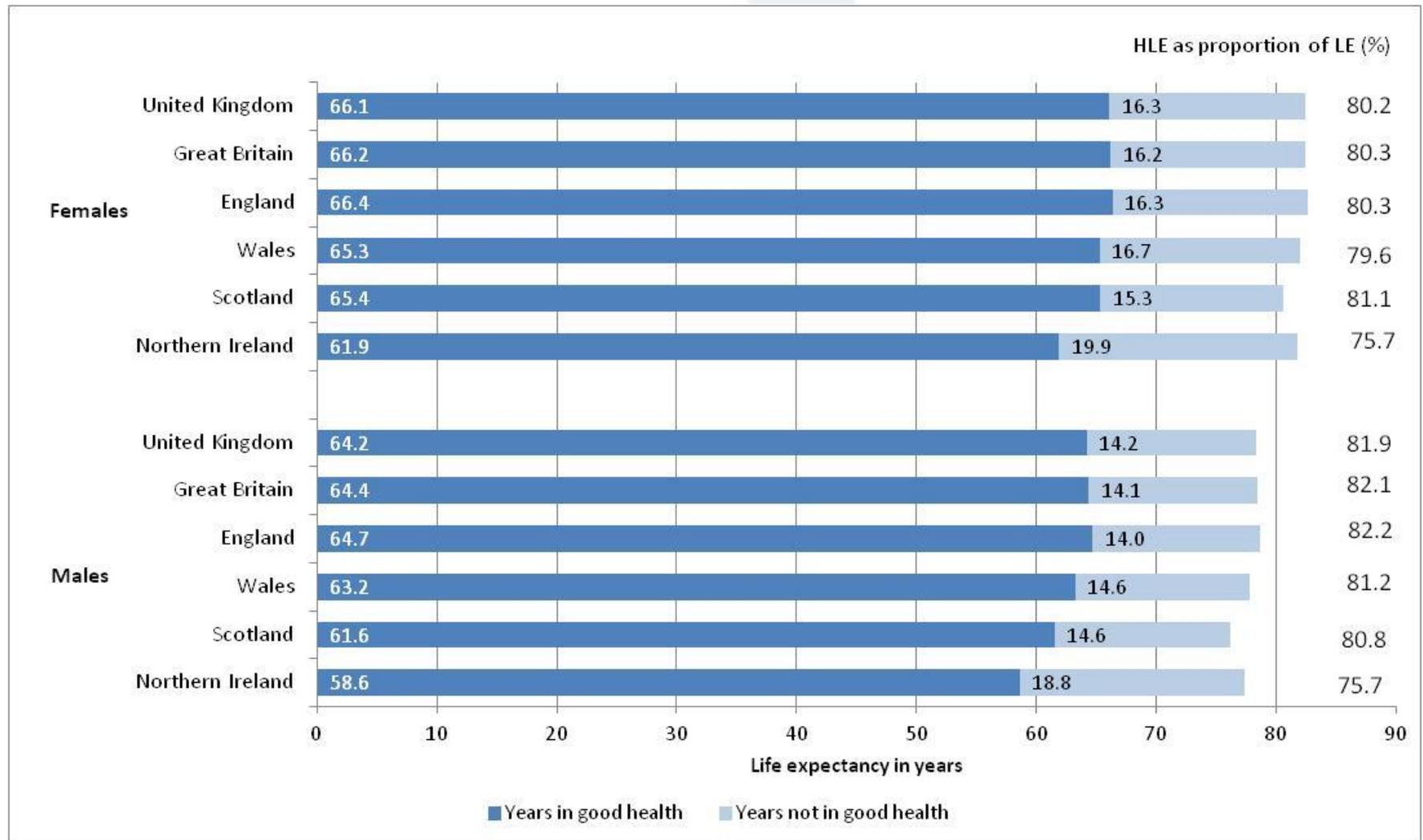
# Life Expectancy by area deprivation



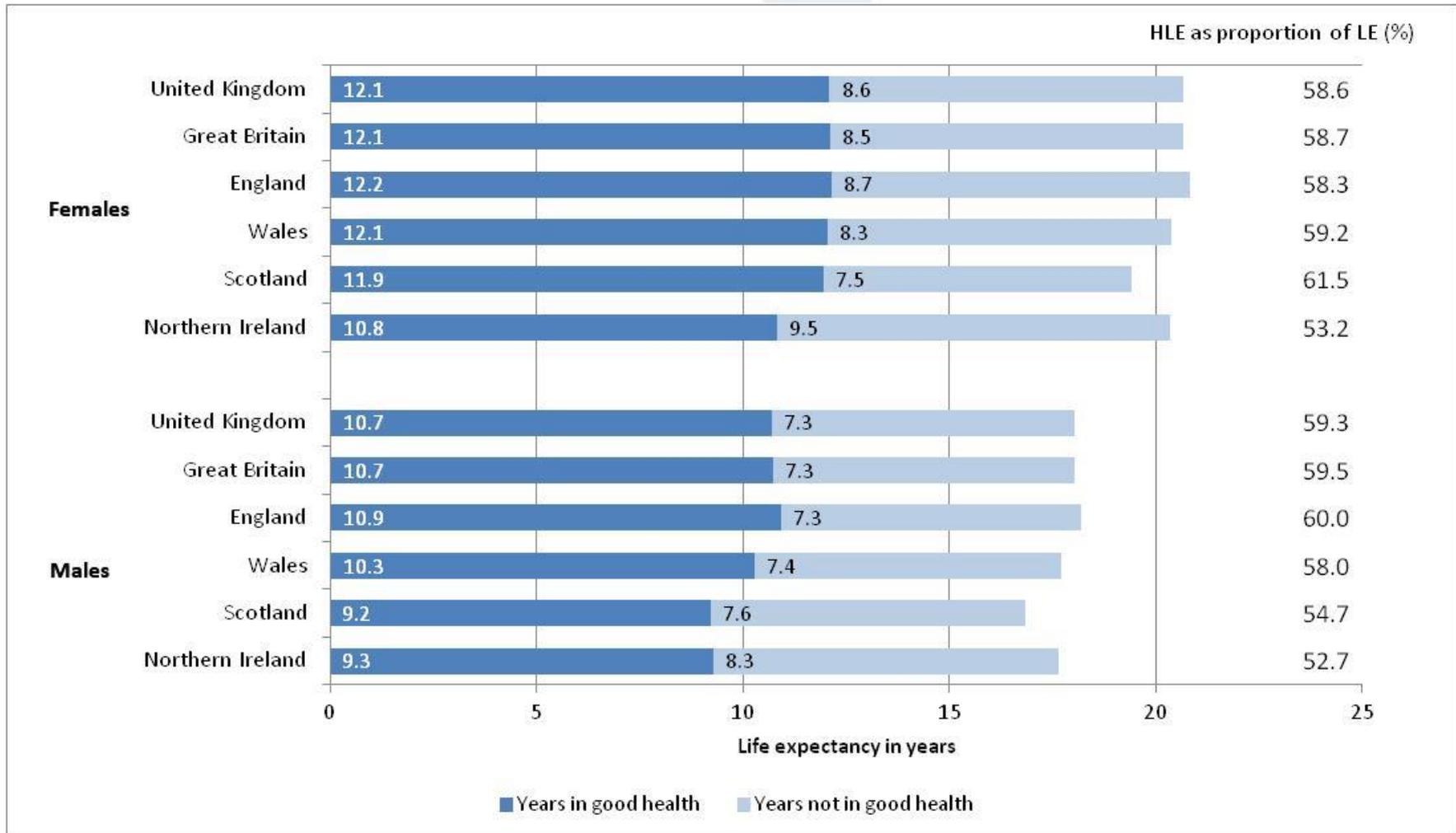
# Healthy Life Expectancy by area deprivation



