

# OECD Health Statistics 2021

## Definitions, Sources and Methods

### Average number of cigarettes per smoker per day (age 15+)

The average number of cigarettes per smoker per day.

#### Sources and Methods

##### Australia

###### Sources:

1998 onwards: Australian Institute of Health and Welfare, unpublished. Analysis of National Drug Strategy Household Survey data. Canberra: AIHW.

1974-1995: **Anti-Cancer Council of Victoria survey data**, Refer to Hill DJ, White VM & Scollo MM (1998). *Smoking behaviors of Australian adults in 1995: trends and concerns*. Medical Journal of Australia 168: 209-213 (and prior articles).

1964-1969: **Gallup polls and Busselton population study**.

Cullen KJ et al. 1980. *Alcohol consumption and cigarette smoking in Busselton, 1966-1978*. Medical Journal of Australia 2: 87-92.

###### Coverage:

1998 onwards: Population aged 15 years old and over. All states and territories across Australia. Data are weighted estimates, weighted to the appropriate Australian population.

1974-1995: Population aged 16 years old and over.

###### Break in time series in 2001:

From 2001 onwards: Respondents could write the exact number of cigarettes they smoked per day, per week or per month. The total is the sum over the year then divided by 365 days to provide an average per day. Data are presented for current smokers.

1998 data: The mean number of cigarettes smoked is an underestimate, as the survey question was structured in ranges. The mean number of cigarettes smoked was calculated using an upper limit of 31 cigarettes.

**Further information:** <http://www.aihw.gov.au>.

##### Austria

###### Sources:

2019: **Statistics Austria**, Austrian Health Interview Survey 2019.

2014: **Statistics Austria**, Austrian Health Interview Survey 2014.

2006: **Statistics Austria**, Austrian Health Interview Survey 2006/2007.

**Methodology:** Data are based on daily cigarette smokers.

**Further information:** [http://www.statistik.at/web\\_en/](http://www.statistik.at/web_en/).

##### Belgium

###### Sources:

From 2004 onwards: **Scientific Institute of Public Health Sciensano**, Direction of Public Health and Surveillance, Health Interview Surveys 2004, 2008, 2013, 2018.

Until 1979: **Centre de Recherche et d'Information des Organisations de Consommateurs**.

**Coverage:** Population aged 15 years old and over.

**Methodology:** Sample size: about 9000 people aged 15 years old and over each year.

## Canada

### Sources:

From 2001: **Statistics Canada**, Canadian Community Health Survey (CCHS), custom tabulations.

1999-2000: **Health Canada**, Canadian Tobacco Use Monitoring Survey (CTUMS).

1996: **Statistics Canada**, National Population Health Survey (NPHS), 1996/97.

1990: **Health Canada**, Health Promotion Survey.

1989: **Health Canada**, National Alcohol and Drugs Survey.

1985 and 1991: **Statistics Canada**, General Social Survey (GSS).

1981, 1983, 1986 and 1988: **Public Health Agency of Canada**, Chronic Diseases in Canada.

**Coverage:** Population aged 15 years old and over.

### Methodology:

- As of 2007, the CCHS became an annual survey (prior to this date it was a biennial survey) of persons aged 12 years old and over, living in private dwellings, half of whom are interviewed in person, and the other half by telephone. It excludes persons living on Indian Reserves or Crown lands, residents of institutions, full-time members of the Canadian Armed Forces and residents of certain remote regions. The CCHS covers approximately 98% of the Canadian population aged 12 years old and over. Data are collected directly from respondents. Non-responses were removed from the calculation.

- Data show the average number of cigarettes smoked per day by daily smokers aged 15 years old and over.

🔴 Data from other surveys had different methodologies, and the relevant questions were asked in a different manner, thus comparisons between surveys should be done with caution.

✂️ **Break in time series in 2015:** As a result of the 2015 redesign, the Canadian Community Health Survey (CCHS) has a new collection strategy, a new sample design, and has undergone major content revisions. With all these factors taken together, caution should be taken when comparing data from previous cycles to data released for the 2015 cycle onwards. Annual estimates from 2015 onwards cover only respondents in the ten provinces.

### Further information:

2001 data and beyond: [http://www.statcan.gc.ca/cgi-](http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&lang=en&db=imdb&adm=8&dis=2&SDDS=3226)

[bin/imdb/p2SV.pl?Function=getSurvey&lang=en&db=imdb&adm=8&dis=2&SDDS=3226](http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&lang=en&db=imdb&adm=8&dis=2&SDDS=3226).

