

Age at Death in the UK: Ethnicity- Based Death Statistics

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Morbidity and Mortality

- Ethnic inequalities in health have been documented at every stage of the life course with ethnic minority groups reporting poorer health than White British people across a variety of physical and mental health outcomes¹⁻⁷
- Evidence is far less clear for mortality outcomes

¹ Nazroo JY. The Health of Britain's Ethnic Minorities: Findings from a National Survey. London: Policy Studies Institute, 1997.

² Nazroo JY. Ethnicity, Class and Health. London, England: Policy Studies Institute; 2001.

³ Becares L. Which ethnic groups have the poorest health? In: Jivraj S, Simpson L (eds). Ethnic Identity and Inequalities in Britain: The Dynamics of Diversity. Bristol: Policy Press, 2015, pp. 123-41.

⁴ Darlington F, Norman P, Ballas D, Exeter DJ. Exploring ethnic inequalities in health: evidence from the Health Survey for England, 1998-2011. Divers Equal Health Care 2015;12:54-65.

⁵ Harding S, Balarajan R. Limiting long-term illness among Black Caribbeans, Black Africans, Indians, Pakistanis, Bangladeshis and Chinese born in the UK. Ethn Health 2000;5:41-46.

⁶ Erens B, Primatesta P, Prior G. Health Survey for England 1999: The Health of Ethnic Minority Groups. London: The Stationary Office, 2001.

⁷ Sproston K, Mindell J. Health Survey for England 2004: The Health of Minority Ethnic Groups. London: National Centre for Social Research, 2006.

Mortality

- Some studies have found clear ethnic minority life expectancy gaps compared to White British people⁸⁻⁹
- Recent Office for National Statistics (ONS) experimental statistics covering the period 2011-14 have shown that White and Mixed ethnic groups had the lowest life expectancies at birth with men and women identifying as Black African, Other Asian or Other, and Bangladeshi having the highest life expectancies¹⁰

⁸ Rees PH, Wohland PN, Norman PD. The estimation of mortality for ethnic groups at local scale within the United Kingdom. *Soc Sci Med* 2009;69:1592-607.

⁹ Wohland P, Rees P, Nazroo J, Jagger C. Inequalities in healthy life expectancy between ethnic groups in England and Wales in 2001. *Ethn Health* 2015;20:341-53.

¹⁰ Office for National Statistics. Ethnic differences in life expectancy and mortality from selected causes in England and Wales: 2011 to 2014.

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/ethnicdifferencesinlifeexpectancyandmortalityfromselectedcausesinenglandandwales/2011to2014>. 2021 (12 April 2026, date last accessed).

ONS Experimental Statistics

- Life expectancy for ethnic minority groups was exceedingly high, in some cases exceeding those for countries with the greatest longevity such as Japan¹¹
- “Experimental Statistics” are defined as newly developed data that is undergoing evaluation, testing, or methodological refinement
- Despite the experimental nature of these statistics, government departments have run with them, with reports from the Government Commission on Race and Ethnic Disparities and policy for the Office for Health Improvement and Disparities, as well as general comments on ethnic inequalities in health^{12–14}

¹¹Nazroo J, Becares L, Kapadia D. Ethnic Inequalities in Mortality Rates and Life Expectancy in England and Wales: Why We Should Treat Experimental Statistics With Caution. NHS Race & Health Observatory. 2021. <https://www.nhs.uk/blog/ethnic-inequalities-in-mortality-rates-and-life-expectancy-in-england-and-wales-why-we-should-treat-experimental-statistics-with-caution/> (12 April 2026, date last accessed).

¹²Stopforth S, Kapadia D, Nazroo J, Becares L. Ethnic inequalities in health in later life, 1993–2017: the persistence of health disadvantage over more than two decades. *Ageing Soc* 2023;43:1954–82.

¹³Commission on Race and Ethnic Disparities. Commission on Race and Ethnic Disparities: The Report. London: Commission on Race and Ethnic Disparities, 2021.

¹⁴Raleigh V. Ethnic Differences in Life Expectancy in England and Wales: The Unexpected? *The BMJ Opinion*. 2021. <https://blogs.bmj.com/bmj/2021/08/20/ethnic-differences-in-life-expectancy-in-england-and-wales-the-unexpected/> (12 April 2026, date last accessed).

