Public Health Scotland

Scottish Burden of Disease

Future prevalence and burden of Alzheimer's disease and other dementias

A Management information release for Scotland

Publication date: 24 June 2025

RESTRICTED STATISTICS: embargoed to 09:30 24/06/2025

Translations and other formats are available on request at:

phs.otherformats@phs.scot

0131 314 5300

Public Health Scotland is Scotland's national agency for improving and protecting the health and wellbeing of Scotland's people.

© Public Health Scotland 2025

This publication is licensed for re-use under the **Open Government Licence v3.0**.

For more information, visit **www.publichealthscotland.scot/ogl**

www.publichealthscotland.scot

This is a Management information publication

Published management information are statistics which may be in the process of being transitioned into official statistics. They are most commonly the aggregation and summary of operational data as statistics, to inform business decisions. They may not comply with the UK Statistics Authority's Code of Practice with regard to high data quality or high public value but there is a public interest or a specific interest by a specialist user group in accessing these statistics as there are no associated official statistics available.

Users should therefore be aware of the aspects of data quality and caveats surrounding these data, all of which are listed in this document.

Visit the UK Statistics Authority website for more information about the **Code of Practice** and **Management Information**.

Visit our website for **further information about our statistics and PHS as an Official Statistics producer.**

Contents

Context

Over the next two decades, Scotland is expected to experience changing demographics, most notably an ageing population.[1] Public Health Scotland's Scottish Burden of Disease (SBoD) study has recently been adapted to forecast how these demographic and population health trends are expected to combine, to anticipate the extent of future public health challenges. Initial work focused on the impact of the changing demographic situation only and found that the combined annual disease burden from all causes of disease and injury is forecast to increase 21% in the next 20 years.[2] Absolute increases in annual disease burdens are forecast to be largest for cardiovascular diseases, cancers, and neurological diseases, together accounting for approximately two-thirds of the total increase in forecasted disease burden. The burden for the latter disease group - neurological diseases - which includes dementias, is forecast to increase by 34% by 2044.

These findings are set alongside the context of a projected reduction in working-age population over that same time period with an old-age dependency ratio projected to increase from 57% in 2022 to 64% in 2042.[1] These changes will have important implications for public health and the health and social care system. To address these challenges, alongside financial constraints and sustainability, decision makers need to consider both more effective approaches to prevention and different models of care. In doing so, alongside demographic change, consideration of epidemiological changes is needed as these have the potential to either ease or add to the pressure within an already stretched system.

Background

Disease prevalence is a measure of the overall occurrence of a disease at a point in time. It is a helpful metric as it outlines the scale of population-level health demands that are likely to arise from living with a disease. This in turn can inform discussions over how best to meet these health needs through health and social care service provision, and over how these needs could be reduced through public health interventions.

Disease prevalence is influenced by three epidemiological concepts:

- The rate of new cases (incidence)
- The rate of remission (cure)
- The survival rate of prevalent cases (death)

Dementia, including Alzheimer's disease and other related conditions, is a progressive neurological disorder and is recognised as a long-term condition. Once an individual is diagnosed with dementia, there is no treatment which can fully reverse the damage that has already occurred. The consequences from dementia can vary from person to person and can include an increased risk of early death. If improvements in mortality are not met by equivalent improvements in disease prevention, the number of prevalent cases will grow.

Robust estimates of the prevalence of dementia in Scotland are limited. The reasons for this are multi-faceted, including a lack of population-level studies and a substantial proportion of undiagnosed cases. Differences in study design and recruitment strategies makes it difficult to compare estimates. Alzheimer Scotland estimate around 90,000 people are affected by dementia in Scotland, based on the EuroCoDe study, which calculated prevalence rates from a group of population-level studies across Europe in 2009.[3] The Scottish Government adopt this estimate of dementia prevalence and it has been embedded in both their National Dementia Strategy 2017-2020, and it's follow up, Dementia in Scotland: Everyone's Story, published in 2023.[4,5]

In this report, we provide estimates of the scale of dementia prevalence and disease burden over the next two decades by considering a range of data sources and the impact of projected demographic changes in the Scottish population. The SBoD 2019 study found dementia to be the second leading cause of disease burden in Scotland, accounting for an estimated 91,000 disability-adjusted life years (DALYs). Dementia exhibits sizeable absolute and relative inequalities, with 25% of its DALY burden estimated to be attributable to socioeconomic deprivation.[6]

Main points

- Our analysis across different sources highlights that in 2019 an estimated 65,000 to 92,800 people were living with dementia in Scotland. In all studies considered, females account for approximately two thirds of prevalent cases.

- Of the sources considered, most reported the highest prevalence in those aged 85 years and over; however, the Scottish Burden of Disease method identified the 75 to 84 years age group as having the largest number of cases.

- By 2044, the prevalence of dementia is estimated to rise to between 102,000 and 146,600, varying by source, representing a relative increase of 52% to 58%. This equates to an absolute increase of 35,200 to 53,800 people living with dementia compared to 2019.