# Life expectancy and healthy life expectancy (at birth), 2009-11



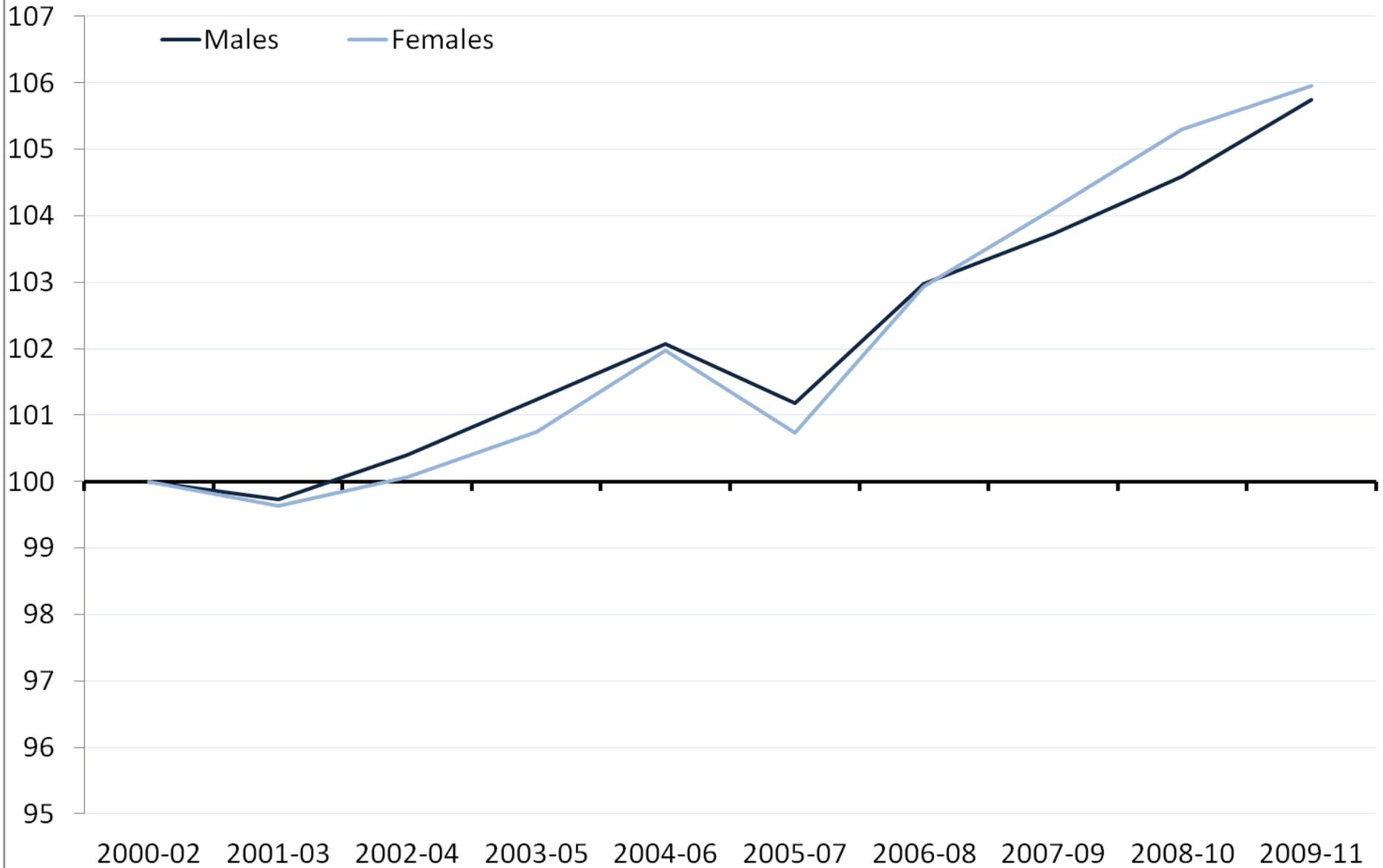
# Life expectancy and healthy life expectancy (at age 65), 2009-11



# Trend in Healthy Life Expectancy in UK, 2000-2011

Healthy Life Expectancy trajectory indexed at 2000-02

— Males — Females



## Healthy life expectancy



### Top 5

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| 1 Wokingham<br>71.4 years            | Rutland<br>71.3 years                |
| 2 Richmond upon Thames<br>69.7 years | Richmond upon Thames<br>71.2 years   |
| 3 Surrey<br>68.7 years               | Windsor and Maidenhead<br>71.2 years |
| 4 Wiltshire<br>68.5 years            | Wokingham<br>69.9 years              |
| 5 West Berkshire<br>68.4 years       | Surrey<br>69.5 years                 |

### Bottom 5

|                                 |   |
|---------------------------------|---|
| 146 Barnsley<br>56.3 years      | Telford and Wrekin<br>57.1 years          |
| 147 Hartlepool<br>56.3 years    | Kingston upon Hull, City of<br>56.9 years |
| 148 Leicester<br>56.1 years     | Manchester<br>56.8 years                  |
| 149 Blackpool<br>54.9 years     | Barnsley<br>56.2 years                    |
| 150 Tower Hamlets<br>53.6 years | Barking and Dagenham<br>55.5 years        |

Isles of Scilly

**A**  
The number of years people live in "Good" health tends to be lower in the northern parts of England compared to the south.



**B**  
Between areas just 15-25 miles apart there is a 16 year gap in the number of years people live in "Good" health within London.

