

Article

General health by age, sex and deprivation, England and Wales: Census 2021

Insights into general health in England and Wales in 2021, broken down by age and sex and presented at country, regional and local authority level. Additional analyses compare general health with the 2011 Census and examine the relationship between deprivation and health at a national decile (England) or quintile (Wales) level.

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1 . Main points

- In England in 2021, 47.1% of females and 47.9% of males reported their general health as very good; in Wales these figures were 46.1% and 47.2% for females and males respectively.
- In England there was an increase in males and females reporting very good health between 2011 and 2021 and a fall in those reporting good, fair, bad, and very bad health; in Wales, increases were seen for very good and good health and falls in all other categories.
- Improvements in very good health were driven by improvements among older people, where very good health increased by a maximum of 6.7 percentage points for those aged 70 to 74 years in England and 6.4 percentage points in Wales.
- Of English regions, the South East had the highest percentage of people who reported being in very good health (49.6%) and the North East had the lowest (44.7%); London saw the largest increase in levels of very good health between 2011 and 2021 (from 44.5% to 49.0%).
- Across all age groups, in both England and Wales, people in the most-deprived areas were less likely to report very good health than those in the least-deprived areas; the age groups at which the difference was greatest was seen for those aged 55 to 59 years in England (19.8% compared with 46.0%) and aged 45 to 49 years in Wales (29.2% compared with 51.0%).

2 . Using the data

On Census Day (21 March 2021), people were asked "How is your health in general?" The response options were "very good", "good", "fair", "bad", or "very bad". The wording was the same as the 2011 Census, but not directly comparable with earlier censuses. Self-reported general health draws together an individual's perception of all aspects of their health and is a useful indicator of general well-being and health-related quality of life.

Percentages given in this article have been age standardised because of the close relationship between health and age. Age-standardised percentages (ASPs) account for different age structures in populations and are more appropriate than crude percentages when drawing comparisons over time and across areas. For further information on age standardisation, see [Section 10: Glossary](#).

There were differences in the prevalence of health outcomes in 2021 compared with 2011, as outlined in greater detail throughout this article. Potential contributing factors may include:

- Census 2021 was undertaken during the coronavirus (COVID-19) pandemic, which may have influenced how people perceived their conditions or illnesses
- [excess deaths](#) and [COVID-19 related deaths of disabled people](#) may have affected the relative size of the less-healthy population
- accurate capture of the health of the nation, both positively, with health improvements found here aligned with increases in [healthy life expectancy](#), and negatively, such as reflecting [poorer mental health among younger people](#)

In this article, we explore general health outcomes for England, followed by Wales in each section, because of the devolved nature of health policies in each nation.

3 . General health by age and sex

Analysis exploring general health at person level is available in our previously released [General health, England and Wales: Census 2021 bulletin](#). In this section, we explore general health by sex and age.

Figure 1: The percentage of people who reported being in very good health for females and males declined with age in England

Age-specific percentages of general health by age and sex, in England, 2021

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Overall, around four-fifths of the population in both England and Wales reported being in either good or very good health, although there were marginally more males than females who reported this. In England, 47.1% of females reported being in very good health and 34.2% reported being in good health. Similarly, 47.9% of males reported being in very good health, while 34.2% reported being in good health.

The percentage of people in very good health declined with age for both females and males (Figure 1). While it may be expected that those in older age groups would be less likely to rate their health as very good, there was also a notable difference in very good health among younger people (where responses may be more likely to be reported by parents or guardians). Among females aged 10 to 14 years, 79.7% rated their health as very good. This reduced by 11.9 percentage points in females aged 15 to 19 years, to 67.8%. A similar pattern was found for males, whereby there was lower very good health in males aged 20 to 24 years (63.2%) compared with those aged 15 to 19 years (72.4%).

People aged under 50 to 54 years were more likely to report being in very good health, than good, fair, bad, or very bad health. Between the 50 to 54 years and 75 to 79 years age groups, most females (ranging from 40.2% to 43.7% in each age group) reported being in good health, with smaller proportions rating their health very good, fair, bad or very bad. In age groups older than this, females were more likely to report their health as fair, with almost half (47.1%) of those aged 90 years and over rating their health as fair.