- Prevalence is projected to increase across all age groups. The largest projected absolute increase in dementia prevalence is among females aged 85 years and over, with 9,600 to 18,300 additional cases (63% to 64% increase); while the largest relative increase is among males aged 85 years and over (110% to 115%).

- As a result of this projected rise in number of prevalent cases, the non-fatal burden of disease due to dementia, measured in Years lived with Disability (YLDs), is estimated to increase from between 10,000 and 15,000 in 2019 to between 17,000 and 24,000 in 2044.

- A substantial rise in dementia prevalence is projected in the coming decades, due to projected demographic changes. If realised, this could place increased pressure on health and social care services, increase demand for specialist support, and pose significant challenges to the system. However, this future is not inevitable. With timely investment in prevention, early intervention, and integrated, person-centred care, we can

ease system pressures, improve quality of life for people living with dementia, and support a more resilient, sustainable health and care system.

Methodology

Future estimates of dementia prevalence have been calculated by applying rates of prevalence sourced from published research to population projections, which incorporate projected demographic change in Scotland. These future estimates do not take into account any underlying changes in epidemiological changes as the sources used provide information relating to a single point in time.

Whilst we do not have current or historic trend data for dementia prevalence, three studies have been considered and used to develop future estimates: Cognitive Function and Ageing Study II (CFAS II), European Collaboration on Dementia (EuroCoDe; 2006 - 2008) and Dementia in Europe 2019 (Alzheimer Europe), an updated phase of the EuroCoDe study.[7,8] These studies were included as they are commonly cited as providing estimates of the dementia prevalence in Scotland.

In addition, estimates of dementia prevalence derived for the SBoD 2019 study were also included. The SBoD data sources and methodology have been described previously.[9]

For all studies except CFAS II, estimated rates of dementia prevalence were available at sex and five-year age bands: 60 to 64 years; 65 to 69 years; 70 to 74 years; 75 to 79 years; 80 to 84 years; 85 to 89 years and 90 years and over. To allow for comparisons of rates of dementia in those aged 60 years and over, the estimated rate of dementia prevalence for 60 to 64 years in the EuroCoDe study was used as a proxy for prevalence rate in this age group in the CFAS II study. The Alzheimer Europe study takes its results for this age group from the EuroCoDe study. The EuroCoDe study provides the estimated rate of prevalence for males and females aged 90 to 94 years and 95 years and over. As population data is only available at 90 years and over, the mean rate of prevalence was calculated and used to estimate dementia in those aged 90 year and over. A summary of the studies and sample years is provided in Table 1.

Table 1: Studies included in the analysis

Method	Study design and dates	Year published	Age groups	Adjusted
EuroCoDe (adjusted)	Meta-analysis 1995-2007	2006	5-year age groups from: 60–64 years to 95+ years	Yes
Alzheimer Europe	Meta-analysis 2018-2019; plus previous EuroCoDe results	2019	5-year age groups from: 60–64 years to 90+ years	No
SBoD	Cross-sectional 2014-2016	2019	5-year age groups from: 60–64 years to 90+ years	No
CFAS II (adjusted)	Cohort study 2008-2011	2013	5-year age groups from: 65–69 years to 90+ years	Yes

To estimate historic dementia prevalence from 2000 to 2019, these age and sex-specific prevalence rates were applied to National Records of Scotland (NRS) Mid-Year Population estimates for each year.[10] To generate future estimates of dementia prevalence, age-specific rates were applied to the Office for National Statistics (ONS) 2020-based interim national population projections for each year, recommended for use by the NRS.[11] These estimates are therefore influenced by changes in population structure only.

These projections therefore assume that the rate of prevalence remains constant over the forecast period and there will be no future changes - either positive or negative - to the underlying epidemiological rates. It assumes that all future changes would be due to the changing demographics projected for Scotland.

Finally, these estimates of future prevalence were then used to calculate estimates of the future burden of dementia morbidity. The SBoD study follows the Global Burden of Disease (GBD) methodology which relies on severity distributions to quantify the proportion of the prevalent population in a particular health state and disability weights to take account of the consequences of both the condition and the health state.[12] Dementia prevalence projections were distributed to each severity level according to the fixed proportions developed for use in the GBD 2016 study.[13] The burden due to morbidity was calculated by applying the disability weight to the number of prevalent cases in each severity level and adjusting for comorbidity. Severity distributions and disability weights for dementia can be found in **Appendix 1.** Analysis was carried out in RStudio using the Tidyverse packages.[14]

Results and commentary

Results

Based on the methodology above, the estimated number of people living with dementia in Scotland in 2019 varied by source ranging from 65,900 to 92,800 people. The largest estimated result was from the EuroCoDe (adjusted) study, with the smallest estimates from the CFAS II (adjusted) study (Table 2).

