

**Documentation of statistics for  
The Population 2024**

## **1 Introduction**

The purpose of the population statistics is to focus on the size, composition and development of the population living in Denmark. The statistics create a basis for a number of analyses on demography and society and are used as a basis for planning tasks on a national, regional and municipal level. In their basic form, the statistics have been compiled since 1769 but have undergone a series of changes as society developed and legislation followed. Most of the present table series in Statbank Denmark comprise data from 2007 and forward, while a few of these go back further.

## **2 Statistical presentation**

The population statistics are usually a quarterly aggregation of the population living in Denmark broken down by e.g. sex, age, ancestry, marital status and municipality of residence. In connection with COVID-19, however, the number of deceased persons was aggregated on a weekly basis broken down by date of death, age bracket and province. The population statistics show the population in figures at the reference date in terms of persons, households and families. The statistics also show changes in the population, such as births, deaths and migrations etc., in the period between the two reference dates. Similarly, the statistics contain information about fertility, life expectancy and divorce rate.

## 2.1 Data description

The population statistics show the resident population of Denmark broken down by sex, age, citizenship, country of birth, ancestry, country of origin, marital status and municipality of residence. Resident population means persons who are entitled and required to register in the Civil Registration System. Not all persons living in Denmark are entitled and required to register in the Civil Registration System. E.g., asylum seekers are not permanent residents of Denmark and for that reason, they are not included in the population figures, but information about asylum seekers can be found in the statistics of [Asylum Applications and Residence Permits](#). Immigrants staying in Denmark illegally are not included in the resident population. The Rockwool Foundation Research Unit estimated the number of persons staying illegally in Denmark in 2015 to be 18,000 (with a margin of uncertainty of approximately 2,000).

The population statistics also show the development of the population in the course of a year or a quarter. Figures are available for the number of live births, deaths, migrations in and out as well as immigration and emigration for all Danish municipalities. In addition, change to Danish citizenship is broken down by former citizenship. The population accounts show the correlation between the population at the beginning and at the end of the quarter and the intermediate figures for live births, deaths, immigration and emigration on a municipal level.

Data for live-born children is used to calculate age-specific fertility rates as well as total fertility broken down by municipality, age and ancestry respectively. Total fertility indicates the number of liveborn children that 1,000 women will bring into the world during their childbearing age of 15-49 years if none of the 1,000 women die before the age of 50 and, in each age bracket, they give birth to exactly the number of children specified by the year's fertility rates. A gross reproduction figure is also calculated, which reflects the number of girls born per woman if no women die before the age of 50 and, in each age bracket, they give birth to exactly the number of children that appears from the age-specific fertility rates. However, some women die before they turn 50, which is taken into account in the net reproduction figure. Correspondingly, data for deaths is used to calculate life expectancy broken down by e.g. sex and municipality. Life expectancy reflects the number of years that people have left to live if future mortality corresponds to the present age-specific mortality rates.

In addition to assessing the population in terms of the number of persons, the population statistics include the number of households (persons at the same address) and families (persons at the same address and with an interrelation). The statistics on households are broken down by municipalities, types of households, sizes of households and number of children, in the same way as the statistics on families is broken down by municipalities, types of families, sizes of families and number of children. They further include tables on children, which are broken down by municipalities, types of households, types of families, sibling relationships etc. Furthermore, the population statistics include tables of marriages and divorces. The statistics on marriages are broken down by the residences (municipality) of the parties, ages, countries of origin and their former marital status. The tables are divided into opposite-sex marriages and same-sex marriages. Statistics are also published on the average age of people getting married.

The figures on divorces and dissolved partnerships are broken down by sex. The tables on divorces between opposite-sex couples are broken down by the parties' residential addresses, ages, duration of marriage, country of origin and ancestry. Statistics are also available on how often marriages end in divorce (divorce rate). Tables are available on migrations in Denmark both within and between municipalities and regions as well as broken down by sex, age, receiving municipality and municipality from which a person moves etc. The number of vacated abandoned dwellings is also recorded and the type of family involved before and after a change of address, so that it is possible e.g. to look into the number of persons who switch from living alone to living with a partner. Figures are also available for immigration to and emigration from Denmark – both for persons with Danish citizenship and persons with foreign citizenship.

## 2.2 Classification system

The statistics are broken down by the 98 municipalities, 11 provinces and 5 regions of Denmark as well as police districts. In addition, Eurostat has made a classification dividing municipalities by population density called Degree of Urbanisation, abbreviated [DEGURBA](#). These are some of the classifications applied in the population statistics: - Marital status (unmarried, married/separated, widow/widower, divorcee) - Ancestry (Danish origin, immigrant, descendant) - [Countries in social statistics](#), which can be aggregated to continents or Western/non-Western countries.