1999 and 2000 data: [http://www.hc-sc.gc.ca/hl-vs/tobac-tabac/research-recherche/stat/index\\_e.html](http://www.hc-sc.gc.ca/hl-vs/tobac-tabac/research-recherche/stat/index_e.html).

## Chile

**Source:** **Ministry of Health (MINSAL)**, **National Health Survey** (“Encuesta Nacional de Salud”) ENS 2003 and ENS 2009-2010.

**Coverage:** In 2003, population aged 17 years old and over.

**Further information:** <http://epi.minsal.cl/resultados-encuestas/> (2003 and 2009).

## Colombia

Data not available.

## Costa Rica

Data not available.

## Czech Republic

**Source:** **National Institute of Public Health**, Developments in the prevalence of smoking among adults in the Czech Republic - Opinions and attitudes of the population to the issue of smoking.

**Coverage:** National representative sample survey, population aged 15 years old and over.

### Methodology:

- Total number of respondents: between about 1600 and 1800 (in 2019: 1806 respondents aged 15 years and more)

and 196 respondents aged 15-24 years old).

- Data refer to daily smokers.

**Further information:** [http://www.szu.cz/uploads/documents/szu/aktual/zprava\\_tabak\\_alkohol\\_cr\\_2019.pdf](http://www.szu.cz/uploads/documents/szu/aktual/zprava_tabak_alkohol_cr_2019.pdf).

## Denmark

**Source: The Danish Health Authority.**

2017: Smoking Habit Survey 2017.

**Methodology:** Smokers were asked “How many cigarettes do you smoke daily?” The options given are in intervals where the middle of the interval is the number used. One option was “30 or over” which is set to 30 if chosen. The mean is then found.

## Estonia

**Source: National Institute for Health Development.** The Health Behavior among Estonian Adult Population Survey (known as Finbalt survey in 1990-2010).

**Coverage:** Data refer to the population aged 16-64 years old.

**Methodology:**

- Postal survey carried out every second year.

- In the survey, the wording of this particular question is: How many cigars, cigarettes/pipefuls a day do you usually smoke? (Please provide an answer for each type of smoke, i.e. filtered cigarettes, unfiltered cigarettes, hand-rolled cigarettes, (Russian) cigarettes, cigars or pipefuls).

- In 2002 the question was left out of the survey.

- Data refer to daily smokers only.

- Equivalent in nicotine: 1 cigar = 1 pipeful = 5 cigarettes.

**Further information:** See the original survey publications:

- Health Development. Available at <https://www.tai.ee/et/valjaanded/eesti-taiskasvanud-rahvastiku-tervisekaitumise-uuring-2014>.

- Tekkel, M., Veideman, T. (2017). Health Behavior among Estonian Adult Population, 2016. National Institute for Health Development. Available at <https://www.tai.ee/et/valjaanded/eesti-taiskasvanud-rahvastiku-tervisekaitumise-uuring-2016>.

- Reile, R., Tekkel, M., Veideman, T. (2019). Health Behavior among Estonian Adult Population, 2018. National Institute for Health Development. Available at <https://www.tai.ee/et/valjaanded/eesti-taiskasvanud-rahvastiku-tervisekaitumise-uuring-2018>.

- Reile, R., Veideman, T. (2020). Eesti täiskasvanud rahvastiku tervisekäitumise uuring 2020. Available at [https://www.tai.ee/sites/default/files/2021-04/TKU2020\\_kogumik.pdf](https://www.tai.ee/sites/default/files/2021-04/TKU2020_kogumik.pdf).

## Finland

**Source: Finnish Institute for Health and Welfare (THL),** 1978-2014 "Health Behaviour and Health among the Finnish Adult Population", survey data.

**Coverage:** 1978-2014 population aged 15 to 64 years old.

**Methodology:**

- Random sample (N=5000) of population annually 1978-2014.

- The time series discontinued in 2015.

- Question: “How much do you smoke currently or how much did you smoked on average before you quit smoking. Answer all items. Answer 0 if you do not smoke at all.”

- Data refer to factory-made cigarettes and self-rolled cigarettes.

**Further information:** [http://www.thl.fi/en\\_US/web/en](http://www.thl.fi/en_US/web/en).

## France

**Sources:**

From 1988: **Institut de recherche et documentation en économie de la santé** (Irdes). Health, Care, and Social Protection survey (ESPS); **Observatoire français des Drogues et des toxicomanies (OFDT)**, for total tobacco sales in tonnes; **Institut national de la statistique et des études économiques** for demographic data by age groups.

1960, 1965 and 1967: SOFRES and IFOD surveys carried out by **Société d'exploitation industrielle des tabacs et des allumettes** (Seita).

