



Office for
National Statistics
Swyddfa
Ystadegau Gwladol

**Effect on life and health expectancy by
closing an abridged life table at 90+ and
through modification of the imputation
method in the UK 2013-15**

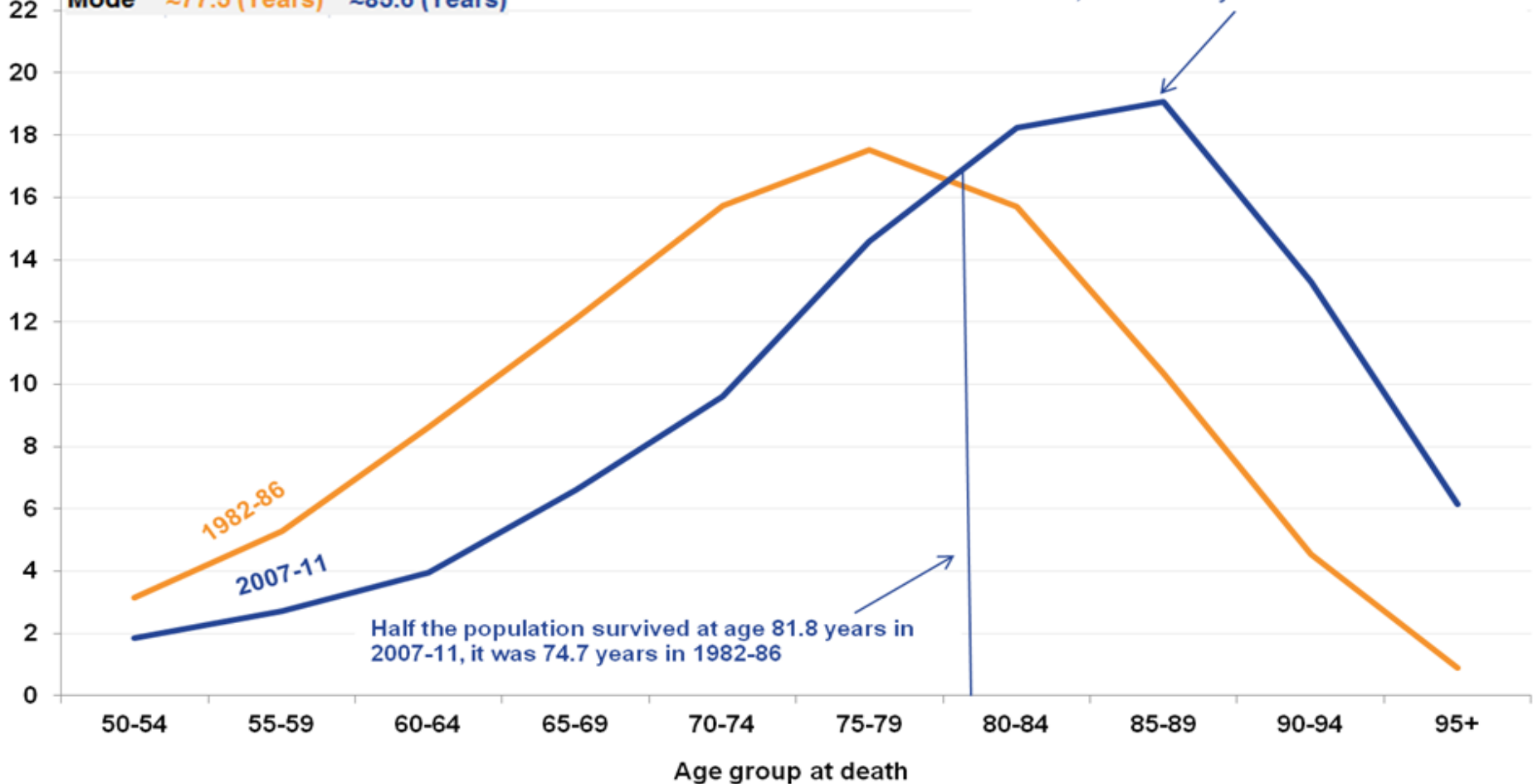
Chris White, Sarah Caul, Asim Butt

Males' distribution of death in a typical cohort of 100,000, England and Wales

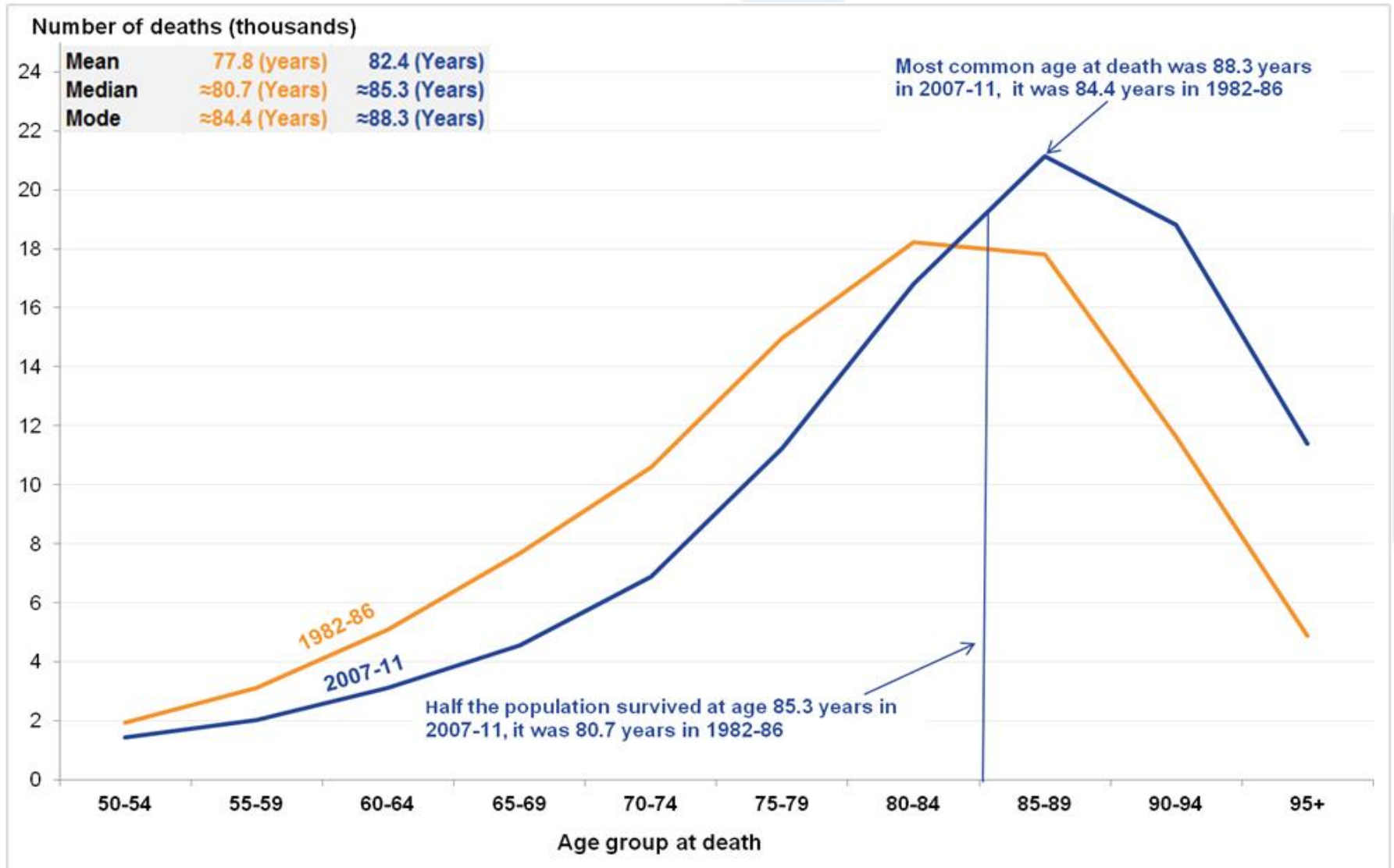
Number of deaths (thousands)

