

A large hourglass is positioned on the left side of the image. The sand in the hourglass is a vibrant teal color. A detailed 3D model of a DNA double helix is suspended vertically within the hourglass, positioned in the center of the sand. The hourglass is made of clear glass and is tilted slightly, with the sand falling from the top bulb into the bottom bulb.

# LONGEVITY NEWSFLASH

December 2025

# About this Bulletin

Welcome to the Newsflash , your monthly signpost to emerging research.

This complimentary digest highlights newly published peer-reviewed studies and key updates from public health and statistical agencies in the UK, US, and Canada, all selected for their relevance to the insurance and longevity sectors.

Rather than providing in-depth analysis, Newsflash is designed to guide you quickly and efficiently to valuable new material beyond the scope of our main bulletins, helping you stay informed and ahead of the curve.

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# Newsletter Highlights

## Journal updates - Highlights

Using UK Biobank accelerometer data, this prospective cohort study models life expectancy by physical activity volume and intensity in midlife adults. For those least active, reallocating just 10 minutes per day to brisk walking was associated with an estimated ~1 additional year of life expectancy at age 60, with larger gains observed at higher activity intensities.

## Updates from statistical bodies - Highlights

ONS national life tables are used to examine period life expectancy by age and sex in the UK for 2022–24.

Estimates show modest increases since 2019–21, with female life expectancy near pre-pandemic levels and male life expectancy still slightly lower.

## Updates from other health bodies - Highlights

Statistics on alcohol and drug misuse treatment for adults from the National Drug Treatment Monitoring System (NDTMS).



# Journal Updates

## Cardiovascular



**Global, regional, and national burden of ischemic heart disease attributable to environmental risk factors from 1990 to 2021: a systematic analysis based on the 2021 global burden of disease study**

Huang 2025

Front Public Health. 2025 Dec 10:13:1630811

A GBD study of the global burden of Ischemic heart disease due to environmental factors from 1990 to 2021 and projected trends to 2051.

[10.3389/fpubh.2025.1630811](https://doi.org/10.3389/fpubh.2025.1630811)



Cardiovascular  
disease

Ischemic heart disease





# Journal Updates

*Infection*



**Global burden of hepatitis C virus infection related to high body mass index and future forecast: an analysis based on the global burden of disease study 2021**

Chen 2025

**Front Public Health. 2025 Nov 20:13:1685807.**

Using Global Burden of Disease 2019 estimates with frontier analysis and Bayesian age-period-cohort modelling, this study investigates incidence, mortality, and disability-adjusted life years for primary malignant neoplasms of bone and articular cartilage across sex, age, and region.

[10.3389/fpubh.2025.1685807](https://doi.org/10.3389/fpubh.2025.1685807)



**Infection**

**Hepatitis C virus**





# Journal Updates

## Lifestyle



### A cross-national comparison of obesity using body mass index-for-age percentiles: results from the Canadian Longitudinal Study on Aging and the United States Health and Retirement Study

Cook 2025

Am J Epidemiol. 2025 Dec 2;194(12):3693-3704.

Body mass index-for-age percentiles are used to compare obesity patterns among older adults in Canada and the United States using data from the Canadian Longitudinal Study on Aging and the US Health and Retirement Study.

10.1093/aje/kwaf181



Genetic/  
Metabolic

Obesity



### Interplay between physical activity volume and intensity with modeled life expectancy in women and men: A prospective cohort analysis

Zaccardi 2025

J Sport Health Sci. 2025 Dec;14:100970

Biobank data were used to investigate the interplay between objectively measured PA volume and intensity profiles with modeled life expectancy in women and men.

10.1016/j.jshs.2024.100970



Longevity and  
mortality

Longevity



### Global burden and inequalities of drug use disorders from 1990 to 2021 with projections to 2036

Zhang 2025

J Glob Health. 2025 Dec 5:15:04344

Using GBD 2021 data, this analysis quantifies global, regional, and national colorectal cancer deaths, DALYs, and age-standardized rates attributable to smoking.

10.7189/jogh.15.04344



Lifestyle

Substance use disorder





# Journal Updates

## Lifestyle



### The timing of macronutrient and major food group intake and associations with mortality among United States adults, 1999–March 2020: a serial cross-sectional study

Zhang 2026

Am J Clin Nutr. 2026 Jan;123(1):101097

Researchers set out to characterize trends in the timing of energy, macronutrient, and food group intake among United States adults and to examine their associations with mortality.