**Coverage:**

2012 onwards: Population aged 15 years old and over.

1988 to 2010: Population aged 16 years old and over.

1960, 1965 and 1967: Population aged 15 years old and over.

**Methodology:**

- Calculation: [(Tonnes of tobacco sold x 1000000 (in order to obtain grams)) / (population aged 15 years old and over x percentage of total smokers aged 15 years old and older)] / 365 or 366 days depending on the year.

- The ESPS survey started in 1988, on an annual basis and became bi-annual starting in 2002.

- 1 cigarette equals 1 gram.

**Further information:** For the 2014 survey common with EHIS, see

[http://ec.europa.eu/eurostat/documents/203647/203710/EHIS\\_wave\\_1\\_guidelines.pdf/ffbeb62c-8f64-4151-938c-9ef171d148e0](http://ec.europa.eu/eurostat/documents/203647/203710/EHIS_wave_1_guidelines.pdf/ffbeb62c-8f64-4151-938c-9ef171d148e0), Questions SK01-SK03.

## Germany

**Source:**

2020: **European Commission and Kantar**, Special Eurobarometer 506; *ibid.* 2021, *Attitudes of Europeans towards tobacco and electronic cigarettes*, Brussels, p.37;

2017: **European Commission and TNS Opinion & Social**, Special Eurobarometer 458; *ibid.* 2017, *Attitudes of Europeans towards tobacco and electronic cigarettes*, Brussels, p.38;

2014: **European Commission and TNS Opinion & Social**, Special Eurobarometer 429; *ibid.* 2015, *Attitudes of Europeans towards tobacco and electronic cigarettes*, Brussels, p.27;

2012: **European Commission and TNS Opinion & Social**, Eurobarometer 385 Wave 77.1; *ibid.* 2012, *Eurobarometer Tobacco*, Brussels, p.21;

2009: **European Commission and TNS Opinion & Social**, Eurobarometer 72.3; *ibid.* 2010, *Eurobarometer Tobacco*, Brussels, p.30.

**Methodology:**

- The data are based on every day and occasional cigarette smokers (manufactured and hand-rolled cigarettes).

- Question: "On average, how many cigarettes do you smoke each day?"

- Answer from reporting year 2017 onwards: "Less than 1; from 1 to 5; from 6 to 10; from 11 to 20; 21 or more".

- Answer until reporting year 2014: "Write down the answer in number of cigarettes".

- The Special Eurobarometer 506 was carried out between August and September 2020.

- It covers the population of the respective nationalities of the 27 European Union Member States and UK, residents in each of the Member States aged 15 years old and over.

- The basic sample design applied in all states is a multi-stage, random (probability) one.

- Round about 28,000 respondents (1,500 in Germany) from different social and demographic groups were interviewed face-to-face at home or were interviewed online, mostly after recruiting them in a probabilistic way by telephone.

**Further information:** [http://ec.europa.eu/health/tobacco/eurobarometers/index\\_en.htm](http://ec.europa.eu/health/tobacco/eurobarometers/index_en.htm).

## Greece

**Source:** Health Survey conducted by the **Hellenic Statistical Authority – ELSTAT** (2009, 2014 and 2019).

**Coverage:** Data refer to the population aged 15 years old and over. The sample size in 2019 was 8125 persons.

**Methodology:** Data refer to daily smokers.

**Further information:**

2019: <https://www.statistics.gr/en/statistics/-/publication/SHE22/>.

2014: <http://www.statistics.gr/el/statistics/-/publication/SHE22/2014>.

2009: <http://www.statistics.gr/el/statistics/-/publication/SHE22/2009>.

## Hungary

**Sources:**

2019: **Hungarian Central Statistical Office (KSH)**, EHIS 2019 (ELEF2019 in Hungarian).

2014: **Hungarian Central Statistical Office (KSH)**, EHIS 2014 (ELEF2014 in Hungarian).

2009: **Hungarian Central Statistical Office (KSH)**, EHIS 2009 (ELEF2009 in Hungarian).

1994: **Johan Béla National Center of Epidemiology (OEK)**, Health Behaviour Survey.

**Coverage**: Population aged 15 years old and over for 2009, 2014, 2019 data. Population aged 18 years and over for 2000 and 2003 data.

**Methodology:**

Question asked in the survey:

2019: On average, how many manufactured cigarettes do you smoke a day? On average, how many hand-rolled cigarettes do you smoke a day?

2014: On average, how many cigarettes do you smoke a day?

2009: On average how many cigarettes, cigars or pipes do you smoke a day?

**Further information**: <http://www.ksh.hu/elef/index.html> (in Hungarian).

## Iceland

Data not available.