Richmond upon Thames had the 2nd longest healthy life expectancy in England but Tower Hamlets (for males) and Barking and Dagenham (for females) had the shortest.

Contains Ordnance Survey data © copyright and database right 2015

## • Gap between authorities

- Males 17.8 years
- Females 15.8 years
- HLE > state pension age (65)
  - Males in a quarter of authorities
  - females in a third of authorities

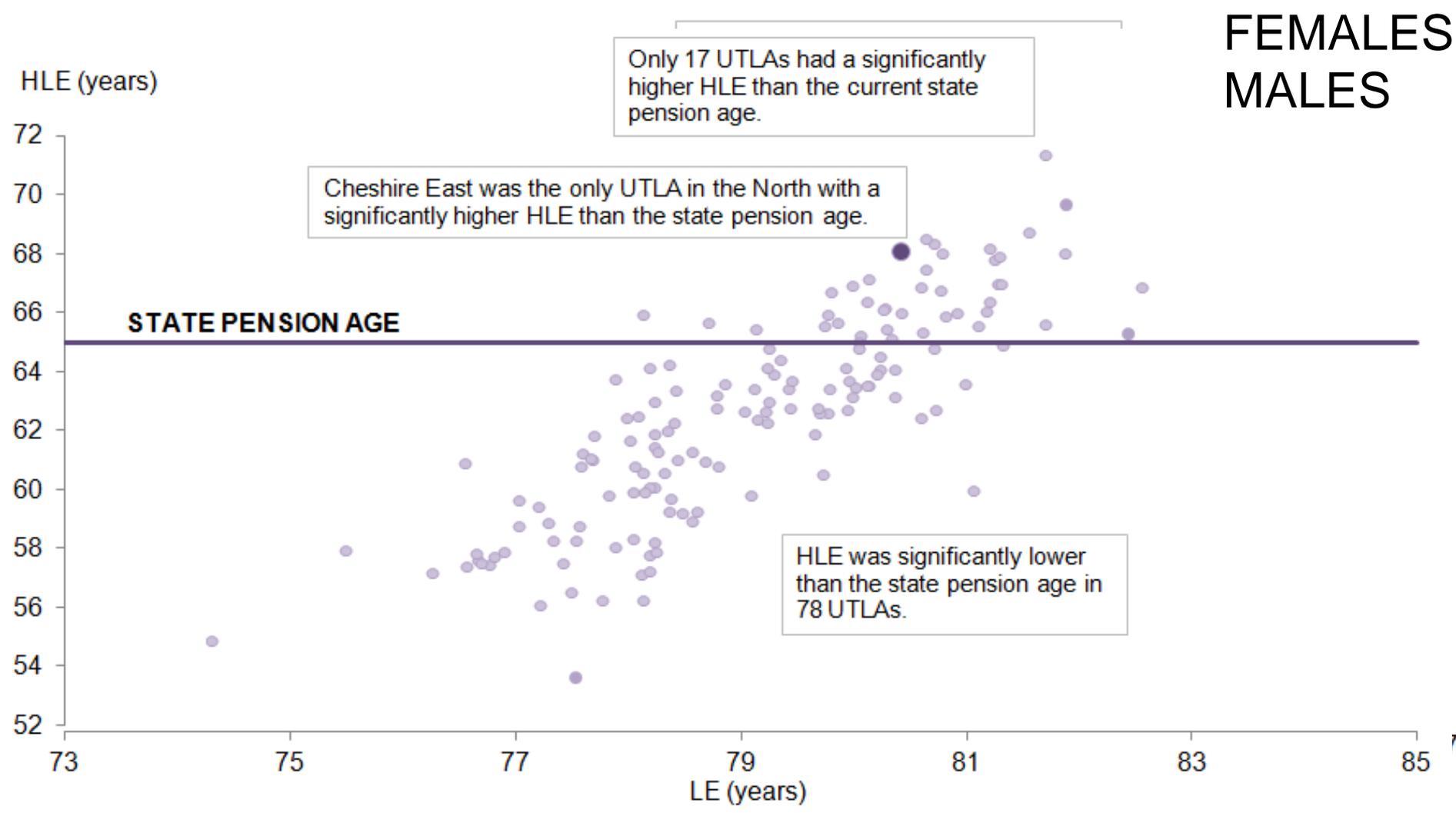
## • Authorities with SS higher HLE

- Males 42
- Females 42

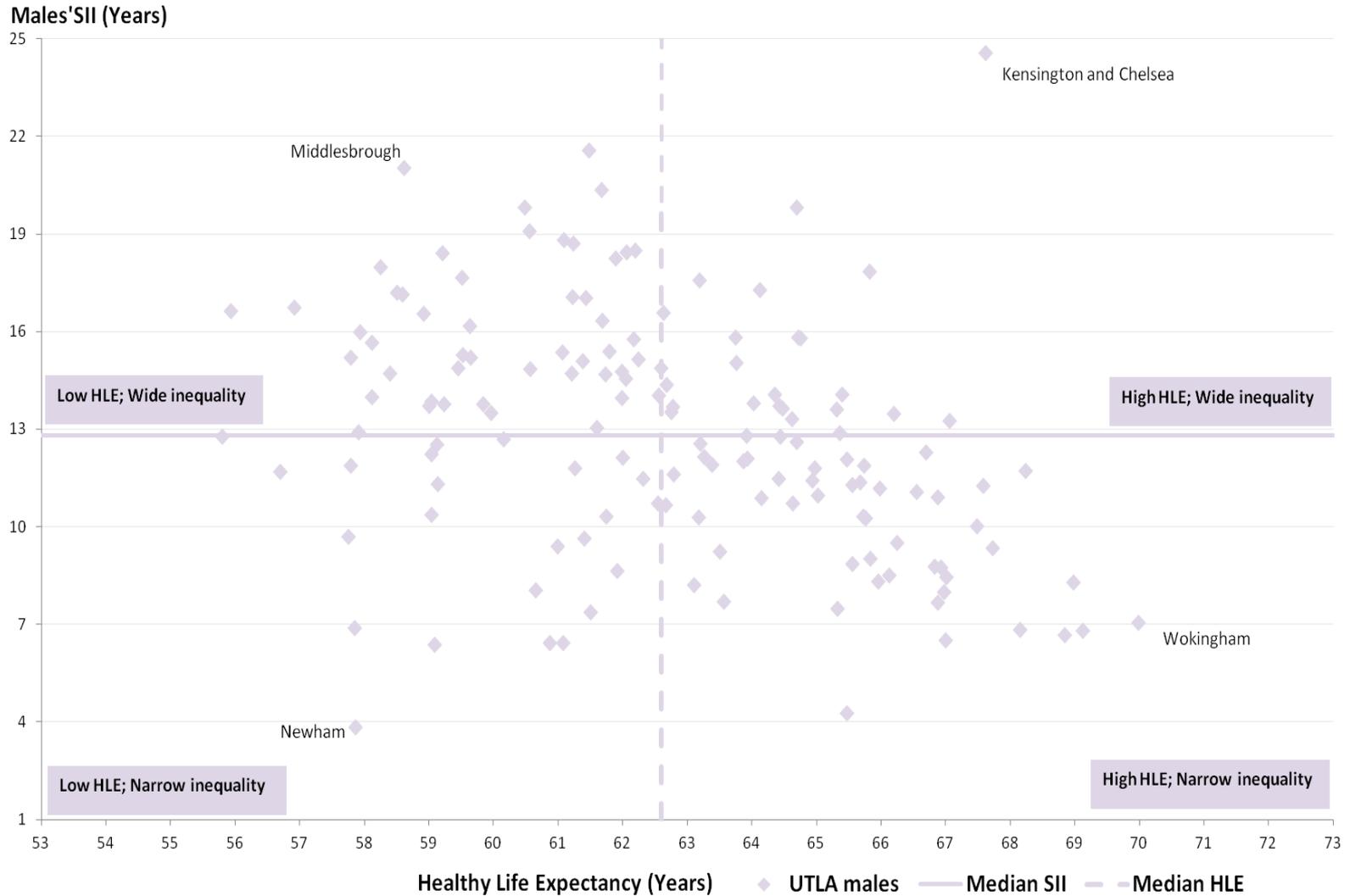
## • Authorities with SS lower HLE

- Males 57
- Females 54

# Healthy life expectancy at birth, 2011-13

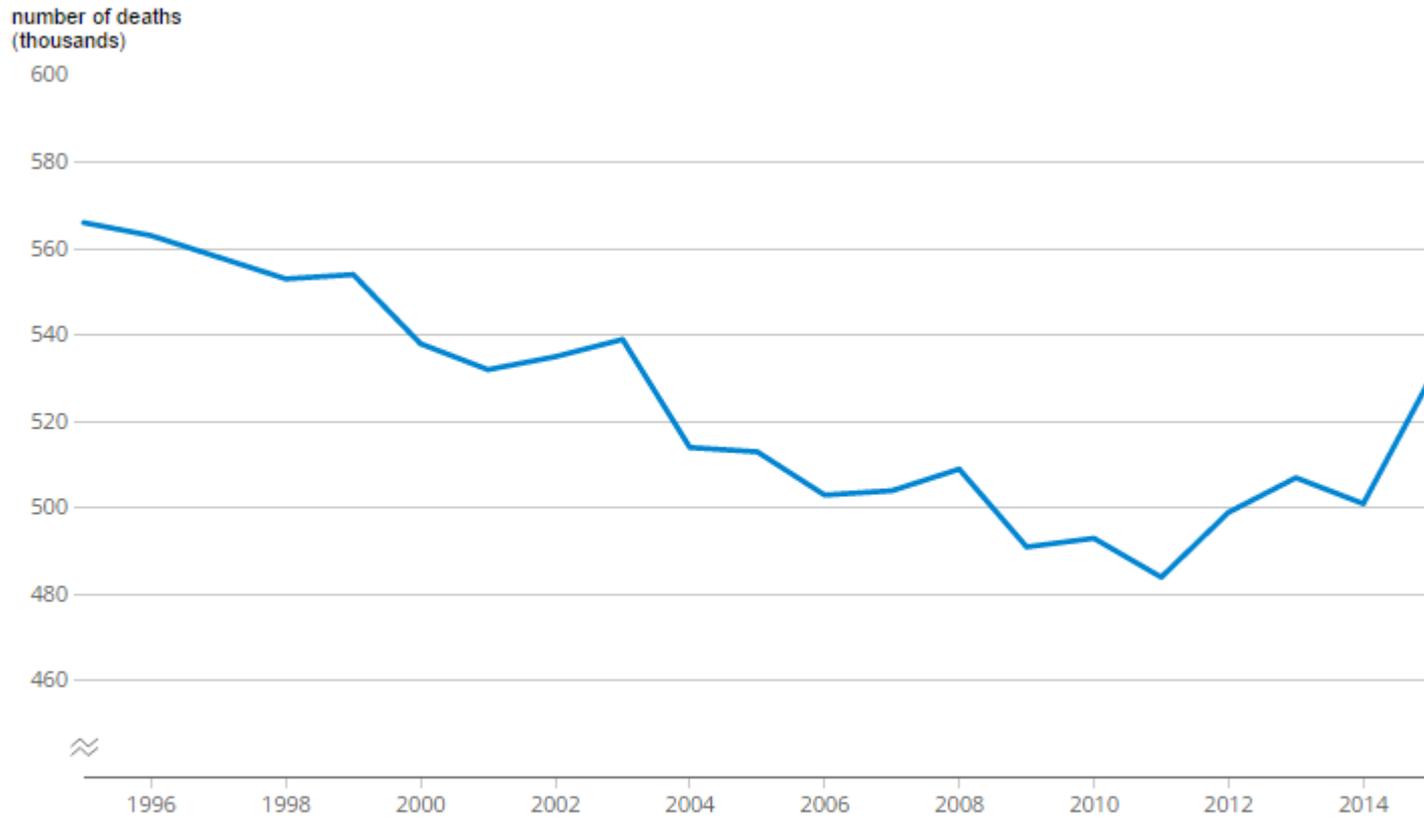


# Inequality in HLE, 2009-2013



# Rise in deaths in 2015

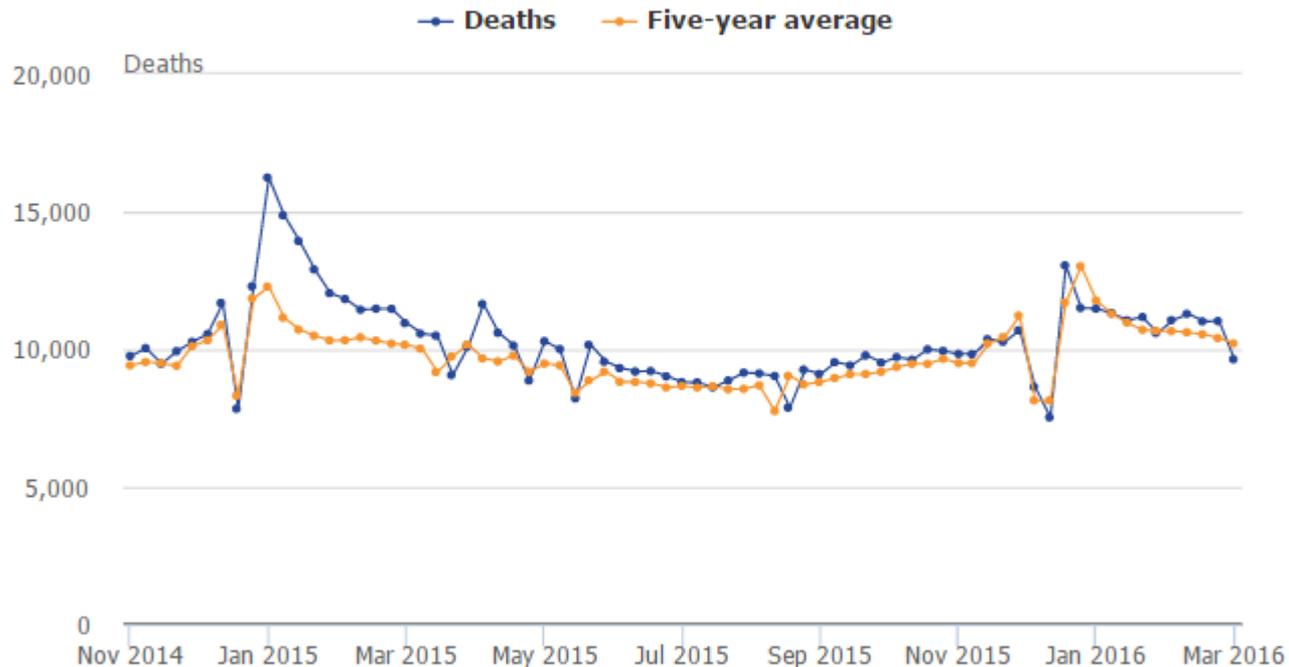