Mean	72.1 (years)	79.1 (Years)
Median	≈74.7 (Years)	≈81.8 (Years)
Mode	≈77.5 (Years)	≈85.6 (Years)

Most common age at death was 85.6 years in 2007-11, it was 77.5 years in 1982-86



Females' distribution of death in a typical cohort of 100,000, England and Wales

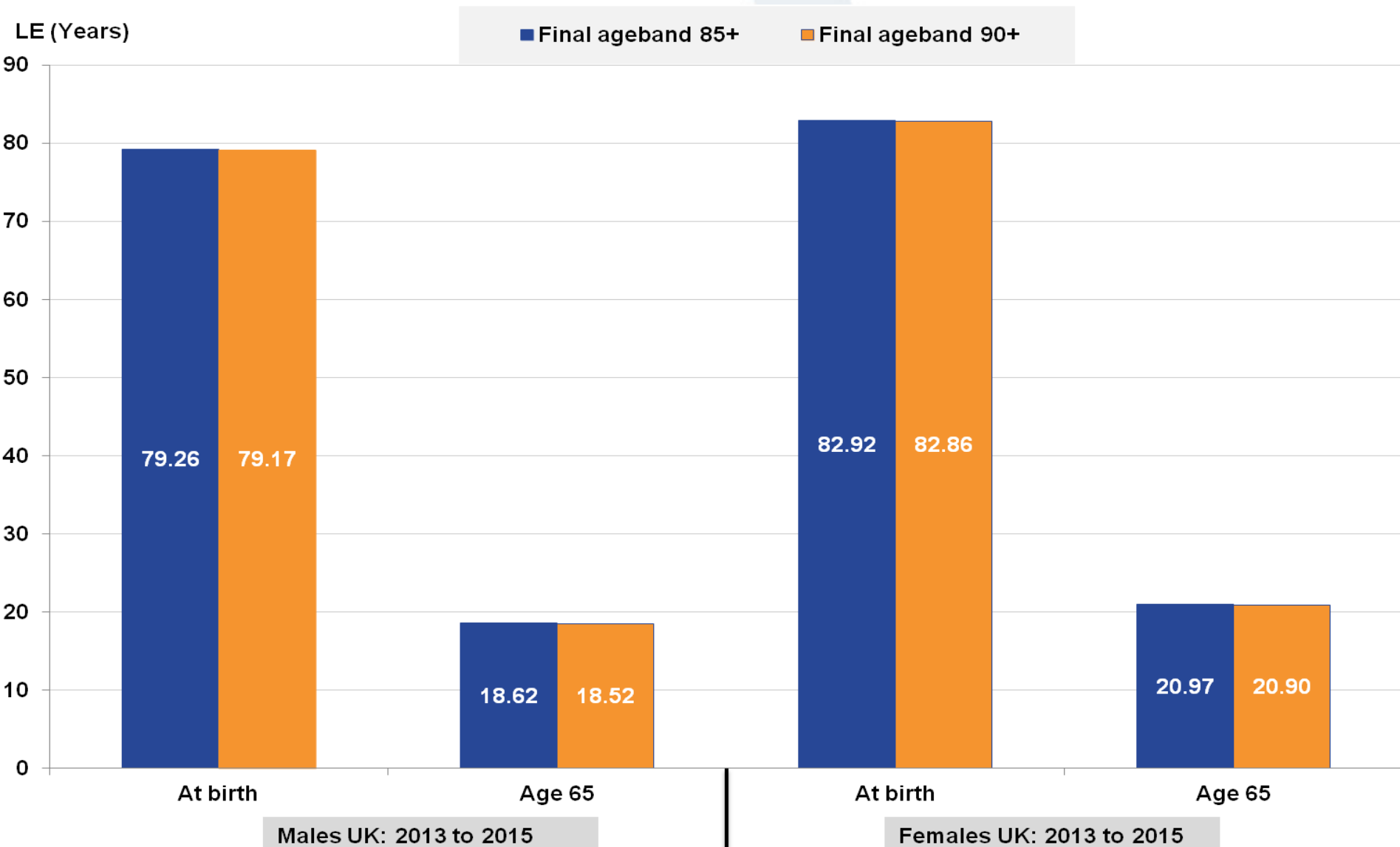


Age-specific mortality rates among those aged 85 and over, regions of England, 2012 to 2014

Sex	Region	Mortality rate			% of 85+ population who are 90 and over
		85-89	90+	85+	
Male	North East	0.14	0.24	0.17	28
	North West	0.13	0.24	0.17	29
	Yorkshire and The Humber	0.14	0.24	0.17	29
	East Midlands	0.14	0.24	0.17	30
	West Midlands	0.13	0.24	0.16	29
	East of England	0.12	0.24	0.16	30
	London	0.11	0.2	0.14	31
	South East	0.12	0.23	0.16	32
	South West	0.12	0.24	0.16	32
Female	North East	0.11	0.22	0.15	37
	North West	0.11	0.21	0.15	38
	Yorkshire and The Humber	0.11	0.22	0.15	38
	East Midlands	0.1	0.21	0.14	39
	West Midlands	0.1	0.2	0.14	39
	East of England	0.09	0.2	0.14	40
	London	0.09	0.19	0.13	40
	South East	0.09	0.2	0.14	41
	South West	0.09	0.21	0.14	41

Source: Office for National Statistics

Life expectancy at birth and age 65, UK, 2013 to 2015



Harmonised question in the Annual Population Survey (APS)

HARMONISED QUESTIONS (from April 2013)

LNGLST (replacing LNGLIM)

Do you have any physical or mental health conditions or illnesses lasting or expected to last 12 months or more?

1 Yes

2 No

LIMACT (replacing HEALIM)

Does your condition or illness/do any of your conditions or illnesses reduce your ability to carry out day-to-day activities?