## Ireland

**Sources:**

From 2015: **Annual Healthy Ireland Survey**, commissioned by the **Department of Health** as part of the Healthy Ireland initiative. The questions used were standard EHIS questions.

Until 2007: **Office of Tobacco Control**.

**Methodology:**

From 2015: The average number of cigarettes per smoker per day is estimated by averaging the total number of manufactured cigarettes and hand-rolled cigarettes per daily smoker aged 15+ using data collected from respondents in the Healthy Ireland survey.

Until 2007: The Office of Tobacco Control monitored cigarette smoking prevalence and behaviour on a monthly basis. The data consist of a collection of 1,000 responses per month from the Irish population over 15 years old. One of the questions reports on consumption: "How many cigarettes do you smoke per day?" Data for the 12-month periods ending in December are provided (the mean number of cigarettes smoked per day).

 **Break in time series** in 2015 due to a change in source.

**Further information**: <http://www.ntco.ie/research.asp>.

## Israel

**Sources:**

2019: **Israel Center for Disease Control (ICDC), Ministry of Health. The fourth Israel National Health Interview Survey INHIS-4, 2018-2020.**

2017: **Israel Center for Disease Control (ICDC), Ministry of Health. National KAP survey** (Knowledge, Attitudes and Practices) conducted periodically since 2002 by the **Israel Center for Disease Control (ICDC)** and the Department of Health Education and Promotion, **Ministry of Health.**

2016: **Israel Center for Disease Control (ICDC), Ministry of Health and Ministry of Culture and Sport. National Survey of Physical Activity in Adults, 2016.**

2014: **Israel Center for Disease Control (ICDC), Ministry of Health. The third Israel National Health Interview Survey INHIS-3, 2013-2015.**

2002, 2004, 2006, 2008, 2010-2011 and 2013: **National KAP survey** (Knowledge, Attitudes and Practices) generally conducted every two to three years since 2002 by the **Israel Center for Disease Control (ICDC)** and the **Department of Health Education and Promotion, Ministry of Health.**

**Coverage:**

 The KAP surveys for the years 2002, 2004, and 2006 were based on samples of ages 18 and over and the data for these years were presented accordingly. Since 2008, the KAP surveys, similarly to INHIS surveys, are based on samples of **ages 21 and over** and the data are presented accordingly.

2019: The INHIS-4 (Israel National Health Interview Survey) survey is based on a nationally-representative population sample of the non-institutionalised civilian population aged 21 and above.

2017: The National KAP Survey (Knowledge, Attitudes and Practices) is based on a nationally-representative population sample of the non-institutionalised civilian population aged 21 and above.

2016: The National Survey of Physical Activity is based on a representative population sample aged 18 and over. However, the data presented for 2016 are for persons aged 21 and over, in order to be consistent with data reported from the KAP and INHIS surveys since 2008.

2014: The INHIS-3 survey is based on a representative population sample aged 21 and over.

2002, 2004, 2006, 2008, 2010-2011 and 2013: KAP surveys based on national representative samples of non-institutionalised civilian population. Until (and including) KAP 2006, survey samples included ages 18 and above. The KAP 2008, 2010-2011 and 2013 survey samples included persons aged 21 years old and over.

#### **Methodology:**

2019: The INHIS-4 survey is the fourth in a series of population-based National Health Interview Surveys. Previous surveys were conducted in 2003-2004 (INHIS-1), 2007-2010 (INHIS-2) and 2013-2015 (INHIS-3). The INHIS-4, a population-based telephone survey, was carried out on a sample of 4,135 Israelis aged 21 years and over.

2017: The KAP 2017 survey, a population-based telephone survey, was carried out on a sample of 6,207 Israelis aged 21 years and over.

2016: The National Physical Activity Survey was a population-based telephone survey conducted on a representative sample of 3,368 Israelis aged 18 and over. The data reported in the OECD database are based on 3,241 Israelis aged 21 and over.

 **Break in time series in 2016**: The surveys in previous years were based on samples of land-line telephones only. Since 2016, the samples of the surveys include both land-lines and mobile telephones. This needs to be taken into account when performing comparisons or measuring trends over time.

2014: The INHIS-3 survey is the third in a series of population-based National Health Interview Surveys. The INHIS-3 survey was a telephone survey on a representative sample of 4,406 Israelis aged 21 and above.

2002, 2004, 2006, 2008, 2010-2011 and 2013: The KAP survey is a series of national, population-based telephone surveys generally conducted every two or three years on representative samples of the population. Samples consist of at least 3,000 residents. The KAP 2013 survey was carried out on a sample of 6,014 Israelis aged 21 years old and over.