Deaths are broken down by causes of death.

Marriages are broken down by marriage authority (church, registrar, abroad, N/A)

Households are broken down by types of households (single men, single women, married couples, other couples, children under 18 years not living at home, other households comprising several families).

Figures for families are distributed by family type (single men, single women, opposite-sex married couples, same-sex married couples, registered partnerships, couples living in consensual union, cohabiting couples, children under 18 years not living at home).

## 2.3 Sector coverage

Not relevant for these statistics.

## 2.4 Statistical concepts and definitions

**Residence in Denmark:** The various statistics are based on the resident population in Denmark. The permanent address concept, which is used in the populations statistics, is the same as that used by the local register (the permanent address is defined as the place where you with some regularity sleep, when you are not abroad because of holidays, business trips, or the place where you have your belongings.)

**Marital status (legal status):** Declaration of marital status. The marital status is the legal status.

**Citizenship:** The country where the person do have nationality (citizenship) in. If people have nationality (citizenship) in both Denmark and a foreign country do the Danish nationality (citizenship) have priority.

## 2.5 Statistical unit

Persons, households, families, children, marriages and divorces.

## 2.6 Statistical population

The population is the resident population of Denmark.

## 2.7 Reference area

Denmark excl. Greenland and Faroe Islands.

## **2.8 Time coverage**

Population Statistics comprise the period from 2007 and forward.

## **2.9 Base period**

Not relevant for these statistics.

## **2.10 Unit of measure**

Number, year, per 1,000 women, per cent.

## **2.11 Reference period**

The reference periods are 1 January, 1 April, 1 July and 1 October for the composition of the population and the whole quarter/year for movements in the population.

## **2.12 Frequency of dissemination**

The general population statistics are published on a quarterly basis, but figures for deaths are published weekly in response to COVID-19. Tables on migrations, divorces, fertility, deaths etc. are updated annually. However, preliminary overall data is released every quarter regarding marriages, divorces, changes of address and migrations.

## **2.13 Legal acts and other agreements**

Act on Statistics Denmark, cf. consolidating act no. 599 of 22 June 2000. Regulation (EU) No 1260/2013 deals with European demographic statistics, Regulation (EC) No 763/2008 is about population and housing censuses and Regulation (EC) No 862/2007 concerns migration and international protection.

## **2.14 Cost and burden**

The statistics are based on administrative registers. This means that there is no direct reporting task involved in the compilation of these statistics.

## **2.15 Comment**

You can find further information on the subject pages on [population figures](#), [immigrants and their descendants](#), [births](#), [deaths](#), [households, families and children](#), [marriages](#), [internal migration](#) etc. or request it from Statistics Denmark.

### **3 Statistical processing**

Data for the statistics is collected on a daily basis from the Civil Registration System (CPR) by means of a system-to-system solution. The civil registration number and the updating of residence information and marital status information etc. is required for a vast number of public services, which serves as continuous validation of the content of the register. The number of immigrants, descendants, households, families, marriages and divorces is assessed on the basis of data from the Civil Registration System. It is also used to calculate e.g. fertility rates, life expectancy and divorce rates. In addition, data is applied from the Birth Register and the Cause of Death Register from the Danish Health Data Authority from which data is collected annually.

#### **3.1 Source data**

The primary source of the statistics is the Civil Registration System (CPR). The continuous updating of the Civil Registration System is thus the basis of the population statistics. The updating takes place in the individual municipalities as the municipal population changes because of births and deaths, migrations in and out of the municipality and changes in marital status for the citizens of the municipality. The Civil Registration System is a central system with a common database where all registrations are updated. The state makes the system available to the individual municipalities. The Danish Health Data Authority's Birth Register and Cause of Death Register are the secondary sources providing data on births and deaths respectively.

#### **3.2 Frequency of data collection**

Data is collected on a daily basis from the Civil Registration System (CPR), while data is received from the Health Data Authority once a year.

#### **3.3 Data collection**

System-to-system delivery from the Civil Registration System (CPR) as Statistics Denmark daily receives a data delivery from CPR containing the births, deaths, migrations etc. reported the previous day to the municipal registration office. Data from the Danish Health Data Authority's Birth Register and Death Register is received on a yearly basis and, subsequently, selected variables are used for the individual population statistics.

