

Statistical bulletin

Deaths of homeless people in England and Wales: 2019 registrations

Experimental Statistics of the number of deaths of homeless people in England and Wales. Figures are given for deaths registered in the years 2013 to 2019.

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Notice

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A small discrepancy was observed in the Figure 6 where data for mean estimated deaths data was accidentally placed by the highest value of estimated death for a month.

We apologise for any inconvenience.

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1 . Main points

- There were an estimated 778 deaths of homeless people in England and Wales registered in 2019, an increase of 7.2% from 2018 when there were 726 estimated deaths.
- This increase was not statistically significant, but still represents the highest number of estimated deaths since the time series began in 2013.
- Almost two in five deaths of homeless people were related to drug poisoning in 2019 (289 estimated deaths; 37.1% of the total number); the number of deaths from this cause has decreased by 1.7% compared with 2018, but is still 52.1% higher than 2017.
- Suicides among homeless people increased by 30.2% in one year, from 86 estimated deaths in 2018 (11.8% of the total number), to 112 estimated deaths in 2019 (14.4% of the total number).
- Most of the deaths in 2019 were among men (687 estimated deaths; 88.3% of the total).
- Among homeless people, the mean age at death was 45.9 years for males and 43.4 years for females in 2019; in the general population of England and Wales, the mean age at death was 76.1 years for men and 80.9 years for women.
- London and the North West had the highest numbers of deaths in 2019, with 144 (18.5% of the total number) and 126 (16.2% of the total number) estimated deaths of homeless people respectively.

The data described in this release do not cover deaths that occurred during the coronavirus (COVID-19) pandemic.

2 . Deaths among homeless people in England and Wales

In 2019, there were an estimated 778 deaths of homeless people registered in England and Wales, 52 (7.2%) more deaths than in 2018 when there were 726 estimated deaths. The increase was not statistically significant, but still represents the highest number of estimated deaths since the time series began in 2013.

Deaths of homeless people mainly include people sleeping rough or using emergency accommodation at or around the time of death. See [Glossary](#) for further information.

Deaths of homeless people were identified from the death registration records held by the Office for National Statistics (ONS), and a statistical method called capture-recapture modelling was applied to estimate the most likely number of additional registrations not identified as homeless people. The figures reported here are the total estimated numbers, except where described as being based on identified records only. The method used provides a robust but conservative estimate, so the real numbers may still be higher.

The estimated number of deaths of homeless people in 2019 is based on 563 identified deaths, a 4.1% increase from the previous year (541 identified deaths). Of the 563 identified deaths, 95.7% (539 identified deaths) were recorded in England.

Figure 1: The estimated number of deaths among homeless people has increased by 61.4% since the timeseries began in 2013

Deaths of homeless people (identified and estimated deaths), deaths registered between 2013 and 2019, England and Wales

Notes:

1. Estimated numbers show error bars indicating 95% confidence interval of the estimate.
2. Figures are for deaths registered, rather than deaths occurring in each calendar year.
3. Figures for England and Wales may include deaths of non-residents.
4. The total estimated includes the identified deaths plus the additional modelled deaths.

Download the data

[.xlsx](#)

Figure 2 shows sex and age breakdowns of estimated deaths of homeless people registered in 2019. Males accounted for the larger proportion of deaths: 687 (88.3%) deaths compared with 91 (11.7%) female deaths.

An upper age limit of 74 years was applied to to avoid accidental inclusion of elderly people in some institutional settings. See [Measuring the data](#) for further information.

Among men, the highest proportion and number of deaths were observed in those aged 45 to 49 years (117 deaths; 17.0% of all male deaths). Women aged 40 to 44 years had the highest number of deaths (21 deaths; 23.1% of all female deaths). The age group 50 to 54 years had the second highest number of estimated deaths both for men (112 deaths; 16.3% of all male deaths) and for women (14 deaths; 15.4% of all female deaths).

The mean age at death for the identified homeless deaths was 45.9 years for males and 43.4 years for females. In the general population of the same age (15 to 74 years), the mean age at death was 61.5 years and 62.4 years respectively. In contrast, when looking at all deaths registered in England and Wales in 2019, the mean age at death was 76.1 years for males and 80.9 years for females.