Between the ages of 50 to 54 years and 80 to 84 years, males were more likely to report being in good health than other health groups (a range of 37.4% to 43.4% rated their health as good across these age groups). A lower proportion of males (44.7%) than females (47.1%) reported their health as fair at age 90 years and over.

Figure 2: The percentage of people who reported being in very good health for females and males declined with age in Wales

Age-specific percentages of general health by age and sex, in Wales, 2021

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In Wales, 46.1% of females reported being in very good health, while 32.5% reported being in good health. Similarly, 47.2% of males reported being in very good health and 32.6% reported being in good health. In total, just under four-fifths of the population were in either very good or good health.

The percentage of people in very good health in Wales declined with age (Figure 2). Similar to the trend in England, there was a notable difference in very good health between some younger age groups. While 80.9% of females aged 10 to 14 years reported being in very good health, only 68.0% of females aged 15 to 19 years reported their health in this way, a difference of 12.9 percentage points. A similar pattern was found for males, whereby there was lower very good health in males aged 20 to 24 years (62.5%) compared with those aged 15 to 19 years (72.4%).

When examining changes in general health between age groups, males and females aged 40 to 49 years and under were more likely to rate their health as very good than good, fair, bad or very bad. Between the 50 to 54 years and 75 to 79 years age groups, a larger proportion of males and females reported being in good health in each age group than other health states. For those aged 80 to 84 years and over, fair became the most commonly reported category with 47.6% of females and 43.8% of males aged 90 years and over reporting their health as fair.

The decline in females reporting very good health between particular younger age groups mirrors the trend found in our [Disability by age, sex and deprivation, England and Wales article](#), which showed an increase in disability prevalence between the ages of 10 to 14 years and 15 to 19 years in both England and Wales.

Further details of health breakdowns by sex and age can be found in the [accompanying datasets](#).

4 . Comparison of general health by sex in England and Wales between 2021 and 2021

Figure 3: The percentage of people who reported being in very good health for females and males increased between 2011 and 2021

Age standardised percentages of general health by sex between 2011 and 2021, England

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In England, a higher percentage of males and females reported being in very good health in 2021 compared with 2011. The change in very good health in 2021 was 2.6 and 2.4 percentage points higher for females and males respectively. There was a decline in people reporting good, fair, bad and very bad health.

Figure 4: The percentage of people who reported being in very good health in females and males increased between 2011 and 2021

Age-standardised percentages of general health by sex in 2011 and 2021, Wales

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In Wales, more people reported being in very good or good health in 2021 compared with 2011 in contrast to England where improvement was only seen in very good health. There was a decline in people who reported that their health was fair, bad or very bad in 2021. The change in very good health in 2021 was 1.0 and 0.9 percentage points higher for females and males respectively, while good health was 0.7 and 1.4 percentage points higher.

5 . Comparison of general health by age in England and Wales between 2021 and 2011

Between 2021 and 2011, the results suggest that the improvement in very good health in England and very good and good health in Wales, is caused by improvements in health among older age groups. A corresponding [reduction in disability](#) has also been found. While this can be attributed in part to changes in the disability question (particularly the removal of a visible prompt to include problems related to old age), the preceding health question provided consistent results, further demonstrating an improvement in health and disability in the older population.

This improvement in health, particularly among older people may be influenced by a number of factors. For example, the coronavirus (COVID-19) pandemic may have positively influenced people's self perception of their health. [Excess deaths](#) and [COVID-19 related deaths of disabled people](#) may have affected the relative size of the less healthy population. While [healthy life expectancy has also significantly increased for females aged 65 years](#) in the years leading up to Census 2021. Healthy life expectancy is a measure based on years spent in "very good" or "good" health.

Between Census 2021 and 2011, there was a decrease in general health among younger people. These findings correspond with Census 2021 results from our [Disability by age, sex and deprivation, England and Wales article](#) where the percentage of disabled younger people increased notably between 2011 and 2021. This change in disability, and corresponding change in general health for these ages, could be influenced by an [increase in the prevalence of depression](#) at the time of Census 2021. This was particularly notable for those aged 16 to 29 years.