1 Yes, a lot

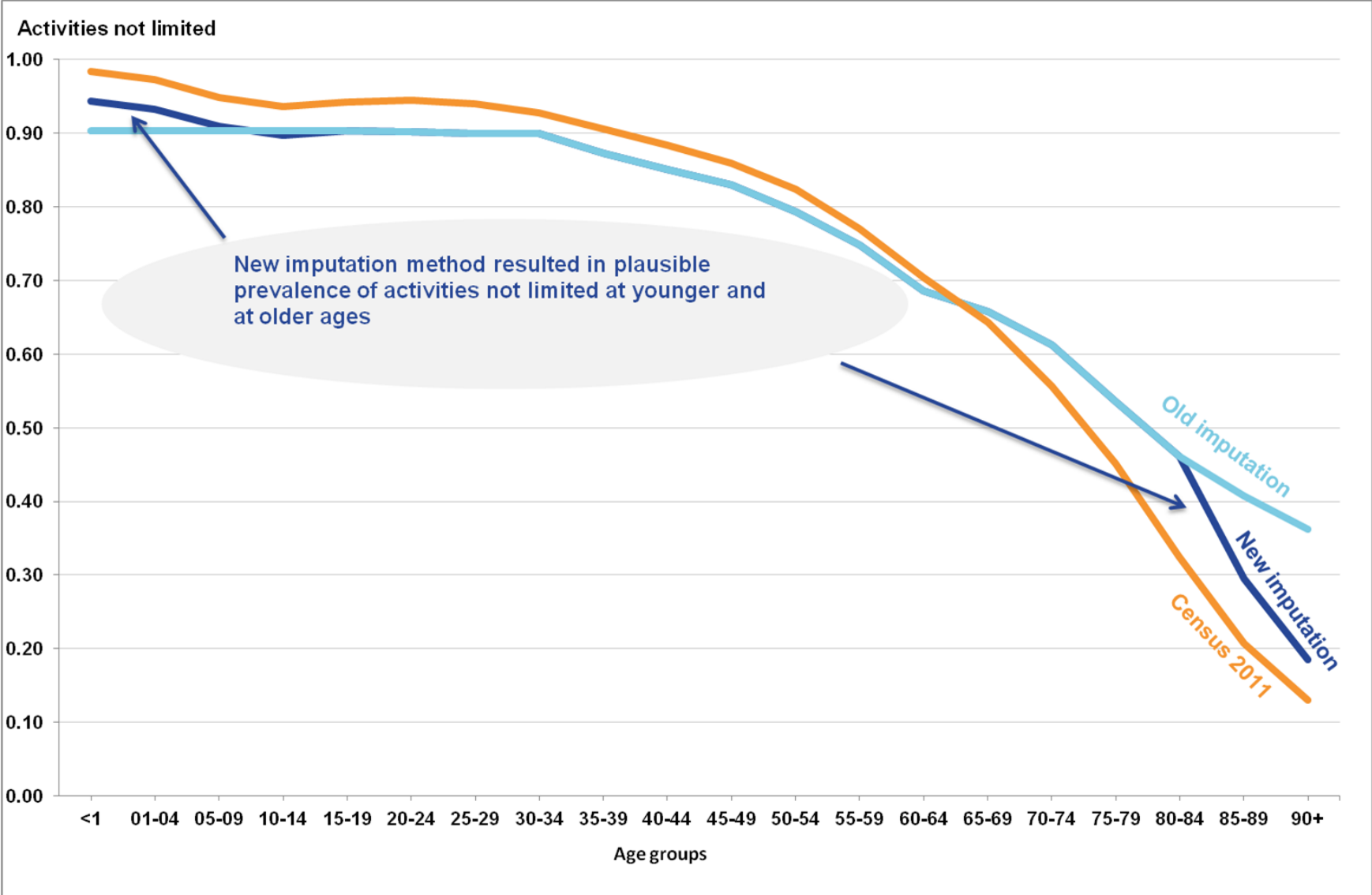
2 Yes, a little

3 Not at all

Imputation methods for APS

- **No data under the age of 16**
 - Age groups: 16-19, 20-24,.....85+
- **Child imputation (old method)**
 - assumes all age groups under the 16-19 has same health status as 16-19
- **Census based imputation (New Method)**
 - apply a health prevalence ratio between younger ages from Census 2011 to APS 16-19
 - proportional difference between 80-84 and 85-89 and 90+