### 3.4 Data validation

The current updating of the Civil Registration System takes place in the municipalities. The civil registration number and the updating of residence information and marital status information etc. is required for a vast number of public services, which serves as continuous validation of the content of the register. This also lies at the root of Statistics Denmark's decision to use the civil registration data for production of the current statistics. Statistics Denmark is in dialogue with relevant authorities to ensure that the updating is correct at the municipal level e.g. regarding the registration of migrations. The municipalities are responsible for registering residential addresses in the Civil Registration System. If a municipality suspect that a registered residence in the Civil Registration System (CPR) is incorrect, the municipality must look into the matter to ensure correct registration in CPR, cf. section 10(1) of the Executive Order on the Civil Registration System Act. CPR has a number of incorporated consistency checks to ensure against registration of invalid values. Cancellations/corrections in CPR, which are registered by the municipalities, are updated in Statistics Denmark's database as they arrive. The published population figures therefore show the population with as current and correct data as possible at the time of publication. Statistics Denmark also performs a number of automatic checks to ensure the quality of the register and further checks in connection with the publication of the statistics. If relevant, inquiries from users may also give rise to checks.

### 3.5 Data compilation

The daily data deliveries from CPR contain the births, deaths, changes of address, migrations etc. reported the previous day to the registration offices (CPR) of the municipalities. For each person in CPR for whom an event is updated, Statistics Denmark receives the relevant information and then updates Statistics Denmark's population database, which holds the previous information on residence, marital status, family, name, citizenship, national church membership status etc. A population statistical recording is created at the end of the quarter by extraction and delimitation of the population based on these basic tables. Migrations in and out are recorded according to when the migration was registered in Statistics Denmark's population statistical registers. This means that all migrations are included in the statistics regardless if the migration has happened earlier than the year/quarter of the statistical recording.

Information on the persons' mothers and fathers and their citizenship and place of birth is used to establish ancestry and thus the number of immigrants, descendants and persons of Danish origin in the population of Denmark. It is possible for persons to change between some of these groups, e.g. an immigrant may become a descendant if the parents were born in Denmark and at some point pass from foreign to Danish citizenship. A country of origin is allocated to both immigrants and descendants based on the information on either the person's own or the parents' country of birth and citizenship. If both parents are known, the country of origin is defined by the mother's country of birth or citizenship respectively. If only one parent is known, the country of origin is defined by that parent's country of birth. If this is Denmark, the country of citizenship is used. If none of the parents is known, the country of origin is defined by the person's own information. If none of the parents is known, the country of origin is defined by the person's own information as it is assumed that the country of origin for an immigrant equals the country of birth, whereas the country of origin for a descendant equals the country of citizenship. See the definitions etc. on the subject page on [immigrants and their descendants](#). In case of dual citizenship (Danish and foreign), the Danish citizenship is applied as country of citizenship in the population statistics. The information on births from CPR are linked with information on births from the Danish Health Data Authority in order to assess single and multiple births as well as the child's length and weight at birth. The number of births is used to calculate fertility rates and total fertility. The age-specific fertility is calculated as the number of liveborn children per year delivered by mothers in a given age bracket and the number of women in the relevant age bracket measured in thousands on 1 July of the year. The fertility rates are then used to calculate total fertility by adding the age-specific fertility rates. The



calculation method was changed from January 2014, cf. [method note on the subject page on fertility](#). The annual publication [Befolkningens udvikling](#), which is published in Danish with a summary in English, also has age-specific fertility rates for men.

Furthermore, the publication contains calculated gross and net reproduction figures. The calculation of the gross reproduction figure is made in the same way as the calculation of total fertility, except that it only includes born girls. The net reproduction figure is found by reducing the number of women in the calculation by the mortality of the individual age brackets.