## Registered deaths, England and Wales, 1995 to 2015



Source: Provisional analysis of 2015 death registrations, ONS

# Rise in deaths in 2015

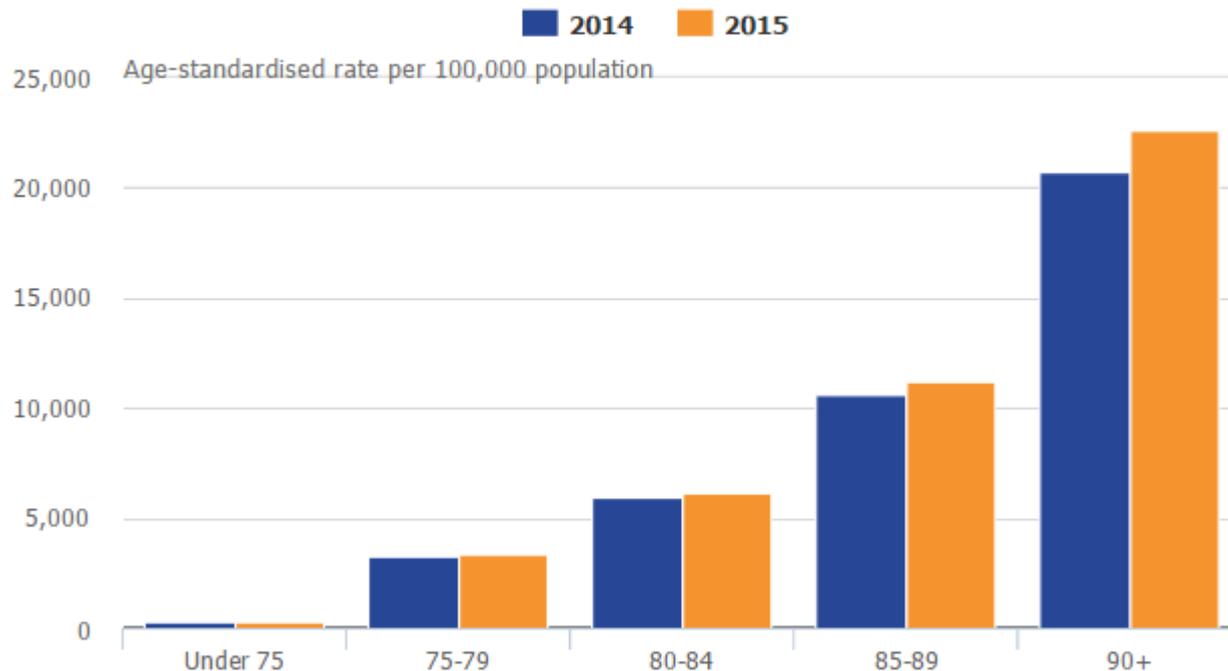
Figure 1: Weekly death registrations and 5-year average, England and Wales, Nov 2014 to Mar 2016



Source: Office for National Statistics

# Rise in deaths in 2015

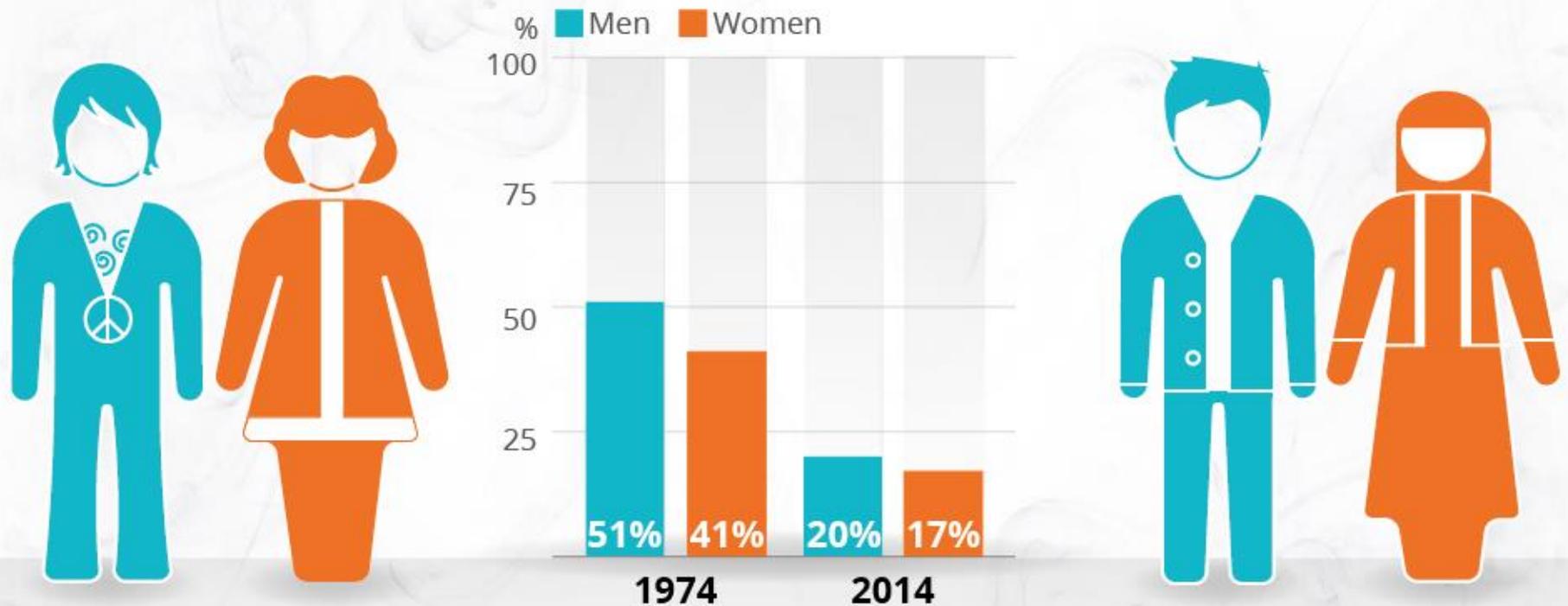
Figure 4: Age-specific mortality rate, England and Wales, 2014 to 2015