[10.1016/j.ajcnut.2025.10.014](https://doi.org/10.1016/j.ajcnut.2025.10.014)



Lifestyle

Diet



### Global, regional, and national burden of DALYs attributable to occupational risks, 1990-2021: Trends and projections to 2030

Zong 2026

Soc Sci Med. 2026 Jan;389:118810

Disability-adjusted life years attributable to six major occupational risk factors are estimated across countries and over time using Global Burden of Disease data.

[10.1016/j.socscimed.2025.118810](https://doi.org/10.1016/j.socscimed.2025.118810)



Lifestyle

Mortality





# Journal Updates

## Longevity and Mortality



### The Impacts of Major Chronic Diseases on Changes in Healthy Life Expectancy among Older Adults in China from 2011 to 2020

Cui 2025

Biomed Environ Sci. 2025 Dec 20;38(12):1510-1519.

This study sought to quantify the impact of major chronic diseases on changes in healthy life expectancy (HLE) from 2011 to 2020 in China using an age-specific disability weights (DW) estimation method.

10.3967/bes2025.064



Longevity and mortality

Longevity



### National mortality burden attributable to the unprecedented heatwave in 2022 in China

Hu 2025

Mil Med Res. 2025 Dec 15;12(1):92.

Using city-level temperature and mortality data, this study examines heatwave-related mortality in China during the unprecedented 2022 heatwave in comparison with trends since 2000.

10.1186/s40779-025-00676-2



Longevity and mortality

Temperature mortality



### Mortality in long-term care residents: retrospective national cohort study

MacRae 2025

BMJ Support Palliat Care. 2025 Dec 23;16(1):188-197

This study aims to describe patterns and associations with mortality among people moving-in to care homes in Scotland.

10.1136/spcare-2024-005163



Longevity and mortality

Mortality





# Journal Updates

## Longevity and Mortality



### Differences in mortality trends according to population density in two southern European countries, 2001-2019

Moreno 2025

Public Health. 2025 Dec;249:105982

Population-density-stratified mortality data from Italy and Spain are analysed to characterise long-term trends in overall and cause-specific mortality during the first two decades of the 21st century.

[10.1016/j.puhe.2025.105982](https://doi.org/10.1016/j.puhe.2025.105982)



Longevity and mortality

Population density mortality



### Projections of future mortality risk in older adults from high-tide flooding in coastal areas of the USA: an economic modelling study

Sheahan 2025

Lancet Planet Health. 2025 Dec;9(12):101382

This study estimated the relationship between global sea level rise and high-tide flooding and the associated economic costs among older adults in coastal areas of the USA throughout the 21st century under various climate change scenarios.

[10.1016/j.lanplh.2025.101382](https://doi.org/10.1016/j.lanplh.2025.101382)



Longevity and mortality

Temperature mortality



### A new perspective of simultaneous exposure of risk factors to explore the role of ambient temperature associated with mortality

Wang 2025

Environ Int. 2025 Dec;206:109968

Using a sequence-to-sequence modelling framework with local feature attribution, this study examines how ambient temperature interacts with co-occurring meteorological and air-pollution exposures in relation to mortality.

[10.1016/j.envint.2025.109968](https://doi.org/10.1016/j.envint.2025.109968)



Longevity and mortality

Temperature mortality





# Journal Updates

## Mental Health



### Digital Isolation and Depression Risk in Older Adults Using the National Health and Aging Trends Study Database: 8-Year Longitudinal Study

He 2025

JMIR Aging. 2025 Dec 12:8:e75174

Eight years of longitudinal data from the National Health and Aging Trends Study are used to examine links between multidimensional digital disengagement and incident depression in older adults.

[10.2196/75174](https://doi.org/10.2196/75174)



Mental health

Depression





# Journal Updates

## Oncology



### Global, regional, and national burden of Hodgkin lymphoma, 1990-2021, and predictions for 2050: an analysis of the global burden of disease study 2021

Li 2025

Expert Rev Hematol. 2025 Dec;18(12):1089-1097

Global Burden of Disease data are analysed to characterise incidence, mortality, and disability-adjusted life years for Hodgkin lymphoma across age, sex, and regions, with temporal trends assessed using age-period-cohort methods.

10.1080/17474086.2025.2558710



Cancer

Hodgkin lymphoma



### Global burden of tracheal, bronchus, and lung cancer attributable to second-hand smoke exposure from 1992 to 2021: an age-period-cohort analysis and 25-year mortality projections

Lin 2025

Front Public Health. 2025 Nov 25:13:1625876.

Drawing on Global Burden of Disease 2021 data and age-period-cohort modelling, this paper investigates temporal trends and projections in the burden of tracheal, bronchus, and lung cancer attributable to second-hand smoke exposure at global, regional, and national levels.