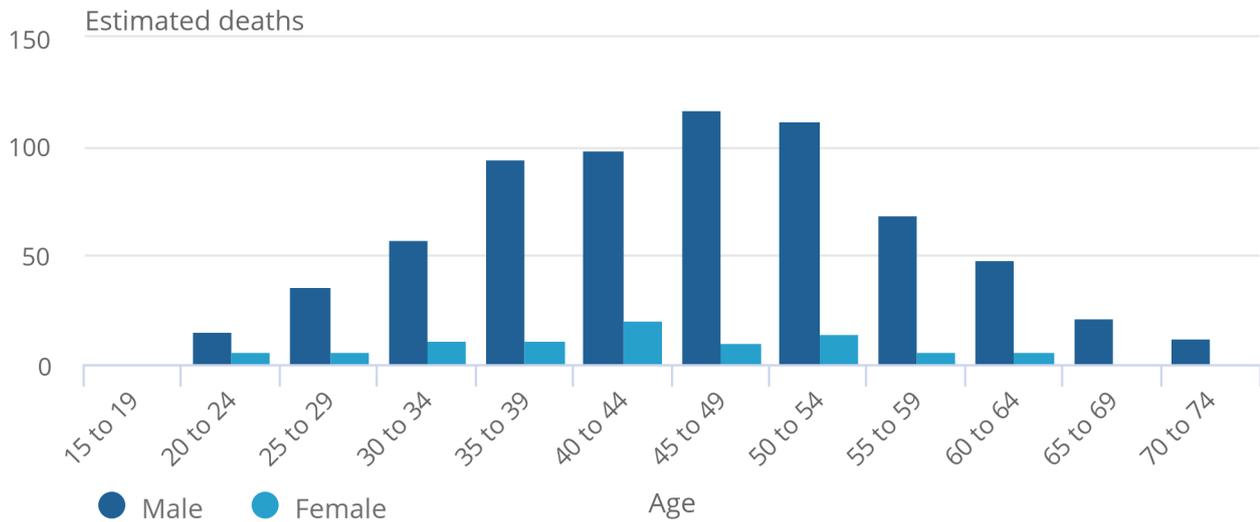
Mean age at death is not the same as life expectancy. Further information on the mean age at death calculation can be found in Section 15 of the [User guide to mortality statistics](#).

Figure 2: There were more than seven times as many male deaths compared with females in 2019

Deaths of homeless people (estimated), by sex and age group, deaths registered in 2019, England and Wales

Figure 2: There were more than seven times as many male deaths compared with females in 2019

Deaths of homeless people (estimated), by sex and age group, deaths registered in 2019, England and Wales



Source: Office for National Statistics – Death registrations

Notes:

1. Figures are for deaths registered, rather than deaths occurring in the calendar year.
2. Figures for England and Wales may include deaths of non-residents.
3. No deaths were included below the age of 15 years, while an upper age cut-off of 75 years was applied to avoid accidental inclusion of elderly people in some institutional settings.