Figure 5: Younger and older people saw the largest percentage point increases in very good health between Census 2021 and 2011

Age-specific percentage point change in general health status by age between Census 2021 and 2011, England

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Exploring the difference in general health ratings between 2021 and 2011, there is a notable improvement for both younger and older people. Those aged between under 1 year and 5 to 9 years saw increases in very good health of between 6.3 and 2.0 percentage points. Among older people, improvements in very good health were seen for all people aged 40 to 44 years and over. These improvements were greatest for those between age groups 55 to 59 years to 75 to 79 years, where percentage point increases of 5.7 to 6.7 were seen. Between the age groups 55 to 59 years to 75 to 79 years, the increase in very good health was greater for females than males, with improvements for both groups between age 70 and 74 years at 7.7 percentage points for females and 5.7 for males.

Older people were the only group to have increased in the proportion of those in good health; a maximum increase of 6.6 percentage points for those aged 80 to 84 years. This corresponded with a trend in the reduction of fair, bad and very bad health among older ages. Fair health reduced by a maximum of 7.6 percentage points for those aged 75 to 79 years, bad health reduced by a maximum of 2.9 percentage points for those aged 80 to 84 years and very bad health reduced by a maximum of 0.7 to 0.9 percentage points for those aged 70 to 74 years and over.

Between the ages of 15 to 19 years and 30 to 34 years, there was a decrease in 2021 in the proportion of people reporting very good health when compared with 2011. Those aged 25 to 29 years was an exception where a small (0.4 percentage point) increase occurred. The proportion of these groups in good health also decreased and this corresponded with an increase in fair and bad health. This particularly occurred among people aged 20 to 24 years who saw an increase of 1.7 percentage points in fair health.

Figure 6: Younger and older people saw the largest percentage point increases in very good health between Census 2021 and 2011

Age-specific percentage point change in general health status by age between Census 2021 and 2011, Wales

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In Wales, there was an increase in the percentage of females and males who reported being in very good health between 2011 and 2021, mainly in the oldest and youngest age groups (Figure 6). For females, the largest percentage point increase between 2011 and 2021 was in the age group 70 to 74 years; a 7.5 percentage point difference. For males, the largest percentage point increases were in the age group 60 to 64 years; a 5.5 percentage point difference.

Between 2011 and 2021, there was an increase in females and males aged 70 to 74 years and over, reporting that they were in good health. The greatest percentage point increase was seen for those aged 80 to 84 years; 7.6 and 6.8 percentage points for both females and males respectively. There was a similarly high increase moving into the age group 85 to 89 years (7.3 and 6.3 percentage points for females and males respectively).

Between the ages 10 to 14 years and 40 to 44 years, the proportion of people reporting very good health decreased for each age group between 2011 and 2021. This corresponded to increases in good, fair and bad health for the majority of these age groups.

Further details of health breakdowns in 2011 and 2021 by age and sex can be found in the [accompanying datasets](#).

6 . General health at a regional and local authority level, 2021

Figure 7: The South East had the highest percentage of people who reported being in very good health and the North East had the lowest

Age-standardised percentage of general health outcomes, English Regions and Wales, 2021

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Across the English regions, the South East had the largest proportion of people who reported that their health was very good (49.6%). In comparison, the North East had the lowest proportion of people who reported that their health was very good (44.7%), a difference of 4.9 percentage points. The trend was similar for very bad health, where the North East had the highest proportions of people reporting very bad health (1.6%), and the South East had the lowest (0.9%).

Compared with 2011, London saw the largest increase in levels of very good health in 2021; from 44.5% in 2011 to 49.0% in 2021. The South West and Yorkshire and The Humber saw the smallest increase in levels of very good health from 2011 to 2021; a 1.9 percentage point change for both regions.

Changes in the proportions of people in very good, good, fair, bad and very bad health in local authorities in 2011 and 2021 can be explored in Figure 8.