Clarity to Confusion

- Our paper seeks to provide clarity on this confused topic
- Using Waves 0-11 of the English Longitudinal Study of Ageing (ELSA) linked with NHS data on mortality enables direct modelling of age at death to assess ethnic differences
- In this paper, we use a sample of 7,057 unique individuals who have at one point been enumerated in the ELSA main survey and have died (such deaths recorded in the NHS)
- We provide analysis on a sample of 6,976 cases that have complete records on age at death, ethnicity, sex, and date of death
- The analysis you are seeing is subject to data safe haven reporting, and is subject to change to the final version

Model

- We propose two (male and female) parsimonious Ordinary Least Squares linear regression models
- These models will use age at death as a dependent variable with date of death and ethnicity
- Date of death is recorded from 2002-2024
- Ethnicity was originally collapsed into a five-category variable but due to statistical power issues¹⁵⁻¹⁶ (30-40 cases threshold)
- Models shown today will be dichotomised ethnicity (White vs Non-White)

¹⁵Toson B, Baker A. Life Expectancy at Birth: Methodological Options for Small Populations. National Statistics Methodological Series No.33: Office for National Statistics, 2003. https://webarchive.nationalarchives.gov.uk/ukgwa/20210722024431mp_/https://ons.ent.sirsidynix.net.uk/client/en_GB/search/asset/923/0 (12 April 2026, date last accessed).

¹⁶Gruer L, Cezard G, Clark E et al. Life expectancy of different ethnic groups using death records linked to population census data for 4.62 million people in Scotland. *J Epidemiol Community Health* 2016;70:1251-54.

Descriptive Statistics

Variables of interest	Observations	%
Ethnicity		
White	6893	98.81
Mixed Ethnic Group	8	0.11
Asian/Asian British	29	0.42
Black/African/Caribbean/Black British	38	0.54
Any Other Group	8	0.11
Sex		
Male	3479	49.87
Female	3497	50.13
	Mean	Std.
Age at Death	80.68	9.92
Year of Death	13.60	6.16

Mean Age at Death by Ethnicity

- Total: 81 for white, 77 for non-white.
- If we break down by sex then:
 - For men: 80 for white, 78 for non-white.
 - For women: 82 for white, 76 for non-white.