3 . Deaths by region

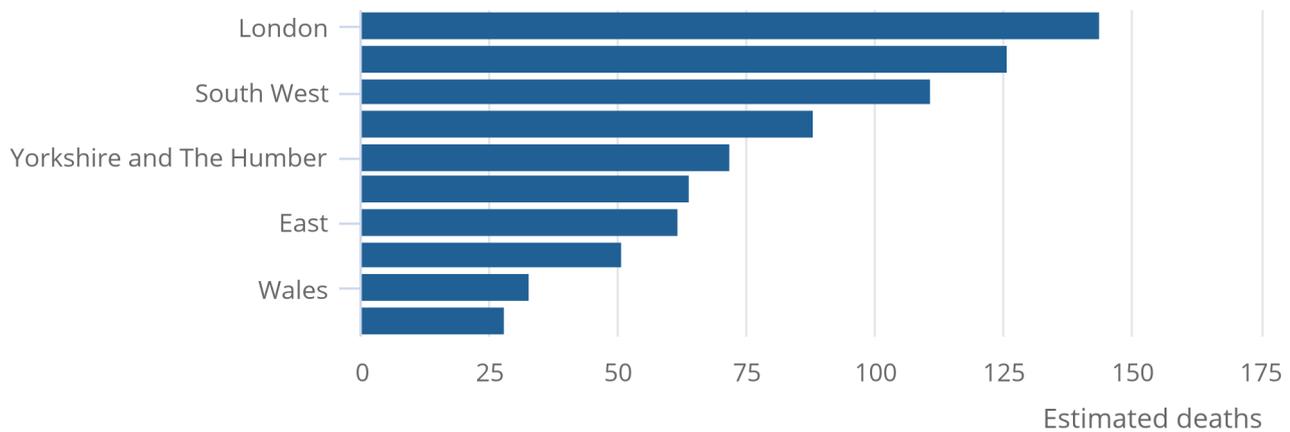
London and the North West of England had the highest numbers of deaths in 2019, with 144 (18.5% of the total number) and 126 (16.2% of the total number) estimated deaths of homeless people respectively. The estimated number of deaths in these two regions equated to more than one-third of the total number in England and Wales. In contrast, Wales (33 deaths) and the North East of England (28 deaths) had the lowest numbers of estimated deaths.

Figure 3: One in three deaths of homeless people in 2019 were in London or the North West

Numbers of deaths of homeless people (estimated) by English region and Wales, deaths registered in 2019

Figure 3: One in three deaths of homeless people in 2019 were in London or the North West

Numbers of deaths of homeless people (estimated) by English region and Wales, deaths registered in 2019



Source: Office for National Statistics – Death registrations

Notes:

1. Figures are for deaths registered, rather than deaths occurring in the calendar year.
2. Figures are based the deceased's place of death and not area of usual residence.

When taking into account the size of the population, a different pattern emerges. The South West of England has the highest rate, with 26.9 deaths per one million people. The area with the next highest rate is the North West with 23.3 deaths per one million people.

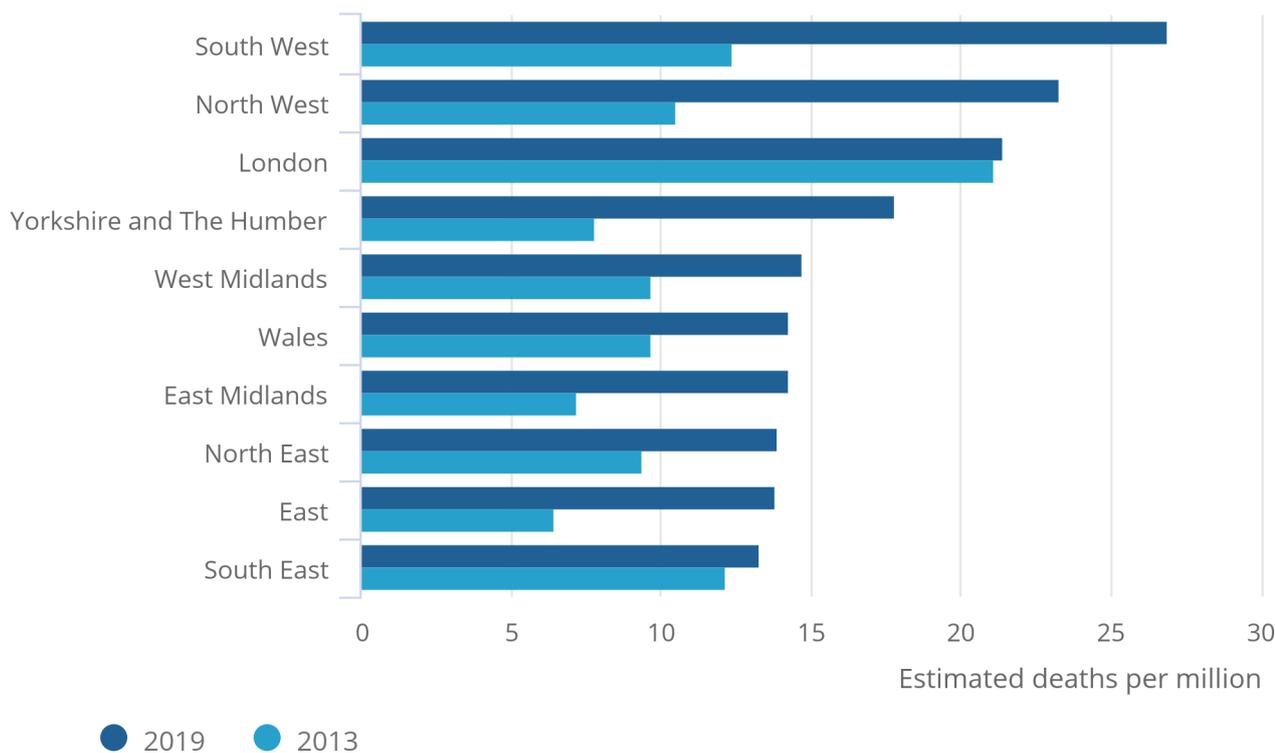
Since the beginning of our time series in 2013, the crude death rate has more than doubled in four regions (the North West, Yorkshire and The Humber, the East, and the South West). The smallest increase was seen in London, where the estimated death rate has increased by 1.4% compared with 2013. No regions have seen a decrease since 2013.