Source: Office for National Statistics

# Smoking

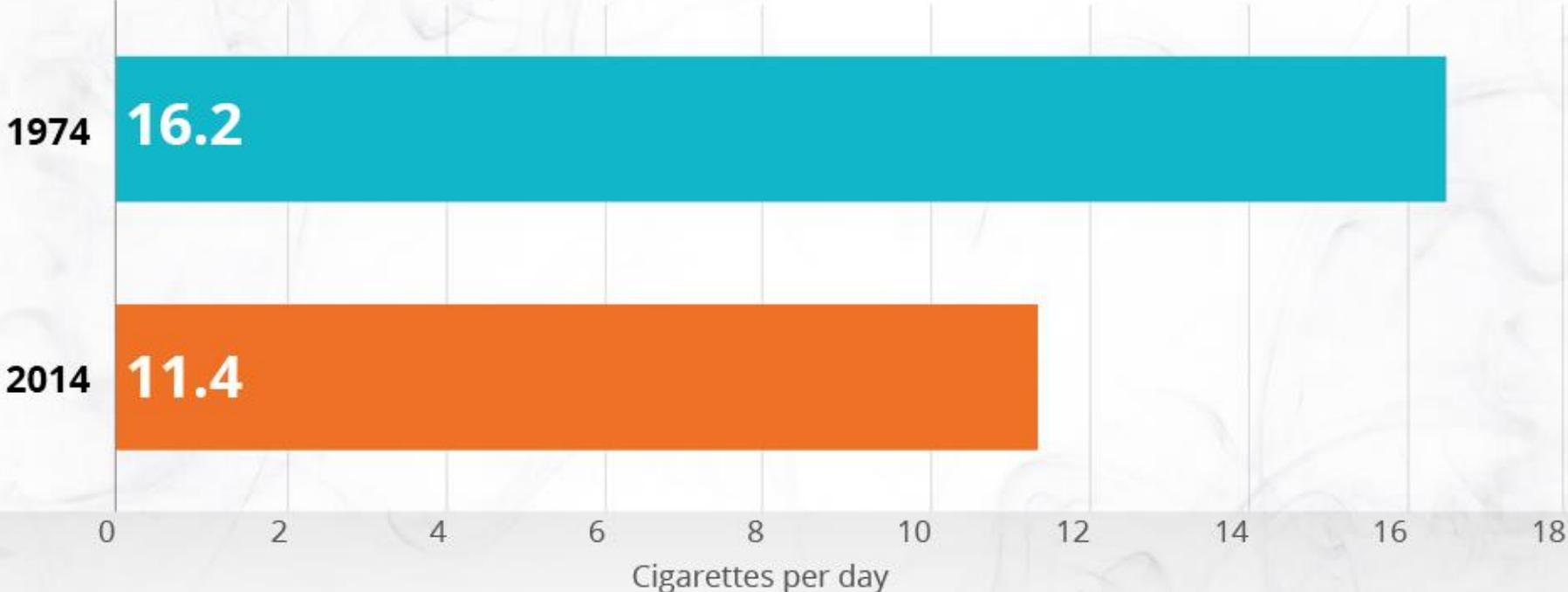
Men and women smokers in the UK aged 16 and over, Great Britain 1974 and 2014



Source: Adult smoking habits in Great Britain 2014

# Smoking

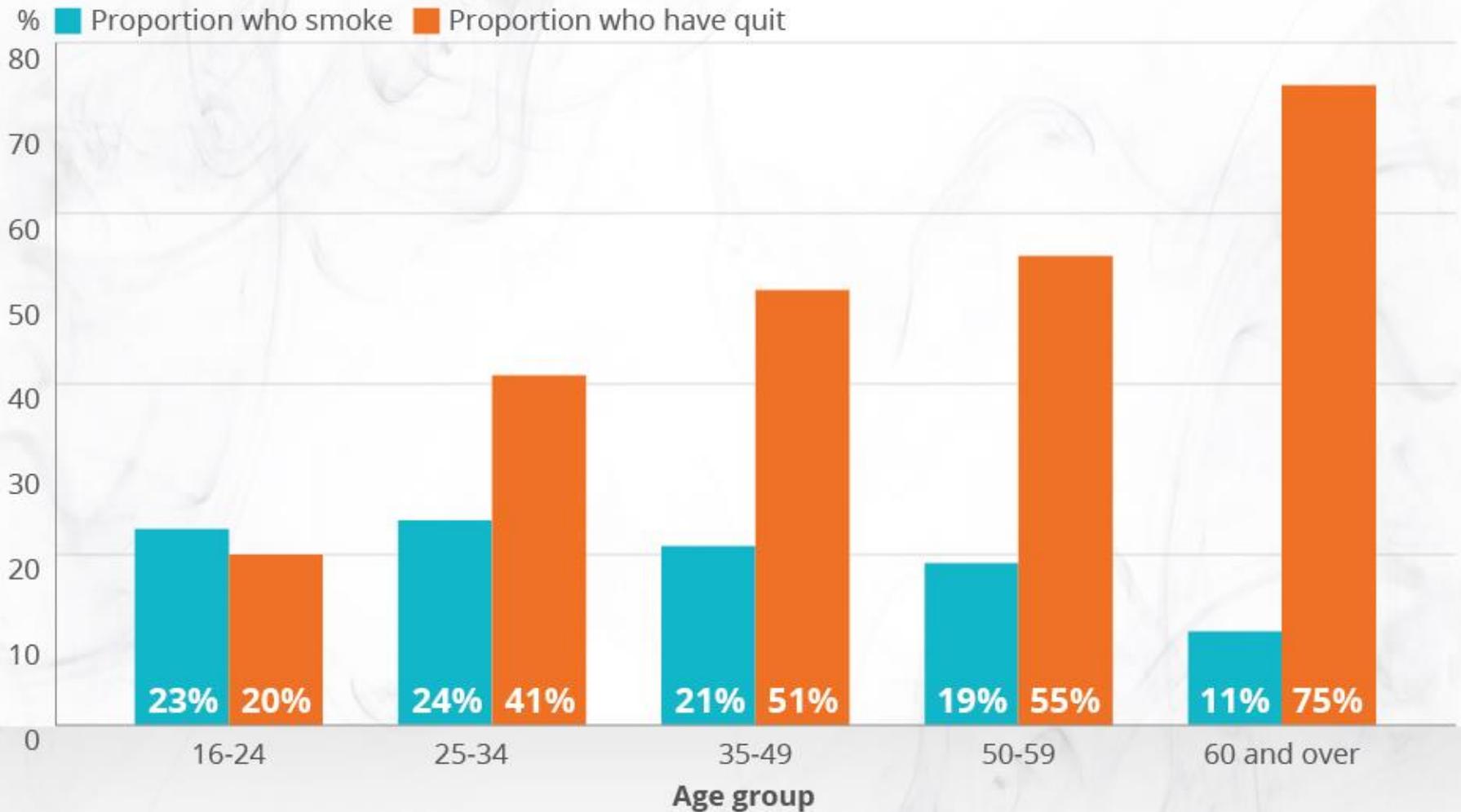
Average number of cigarettes smoked every day, Great Britain 1974 and 2014