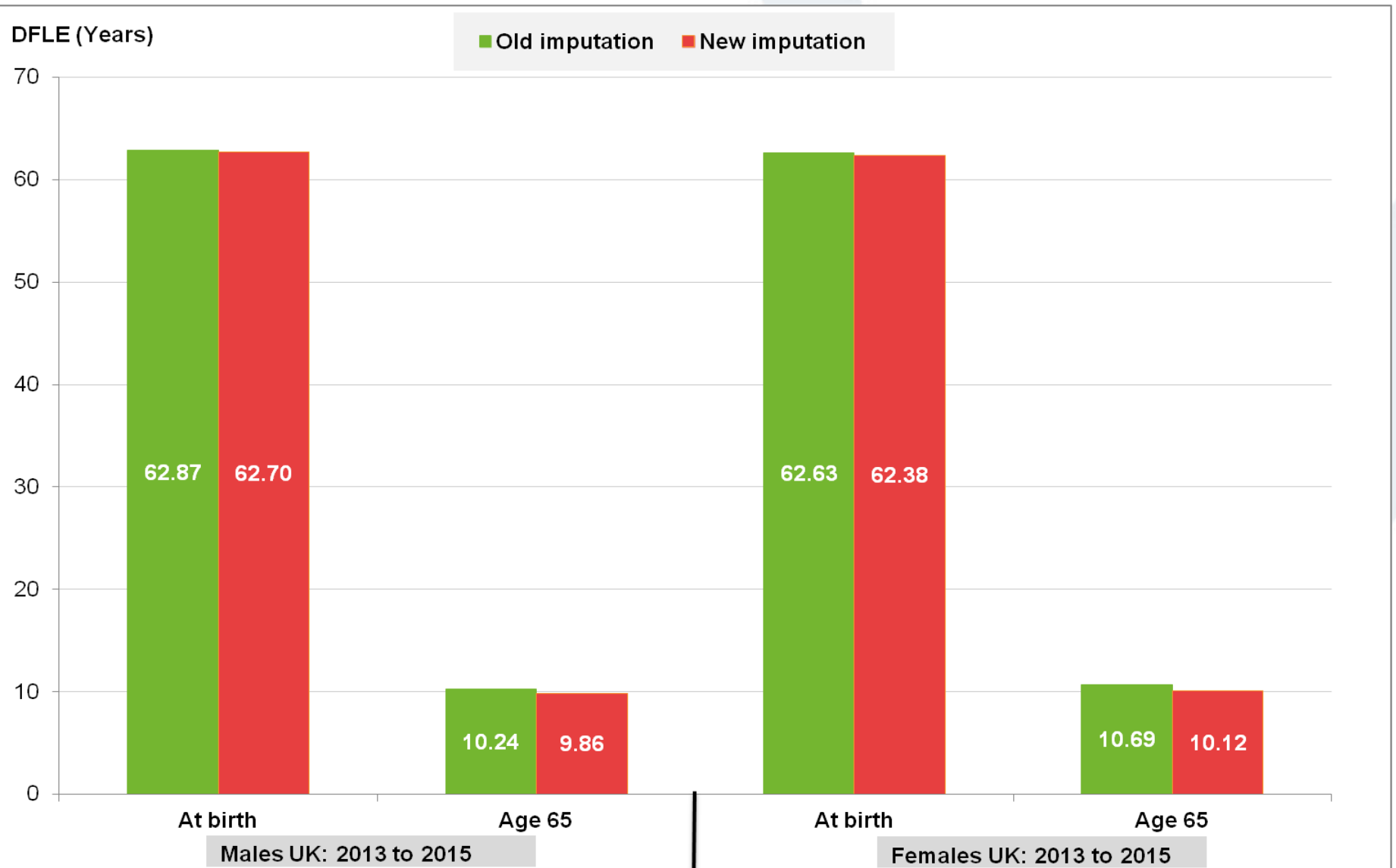
Prevalence of activity not limited: Census 2011 and Annual Population Survey (APS) 2013 to 2015, UK



Disability-free life expectancy (DFLE) by **child imputation** for 85+ and 90+: 2013 to 2015 UK