- The average number of cigarettes per day is based on data for daily smokers.

#### **Further information:**

- For further information regarding the surveys:

INHIS-3: [https://www.health.gov.il/PublicationsFiles/INHIS\\_3.pdf](https://www.health.gov.il/PublicationsFiles/INHIS_3.pdf) (partially in English)

KAP 2004: <https://www.health.gov.il/publicationsfiles/knowledge-behavior-2004-2005.pdf> (Hebrew only)

KAP 2006: <https://www.health.gov.il/publicationsfiles/knowledge-behavior-2006.pdf> (partially in English)

KAP 2008: <https://www.health.gov.il/publicationsfiles/knowledge-behavior-2008.pdf> (partially in English)

KAP 2011: <https://www.health.gov.il/publicationsfiles/knowledge-behavior-2011.pdf> (partially in English)

KAP 2013: <https://www.health.gov.il/publicationsfiles/kap2013.pdf> (partially in English)

KAP 2017: <https://www.health.gov.il/publicationsfiles/kap2017m.pdf> (Hebrew only)

Physical Activity 2016: [https://www.health.gov.il/PublicationsFiles/ICDC\\_380.pdf](https://www.health.gov.il/PublicationsFiles/ICDC_380.pdf) (Hebrew only)

**Note:** The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities.

The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

## **Italy**

**Source:** ISTAT, Istituto Nazionale di Statistica (National Institute of Statistics).

From 1993: Survey “Aspect of daily living.”

1983: Health Survey 1983.

**Coverage:** Population aged 15 years old and over.

**Further information:** <http://dati.istat.it/Index.aspx?QueryId=42612>.

## **Japan**

#### **Sources:**

2003 onwards: **Ministry of Health, Labour and Welfare**, National Health and Nutrition Survey.

**Coverage:** Data refer to the population aged 20 years old and over.

**1987-1995: Japan Health Promotion and Fitness Foundation.**  
**Further information:** <http://www.health-net.or.jp/> (in Japanese).

## Korea

### Sources:

**From 2007: Ministry of Health and Welfare, Korea Disease Control and Prevention Agency,** Report on the National Health and Examination Nutrition Survey. (In 2020, the Korea Centers for Disease Control and Prevention changed to the Korea Disease Control and Prevention Agency.)

**1998-2005: Ministry of Health and Welfare, Korea Institute for Health and Social Affairs,** Report on the National Health and Nutrition Survey.

**Before 1995: Statistics Korea,** Results of Social Survey.

### Methodology:

- The sample size of the 8<sup>th</sup> National Health and Examination Nutrition Survey (2019-2021) is 4800 household each year. The sample size of the 7<sup>th</sup> National Health and Examination Nutrition Survey (2016-2018) was 4416 families each year. It excludes the institutional dwelling units (e.g. dormitories, social welfare institutions, prisons, military camps, etc.) and foreigners.

- The National Health and Examination Nutrition Survey had been conducted every three years until 2005, and has become an annual survey in 2007.

- **Question for the 15-18-year-olds:** "Average number of cigarettes per day for those who have smoked at least one cigarette within a month."

- **Question for the 19-year-olds and over:** "Average number of cigarettes per day for those who have answered to be 'current smokers'."

- **Current smoker:** People who have smoked more than 100 cigarettes in their life and currently smoke.

**Coverage:** Data refer to the population aged 15 years old and over.

**Further information:** <https://knhanes.cdc.go.kr/knhanes/eng/index.do>.

## Latvia

**Source: Centre for Disease Prevention and Control of Latvia, Health Behaviour Survey among Latvian Adult Population.**

**Deviation from the definition:** Data for 1998-2014 are for the age group 15-64 years old, data for 2016 and 2018 are for the age group 15-74 years old.

## Lithuania

Data not available.

## Luxembourg

**2019: European Health interview Survey (EHIS) Wave 3.**

**2014: European Health interview Survey (EHIS) Wave 2.**

**Definition:** Average number of cigarettes smoked per day among daily cigarettes smokers. Note that data are not from the same sample used for determining the percentage of daily smokers.

**Reference population:** The population aged 15 years or over who are daily smokers of cigarettes.

## Mexico

### Sources:

**2017: National Survey of drugs, alcohol and tobacco consumption (ENCODAT),** National Institute of Public Health (INSP), National Institute of Psychiatry and National Commission Against Addictions (CONADIC).

**2009, 2015: Adult Tobacco Global Survey (GATS).** In Mexico, GATS was coordinated by the National Committee composed by the Ministry of Health, CONADIC, COFEPRIS, CENAVECE, the National Institute of Psychiatry and the National Institute of Respiratory Diseases.