Information about deaths is linked with information on the cause of death from the cause of death register, so the deaths can be categorised by cause of death, sex, age and municipality. The figures for deaths are used to calculate life expectancy at both national level and municipal level. Life expectancy is calculated by first assessing the probability of dying at all age levels over a two-year period. The calculated death rates are then included as the basic information in the mortality tables used to calculate life expectancy. The mortality tables are based on a fictitious initial population of 100,000 people, and based on the age-specific death rates, it is calculated how many from the initial population are survivors at each age level from 0 to 110 years. This allows calculations of life expectancy, which is the expected average duration of life at a given age level. Read more in Method note on calculation of [life expectancy](#). Based on the information about address in CPR, data is compiled on households, which consist of the person or persons living at the same address. The household can consist of one or several families. A family is one or more people living at the same address and having mutual relations. The relation may be e.g. marriage or registered partnership and parents/children, all of which appear as relations in the Civil Registration System. To be able to assess other couple families (cohabitation), it is assumed that two adults living together with a joint child are a couple, and they are called a Couple living in consensual union. If a couple has lived with a joint child on 1 January 1990 or on 1 January of a subsequent year, this is also defined as a couple living in consensual union. However, if joint children no longer live in the household, the parents must have lived together on 1 January all of the subsequent years. Two adults who live together, but do not have joint children, are also assumed to be a couple if their age difference is less than 15 years, they are of opposite sex, and family references in CPR do not indicate that they are related to each other, and there are no other adults on the address. Persons down to 16 years can be cohabiting. The adults may have separate children. In addition to the adult(s), both couple families and singles may include one or several children living at home. Children are here defined as persons who are under 25 years, unmarried, do not have children of their own and are not part of a cohabiting couple. If a child has a parent reference to at least one adult in the household, the child lives at home and is included in the family of the adult(s), otherwise the child is not living at home and constitutes his/her own family. The assessment of families and households is used to assess the number of children in different types of households and families. Children who do not live with both of their parents have a residence family (where the child has his or her address) and a parenting time family (where the child does not have his or her address). Based on the registers, the number of children living in different types of families, including sibling relations, is counted. The definition of children varies from one table to the next. In the tables [fam133N](#) and [fam111N](#), children in the family are defined as described above: children who have their home at the same address as at least one of the parents, are under the age of 25 years, have never been married or in a registered partnership and do not have a child/children of their own who are registered in the civil registration system. In the same tables, children not living at home constitute families of their own. To be considered as children not living at home, they must not live with either of the parents, be under 18 years, never have been married or in a registered partnership, not have children of their own who are registered in the civil registration system, and not be part of a cohabiting couple. In the tables [fam44N](#) and [fam44BA](#), families with children are defined as families with children under 25 years living at home. In the tables [brn9-brn16](#), families with children are delimited only on the basis of the age of the children, i.e. persons aged 0-17 years. However, [brn12](#) includes only families with children where the child lives at home in either the residence family or the parenting time family. In the civil registration system (CPR), information is registered for the individual person about marriages, which is used to calculate the average age of persons getting married for the first time as well as of



all persons getting married. Moreover, the information on the two people of a marriage is combined, so that the number of marriages can be assessed, since only marriages are included where at least one of the spouses resides in Denmark at the time the marriage is contracted. If the other party has not resided in Denmark, it is not possible to determine the sex of that person. In these cases, the marriage will be defined as a marriage of an opposite-sex couple.

In addition, data on divorces is registered for the individual person residing in Denmark at the time of divorce. The information is linked together to assess the number of divorces. For divorces where one of the parties has not resided in Denmark, it is not possible to determine the sex of that person. In these cases, the divorce will be defined as a divorce of an opposite-sex couple. Divorce data is used to calculate the divorce rate, which is done in more or less the same way as the calculation of life expectancy for 0-year-olds. Thus, the current probabilities of divorce are calculated for all years of marriages up to 50 years. The calculation is based on the number of divorces in a calendar year relative to the number of remaining marriages on 1 July of the year following all lengths of marriage. In this way, the probability of divorce is calculated by the duration of the marriage. The probabilities of divorce for marriages that have lasted one year, two years, three years etc. up to 50 years put together result in the overall divorce rate. For more details, read the [Documentation of divorce rate](#).

A person may get divorced or married several times in a year, and may thus be included in divorces and marriages several times. The number of changes of residence in Denmark within municipalities, between municipalities and between regions is assessed based on changes of address. A person may be included several times if the person changes his or her address several times in a year. Information about changes of address is combined with information from the Census of Housing in order to assess vacated abandoned dwellings by various characteristics, and information on type of family both before and after the move is used to assess various types of change of address. In addition, migrations in and out of the country are counted (immigration and emigration). A person may be included several times if the person changes his or her address several times in a year. E.g., a person may immigrate in February, emigrate in June and re-immigrate in November. In that case, the migrations of that person will be counted as two immigrations and one emigration. Asylum seekers who are granted a residence permit are counted as immigrants when they obtain their residence permit and are registered in the civil registration system.

### **3.6 Adjustment**

No corrections of data are made in addition to those already described under data validation and data processing.

## **4 Relevance**

These statistics are relevant for municipalities, regions, ministries, other government organisations and private companies in analyses of a number of conditions of society and as a basis for planning of e.g. schools, roads, facilities and services for the elderly etc. Statistics Denmark also uses the basic data and results of the statistics for a vast number of other assessments.