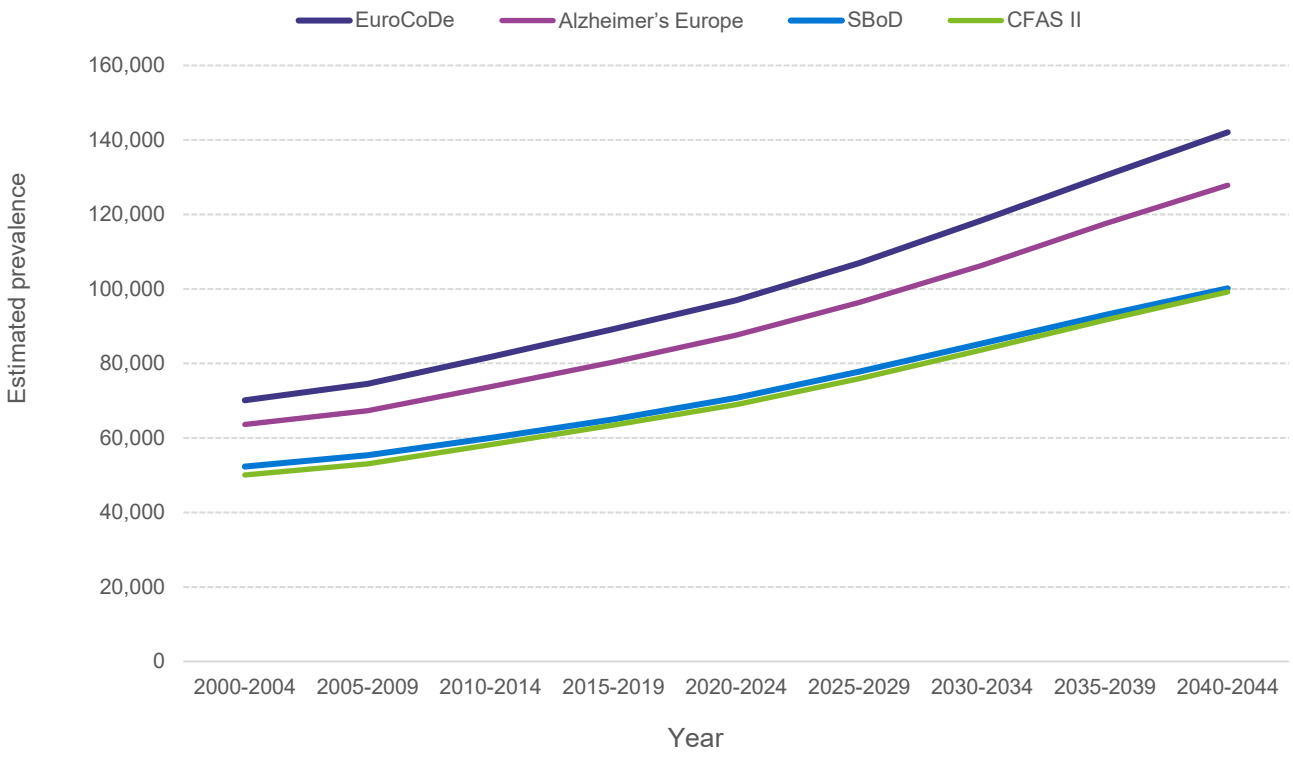
Table 2: Estimated number of people with dementia in Scotland in 2019, by source

Sex	Agegroup	EuroCoDe (adjusted)	Alzheimers Europe	SBoD	CFAS II (adjusted)
Male	under 65 years	334	334	1,018	334
	65 to 74 years	6,835	5,692	5,906	5,704
	75 to 84 years	14,830	12,556	10,804	10,914
	85 years and over	10,710	9,115	5,569	6,323
	Total male	**32,709**	**27,696**	**23,297**	**23,274**
Female	under 65 years	1,601	1,601	1,274	1,601
	65 to 74 years	7,737	7,306	7,308	6,453
	75 to 84 years	21,818	20,485	20,271	14,581
	85 years and over	28,900	26,485	15,383	19,989
	Total female	**60,056**	**55,878**	**44,236**	**42,623**
Total cases		**92,765**	**83,573**	**67,532**	**65,898**

Across all sources, the sex distribution of cases were similar, with between 64% to 67% of prevalent cases in females. In three sources, the largest absolute estimated prevalence in 2019 is seen in the 85 years and over age group, however when estimating prevalence using the SBoD methodology, a younger cohort exists, and the

largest count of estimated prevalence is estimated to be in the 75 to 84 years age group.

Figure 1: Estimates of the number of people with dementia (2000 to 2019) with projections of estimates to 2044 (mean value per five-year period)



After projecting the prevalence of dementia across four sources, we found the prevalence of dementia in Scotland is estimated to increase to between 102,000 and 146,600 by 2044 (Table 3). Whilst the change in level of cases varies between sources, the percentage increases are similar, ranging from 52% to 58% (Table 3). This equates to an absolute increase of 35,200 to 53,800 people compared to 2019. The largest relative increase is estimated from the EuroCoDe (adjusted) study and the smallest relative increase from the SBoD study. This reflects the younger age profile of prevalent cases estimated using SBoD methodology.