**2002, 2008 and 2011: Ministry of Health, National Survey in Addiction (ENA):** Report of Tobacco.

2000, 2006 and 2012: **National Institute of Public Health**, National Health Survey (ENSA 2000, ENSANUT 2006 and 2012).

**Coverage:**

2002, 2008, 2011 and 2017: Data refer to the population aged 18 to 65 years old.

2009 and 2015: Data refer to the population aged 15 years old and over.

2000, 2006 and 2012: Data refer to the population aged 20 years old and over..

**Deviation from the definition:** There is a deviation in the age group used in the Mexican surveys used for tobacco consumption.

## Netherlands

**Source:** **Statistics Netherlands**. Annual Health Interview Survey.

**Coverage:** Population aged 15 years old and over. From 1989-2000, population aged 16 years old and over, excluding institutionalised households.

**Methodology:**

- In 1984, the excise on tobacco, especially cigarettes, increased very substantially.

- Data refer to both occasional and daily smokers.

- The question was “How many cigarettes do you smoke on average per day?” (with a possibility of a maximum 200 cigarettes).

**Breaks in time series in 2010 and 2014** due to a redesign of the survey.

**Further information:** <https://www.cbs.nl/en-GB/>. Also see <https://www.cbs.nl/en-gb/our-services/methods/surveys/brief-survey-descriptions>.

## New Zealand

**Sources:**

2020: **Ministry of Health**, New Zealand Health Survey 2019/20.

2019: **Ministry of Health**, New Zealand Health Survey 2018/19.

2018: **Ministry of Health**, New Zealand Health Survey 2017/18.

2017: **Ministry of Health**, New Zealand Health Survey 2016/17.

2016: **Ministry of Health**, New Zealand Health Survey 2015/16.

2015: **Ministry of Health**, New Zealand Health Survey 2014/15.

1996-2014: **Ministry of Health**.

Up to 1995: **Statistics New Zealand ACNielsen (NZ) Ltd**.

**Methodology:**

2016, 2017, 2018, 2019 and 2020:

- Interviews are carried out from July to March (following year), collecting information on 9699 adults (13752 for 2018-19) aged 15 years old through face-to-face interviews (see the indicator on “Perceived health status” for further details on previous surveys’ periods and sample sizes).

- The sample for 2019-20 was substantially reduced in both numbers and the distribution throughout the year. The New Zealand Health Survey is conducted face-to-face in people’s homes and was shut down early due to COVID-19 safety requirements.

- Question asked to current smokers (adults aged 15+ years who smoke at least monthly, and have smoked more than 100 cigarettes in their whole life): “On average, how many cigarettes do you smoke a day? Less than 1 per day / 1–5 per day / 6–10 per day / 11–15 per day / 16–20 per day / 21–25 per day / 26–30 per day / 31 or more a day”.

From 1996 to 2014:

- The Ministry of Health uses statistics of NZ tobacco consumption data in grams, estimates of prevalent current smokers for the adult population aged 15 years old and over, and estimated resident population aged 15 years and over to derive average cigarettes per smoker per day.

- A current smoker, based on the World Health Organization definition, is someone who has smoked more than 100 cigarettes in their lifetime and is currently smoking at least once a month (World Health Organization 1998).

- The assumption is made that 1 gram of tobacco equates to 1 cigarette.

- The prevalent number of current smokers is estimated using figures from the New Zealand Health Survey. Since 2011-12 the survey has been continuously in the field.

- Statistics New Zealand population estimates for the mean year ended December for each year in the series from 1996 to 2014 were applied to the current smoker prevalence figures for corresponding years to determine the

estimated number of smokers for each year in the series. Daily tobacco consumption in grams divided by the estimated number of prevalent smokers gives the estimated cigarettes per smoker per day.

- Tobacco consumption data relates to the year ended December.

- The cigarettes and tobacco available for consumption series was discontinued by Statistics New Zealand in September 2010, for reasons of confidentiality of published statistical information. Therefore, data are unavailable from 2010 onwards.

- The method to estimate national tobacco consumption is outlined for the indicator on tobacco consumption in grams per capita (age 15 years old and over).

Up to 1995: Annual Survey of 10000 people. Female/male smokers, and 5-yearly census data.

- The ACNielsen cigarette survey purchased by the Ministry of Health from 1982 to 2007 was based on an annual omnibus survey asking about various consumer items (cars, whiskey) and used a show card of various tobacco products to ask about regular use. Smoking is thus accepted as normal consumer behaviour in a way not possible in a health survey.