Source: The Opinions and Lifestyle Survey, ONS, 2014

# Smoking

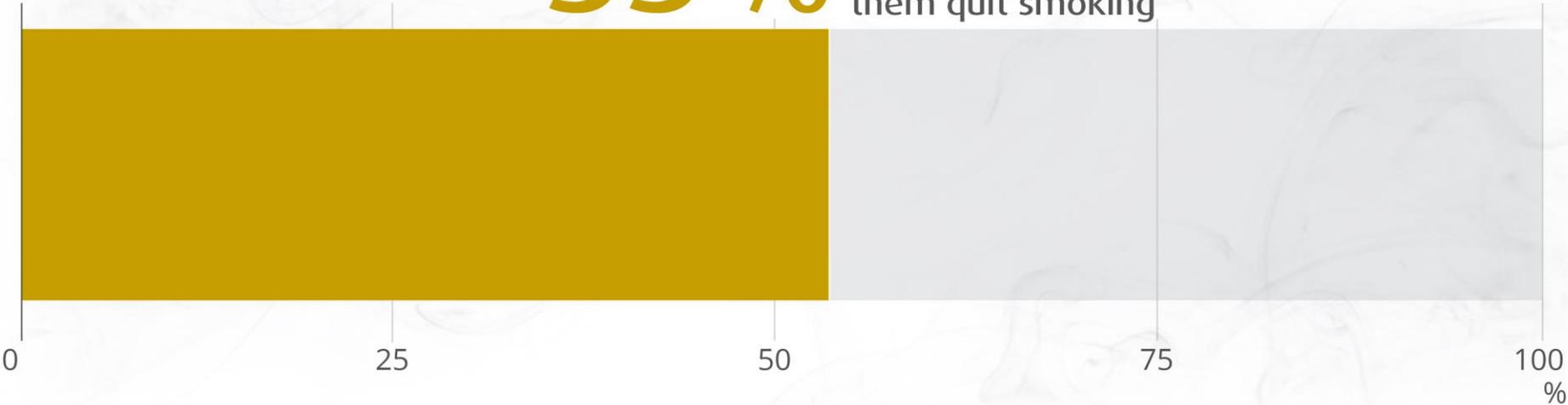
Proportion who smoke and proportion who have quit smoking, Great Britain, 2014