### **4.1 User Needs**

The primary users of the statistics are municipalities, regions, ministries and other government organisations that use the population statistics for planning purposes among other things. Furthermore, the population statistics constitute the foundation of many other statistical domains within the area of personal statistics.

## **4.2 User Satisfaction**

Our daily users as well as our contact and user committee (information in Danish) continuously provide us with information about satisfaction with the statistics and any changes in needs. We are able to help most of the users who make inquiries via Statbank Denmark, which covers the vast majority of what the users are looking for. If Statbank Denmark does not cover the inquiry, we generate new data, if possible. In a few instances, we receive questions that we are unable to answer.

## **4.3 Data completeness rate**

In the data that Statistics Denmark provides to Eurostat in connection with Regulation (EC) No. 862/2007, other time delimitations exist as to when immigrations and emigrations must be included. In both cases, Eurostat uses 12 months – i.e. you are an immigrant when you come to Denmark intending to stay in the country for at least 12 months, and you are an emigrant, when you emigrate intending to stay abroad for at least 12 months. In the figures presented by Statistics Denmark in Statbank Denmark, the time delimitation is 3-6 months. Eurostat figures for immigration and emigration for Denmark are thus lower than the figures published by Statistics Denmark themselves.

## **5 Accuracy and reliability**

The statistics are based on the population registered in the Civil Registration System (CPR). Since correct registration in CPR is a condition for being able to lead a normal life in Denmark, the general quality and reliability of the register is regarded as very high. Failure to report immigrations and emigrations means that the published population is considered to be overestimated by 10,000 people or 0.14 per cent.

## 5.1 Overall accuracy

The general quality and reliability of the Civil Registration System (CPR) is regarded as very high, since correct registrations in CPR is required to be able to lead a normal life in Denmark with access to a general practitioner, a NemKonto bank account, employment in a business, starting your own business, participating in elections etc. Moreover, the municipalities are required by the Civil Registration System Act to ensure correct registration in the system of all citizens in the municipality. A few issues remain, however: These are especially associated with the registration of emigration from Denmark. In this connection, foreign students in particular pose a challenge, as they do not always remember to de-register from CPR when they leave Denmark. Delays in the registration of immigrations and emigrations also affect the assessment of the population. It is estimated that the population figure at the end of the year is overestimated by 11,500 emigrants who have failed to report their emigration and underestimated by 1,500 immigrants who have failed to report their immigration. Overall, this means that the population figure is overestimated by 10,000 or 0.14 per cent. An assessment shows that in the beginning of 2008, approximately 18,000 people were registered in CPR who had no contact with authorities from 2008 to 2010 besides receiving their pension. The group also includes e.g. people on round-the-world trips or pensioners staying abroad who should have reported emigration and who later move back to Denmark. However, the group also includes permanently emigrated people cf. the above and people who are later registered as dead.

Moreover, there is some variation as to when citizens from various countries are registered with a residential address when they immigrate into Denmark. Persons who move to Denmark from another Nordic country or who are citizens of an EU/EEA country or Switzerland are entitled to stay in Denmark for up to six months without being registered with a residential address in the Civil Registration System. They are not required to register until they decide that their stay will last for more than six months. Everyone else is required to register with a residential address when staying for more than three months. When emigrating, persons who intend to move abroad for at least six months must report this to the Danish National Register, so that they will be deregistered. Specifically for persons emigrating to Sweden and Finland, the stay must last for more than 12 months. Only deregistered persons are included in the figure for emigration.

In the assessment of the number of cohabiting couples, it is assumed that two people are a couple if they are of opposite sex, live together and their age difference is less than 15 years. It has not been examined how many of these cohabiting couples are in fact couples, but it is likely that some of them will simply be e.g. two students of opposite sex who share a flat. Accordingly, the number of cohabiting couples of opposite sex may be overestimated, although there may also be couples who are not included due to an age difference of more than 15 years.

It is not possible to include two people of the same sex as a cohabiting couple (due to the definition). This means that the number of same-sex couples is underestimated.

The number of same-sex marriages/divorces may be underestimated, while the number of opposite-sex marriages/divorces may be overestimated. This applies only for marriages and divorces where one of the parties has not resided in Denmark.

## 5.2 Sampling error

Not relevant for these statistics.