Table 3: Estimated number of people with dementia in Scotland using two different methods (selected years) with projections to 2044

Method	2019	2024	2029	2034	2039	2044	Change (n) (2019 to 2044)	Change (%) (2019 to 2044)
EuroCoDe (adjusted)	92,765	100,664	111,746	123,425	135,388	146,588	53,823	58.0%
Alzheimers Europe	83,573	91,090	100,300	110,942	122,102	131,621	48,048	57.5%
SBoD	67,532	73,566	80,940	88,545	96,093	102,710	35,178	52.1%
CFAS II (adjusted)	65,898	71,611	79,107	86,983	94,992	102,014	36,116	54.8%

Estimated future prevalence estimates are noticeably driven by age (Figure 2, Table 4). Irrespective of source, prevalence is projected to increase across all age groups. Apart from prevalence estimated by applying the SBoD methodology, the largest relative and absolute increases in prevalence projected is in the 85 years and over age group.

Sex-specific differences are observed in the projections (Table 4). The largest relative increases in dementia prevalence are projected amongst males aged 85 years and over, with an increase of 110% to 115%, representing an additional 6,100 to 12,100 prevalent cases. The largest absolute increases are projected among females aged 85 years and over, with the number of cases expected to rise by 9,600 to 18,300, a 63% increase across all sources.

Figure 2: Percentage change (2019-2044) in the estimated number of people with dementia by sex and age group

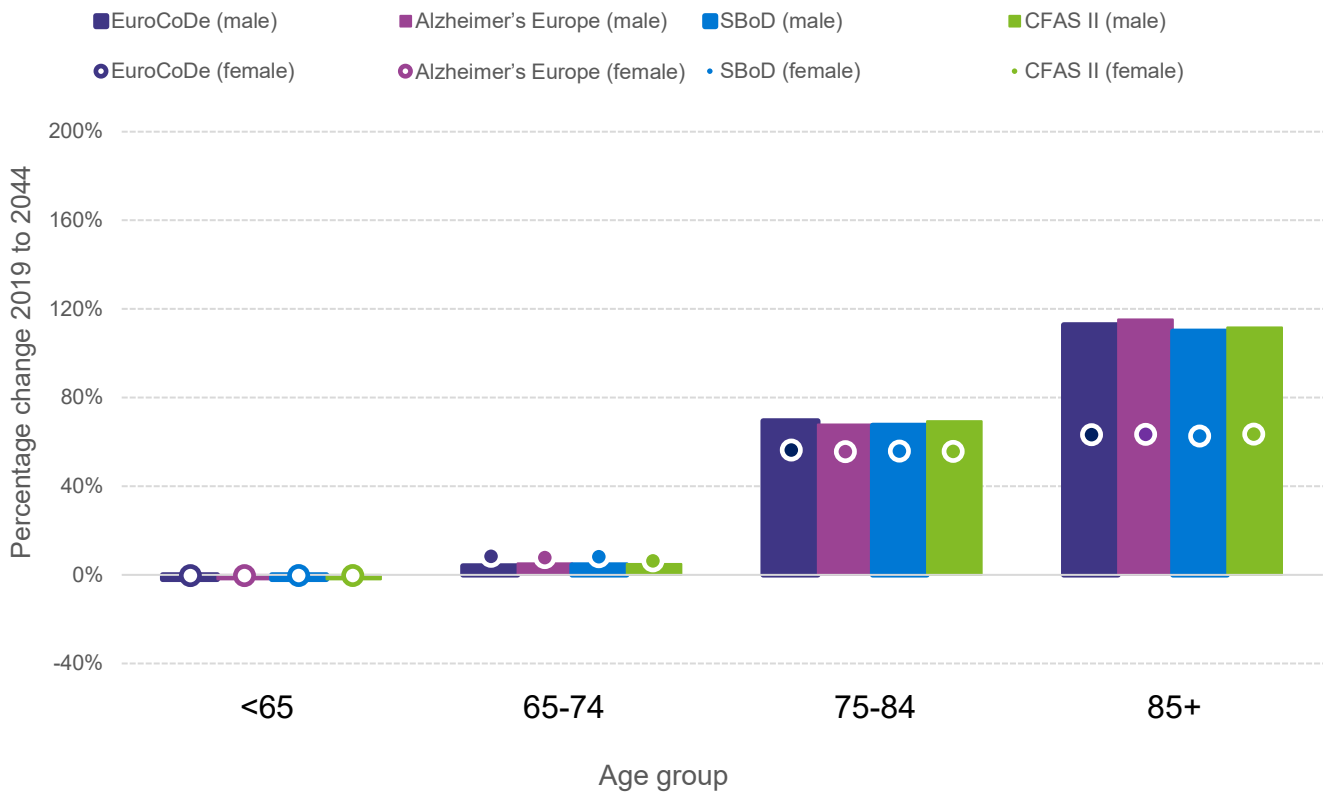


Table 4: Percentage change (2019-2044) in the estimated number of people with dementia, by sex and age group