Figure 8: Explore how general health has changed in your area

Age-standardised percentage of people who reported being in very good, good, fair, bad or very bad health in local authorities in England and Wales between 2011 and 2021

Notes:

1. The colours on the interactive map highlight levels of general health in each local authority in England and Wales. Darker shading indicates higher levels of general health and lighter shades indicate lower levels of general health for each category.

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The trends shown in the map can also be viewed in the [accompanying dataset](#).

7 . General health and deprivation, England 2021

The Index of Multiple Deprivation provides a measure of relative deprivation across neighbourhoods in England. Further information can be found in [Section 10: Glossary](#).

Figure 9: A lower percentage of people in the most-deprived areas reported being in very good health compared with the least-deprived areas

Age-specific percentages of people who were in very good health in each age category in each decile of deprivation, England, 2021

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In England, a lower percentage of people in the most-deprived areas (decile 1) indicated that they were in very good health compared with the least-deprived areas (decile 10). In the most-deprived areas, 36.9% of females reported being in very good health, compared with 55.4% in the least-deprived areas. Similarly, 38.7% of males in the most-deprived areas reported being in very good health, compared with 55.6% in the least-deprived areas. The percentage of people in good health was similar between the most- and least-deprived areas, however a higher percentage of people in the most-deprived areas reported being in fair, bad or very bad health compared with the least-deprived areas.

In the most-deprived areas of England, a lower percentage of people were in very good health in younger age groups compared with the least-deprived areas (Figure 9). For example, almost two-thirds of people (64.2%) in the most-deprived areas aged 15 to 19 years were in very good health compared with three-quarters (75.9%) of 15- to 19-year-olds in the least-deprived areas. The percentage point difference between these groups continued to expand until the ages of 55 to 59 years where there was a 26.2 percentage point difference between the most- and least-deprived areas (19.8% and 46.0%).

8 . General health and deprivation, Wales 2021

The Welsh Index of Multiple Deprivation provides a measure of deprivation across neighbourhoods in Wales. Further information can be found in [Section 10: Glossary](#).

Figure 10: A lower proportion of people in the most-deprived areas reported being in very good health compared with the least-deprived areas

Age-specific percentages of people who were in very good health in each age category in each quintile of deprivation, Wales, 2021

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In Wales, a lower percentage of people in the most-deprived areas (quintile 1) indicated that they were in very good health compared with the least-deprived areas (quintile 5). In the most-deprived areas, 37.4% of females reported being in very good health, compared with 53.6% in the least-deprived areas. Similarly, 39.1% of males in the most-deprived areas reported being in very good health, compared with 54.2% in the least-deprived areas. The percentage of people in good health was similar between the most- and least-deprived areas, however a higher percentage of people in the most-deprived areas reported being in fair, bad or very bad health compared with the least-deprived areas.

In the most-deprived areas of Wales, a lower percentage of people were in very good health in younger age groups compared with the least-deprived areas (Figure 10). For example, two-thirds of people (63.9%) in the most-deprived areas aged 15 to 19 years were in very good health compared with three-quarters (74.9%) of those in the least-deprived areas. The percentage point difference between these groups continued to expand until the ages of 45 to 49 years where there was a 21.8 percentage point difference between the most- and least-deprived areas (29.2% and 51.0%).

9 . General health by age, sex and deprivation datasets

[General health by age, sex and deprivation, England and Wales](#) Dataset | Released 24 February 2023
Census 2021 estimates that classify usual residents in England and Wales by general health, sex, age and level of deprivation. The estimates are as at Census Day, 21 March 2021 and 27 March 2011. Census 2011 estimates are available by general health, sex and age.

10 . Glossary

Age-standardised and age-specific percentages

Age-standardised percentages (ASPs) allow for a fairer comparison in health outcomes between populations living in different areas and over time, as they account for differences in the population size and age structure. Further information about the benefits of using age-standardised measures for health is explained in our [Age standardising data: What does this mean and why does it matter? blog](#).

To calculate ASPs, the process for health, disability and unpaid care is the same. Disability is given as an example here.