Figure 4: The death rate has more than doubled in four English regions since 2013

Rates of deaths of homeless people (estimated) by English region and Wales, deaths registered in 2013 and 2019

Figure 4: The death rate has more than doubled in four English regions since 2013

Rates of deaths of homeless people (estimated) by English region and Wales, deaths registered in 2013 and 2019



Source: Office for National Statistics – Death registrations

Notes:

1. Figures are for deaths registered, rather than deaths occurring in the calendar year.
2. Please note that these figures per million are not related to the number of homeless people in an area and are not age-standardised: they should not be compared with published mortality rates.
3. Figures are based the deceased's place of death and not area of usual residence.

The highest estimated number of deaths of homeless people by local authority were in major urban centres

Across deaths registered in England and Wales in 2019, the majority of identified deaths were in urban areas (96.1%), consistent with data showing higher concentrations of rough sleeping in urban areas of [England](#) and [Wales](#). In 2019, deaths of homeless people were identified in 174 of 336 local authorities (LAs) in England and Wales. The LAs with the highest number of estimated deaths included:

- Manchester (28 deaths)
- Liverpool (25 deaths)
- Birmingham (25 deaths)
- Bristol (23 deaths)
- Leeds (19 deaths)
- Westminster (15 deaths)

The accompanying [dataset](#) provide figures for all LAs in the relevant years. The dataset contains numbers of identified deaths, numbers of estimated deaths, and rates of estimated deaths per million total population of the LA.

4 . Causes of death among homeless people

As in the general population, homeless people die from a broad range of causes such as accidents, diseases of the liver, ischaemic heart diseases, cancers, and influenza and pneumonia. Most deaths among homeless people are captured in our National Statistics definitions of drug-related poisoning, suicide, and alcohol-specific deaths.

289 estimated deaths of homeless people in 2019 were related to drug poisoning, that is, 37.1% of all estimated deaths (see Figure 5). Suicide and alcohol-specific causes accounted for 14.4% (112 deaths) and 9.8% (76 deaths) of estimated deaths of homeless people in 2019 respectively.

Because of an overlap in definitions, some deaths classified as suicide are also counted in our definitions of drug-related deaths and alcohol-specific deaths.

Compared with the previous year, the number of deaths caused by drug poisoning was stable, with a small decrease of 1.7% from 294 estimated deaths in 2018. The [number of deaths related to drug poisoning in the general population](#) was also observed to have remained stable during the same time period (a 0.8% increase).

The estimated number of suicides has increased by 30.2%, from 86 deaths in 2018 to 112 deaths in 2019. This represents the largest year-on-year increase since our time series began. In the general population, the number of suicides have also increased in recent years. Explanations include changes to the way records are collected, such as recent [coronial change](#), and genuine increases in suicide due to a [complex range of factors](#).