Sex	Agegroup	EuroCoDe (adjusted)	Alzheimers Europe	SBoD	CFAS II (adjusted)
Male	under 65 years	-2.0% (-7)	-2.0% (-7)	-2.0% (-21)	-2.0% (-7)
	65 to 74 years	4.0% (277)	5.2% (296)	4.5% (264)	4.9% (281)
	75 to 84 years	69.5% (10,300)	67.9% (8,521)	67.4% (7,286)	69.4% (7,571)
	85 years and over	112.8% (12,079)	115.3% (10,510)	110.0% (6,125)	111.6% (7,059)
Female	under 65 years	-0.3% (-6)	-0.3% (-6)	-0.3% (-4)	-0.3% (-6)
	65 to 74 years	8.2% (638)	7.7% (566)	8.1% (594)	6.2% (403)
	75 to 84 years	56.3% (12,289)	55.6% (11,380)	55.8% (11,303)	55.6% (8,112)
	85 years and over	63.2% (18,253)	63.4% (16,787)	62.6% (9,630)	63.5% (12,703)

* Change in numbers denoted in brackets

** Small differences in total values due to rounding

In burden of disease studies, prevalence is used to calculate the non-fatal burden [years lived with disability (YLD)] of a condition, along with estimates of the severity and disability associated with the disease. Applying burden of disease methodology to the projected values of prevalence, we estimate that the non-fatal burden due to dementia is projected to increase. YLD is projected to be between 17,000 and 24,600 YLD in 2044, up from between 10,900 and 15,400 YLD in 2019. Considering trends between and across the different sources, the projected increases in YLD follow the same trends as seen in prevalence.

Overall burden (DALYs) is a composite measure incorporating both non-fatal and fatal burden. This projected increase in non-fatal burden will not necessarily lead to a similar change in the overall burden, as the latter will also be influenced by projected changes in mortality and fatal burden for a disease. Further work by the SBoD team is focussed on future projections of mortality and fatal burden, to develop forecasts of the overall burden of dementia in Scotland.

Summary

Determining accurate estimates of both current and future prevalence of dementia in Scotland is challenging. In this paper, a range of sources and methods have been used to provide a range of estimates which capture the uncertainty across sources.

In 2019, based across all sources and methods applied, an estimated 65,000 to 92,800 people were living with dementia in Scotland, with females accounting for approximately two thirds of cases. While most studies found the highest prevalence in those aged 85 years and over, the Scottish Burden of Disease (SBoD) methodology identified the 75 to 84 years age group as having the largest number of cases.

By 2044, the prevalence of dementia is projected to rise to between 102,000 and 146,600, varying by source, representing a relative increase of 52% to 58% or an absolute increase of 35,200 to 53,800 more people living with dementia compared to 2019. Prevalence is expected to increase across all age groups, with the largest relative growth in those aged 85 years and over.

The greatest absolute increase is projected among females aged 85 years and over, with 9,600 to 18,300 additional cases (a 63% rise); while the greatest relative increase is projected among males aged 85 years and over (110% to 115%).

As a result of this rising prevalence, the non-fatal burden of disease due to dementia, measured in Years lived with Disability (YLDs), is projected to increase from between 10,900 and 15,400 in 2019 to between 17,000 and 24,600 in 2044.

Limitations

Limitations in estimating the current and historic prevalence of dementia in Scotland have been discussed previously in the MethodologyMethodology. Whilst we do not have historic trend data for dementia prevalence, four sources have been considered and used to develop future estimates. The projections presented here are based on estimated rates of dementia at a point in time. They therefore assume that the rate of prevalence remains constant over the forecast period and there will be no future changes - either positive or negative - to the underlying epidemiological rates. It assumes that all future changes would be due to the changing demographics forecast for Scotland and the impact of population health trends, either past or future, have not been considered.

Additionally, with the exception of the SBoD study, the studies considered here are multi-centred and therefore the estimated rates of prevalence may not reflect the local situation in Scotland.

Projections, by definition, are unstable and become less robust the longer the forecast period. The projections presented here are dependent on population projections, so any revision of these population projections is likely to have a considerable impact on the robustness of the projections of dementia prevalence. For consistency with previous publications in this series, the ONS 2020-based interim national population projections for each year were used to calculate future prevalence. Application of the recently published NRS Projected Population of Scotland: 2022-based is likely to have an impact on results described here. [15]

In these projections, as well as technical uncertainties, there may also be uncertainties in the calculation of future burden. When estimating the future non-fatal burden of dementia using YLD, these projections assume the distribution across severity levels will remain constant over time. This may not be the case, particularly when decreased mortality rates may cause people to live longer and develop further complications of dementia. Any changes to the distribution of prevalence across the severity levels throughout the projection period will affect YLD estimates.

Conclusion and next steps

This analysis provides insight into the potential future prevalence of dementia in Scotland and the resulting burden of morbidity. A substantial rise in dementia prevalence is projected in the coming decades, due to projected demographic changes. If realised, this could place significant pressure on health and social care services and increase demand for specialist support, posing challenges for system sustainability.

However, this future is not inevitable. With timely investment in prevention, early intervention, and integrated person-centred care, we can ease system pressures, improve quality of life for people living with dementia, and support a more resilient and sustainable health and care system.