An age-specific percentage is first calculated for each age group:

$$M_k = (d_k \text{ divided by } p_k) \text{ multiplied by } 100$$

Where: M_k = percentage of disabled people in age group k d_k = the number of disabled people in age group k p_k = Census 2021 population in age group k k = age group

The age-standardised percentage of disabled people is that which would have occurred if the observed age-specific percentage of disability had applied in the European Standard Population (ESP).

Age-standardised percentage =

$$\left\{ \sum P_k m_k \right\} \text{ divided by } \sum P_k$$

Where: P_k = ESP in age group k m_k = observed disability percentage in age group k (the age-specific percentage) k = age group

The 2013 ESP is used to standardise percentages. This is a hypothetical population and assumes that the age structure is the same in both sexes, therefore allowing comparisons to be made between the sexes as well as between geographical areas and over time. The standard populations are listed in Annex F of the [Revision of the European Standard Population: Report of Eurostat's task force and Revised European Standard Population: 2013 ESP](#). Further details on our use of the 2013 ESP are available in [Revised European Standard Population 2013 \(2013 ESP\)](#).

Census Day

In 2021, the census was conducted on 21 March. At this time, most of the coronavirus (COVID-19) lockdown restrictions were still in place in England and Wales. The coronavirus pandemic may have affected estimates of general health because of changes in people's perceptions and [increased death rates during this period](#).

Decile and quintile

One of a number of equal groups into which a population can be divided according to the distribution of values of a particular variable, in this case deprivation. In England, there are 10 deciles of deprivation, of which decile 1 is the most deprived and decile 10 is the least deprived. In Wales, there are 5 quintiles of deprivation, of which quintile 1 is the most deprived and quintile 5 is the least deprived.

General health

A question on self-assessed general health was included in the 2011 Census and Census 2021. Each person in the household was asked to rate their health as very good, good, fair, bad or very bad. Self-assessed general health draws together an individual's perception of all aspects of their health and well-being. This assessment is not based on a person's health over any specified period. It is useful in indicating general well-being, health-related quality of life, the experience of long-term illness and the relative risks of future admission to hospital, impairment and mortality. However, because of the self-reported nature, conclusions in this article may differ from studies that use health data based on GP records and other objective sources.

This measure of general health differs from the [Office for National Statistics \(ONS\) Health Index](#), which uses a broad definition of health, including health outcomes, health-related behaviours and personal circumstances and wider drivers of health. The Health Index provides a single value for health that can show how health changes over time using broader considerations than the general health self-assessment.

In 2001, each person in a household was asked to rate their general health over the last 12 months as good, fairly good, or not good. Further information on the comparability of general health in Census 2021, 2011 and 2001 is available in [Section 11: General health questions](#).

Index of Multiple Deprivation (IMD) and Welsh Index of Multiple Deprivation (WIMD)

National deciles and quintiles of area deprivation are created through ranking small geographical populations known as Lower layer Super Output Areas (LSOAs) based on their deprivation score from most to least deprived. They are grouped into 10 (deciles) or 5 (quintiles) divisions based on the subsequent ranking. The IMD and WIMD are created using separate indicators, and so should not be compared.

IMD and WIMD are scores based on the area as a whole, and not everyone within a LSOA necessarily experiences the same level or type of deprivation. For example, some unemployed individuals live in less-deprived LSOAs, while some higher-income individuals live in more-deprived LSOAs. Similarly, deciles are a broad grouping and the levels of deprivation and the underlying factors determining the LSOA-level deprivation score will vary within the decile. Those LSOAs at the higher and lower end of each specific decile may vary considerably from each other.

We have used the 2019 IMD and WIMD because this is the most up to date version at the time of publishing. A consultation to update the English IMD has been completed, and a response published, see [Indices Futures: Updating the English Indices of Deprivation consultation](#). There are currently no dates agreed for an update to the English or Welsh IMD. The 2019 IMD and WIMD use the 2011 Census geographical boundaries. There were 1031 LSOAs present in 2011 that have either been split into separate LSOAs or have been combined with other LSOAs in 2021; representing 3.1% of all LSOAs in 2021. To overcome this, the ONS methodology team mapped Census 2021 LSOAs to their equivalent LSOA based on 2011 boundaries. This was then used to assign a national deprivation decile or quintile, based on 2019 scores.