Most deaths of homeless people are certified by coroners following an inquest; therefore, around half of the deaths registered in 2019 will have occurred in previous years. See [Death registration delays](#) for further information.

For deaths caused by alcohol-specific causes, the number of deaths among homeless people has generally been consistent since 2013. [Rates in the general population](#) have been consistent with recent years.

Finding higher numbers of deaths among homeless people for these causes is consistent with [academic studies of the health and mortality of homeless individuals](#). In comparison, [leading causes of death](#) in the general population for all those aged 15 to 49 years was accidental poisoning and suicide; in those aged 50 to 74 years, the leading causes of deaths were ischaemic heart diseases, lung cancer and chronic lower respiratory diseases."

Data on numbers of homeless people who died from other causes can be found in our accompanying [dataset](#).

Figure 5: Suicides among homeless people increased by 30.2% in one year

Deaths of homeless people (estimated) by selected causes of death category, persons, deaths registered between 2013 and 2019, England and Wales

Figure 5: Suicides among homeless people increased by 30.2% in one year

Deaths of homeless people (estimated) by selected causes of death category, persons, deaths registered between 2013 and 2019, England and Wales



Source: Office for National Statistics – Death registrations

Notes:

1. Underlying cause of death is allocated using the International Classification of Diseases Tenth Revision (ICD-10). The codes used for each of the listed causes are shown in the accompanying [dataset](#).
2. Figures are for deaths registered, rather than deaths occurring in the calendar year.
3. Figures for England and Wales may include deaths of non-residents.
4. Because of an overlap in definitions, some suicides are also included in our definitions of drug poisoning and alcohol-specific deaths.

Looking at drug poisoning deaths in more detail, Table 1 shows the most frequently mentioned substances on the death certificates of those we were able to identify as homeless in 2019. As in the general population, [opiates were the most frequently mentioned substance](#) (136 mentions), with heroin or morphine being the most common forms (99 mentions).

It is important to be aware that drug poisoning deaths can involve more than one drug and/or alcohol, and it is not possible to tell which substance was primarily responsible for the death.

Table 1: Drug poisoning deaths of homeless people (identified cases only) by mentioned substance, deaths registered in 2019

Substance	Deaths
Any opiate (including unspecified opiates and excluding paracetamol compounds)	136
Heroin or Morphine	99
Methadone	37
Tramadol	3
Codeine not from compound formulation	4
Dihydrocodeine not from compound formulation	1
Cocaine	38
Amphetamine	2
Cannabis	2
Benzodiazepine	22
Alcohol	55

Source: Office for National Statistics - Death registrations

Notes

1. More than one substance can be mentioned on each death certificate.
2. Figures are for deaths registered, rather than deaths occurring in the calendar year.
3. Figures for England and Wales may include deaths of non-residents.

5 . Seasonal patterns in deaths of homeless people

Deaths of homeless people lacked a clear seasonal pattern when analysed by the month of occurrence. Figure 6 shows the average estimated number of deaths for each calendar month for the time period 2013 to 2018. The mean estimated number of deaths per month over the whole period was 48.1 deaths.

Because of the time taken for some deaths to be registered, we are unable at the time of analysis to include deaths that occurred in 2019 but were registered in 2020, as the result of insufficiently complete registration of such deaths.