While age remains the strongest risk factor for dementia, evidence increasingly highlights the role of modifiable risk factors - such as smoking, alcohol consumption and obesity - and the building blocks of health, including poverty. Addressing these through upstream public health action offers a meaningful opportunity to reduce the incidence of new cases over time.

Previous research suggested that dementia incidence rates were falling in the UK prior to 2010; however more recent evidence indicates that this trend may have reversed.[16,17] In contrast studies from the US, Europe, and England have reported continued declines in dementia incidence extending to the early 2010s and in some cases more recent years.[18,19] Differences in study design and population sampling limit certainty, but emerging evidence suggests that post-2010 increases may be offsetting earlier improvements.

Our modelling did not account for historic or future changes in incidence beyond demographic change. As such our projections lack the ability to incorporate changes in underlying epidemiological trends, which could be significant.

It is unlikely that historical trends can be robustly characterised for Scotland, because dedicated epidemiological studies with standardised diagnostic criteria were not carried out. While routine data offers a valuable resource for dementia research, its

utility is limited due to changes over time in diagnostic criteria practices and case recording. These inconsistencies compromise our ability to meaningfully interpret longer-term trends. Nonetheless, given that age is the strongest risk factor for dementia, our analysis offers a strong baseline for planning, while highlighting the need for improved data, further research, and sustained action on both the causes and consequences of dementia in Scotland.

The SBoD team is undertaking further work to refine future projections of mortality and fatal burden, with the aim of informing forecasts of the overall burden of dementia in Scotland. This includes scenario modelling to explore how factors such as changes in the prevalence of underlying risk factors or the introduction of any novel treatments or interventions may influence future trends.

In parallel, the SBoD team is collaborating with the Whole Systems Modelling team at Public Health Scotland (PHS) to determine how these various projections and scenarios could affect Health and Social Care service provision over the next 20 years.

Additionally, through the Dementia in Scotland: Everyone's Story Delivery Plan 2024-2026, the Scottish Government has committed to working with PHS, local government and other data partners to improve data collection on diagnosis and post-diagnosis support. The aim is to enable the publication of accurate and timely data on the numbers of people living with a diagnosis of dementia in Scotland.[20]

Glossary

Burden of disease (and injury)

The quantified impact of a disease or injury on a population using the disability-adjusted life years (DALY) measure.

DALY (disability-adjusted life year)

A standardised metric that can be used to quantify the health loss due to dying prematurely or to living with the health consequences of diseases, injuries or risk factors. DALYs are a summary metric of population health. DALYs are an absolute measure of health loss; they count how many years of healthy life are lost due to death and non-fatal illness or impairment. They reflect the number of individuals who are ill or die in each age-sex group and location.

Disability

In burden of disease studies, this is synonymous for “loss of health”, or any, short or long term, departure from full health.

Disability weight

Numerical representations of the severity of health loss associated with a health state. Disability weights are numbers between 0 and 1 that are multiplied by the time spent living with a health loss to determine the years lived with disability associated with the cause of that loss. In the GBD, disability weights are derived from a worldwide, cross-cultural study to compare the relative severity of health problem.

Early death

The burden from dying prematurely. Often used synonymously with **years of life lost**.

Fatal burden

The burden from dying prematurely as measured by years of life lost. Often used synonymously with **years of life lost**.

Health loss

The total burden from early death and ill-health. Often used synonymously with **disability adjusted life year (DALY).**

Health states

The consequences of diseases and injuries or their risk factors. Health state refers to an individual's levels of functioning within a set of health domains such as mobility, cognition, pain, emotional functioning, self-care, etc. Health states do not refer to general well-being (which is a broader construct) or to aspects of participating in society, although they clearly affect these other aspects of life and may be affected by them.

Ill-health

Often used synonymously with **years lived with disability**.

Life expectancy

The average number of years of life expected to be lived by individuals who survive to a specific age.

Non-fatal burden

The burden from living with ill-health as measured by years lived with disability. Often used synonymously with **years lived with disability**.

Sequelae

Consequences of diseases and injuries for which epidemiological estimates and YLD calculations are made. It encompasses not only the traditional clinical meaning, but also a broader categorization of health outcomes such as severity levels for a particular disease, injury or impairment.

Severity distribution

Severity distributions are a means of summarising the range of health loss suffered to disease which enables estimates of disease occurrence to be paired with disability weights to estimate Years Lost to Disability in burden of disease studies.

YLD (Years of Life lived with a Disability)

In burden of disease studies this is also referred to as ‘ill-health’. YLDs are computed as the prevalence of different disease-sequelae and injury-sequelae multiplied by the disability weight for that sequela. Disability weights are selected on the basis of surveys of the general population about the loss of health associated with the health state related to a disease sequela.

YLL (Years of Life Lost due to premature mortality)

YLLs are computed by multiplying the number of deaths at each age x by a standard life expectancy at age x. In SBoD we use an aspirational world life expectancy table developed for the Global Burden of Disease study.

