

Data sources

This file provides the metadata related to the data sources used for Canada in the Human Multiple Births Database (<https://www.twinbirths.org/en/data-metadata/>).

Summary

Data from 1921 to 1936:

Source: Bunle, H. (1954). *Le mouvement naturel de la population dans le monde de 1906 à 1936*. Paris: Les éditions de l'Institut national d'études démographiques (INED).

Coverage and completeness:

- From 1921 to 1925, the data does not include the following provinces and territories: Yukon, Northwest territories and Quebec.
- From 1926 to 1936, the data does not include the following territories: Yukon and Northwest territories.
- In the HMBD, data from Bunle cover the period 1921-1925. From 1926, data are obtained from the Year Books published by the Dominion Bureau of Statistics.

Treatment of births by vitality:

- It is not clear whether the stillborn children are included in the data.

Data from 1926 to 1966:

Source: BureauStats

Coverage and completeness:

- From 1921 to 1925, the data does not include the following provinces and territories: Yukon, Northwest territories and Quebec.
- From 1926 to 1936, the data does not include the following territories: Yukon and Northwest territories.

Treatment of births by vitality:

- The source does not provide definitions for live-births and stillbirths.
- It is not clear whether the stillborn children are included in the data on confinements by plurality.

Data from 1972 to 1990:

Source: Imaizumi

Coverage and completeness:

Treatment of births by vitality:

It is not clear whether the stillborn are included in the data.

Data from 1991 to 2019:

Source: Statistics Canada

Coverage and completeness:

The tables include live births and stillbirths that occurred in Canada, where the mother was a resident of Canada.

Treatment of births by vitality:

In some Provinces, only the stillbirths weighing at least 500 grams had to be declared, regardless of the duration of the pregnancy. This was the case of Quebec before 2019, Saskatchewan before 2001, and New Brunswick before 1996.

Detailed metadata by source

Source 1: Bunle (1954)

Reference	Bunle, H. (1954). <i>Le mouvement naturel de la population dans le monde de 1906 à 1936</i> . Paris: Les éditions de l'Institut national d'études démographiques (INED).
Period covered	1921-1936
Code in database	Bunle
Coverage and completeness	From 1921 to 1925, the data does not include the following provinces and territories: Yukon, Northwest territories and Quebec. From 1926 to 1936, the data does not include the following territories: Yukon and Northwest territories.
Definitions and treatment of births by vitality	The source does not provide definitions for live-births and stillbirths. It is not clear whether the stillborn children are included in the data on confinements by plurality.
Footnotes¹	1 - From 1921 to 1925, the data does not include the following provinces and territories: Yukon, Northwest territories and Quebec. 2 - From 1926 to 1936, the data does not include the following territories: Yukon and Northwest territories.

¹ Number indicated in the variable *Footnote*.

Source 2: BureauStats

References	<p>Data from 1926 to 1966 Canada Historical Yearbook Collection; available online: https://www66.statcan.gc.ca/acyb_000-eng.htm Accessed: 21/12/2020</p> <p>Detailed sources by period:</p> <p><u>1926-1935</u>: Dominion Bureau of Statistics. 1938. <i>The Canada Year Book 1938</i>. Ottawa.</p> <p><u>1936-1940</u>: Dominion Bureau of Statistics. 1942. <i>The Canada Year Book 1942</i>. Ottawa.</p> <p><u>1941-1944</u>: Dominion Bureau of Statistics. 1946. <i>The Canada Year Book 1946</i>. Ottawa.</p> <p><u>1945-1948</u>: Dominion Bureau of Statistics. 1951. <i>The Canada Year Book 1951</i>. Ottawa.</p> <p><u>1949-1950</u>: Dominion Bureau of Statistics. 1953. <i>The Canada Year Book 1952-53</i>. Ottawa.</p> <p><u>1951-1952</u>: Dominion Bureau of Statistics. 1956. <i>The Canada Year Book 1956</i>. Ottawa.</p> <p><u>1953-1956</u>: Dominion Bureau of Statistics. 1958. <i>The Canada Year Book 1957-58</i>. Ottawa.</p> <p><u>1957-1960</u>: Dominion Bureau of Statistics. 1962. <i>The Canada Year Book 1962</i>. Ottawa.</p> <p><u>1961-1963</u>: Dominion Bureau of Statistics. 1966. <i>The Canada Year Book 1966</i>. Ottawa.</p> <p><u>1964-1965</u>: Dominion Bureau of Statistics. 1968. <i>The Canada Year Book 1968</i>. Ottawa.</p>
Period covered	1926-1966
Code in database	BureauStats
Coverage and completeness	<p>According to the 1938 Year Book (p.157), "prior to 1920, it was impossible to compile any satisfactory series of vital statistics figures for Canada as a whole", due to variations between the provinces regarding vital statistics legislation, lack of uniformity in classifications and presentation methods, and incompleteness of registration, among other reasons. In 1918-19, a plan was devised with the objective of producing national vital statistics for the Dominion of Canada. Under this scheme (which included the adoption of compulsory registration), "the vital statistics for all the provinces except Quebec were secured and compiled on a uniform basis for the years 1921 to 1925 (...) Quebec has been included in the registration area as from Jan. 1 1926, from which date her statistics are on a comparable basis with those of the other provinces". Despite improvements in the production of national statistics, the 1938 Year Book warns that "registration generally, and the registration of births in particular, is not as yet universally carried out". Indeed, in the 1948-49 Year Book (i.e., about one decade later) it is indicated that "[d]uring recent years, the registration of vital events in several provinces may be considered virtually complete" (p. 188).</p>
Definitions and treatment of births by vitality	<p>Live births:</p> <p>According to the 1961 Year Book (p. 212), "[i]n recent years, provincial laws define a stillbirth, as here compiled, as the birth of a foetus after 28 weeks gestation which, when completely separated from the mother, 'does not show</p>