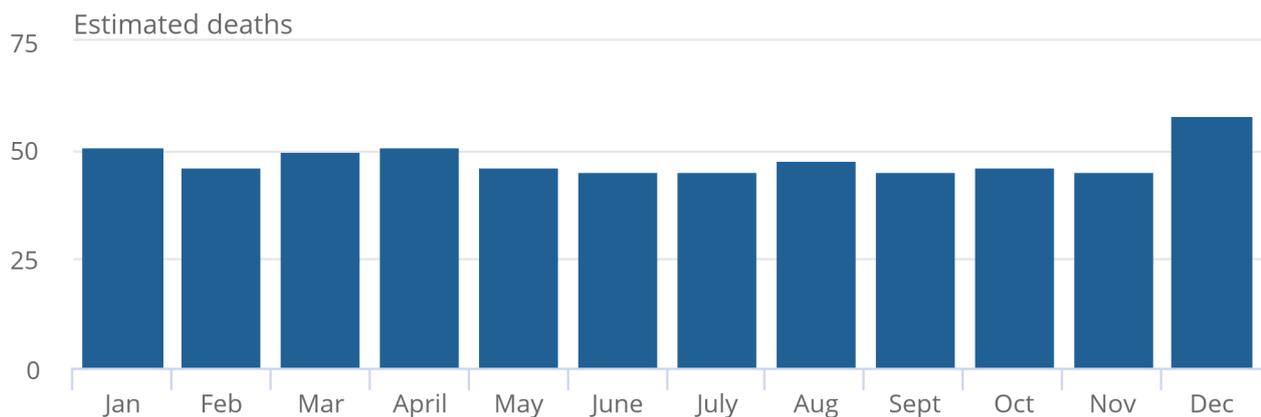
Further analysis is required to determine whether the variations over time in deaths of homeless people relate most to weather or to other factors such as the availability and purity of opiates leading to unexpected drug poisonings. The opening of temporary homeless shelters and services in winter may have a protective effect.

Figure 6: December and January have the highest average numbers of deaths of homeless people

Deaths of homeless people (estimated) by month of occurrence, persons, deaths occurred between 2013 and 2018, England and Wales

Figure 6: December and January have the highest average numbers of deaths of homeless people

Deaths of homeless people (estimated) by month of occurrence, persons, deaths occurred between 2013 and 2018, England and Wales



Source: Office for National Statistics – Death registrations

Notes:

1. Figures by month may not sum to the total for the year because of rounding.
2. Figures are for deaths occurring, rather than deaths registered in the calendar year or month. Figure for deaths occurring in the period 2019 are excluded in this analysis because of registration delay.
3. Figures for England and Wales may include deaths of non-residents.

6 . Death registration delays

Except where otherwise stated, the figures presented show deaths registered in each year, rather than deaths occurring in each year. A large proportion of deaths of homeless people are investigated by a coroner to establish the cause of death in what is known as an inquest.

The length of time it takes to hold an inquest creates a gap between the date of death and the date of death registration, referred to as a “registration delay”. This means that several deaths registered in 2019 will have occurred in earlier years, while some deaths that occurred in 2019 will not yet be included in the figures.

When looking at deaths identified as homeless in 2019 registrations:

- 87.6% were investigated by a coroner
- there was a median delay of 153 days
- 54.2% had a date of death in 2019

When looking at the entire seven-year time period (2013 to 2019):

- 85.1% of identified homeless deaths were investigated by a coroner
- there was a median registration delay of 139 days
- 58.4% of deaths were registered in the year that they occurred

Registration delays will have relatively little impact at the England and Wales level but can have more influence on figures for smaller geographical areas such as local authorities. See the latest report on the [impact of registration delays on mortality statistics](#) for more information.

7 . Deaths of homeless people data

[Deaths of homeless people in England and Wales](#)

Dataset | Released 14 December 2020

Experimental Statistics showing the number of deaths of homeless people in England and Wales, by sex, five-year age group and underlying cause of death.

8 . Glossary

Homelessness

The definition of homelessness used in this release follows from what is available in death registrations data to identify affected individuals. Our statistics mainly include people sleeping rough or using emergency accommodation such as homeless shelters and direct access hostels, at or around the time of death.

An upper age limit of 74 years is applied to avoid accidental inclusion of elderly people who died in some institutional settings. This means that a small number of genuine deaths of homeless people aged 75 years or over might have been excluded.

In 2019, we identified three homeless deaths of people aged 75 years or over. Further information on the methods used to identify deaths of homeless people is available in the [Deaths of homeless people in England and Wales QMI](#).

Definitions of homelessness exist for different purposes and there are variations across the UK. A recently published [interactive tool](#) allows users to compare different homeless definitions used, and official statistics produced across the four countries of the UK.

Drug poisoning

Deaths classified as a drug poisoning must have an applicable International Classification of Diseases (ICD) code assigned as the underlying cause of death; this is determined by international coding rules from the condition or conditions reported by the certifier, as recorded on the death certificate. For further information on the definition, please see the [drug poisoning release](#).