### 5.3 Non-sampling error

Corrections and cancellations of registrations in CPR are made on an ongoing basis. The vast majority of corrections and cancellations are made immediately after an error is observed in CPR, and thus do not pose a problem for the statistics, which are not published until 30 days after the cut-off date. The statistics are based on the registration date in Statistics Denmark's population register for immigration and emigration respectively rather than the date of the event. Especially in connection with emigrations, there may be relatively long delays in the registrations in CPR. This means that the migrations of individuals may be included in the statistics a year later than the migration actually took place. In 2020, as much as 98 per cent of the immigrations were reported soon enough to CPR to be included in the data for the right year, while this was the case for 79 per cent of the emigrations, cf. [www.statistikbanken.dk/bev107](http://www.statistikbanken.dk/bev107). In recent years, this percentage has remained at the status quo for immigrations and been declining for emigrations. A cause of death is missing for approximately 1 per cent of the deaths, and references to parents are missing especially for people born before 1950. Life expectancy disaggregated at municipal level is intended for limited populations in the individual municipalities. This means that the death rates used to calculate life expectancy become more exposed to random variations. Especially small municipalities may see variations in life expectancy as the share of deaths in the municipal population can vary randomly from one year to the next.

Incorrect addresses, which affect the assessment of families and households in particular, involve certain challenges. People without a permanent residence are a source of uncertainty. They are registered under special municipal addresses of a fictitious nature and are managed by the local civil registers. These addresses are reserved for people who cannot be registered at a residence for some reason. E.g. homeless persons, sailors, posted diplomats and certain other posted persons. Read more about the quality of the municipalities' address registration in a survey by VIVE (in Danish).

Another source of uncertainty regarding households is communal dwellings (e.g. nursing homes) where the residents are sometimes registered under individual addresses and sometimes with a common address. For marriages and divorces where one of the parties is unspecified because the person in question has not been registered as a resident in Denmark, it is not possible to determine the sex of that person, which gives cause for uncertainty as to the distribution of marriages/divorces and whether a same-sex couple or an opposite-sex couple is concerned.

In the assessment of the number of cohabiting couples, it is assumed that two people are a couple if they are of opposite sex, live together and their age difference is less than 15 years. It has not been examined how many of these cohabiting couples are in fact couples, but it is likely that some of them will simply be e.g. two students of opposite sex who share a flat. On the other hand, same-sex couples are not included (unless they have joint children and live in consensual union or they are married).

### 5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

## 5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

## 5.6 Quality assessment

The statistics are based on the population registered in the Civil Registration System (CPR). In general, the information in CPR is considered to be reliable and in most cases up-to-date; see e.g. a report from the [Ministry of Economic Affairs and the Interior in 2017 on the data quality in CPR](#) and a report from [VIVE in 2020 on the quality of the registration of residence in CPR](#) (both reports are in Danish). There is a challenge in using only CPR as a source, as people who move to Denmark intending to stay in the country for less than three months are not registered in CPR until later if they decide that they want to stay in Denmark for a longer period. Similarly, some people fail to report that they are moving out of the country, e.g. foreign students. If you want information on these groups in particular, the accuracy is thus lower than for the total population figure. The information in the population statistics is limited to the information in CPR, which constitutes another challenge. This means that you cannot get direct information on e.g. sexual identity, and the assessment of families is subject to a number of assumptions with inherent uncertainty compared to an assessment based on information from the persons involved. An alternative source of statistics on the population is actual surveys, but for the total population figure, this would yield a more costly, time-consuming and probably more inaccurate result. Only few corrections appear for CPR later than the 30-day delay after the end of a quarter. We have chosen not to revise data back in time, since the changes are so negligible that for all practical purposes, they have no relevance.

## 5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the [Revision Policy for Statistics Denmark](#). The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

## 5.8 Data revision practice

It is possible to revise the figures for deaths that are published weekly. The annual statistics are not revised; however, the annual statistics are compiled with a wider time gap to the reference time than Q1, Q2 and Q3, so that registrations arriving late can also be included.

## 6 Timeliness and punctuality

The statistics are usually published one and a half months after the end of the reference period. The statistics are released without delay according to the scheduled dates of publication. The weekly publication of the number of deaths is released five days after the reference week.

## **6.1 Timeliness and time lag - final results**

The population reference times are 1 January, 1 April, 1 July and 1 October. The publication time is approximately one and a half months after the reference time. At the same time, preliminary overall data is released every quarter regarding marriages, divorces, changes of address and migrations. The weekly publication of the number of deaths is released five days after the reference week.

## **6.2 Punctuality**

The statistics are usually published without delay in relation to the pre-announced dates of publication.