# Smoking

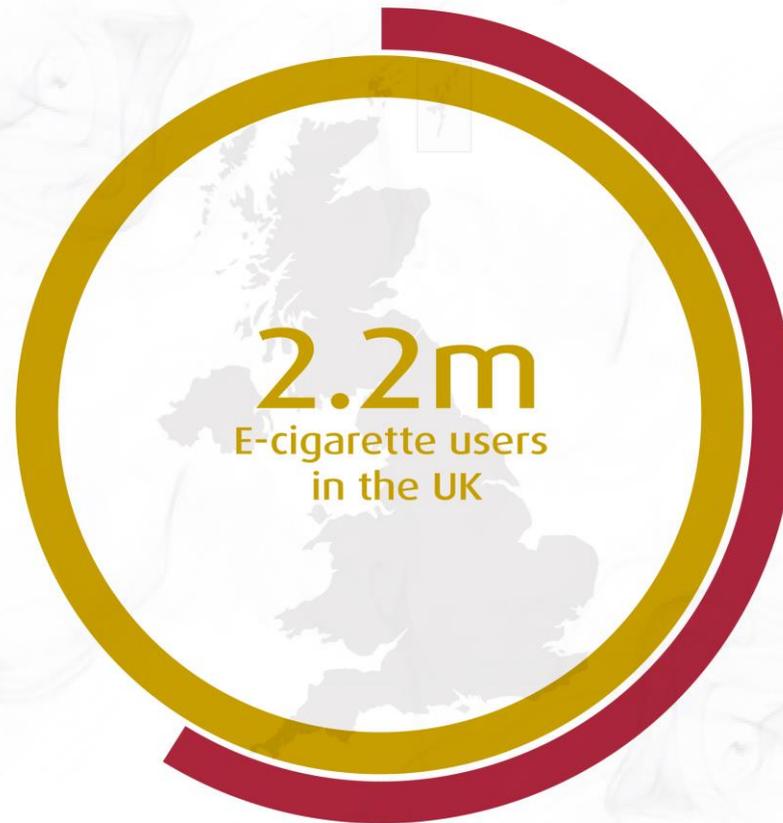
---

**53%** used e-cigarettes to help them quit smoking



# Smoking & e-cigs

---



**2.2m**  
E-cigarette users  
in the UK

**59%**  
also used cigarettes

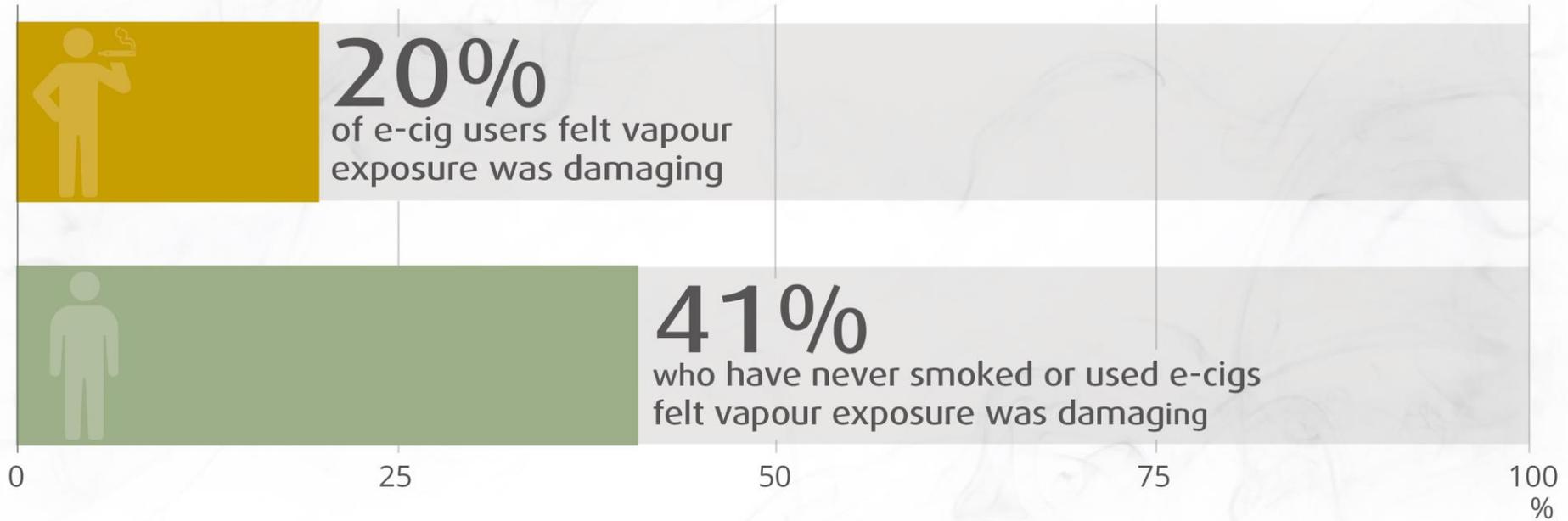
# E-cig use

---



# E-cig use

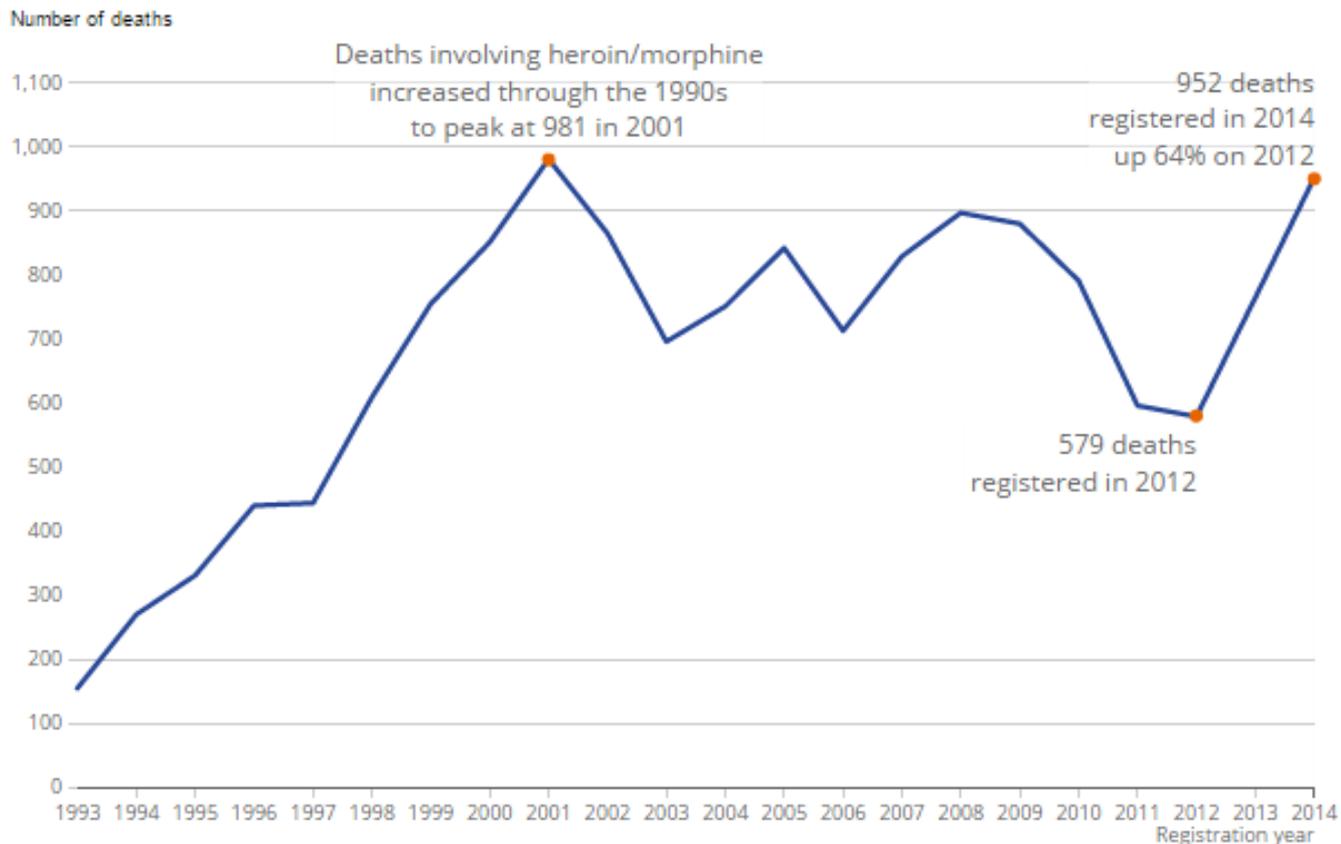
---



# Drug related deaths

## Deaths involving heroin and morphine similar to peak in 2001

### Heroin and morphine deaths, 1993 to 2014, England and Wales



# Contact details

---

- [Jamie.jenkins@ons.gov.uk](mailto:Jamie.jenkins@ons.gov.uk)
- @statsjamie