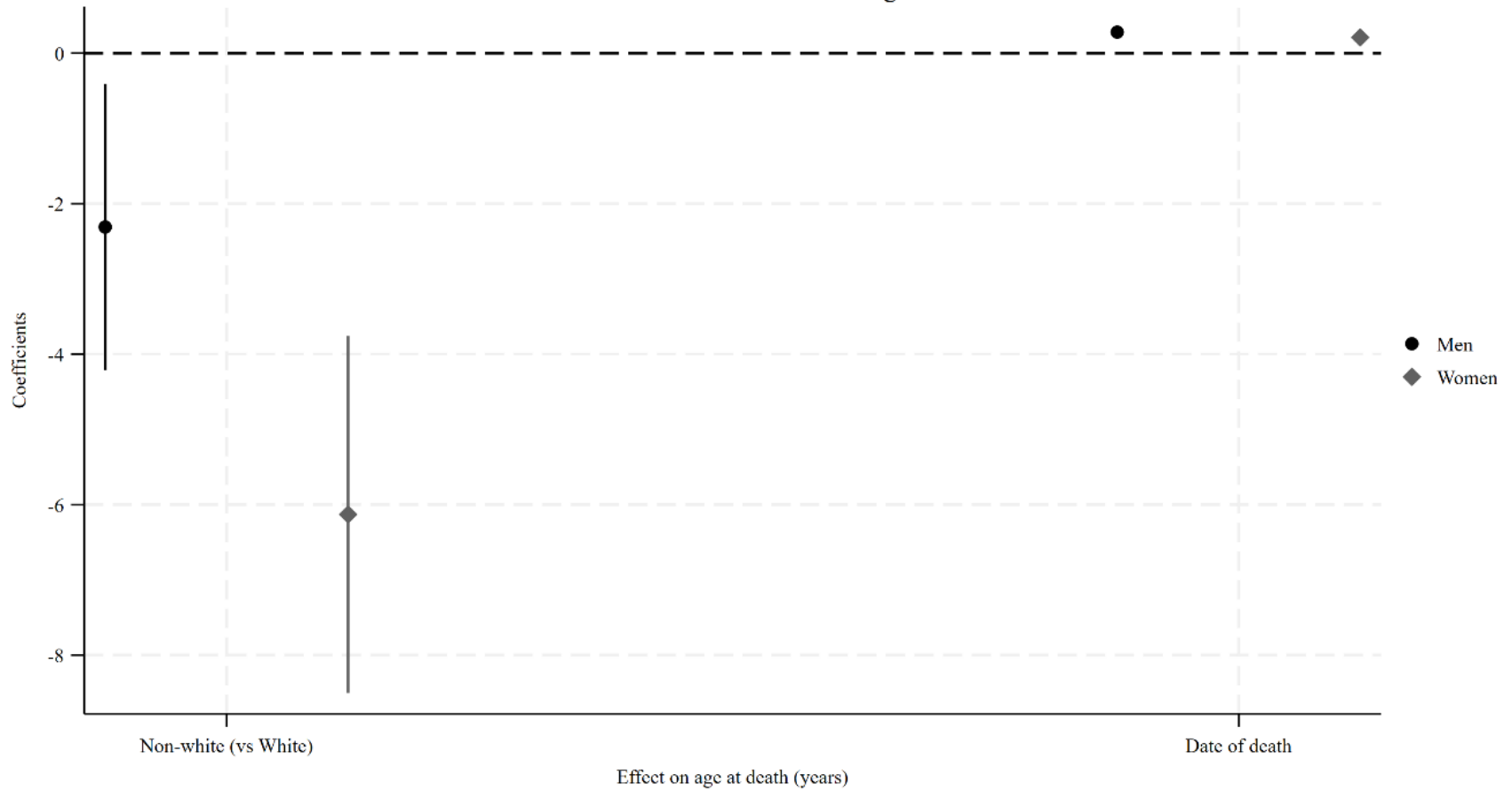
Male Model

Variable	Coef.	Std. Err.	P> t	[95% Conf. Interval]	
Non-White	-2.31	0.97	0.02	-4.21	-0.41
Date of Death (2002– 2024)	0.28	0.03	0.00	0.23	0.33
Constant	75.71	0.37	0.00	74.98	76.44
Observations			3525		
Adjusted R squared			0.04		

Female Model

Variable	Coef.	Std. Err.	P> t	[95% Conf. Interval]	
Non-White	-6.13	1.21	0.00	-8.50	-3.77
Date of Death (2002– 2024)	0.21	0.03	0.00	0.15	0.26
Constant	79.07	0.42	0.00	78.25	79.89
Observations	3531				
Adjusted R squared	0.02				

Reduced model: OLS coefficients for age at death



Points are coefficients; bars are 95% confidence intervals

Data: Linked ELSA + NHS Mortality

Conclusions

- Ethnic Minority men and women die at earlier ages than their White peers
- Substantial gaps between men and women
- Evidence against prior ‘experimental statistics’

Potential Limitations

- Age profiles of different ethnic groups
- Migration flight
- Dichotomised Ethnicity

Next Steps

- Use five-category ethnicity variable (unlocked recently)
- Use of interaction effects for date of death and ethnicity to assess growth curves

References

- ¹Nazroo JY. *The Health of Britain's Ethnic Minorities: Findings from a National Survey*. London: Policy Studies Institute, 1997.
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- ⁴ Darlington F, Norman P, Ballas D, Exeter DJ. Exploring ethnic inequalities in health: evidence from the Health Survey for England, 1998–2011. *Divers Equal Health Care* 2015;12:54–65.
- ⁵ Harding S, Balarajan R. Limiting long-term illness among Black Caribbeans, Black Africans, Indians, Pakistanis, Bangladeshis and Chinese born in the UK. *Ethn Health* 2000;5:41–46.
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- ⁸ Rees PH, Wohland PN, Norman PD. The estimation of mortality for ethnic groups at local scale within the United Kingdom. *Soc Sci Med* 2009;69:1592–607.
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- ¹⁰ Office for National Statistics. *Ethnic differences in life expectancy and mortality from selected causes in England and Wales: 2011 to 2014*. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/articles/ethnicdifferencesinlifeexpectancyandmortalityfromselectedcausesinenglandandwales/2011to2014>. 2021 (12 April 2026, date last accessed).
- ¹¹ Nazroo J, Becares L, Kapadia D. Ethnic Inequalities in Mortality Rates and Life Expectancy in England and Wales: Why We Should Treat Experimental Statistics With Caution. *NHS Race & Health Observatory*. 2021. <https://www.nhs.uk/blog/ethnic-inequalities-in-mortality-rates-and-life-expectancy-in-england-and-wales-why-we-should-treat-experimental-statistics-with-caution/> (12 April 2026, date last accessed).
- ¹² Stopforth S, Kapadia D, Nazroo J, Becares L. Ethnic inequalities in health in later life, 1993–2017: the persistence of health disadvantage over more than two decades. *Ageing Soc* 2023;43:1954–82.
- ¹³ Commission on Race and Ethnic Disparities. *Commission on Race and Ethnic Disparities: The Report*. London: Commission on Race and Ethnic Disparities, 2021.
- ¹⁴ Raleigh V. Ethnic Differences in Life Expectancy in England and Wales: The Unexpected? *The BMJ Opinion*. 2021. <https://blogs.bmj.com/bmj/2021/08/20/ethnic-differences-in-life-expectancy-in-england-and-wales-the-unexpected/> (12 April 2026, date last accessed).
- ¹⁵ Toson B, Baker A. *Life Expectancy at Birth: Methodological Options for Small Populations*. National Statistics Methodological Series No.33: Office for National Statistics, 2003. https://web.archive.org/web/20210722024431mp_/https://ons.ent.sirsidynix.net.uk/client/en_GB/search/asset/923/0 (12 April 2026, date last accessed).
- ¹⁶ Gruer L, Cezard G, Clark E et al. Life expectancy of different ethnic groups using death records linked to population census data for 4.62 million people in Scotland. *J Epidemiol Community Health* 2016;70:1251–54.



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Thank you & Questions