Crude death rate

The crude death rate is defined as total deaths per one million people or:

(total deaths divided by total population) multiplied by 1,000,000

9 . Measuring the data

Homelessness is an important problem affecting some of the most vulnerable people in society, but which is difficult to measure as well as to solve. The government's [Rough Sleeping Strategy for England](#) sets new aims, including that deaths or serious harm of people who sleep rough should be rigorously investigated, while the [Welsh Rough Sleeping Action Plan \(PDF, 105KB\)](#) called for better monitoring and measuring of the extent of rough sleeping. The UK Statistics Authority published [a review of housing and planning statistics](#) in November 2017, and a recently published article looked at [what is being done to improve homeless and rough sleeping statistics](#) across the UK.

The figures in this release were produced following a two-stage process. First, the complete death registration records held by Office for National Statistics (ONS), for deaths registered in the calendar years 2013 to 2019, were analysed using multiple search strategies to identify all those deaths where there was evidence that the deceased was homeless at or around the time of death. Then, the results of the searches were used in a statistical modelling technique known as capture-recapture to estimate a total figure, which allows for the likelihood of more deaths of homeless people being present in the data but not identified.

Five search strategies were used, which are detailed in this section.

Search criteria one

The recorded place of residence contained any of a list of text expressions such as “no fixed abode”, “homeless” and “night shelter” or the name or address of a known homeless hostel or project. An extensive list of addresses was compiled from publicly available sources. While this list was necessarily incomplete, the statistical model was found to be robust against even a substantial number of omissions.

Search criteria two

Similarly, the recorded place of death containing any of a list of text expressions such as “no fixed abode”, “homeless” and “night shelter” or the name or address of a known homeless hostel or project.

Search criteria three

The death had been investigated by a coroner, and the details received by the ONS after the inquest included any of the text expressions or addresses outlined previously. The information provided by coroners is broader and may be more precise than for deaths that do not require an inquest.

Search criteria four

The record contained a “communal establishment code”, which specified a homeless hostel or shelter. These codes are assigned by the ONS during the initial processing of a death registration, based on a periodically updated list of known postcodes of institutions of all kinds, ranging from hospitals to prisons.

Search criteria five

The death occurred in hospital or in a hostel or similar location, and the recorded postcode of the place of residence was identical to the postcode of the place of death. This search ensured the inclusion of homeless people who had been found in need of medical attention in the street and subsequently died in hospital, or certain other possible scenarios.

The records identified by these searches were checked individually to prevent the incorrect inclusion of deaths, such as a person who lived in a hostel that catered for a non-homeless client group. No definite homeless deaths were identified below the age of 15 years, which was taken as the lower age cut-off. An upper age cut-off of 75 years was applied; this was important to exclude deaths of elderly people in a care home or after a long hospital stay, for whom in some cases no residential address had been recorded. In 2019, we identified 3 deaths of homeless people over the age of 75 years.

The estimation was carried out using the widely used [Rcapture](#) package in the R programming language, for which there is published [documentation available \(PDF, 498KB\)](#). The calculations estimate the most probable size of an unknown closed population based on multiple captures (searches), using Poisson loglinear regression models and an iteratively reweighted least squares algorithm, which is simple and numerically stable.

Based on the nature of the data and the diagnostic and goodness-of-fit statistics produced by the package, the [Chao model](#) was selected out of several alternatives. This is a robust but conservative (lower bound) model, so that the figures produced should be taken as the lowest probable estimates.

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [Deaths of homeless people in England and Wales QMI](#).

Comparability with other data sources

National Records of Scotland (NRS) has also published their estimated [deaths of homeless people](#). Methodology used by the NRS is largely consistent with that used by the Office for National Statistics (ONS). This means deaths of homeless people figures are broadly comparable across Great Britain.

The figures in this release cannot be directly compared with the rough sleeping statistics, as we have used a wider definition of homelessness and our statistics are for the year as a whole rather than a being for a single snapshot in time.