Imputation methods: 90+

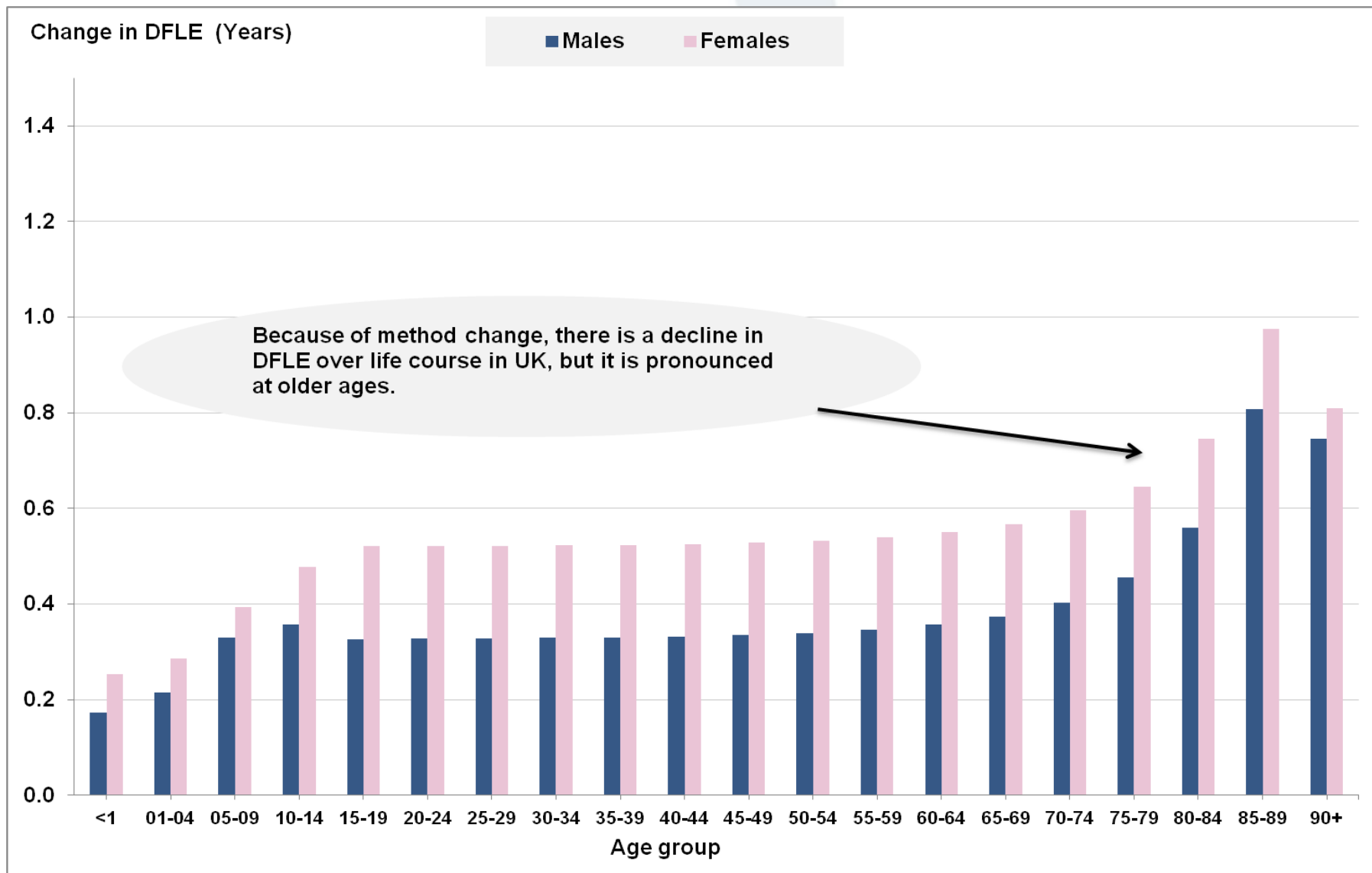


Test of significance

Sex	Age	Old imputation			New imputation			Significant difference
		DFLE	Lower	Upper	DFLE	Lower	Upper	
Male	At birth	62.87	62.72	63.02	62.70	62.55	62.84	No
	At age 65	10.24	10.12	10.36	9.86	9.75	9.98	Yes
Female	At birth	62.63	62.47	62.80	62.38	62.22	62.54	No
	At age 65	10.69	10.56	10.81	10.12	10.00	10.24	Yes

Source: Office for National Statistics

Impact of a method change over all age groups, 2013 to 2015, UK



Any questions?

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For more details

<https://www.ons.gov.uk/releases/healthstatelifeexpectanciesuk2013to20>