## **7 Comparability**

Denmark bases its population statistics on an administrative register, which also applies for a few other countries, whereas many countries take censuses every five or ten years. The population figure for the period 1971 and onwards is based on the same source, i.e. the Civil Registration System (CPR). The population figure from before this period is based on censuses.

### **7.1 Comparability - geographical**

Denmark bases its population statistics on an administrative register, which also applies for a few other countries, whereas many countries take censuses every five or ten years and make estimates in the interim period. The statistics are register-based and data are released 30 days after the end of the census period to include late reported events. Other countries with register-based censuses may use a shorter/longer delay/time delimitation period. The longer this period is, the more accurate the statistics will be. Thus, the time delimitation period is a choice between current and timely statistics on the one hand and accuracy on the other. Eurostat publishes statistics for Denmark on immigration and emigration in compliance with Regulation (EC) No 862/2007. These figures are lower, since other time criteria are applied regarding the duration of the stay. Only people who intend to stay in Denmark for 12 months must be registered as immigrated in Eurostat's statistics. In Denmark's national releases, this is three/six months for immigration and six months for emigration based on the rules for registration in CPR.

### **7.2 Comparability over time**

The population figure for the period 1971 and onwards is based on the same source, i.e. the Civil Registration System (CPR). The population figure from before this period is based on censuses. The population figure for Denmark is comparable from 1769 and onwards. The local government reform of 2007 in Denmark reduced the number of municipalities from 271 to 98. For 19 of these new municipalities, it is not possible to make an exact comparison before and after 2007. Approximately 20 per cent of the population lives in these 19 municipalities, which are composed of several divided municipalities from before the local government reform. From 2007, delayed reporting is no longer included in the current quarter. A survey of the changes of address for the year 2007 has shown that 2.5 per cent of the year's reported changes of address can be attributed to previous years but were not registered until the current year. Reporting of events to CPR and the civil registers has subsequently become timelier than at the beginning in 1971. In Q4 1992, Statistics Denmark reduced the period of waiting for delayed reporting from 40 to 30 days. Reducing the time delimitation has had the biggest impact on emigration, which accounts for the most delayed reporting of events. From June 2016, immigration and emigration is recorded according to when



the migration was registered. This means that all migrations are included in the statistics regardless if the migration has happened earlier. With the old method applied from 2007 to the beginning of 2016, the late registrations meant that these emigrations were not included in the emigrations for the quarter/year, nor in subsequent assessments. For that reason, emigration has been underestimated with up to 33 per cent in the quarterly statistics and up to 17 per cent in the yearly statistics. In the population accounts, these late emigrations in 2007-2016 have been partly saved by adjusting the population in the tables at the beginning of the year for these late migrations along with other adjustments regarding previous years. In practice, the population at the end of the year has not equalled the population at the beginning of the following year. From June 2016, the population at the beginning of the year equals the population at the end of the previous year. Special conditions apply for the third and fourth quarter of 2019 where emigrations among foreign citizens are strongly influenced by the fact that the former minister of economic affairs and the interior had asked the municipalities to check the residence registrations in CPR focusing especially on foreign students and employees. For more details, read the documentation of statistics for 2019.

Causes of death before and after 1994 cannot be compared directly. This is because the cause of death codes have been changed. Up to and including 1993, ICD8 (International Classification of Causes of Death 8. rev) was used. As from 1994, ICD10 is used. From 15 June 2012, it has been possible for two people of the same sex to get married and subsequently divorced. At the same time, the possibility for two people of the same sex to enter into a registered partnership was no longer available. This also has an impact on the statistics of dissolved partnerships and same-sex divorces. The family definition was changed in 2008. The family statistics with the new definitions exist back to 1986. It is not comparable with family statistics produced and published before 2008. The change consists in family statistics produced before 2008 using a family definition where children included in the families of the parents had to be under 18 years, whereas now it is 25 years. This change increased the number of children living at home and reduced the number of singles. In 2008, there were 164,000 children living at home at the age of 18-24 years. The change does not affect the number of households, but has some impact on the distribution of households on types of households. The development in the number of changes to Danish citizenship is influenced by e.g. the rules regarding immigration. When a large group of immigrants comply with the duration of stay requirements to obtain Danish citizenship at practically the same time, this will often show in the number of changes to Danish citizenship. For most people changing to Danish citizenship, Danish citizenship can only be acquired through adoption of an Act of Notification of Naturalization. The Danish Parliament usually adopts two such bills each year. However, bills are sometimes postponed. For example, this was the case in 2007, where the general election on 13 November 2007 meant that only one bill on naturalization was adopted in 2007, but three in 2008. Thus, the parliamentary work is also a factor that decides if specific changes in citizenship are recorded one year or the other. In January 2014, a changed calculation method of fertility rates was brought into use. The change was made to a cohort-based approach where age of mothers is calculated by the end of the year instead of at the time they give birth.