Usual resident

For Census 2021, a usual resident of the UK is anyone who, on Census Day, was in the UK and had stayed or intended to stay in the UK for a period of 12 months or more or had a permanent UK address and was outside the UK and intended to be outside the UK for less than 12 months.

11 . General health questions

Census 2021 and 2011 asked the same general health question: people were asked "How is your health in general?" The response options were "very good", "good", "fair", "bad", or "very bad". The consistency of these questions provides a high degree of comparability between the censuses.

In 2001, people were asked "Over the last 12 months, would you say your health on the whole has been: "Good?", "Fairly good?", "Not good?"".

Differences in the 2001 question make it unfeasible to directly compare across the three decades. However, following the 2011 Census, a methodology was employed to facilitate comparisons between 2001 and 2011. These results are available in our [General Health in England and Wales: 2011 and comparison with 2001 article](#).

12 . Data sources and quality

The census provides the most detailed picture of the entire population, with the same core questions asked to everybody across England and Wales. Census results can be more reliable than survey results based on a sample of the population, because the whole population is included. The UK Statistics Authority has assigned National Statistics status to Census 2021 outputs, providing assurance that these statistics are of the highest quality and value to users.

Census 2021 achieved a very high response rate of 97%. We ensure the census results reflect the whole population by using statistical methods to estimate the number and characteristics of people who were not recorded on a census response. This means that the census statistics are estimates rather than simple counts of responses, so they have some statistical uncertainty associated with them. We take numerous steps to minimise possible sources of error.

Additionally, we apply statistical disclosure control to protect the confidentiality of census respondents. Differences in the methods used for statistical disclosure control may result in minor differences in data totals between census products. As we round all figures individually, table totals may not sum exactly. Age-standardised and age-specific percentages were calculated based on these rounded numbers.

Quality considerations along with the strengths and limitations of Census 2021 are more generally provided in our [Quality and Methodology Information \(QMI\) for Census 2021](#). Read more in our [Health, disability and unpaid care quality information for Census 2021 methodology](#).

Further information on our quality assurance processes is provided in our [Maximising the quality of Census 2021 population estimates report](#).

13 . Related links

[Census map](#) Interactive content | Updated 19 January 2023 Interactive map tool that visualises Census 2021 data on different topics down to a local authority area and neighbourhood level.

[Health, disability and unpaid care: Census 2021](#) Statistical bulletins and datasets | Released 19 January 2023 Information on census health results in England and Wales, using Census 2021 data.

[Health, disability and unpaid care quality information for Census 2021](#) Methodology | Released 19 January 2023 Known quality information affecting health, disability and unpaid care data from Census 2021 in England and Wales.

[Health, disability and unpaid care variables, Census 2021](#) Supporting information | Released 19 January 2023 Variables and classifications used in Census 2021 data about health, disability and unpaid care.

[Health, disability and unpaid care in Wales \(Census 2021\)](#) Bulletin | Released 19 January 2023 A summary by Welsh Government of Census 2021 data about health, disability and unpaid care in Wales.

[Disability by age, sex and deprivation, England and Wales: Census 2021](#) Statistical bulletin and datasets | Released 8 February 2023 Insights into disability prevalence in England and Wales in 2021, broken down by age and sex and deprivation.

[Unpaid care by age, sex and deprivation, England and Wales: Census 2021](#) Statistical bulletin and datasets | Released 13 February 2023 Details the provision of unpaid care in England and Wales in 2021. Key findings are presented at country, regional and local authority level with analysis on deprivation with comparisons with Census 2001 and 2011.

[Quality and methodology information Census 2021](#) QMI | Updated 26 January 2022 Details the data strengths, limitations, uses, users and methods used for Census 2021, England and Wales.

[How we assured the quality of the 2021 census estimates](#) Methodology | Released 7 November 2022 Details the methodology for the validation of the Census 2021 population estimates.

14 . Cite this article

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