Rough sleeping statistics are produced by the four UK countries using different definitions and operational methods. Therefore, these differences should be considered before comparing the rough sleeping statistics between their respective and wider publications.

For example:

- in [England](#), all local authorities either carry out a rough sleeper count, an estimate, or a spotlight rough sleeper count which informs their estimate; the rough sleeper count is taken on one night in September or October
- in [Wales](#), all local authorities carry out a two-week estimation exercise and a one-night rough sleepers count
- in [Northern Ireland](#), rough sleeper statistics are produced using a single night count in larger cities and estimation for other areas.
- England, Wales and Northern Ireland all use a similar definition of “rough sleeping”
- in [Scotland](#), information on rough sleepers is collected through administrative means and therefore only includes those applying for help through a local authority; Scotland uses a more succinct definition of rough sleeping

10 . Strengths and limitations

This release represents the third set of official figures on deaths of homeless people. The figures are produced as [Experimental Statistics](#), that is, they are in the testing phase and not yet fully developed. It is important that users are aware of the limitations of the estimates reported in this release.

Strengths

- The cross-referencing of different mentions of homelessness in death certificates provides a strong dataset of identified homelessness.
- These data provide users with valuable insight into the changing patterns of deaths while homeless in England and Wales.
- Deaths while homeless provide data produced using the same methods for all local authorities in England and Wales, so that data for one local authority are comparable with data for other local authorities.

Limitations

- Statistics are based on the year of death registration – because of death registration delays, around half of these deaths will have occurred in the previous year (2018).
- Local registrars do not follow any consistent practice in recording deaths of homeless people. It is possible that the fact that the deceased was homeless might be omitted either because of incomplete information given to the registrar, or out of consideration for the preferences of the family.
- There are no available homeless population statistics that are consistent with the definition used in this release, and therefore we are unable to produce rates of death within the homeless population itself. Instead, we present crude rates using [mid-year population estimates](#) for the entire population at national, regional and combined authority level.
- Like any statistical model, there is the potential for error. However, we are confident we have managed to minimise this by checking the records identified as homeless people individually. The method used provides robust but possibly conservative estimates of deaths among homeless people, so the real numbers may still be higher.
- Estimated deaths of homeless are not provided those local areas where there were no actually identified deaths of homeless people in the relevant year.
- An upper age limit of 74 years is applied to avoid accidental inclusion of elderly people who died in some institutional settings. This means that a small number of genuine deaths of homeless people aged 75 years and over might have been excluded. In 2019, we identified three homeless deaths of people aged 75 years and over.

Further developing these Experimental Statistics

We are committed to improve this Experimental Statistic with the help of users, including local authorities and charities, academics, and the General Register Office. However, this year, improvement work has been delayed by the impact of coronavirus (COVID-19)-related work priorities.

We will resume this work early next year and really welcome your comments and suggestions by email at health.data@ons.gov.uk.

A number of [developments are also being undertaken](#) to improve the cohesion, quality, harmonisation, accessibility and user engagement of homelessness and housing statistics. For more information, see the [GSS housing and planning statistics](#) web page.

11 . Related links

[Deaths related to drug poisoning in England and Wales: 2019 registrations](#)

Bulletin | Released 14 October 2020

Deaths related to drug poisoning in England and Wales from 1993 to 2019, by cause of death, sex, age and substances involved in the death.

[Alcohol-specific deaths in the UK: registered in 2018](#)

Bulletin | Released 3 December 2019

Deaths caused by diseases known to be a direct consequence of alcohol misuse by sex, age and region.

[Suicides in England and Wales: 2019 registrations](#)

Bulletin | Released 1 September 2020

Registered deaths in England and Wales from suicide analysed by sex, age, area of usual residence of the deceased and suicide method.

[Deaths registered in England and Wales: 2019](#)

Bulletin | Released 1 July 2020

Registered deaths by age, sex, selected underlying causes of death and the leading causes of death. Contains death rates and death registrations by area of residence and single year of age.

[Coronavirus and deaths of homeless people, England and Wales: deaths registered up to 26 June 2020](#)

Article | Released 10 July 2020

The number of identified deaths involving the coronavirus (COVID-19) of people who were homeless.