### 7.3 Coherence - cross domain

Under [National Church](#), statistics are also available on the population figure and the development of the population by parishes, which can be aggregated to deanery and diocese. [Urban Areas](#) focus on population figures and population density broken down by cities of various sizes and rural districts. The cities may transcend municipal boundaries. The population statistics are used to prepare [population projections](#) broken down by municipalities, ancestry etc. The municipalities prepare their own statistics based on information from their own local civil register. These statistics do not always correspond fully with those of Statistics Denmark, since the municipalities do not wait 30 days for delayed reporting of births, deaths, changes of address and migrations etc. The differences between the statistics from Statistics Denmark's and those of the municipalities can thus be explained by the differences in delimitation and extraction time in relation to reference time. The household concept in the statistics of households and families deviates from the household concept in the [housing stock](#), which is based on the concept of dwelling household, and from the concept of housekeeping unit applied in the Household budget survey, which is an interview-based survey involving a limited number of families. [The housekeeping unit concept](#) is closest to the UN recommendations, but requires questionnaires or similar and is therefore not compatible with all-encompassing register-based statistics.

### 7.4 Coherence - internal

The sum of the quarterly figures for population and events is not consistent with the year. This is because the annual statistics are assessed at a later point in time than Q1, Q2 and Q3. As a result, the annual statistics are more up-to-date regarding late reporting. The population accounts are available in Statbank Denmark table [BEV22](#). The population accounts show the correlation between the population at the beginning and end of the quarter and the intermediate figures for live births, deaths, immigrations and emigrations. The adjustment item can be fully accounted for by subsequent municipal registration as well as missing and found persons.

## 8 Accessibility and clarity

The statistics are published in "Nyt fra Danmarks Statistik" (in Danish). Figures for the population and its movements are published in Statbank Denmark. In addition, the figures are included in the publications [Befolkningens udvikling](#) and [Indvandrerne i Danmark](#) (both in Danish with summaries in English). For further information, go to the subject pages of the statistics.

### 8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

### 8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

### 8.2 Release calendar access

The Release Calendar can be accessed on our English website: [Release Calendar](#).

#### **8.4 News release**

The statistics are published in “Nyt fra Danmarks Statistik” (in Danish).

#### **8.5 Publications**

The statistics are released in the publications [Befolkningens udvikling](#) and [Indvandrere i Danmark](#) (both in Danish with summaries in English).

#### **8.6 On-line database**

The statistics are published in Statbank Denmark under the subjects:

- [Population in Denmark](#)
- [Immigrants and their descendants](#)
- [Births](#)
- [Fertility](#)
- [Deaths](#)
- [Life expectancy](#)
- [Households, families and children](#)
- [Children](#)
- [Marriages](#)
- [Divorces](#)
- [Internal migrations in Denmark](#)
- [Migrations to and from Denmark](#)

#### **8.7 Micro-data access**

It is possible to gain access to the statistical Micro-data in anonymised form through Statistics Denmark’s researcher scheme. The work with Micro-data takes place only on Statistics Denmark’s servers and only aggregate data can be transferred.

#### **8.8 Other**

Statistics Denmark’s Consulting division uses population statistics for many services.

#### **8.9 Confidentiality - policy**

[The statistics comply with the Data Confidentiality Policy](#) at Statistics Denmark.

#### **8.10 Confidentiality - data treatment**

The population tables are defined in a way that does not allow access to information on an individual person.

### **8.11 Documentation on methodology**

On the subject page on [Fertility](#), two methodology notes are available, which describe calculation methodologies for fertility and on the subject page on [Life expectancy](#), a note is available that describes the calculation of life expectancy. Similarly, a number of methodology notes are available on ancestry, basis of right of residence etc. on the subject page on [Immigrants and their descendants](#).

On the subject page on [Divorces](#), you can find information on the sources of the divorce rate statistics.

### **8.12 Quality documentation**

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

## **9 Contact**

The administrative placement of these statistics is in the division of Population and Education. The contact person is Dorthe Larsen, tel.: + 45 2349 8326, and e-mail: [DLA@dst.dk](mailto:DLA@dst.dk).