Contact

Fatim Lakha, Consultant in Public Health Medicine
Clinical and Protecting Health Directorate
phs.sbod-team@phs.scot

Eilidh Fletcher, Principal Information Analyst
Data and Digital Innovation Directorate
phs.sbod-team@phs.scot

Grant Wyper, Principal Epidemiologist
Clinical and Protecting Health Directorate
phs.sbod-team@phs.scot

For all media enquiries please email **phs.comms@phs.scot** or call 0131 275 6105.

Acknowledgements

Thank you to Paul Nelson for reviewing this report.

Further information

Further information and data for this publication are available from the **publication page** on our website.

Rate this publication

Let us know what you think about this publication via. the link at the bottom of this **publication page** on the PHS website.

Appendices

Appendix 1 – Background information

Table A1: Description and allocation to severity levels for dementia with corresponding disability weight

Severity level / health state	Description	% of prevalent population	Disability weight
Mild	Has some trouble remembering recent events, and finds it hard to concentrate and make decisions and plans.	68	0.069
Moderate	Has memory problems and confusion, feels disoriented, at times hears voices that are not real, and needs help with some daily activities.	22	0.377
Severe	Has complete memory loss; no longer recognises close family members; and requires help with all daily activities.	10	0.449

Appendix 2 – Publication metadata

Publication title

Scottish Burden of Disease: Future prevalence and burden of dementia

Description

Release of Scottish Burden of disease prevalence estimates for dementia for 2020-2044.

Theme

Population health and forecasts

Topic

Burden of disease

Format

PDF

Data source(s)

Please see methodology section for full data sources and time periods.

Date that data are acquired

Please see methodology section for full data sources and time periods.

Release date

tbc

Frequency

Ad hoc

Timeframe of data and timeliness

See table 1 for full details.

Continuity of data

Please see methodology section for information on continuity of data and coding.

Revisions statement

Revisions relevant to this publication

Concepts and definitions

Please see **Glossary**

Relevance and key uses of the statistics

Population health surveillance; service planning and sustainability; quality improvement and assurance.

Accuracy

The report contains projections of the prevalence of disease in Scotland to 2044. Projections and forecasts, by definition, are unstable and become less robust the longer the forecast period. Please see **Limitations** section for full details.

Completeness

Please see methodology section for information on completeness of data.

Comparability

The prevalence described in this report is estimated following the disease models and definitions outlined by the SBoD study and therefore may not be directly comparable to other estimates of prevalence.

Accessibility

It is the policy of Public Health Scotland to make its websites and products accessible according to published guidelines. More information on accessibility can be found on the **PHS website**.

Coherence and clarity

Measures to enhance coherence and clarity within this report include: explanatory chart/table notes, minimal use of abbreviations/abbreviations explained in the text, comprehensive notes on background and methodology.

Value type and unit of measurement

Figures are shown as absolute number, percentages and relative change. Units of measurement are disability-adjusted life years (DALYs); years lived with disability

(YLDs) and years of life lost (YLL) and prevalence of disease. Please see **Glossary** for further details.

Disclosure

The PHS protocol on Statistical Disclosure Protocol is followed.

Official statistics accreditation

Management information.

UK Statistics Authority assessment

Not put forward for assessment.

Last published

First publication.

Next published

To be confirmed.

Date of first publication

Not applicable.

Help email

phs.sbod-team@phs.scot

Date form completed

21 May 2024

Appendix 3 – Early access details

Pre-release access

Under terms of the 'Pre-release Access to Official Statistics (Scotland) Order 2008', PHS is obliged to publish information on those receiving pre-release access ('pre-release access' refers to statistics in their final form prior to publication). The standard maximum pre-release access is five working days. Shown below are details of those receiving standard pre-release access.

Standard pre-release access:

Scottish Government Department of Health and Social Care (DHSC)

NHS board chief executives

NHS board communication leads

Early access for management information

These statistics will also have been made available to those who needed access to ‘management information’, i.e. as part of the delivery of health and care:

Early access for quality assurance

These statistics will also have been made available to those who needed access to help quality assure the publication:

Appendix 4 – PHS and official statistics

About Public Health Scotland (PHS)

PHS is a knowledge-based and intelligence driven organisation with a critical reliance on data and information to enable it to be an independent voice for the public's health, leading collaboratively and effectively across the Scottish public health system, accountable at local and national levels, and providing leadership and focus for achieving better health and wellbeing outcomes for the population. Our statistics comply with the **Code of Practice for Statistics** in terms of trustworthiness, high quality and public value. This also means that we keep data secure at all stages, through collection, processing, analysis and output production, and adhere to the Office for National Statistics '**Five Safes**' of data privacy.

Translations and other formats are available on request at:
phs.otherformats@phs.scot or 0131 314 5300.