 **Break in time series in 2015**: From 1996 to 2014, the indicator was estimated based on the current smoker data provided by the NZHS and tobacco consumption data. From 2015, a new indicator has been added to the NZHS asking current smokers directly how many cigarettes they smoke: “On average, how many cigarettes do you smoke a day? Less than 1 per day / 1–5 per day / 6–10 per day / 11–15 per day / 16–20 per day / 21–25 per day / 26–30 per day / 31 or more a day”.

## Norway

**Source:** Norwegian Directorate of Health, Statistics Norway.

**Coverage:** Population aged 16 to 74 years old only.

**Methodology:** Interview survey.

**Further information:** <http://www.regjeringen.no/en/dep/hod/About-the-Ministry/Subordinate-institutions/the-directorate-for-health-and-social-af.html?id=213297>.

## Poland

**Source:** Statistics Poland.

1996, 2004, 2009, 2014, 2019: European Health Interview Survey.

2001: Multi-dimensional Living Conditions Questionnaire Survey.

**Coverage:** 1996 and 2001 data refer to population aged 18 years old and over. 2004, 2009, 2014 data refer to population aged 15 years old and over.

**Methodology:** Instrument includes the following question: How many cigarettes do you smoke daily on average?

**Further information:** <http://stat.gov.pl/english/>.

## Portugal

**Sources:**

1998/1999: National Health Survey, **Ministry of Health - National Health Institute - Doutor Ricardo Jorge**.

1987 and 1995/1996: National Health Survey, **Ministry of Health - Departamento of Health Studies and Planning**.

1987: National Health Survey, **Ministry of Health - Departamento of Health Studies and Planning**.

**Methodology:** It is not possible to calculate the average numbers of cigarettes per smoker per day using the questions included in the 2005-2006 and 2014 National Health Survey. However, the percentage of people smoking cigarettes daily is available for two categories: “Up to 20 cigarettes” and “More than 21 cigarettes”, see table below.

	Daily smokers / number of cigarettes per smoker per day	
	Up to 20 cigarettes	21 cigarettes or more
NHS 2019	92.2%	7.8%
NHS 2014	90.7%	8.6 %
NHS 2005-2006	80.3%	18.0%

**Further information:** <http://www.insa.pt> and <http://www.min-saude.pt/>.

## Slovak Republic

### Sources:

2019: **Statistical Office of the Slovak Republic**, European Interview Survey 2019.

2014: **Statistical Office of the Slovak Republic**, European Interview Survey 2014.

2009: **Statistical Office of the Slovak Republic**, European Interview Survey 2009.

2006: **Public Health Institute**.

**Coverage:** For 2006, data refer to the population aged 18 years old and over. For 2009, 2014 and 2019, data refer to the population aged 15 years old and over.

**Further information:** <http://www.uvzsr.sk/> and <http://portal.statistics.sk/showdoc.do?docid=359>.

## Slovenia

### Sources:

2019: **National Institute of Public Health**, Nacionalna raziskava o zdravju in zdravstvenem varstvu 2019 (Questionnaire of the European Health Interview Survey, EHIS, 3<sup>rd</sup> round).

2014: **National Institute of Public Health**, Anketa o zdravju in zdravstvenem varstvu 2014 (Questionnaire of the European Health Interview Survey, EHIS, 2<sup>nd</sup> round).

2007: **National Institute of Public Health**, Anketa o zdravju in zdravstvenem varstvu 2007 (Questionnaire of the European Health Interview Survey, EHIS, 1<sup>st</sup> round).

### Methodology:

2014 and 2019: The average number of cigarettes smoked by daily smokers, derived from EHIS question SK3: On average, how many cigarettes (manufactured or hand-rolled) do you smoke each day?

2007: The average number of cigarettes smoked by daily smokers, derived from EHIS question SK.3: On average, how many manufactured cigarettes do you smoke each day?

**Coverage:** Population living in private households (persons living in institutions are excluded), age 15+.

**Deviation from the definition:** Data refer to daily smokers.

### Further information:

2019: <https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-02-18-240>.

2014: <http://ec.europa.eu/eurostat/documents/3859598/5926729/KS-RA-13-018-EN.PDF/26c7ea80-01d8-420e-bdc6-e9d5f6578e7c>.

2007: [http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/european\\_health\\_interview\\_survey](http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/european_health_interview_survey).

## Spain

**Source:** **Ministerio de Sanidad (Ministry of Health)** and **National Statistics Institute**:

2009, 2014 and 2020: Encuesta Europea de Salud en España - EESE (European Health Survey in Spain EHIS).