	any sign of life'; in earlier years they include only those of 28 weeks gestation which showed no sign of 'breathing". Although no year is specified in the previous quotation, the "absence of life" definition may have started to apply in the mid-1950s, since the first Year Book including it is that of 1957-58 (i.e., the data source for the years 1953-1956).
Footnotes¹	

Source 3: Imaizumi

Reference	The numbers of twin deliveries and the twinning rate were obtained from: Imaizumi, Y. 1997. "Trends of twinning rates in ten countries, 1972-1996". <i>Acta Geneticae Medicae et Gemellologiae</i> , 46: 209-218. 'The numbers of triplet deliveries were obtained from: Imaizumi, Y. 1998. "A comparative study of twinning and triplet rates in 17 countries, 1972-1996". <i>Acta Geneticae Medicae et Gemellologiae</i> , 47: 101-114.
Period covered	1972-1990
Code in database	Imaizumi
Coverage and completeness	
Definitions and treatment of births by vitality	It is not clear whether the stillborn are included in the data.
Footnotes	

Source 4: Statistics Canada

Reference	Source: Statistics Canada, Vital Statistics of Canada, Databases on Births and Stillbirths. Data file provided upon request (e-mail communication) on March/April 2021, updated on 2 December 2024.
Period covered	1991-2023
Code in database	StatCan
Coverage and completeness	The tables include live births and stillbirths that occurred in Canada, where the mother was a resident of Canada. Data are rounded to the nearest multiple of 5 for confidentiality. Due to differences in the timing of data updates, the total number of births shown in the column "Total children" may differ from tables available online in the website of Statistics Canada, notably "Table 13-10-0428-01 Live births and fetal deaths (stillbirths), by type of birth (single or multiple)" (DOI: https://doi.org/10.25318/1310042801-eng). By the end of April 2021, data for the territory of Yukon for the period 2017-2019 were still not available. In 2010-2016, the annual number of children (live

	births and stillbirths combined) from multiple births in Yukon ranged from 8 to 18 children.
Definitions and treatment of births by vitality	<p>A live birth is defined as: "the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached." (Source: Statistics Canada, Table 13-10-0428-01 Live births and fetal deaths (stillbirths), by type of birth (single or multiple), URL: https://doi.org/10.25318/1310042801-eng, accessed 17/05/2021).</p> <p>A stillbirth is defined as: "death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. Only fetal deaths where the product of conception has a birth weight of 500 grams or more or the duration of pregnancy is 20 weeks or longer are registered in Canada." (Source: Statistics Canada, Table 13-10-0428-01 Live births and fetal deaths (stillbirths), by type of birth (single or multiple), URL: https://doi.org/10.25318/1310042801-eng, accessed 26/11/2024).</p> <p>Quebec before 2019 (as well as Saskatchewan before 2001 and New Brunswick before November 1996) required only the reporting of stillbirths where the birth weight was at least 500 grams, regardless of the gestational duration.</p> <p>New Brunswick: Before 2003, New Brunswick did not classify fetal deaths resulting from intentional termination of pregnancy as "stillbirths," even if the fetus otherwise met the definition of a stillbirth. In 2003, New Brunswick began recording such deaths in the stillbirth category.</p>
Footnotes	<p>3 - For the period 2010-2023 there are some births and stillbirths for which the type of delivery (e.g. single, twin, triplet or quadruplet +) is not known (*see "supplement"). This is the reason why the total number of children reported in the column Total_children in the input data sheet does not match with the sum of the number of children by plurality (i.e. Singletons + Twin_children + Triplet_children + Quadruplet_plus_chidlren). Before 2010, such cases were counted as singleton births/stillbirths in the figures published by Statistics Canada.</p> <p>One may consult the supplemental information provided below and in the data file sent by Statistics Canada (see Source for the period 1991-2023).</p>

***Supplement:**

Number of children born alive and stillbirth (combined) with unknown type of multiplicity

Year	Number of children born alive and stillbirths (combined)
1991	0
1992	0
1993	0
1994	0
1995	0
1996	0
1997	0
1998	0
1999	0
2000	0
2001	0
2002	0
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0
2010	155
2011	0
2012	45
2013	35
2014	60
2015	215
2016	15
2017	20
2018	10
2019	5
2020	35
2021	25
2022	10
2023	25

Source: Statistics Canada. Data file provided upon request (e-mail communication). Prepared by Statistics Canada on December 2024.

Note: Before 2010, the live births and stillbirths with unknown multiplicity were counted as singletons in the figures published by Statistics Canada. For this reason, the counts presented above are always equal to 0 before 2010.