This publication is licensed for re-use under the **Open Government Licence v3.0**. For more information, visit **www.publichealthscotland.scot/ogl**

References

[1] National Records of Scotland. Projected Population of Scotland (2020-based). Available at: **https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-projections/population-projections-scotland/2020-based**

[2] Public Health Scotland. Forecasting the future burden of disease: Incorporating the impact of demographic transition over the next 20 years. Available at: **https://www.scotpho.org.uk/comparative-health/burden-of-disease/overview**

[3] Alzheimer Europe. EuroCoDe: prevalence of dementia in Europe. Alzheimer Europe. 2006. Available at: **https://ec.europa.eu/health/archive/ph_information/dissemination/diseases/docs/eurocode.pdf**

[4] Scottish Government. National dementia strategy: 2017-2020. Available at: **https://www.gov.scot/publications/scotlands-national-dementia-strategy-2017-2020/pages/1/**

[5] Scottish Government. Dementia in Scotland: Everyone's story. 2023. Available at: **https://www.gov.scot/publications/new-dementia-strategy-scotland-everyones-story/**

[6] Grant I, Chalmers N, Fletcher E, Lakha F, McCartney G, Stockton D, Wyper GMA. Prepandemic inequalities in the burden of disease in Scotland due to multiple deprivation: a retrospective study. BMJ Public Health. 2023;1:e000191. doi: **https://doi.org/10.1136/bmjph-2023-000191**.

[7] Matthews, Fiona E et al. A two-decade comparison of prevalence of dementia in individuals aged 65 years and older from three geographical areas of England: results of the Cognitive Function and Ageing Study I and II. The Lancet, Volume 382, Issue 9902, 1405 - 1412

[8] Alzheimer Europe; Dementia in Europe Yearbook 2019: Estimating the prevalence of dementia in Europe. 2019. Available at:

https://www.alzheimer-europe.org/sites/default/files/alzheimer_europe_dementia_in_europe_yearbook_2019.pdf

[9] The Scottish Burden of Disease Study, 2016: Alzheimer's disease and other dementias technical overview. 2018. **https://www.scotpho.org.uk/media/1777/sbod2016-alzheimers2.pdf**

[10] National Records of Scotland. Mid-Year Population Estimates 2022. Available at: ***Link** to be added as updated on NRS**

[11] Office for National Statistics. 2020-based interim national population projections: year ending June 2022 estimated international migration variant. Available at: **https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/2020basedinterimnationalpopulationprojectionsyearendingjune2022estimatedinternationalmigrationvariant**

[12] The Institute for Health Metrics and Evaluation. The Global Burden of Disease study. Available at: **https://www.healthdata.org/research-analysis/gbd**

[13] Global Burden of Disease Study 2016 (GBD 2016) Data Resources. Available at: **https://ghdx.healthdata.org/gbd-2016**

[14] RStudio Team (2020). RStudio: Integrated Development for R. RStudio, PBC, Boston, MA URL **http://www.rstudio.com/**

[15] National Records of Scotland. Projected Population of Scotland: 2022-based. Published 28th January 2025. Available at: **https://www.nrscotland.gov.uk/publications/projected-population-of-scotland-2022-based/**

[16] Wolters FJ, Chibnik LB, Waziry R, Anderson R, Berr C, Beiser A, Bis JC, Blacker D, Bos D, Brayne C, Dartigues JF, Darweesh SKL, Davis-Plourde KL, de Wolf F, Debette S, Dufouil C, Fornage M, Goudsmit J, Grasset L, Gudnason V,

Hadjichrysanthou C, Helmer C, Ikram MA, Ikram MK, Joas E, Kern S, Kuller LH, Launer L, Lopez OL, Matthews FE, McRae-McKee K, Meirelles O, Mosley TH Jr, Pase MP, Psaty BM, Satizabal CL, Seshadri S, Skoog I, Stephan BCM, Wetterberg H, Wong MM, Zettergren A, Hofman A. Twenty-seven-year time trends in dementia incidence in Europe and the United States: The Alzheimer Cohorts Consortium. Neurology. 2020;95(5):e519-e531. doi: 10.1212/WNL.0000000000010022.

[17] Chen Y, Bandosz P, Stoye G, Liu Y, Wu Y, Lobanov-Rostovsky S, French E, Kivimaki M, Livingston G, Liao J, Brunner EJ. Dementia incidence trend in England and Wales, 2002-19, and projection for dementia burden to 2040: analysis of data from the English Longitudinal Study of Ageing. Lancet Public Health. 2023 Nov;8(11):e859-e867. doi: 10.1016/S2468-2667(23)00214-1. Erratum in: Lancet Public Health. 2024;9(1):e15. doi: 10.1016/S2468-2667(23)00309-2.

[18] Satizabal CL, Beiser AS, Chouraki V, Chêne G, Dufouil C, Seshadri S. Incidence of Dementia over Three Decades in the Framingham Heart Study. N Engl J Med. 2016;374(6):523-32. doi: 10.1056/NEJMoa1504327.

[19] Dou X, Lenzen S, Connelly LB, Lin R. Generational Differences in Age-Specific Dementia Prevalence Rates. JAMA Netw Open. 2025;8(6):e2513384. doi: 10.1001/jamanetworkopen.2025.13384.

[20] Scottish Government. Dementia strategy: initial 2-year delivery plan - 2024 to 2026. February 2024. Available at: **https://www.gov.scot/publications/new-dementia-strategy-scotland-initial-2-year-delivery-plan-2024-2026/documents/**