1993-2006, 2011 and 2017: Encuesta Nacional de Salud de España - ENSE (National Health Survey).

### Coverage:

From 2011: Population aged 15 years old and over.

1993-2009: Population aged 16 years old and over.

**Methodology:** Average number of cigarettes per daily smoker. Includes only valid responses to "number of cigarettes consumed".

- From 2003, probabilistic sample.

**Further information:** <https://www.msrebs.gob.es/estadEstudios/estadisticas/encuestaNacional/home.htm> and <https://www.msrebs.gob.es/estadEstudios/estadisticas/EncuestaEuropea/home.htm>.

## Sweden

**Source:** **Statistics Sweden**. National Survey of Living Conditions (ULF).

**Methodology:** The surveys are conducted as personal interviews with a random sample from the population (including the institutionalised) aged 16-84 years old. 12000 to 13000 people are interviewed over a period of two years.

**Note:** Data are not available anymore after 1995.

**Further information:** <http://www.scb.se>.

## Switzerland

**Source:** Federal Statistical Office, Neuchâtel. Swiss Health Survey 1992, 1997, 2002, 2007, 2012 and 2017.

**Coverage:** Population aged 15 years old and over.

**Methodology:**

- Less than one cigarette per day = 0.
- Smokers of cigars or pipes are not included.

**Further information:**

[http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/erhebungen\\_quellen/blank/blank/ess/04.html](http://www.bfs.admin.ch/bfs/portal/fr/index/infothek/erhebungen_quellen/blank/blank/ess/04.html).

## Turkey

**Sources:**

2010 onwards: Turkish Statistical Institute (TURKSTAT), Turkey Health Interview Survey 2010, 2014, 2016 and 2019.

2008 and 2012: Turkish Statistical Institute (TURKSTAT), The Global Adult Tobacco Survey 2008 and 2012.

2003: School of Public Health of the Ministry of Health, National Burden of Disease and Cost Effectiveness Study.

**Coverage:** Data are for the population aged 18 years old and over in 2003. 2008 onwards refer to the population aged 15 years old and over.

**Methodology:** Data refer to daily smokers.

**Further information:** <http://www.turkstat.gov.tr/>.

## United Kingdom

**Sources:**

2018 onwards: ONS.

1974 to 2017: NHS Digital using data from:

- England, Scotland and Wales: Office for National Statistics (ONS) General Lifestyle Survey.
- Northern Ireland: Central Survey Unit (CSU) of the Northern Ireland Statistics and Research Agency (NISRA).

Northern Ireland could not supply data on smoking from 2011 onwards.

1960 to 1973: Annual surveys by the Tobacco Advisory Council (TAC, now Tobacco Manufacturers Association) quoted in Wald et al. 'UK Smoking Statistics' (2nd Edition 1991, Oxford University Press), table 3.3.

**Coverage:** Data are for smokers aged 16 years old and over for Great Britain from 2006 onwards.

**Methodology:**

- Data from 2000 have been weighted.
- The smoking module of the survey has been carried out in alternate years up to 2000. Data for years when survey was not run was completed when the next set of results were available.

 **Breaks in time series:**

- From 2018, survey respondents have been asked to provide their usual consumption for each day of the week; previously participants were asked to provide their usual consumption for the weekdays and weekends. This has produced a break in the time series, meaning that data collected from 2018 is not directly comparable with data collected previously.

Data before 1974 are not comparable due to different methodologies between TAC and current surveys.

**Further information:** <https://statistics.gov.uk>.

## United States

**Source:** Centers for Disease Control and Prevention/National Center for Health Statistics/U. S. Department of Health and Human Services. National Health Interview Survey (NHIS).

**Coverage:** National representative sample of the U.S. civilian non-institutionalised population aged 18 years old and over. For all years, except 1976 and 1977 when the minimum age was 20 years old.

**Methodology:** Estimates were weighted to represent the U.S. civilian non-institutionalised population for each time period.

 **Break in time series in 1991:** For the years 1965-1990, daily smoking could not be identified in the NHIS. Therefore, estimates of mean number of cigarettes for these years reflect amounts for all current smokers. Beginning

in 1991, the NHIS distinguished between daily and non-daily smokers and estimates of mean number of cigarettes smoked for these years reflect amounts for daily smokers only.

**Note:** In 2019, the NHIS questionnaire was redesigned to better meet the needs of data users. Due to changes in weighting and design methodology, direct comparisons between estimates for 2019 and earlier years should be made with caution, as the impact of these changes has not been fully evaluated at this time.

**Further information:** NHIS website, <http://www.cdc.gov/nchs>.

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<http://www.oecd.org/health/health-data.htm>