10.3389/fpubh.2025.1625876



Cancer

Tracheal, bronchus, and lung cancer



### The global, regional, and national burden of colorectal cancer attributable to smoking from 1990 to 2021: a population-based study

Wang 2026

Eur J Cancer Prev. 2026 Jan 1;35(1):53-65

Trend and frontier analyses of GBD 2021 estimates are used to map the global, regional, and national burden of colorectal cancer attributable to smoking from 1990-2021, with projections for the next decade.

10.1097/CEJ.0000000000000957



Cancer

Colorectal cancer





# Journal Updates

## Oncology



### Global, Regional, and National Sex Disparities in the Burden of Malignant Neoplasms of Bone and Articular Cartilage: a Systematic Analysis and Projections to 2050

Wang 2026

Ann Surg Oncol. 2026 Jan;33(1):681-694

Global Burden of Disease estimates are used to examine sex disparities in the incidence, mortality, and disability-adjusted life years of malignant neoplasms of bone and articular cartilage, with projections to 2050.

[10.1245/s10434-025-18258-w](https://doi.org/10.1245/s10434-025-18258-w)



Cancer

Malignant neoplasms





# Journal Updates

## Other



### Successful aging among older adults with and without disability

Khamzina 2025

Exp Gerontol. 2025 Dec;212:112964

Data from the National Health and Aging Trends Study are analysed to integrate disability into conceptualisations of successful ageing, drawing on subjective well-being and self-rated health across study waves.

[10.1016/j.exger.2025.112964](https://doi.org/10.1016/j.exger.2025.112964)



Frailty

Aging



### Relationship stress and epigenetic age acceleration among older U.S. adults in the Midlife in the United States study

Rodrigues 2025

Epigenomics. 2025 Dec;17(17):1249-1257

Cross-sectional data from the Midlife in the United States study are used to examine associations between domain-specific relationship stressors and next-generation epigenetic ageing clocks.

[10.1080/17501911.2025.2568301](https://doi.org/10.1080/17501911.2025.2568301)



Frailty

Aging





# Journal Updates

## Respiratory



### Excess mortality and healthcare costs during the COVID-19 pandemic among patients with ten major chronic diseases in South Korea: a nationwide analysis

Song 2025

BMC Infect Dis. 2025 Dec 29;25(1):1762

Researchers investigated excess mortality and healthcare costs during the COVID-19 pandemic among patients with ten major chronic diseases in South Korea.

[10.1186/s12879-025-12089-6](https://doi.org/10.1186/s12879-025-12089-6)



Respiratory

Respiratory illness



# ONS Update

## Longevity and Mortality



### National life tables – life expectancy in the UK: 2022 to 2024

Trends in period life expectancy, a measure of the average number of years people will live beyond their current age, analysed by age and sex for the UK and its constituent countries.



Longevity and mortality

Life expectancy

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/bulletins/nationallifetablesunitedkingdom/2022to2024>



### Life expectancy for local areas of the UK: between 2001 to 2003 and 2022 to 2024

Subnational trends in period life expectancy, a measure of the average number of years people will live beyond their current age.



Longevity and mortality

Life expectancy

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/lifeexpectancyforlocalareasoftheuk/between2001to2003and2022to2024>





# Other Health bodies

*Infection*



## Chief Medical Officer's annual report 2025: infections

Professor Chris Whitty's annual report considers trends, successes and challenges in preventing and treating infectious diseases.



Infection

Infectious disease

<https://www.gov.uk/government/publications/chief-medical-officers-annual-report-2025-infections>





# Other Health bodies



## Substance misuse treatment for adults: statistics 2024 to 2025

Statistics on alcohol and drug misuse treatment for adults from the National Drug Treatment Monitoring System (NDTMS).



Lifestyle

Alcohol and drug disorder

<https://www.gov.uk/government/statistics/substance-misuse-treatment-for-adults-statistics-2024-to-2025>



# Other Health bodies

## Longevity and Mortality



### UKHSA priorities in 2025 to 2026

Letter from Health Minister Ashley Dalton MP confirming the UK Health Security Agency's role and priorities for the financial year 2025 to 2026.



Longevity and mortality

Longevity

<https://www.gov.uk/government/publications/ukhsa-priorities-in-2025-to-2026>



## Our Ethos

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Environmental Responsibility

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Rigour

Commitment to Continuous Ethical  
Reflection



**Disclaimer:**  
No data analysis was performed in the studies included in this newsletter.

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