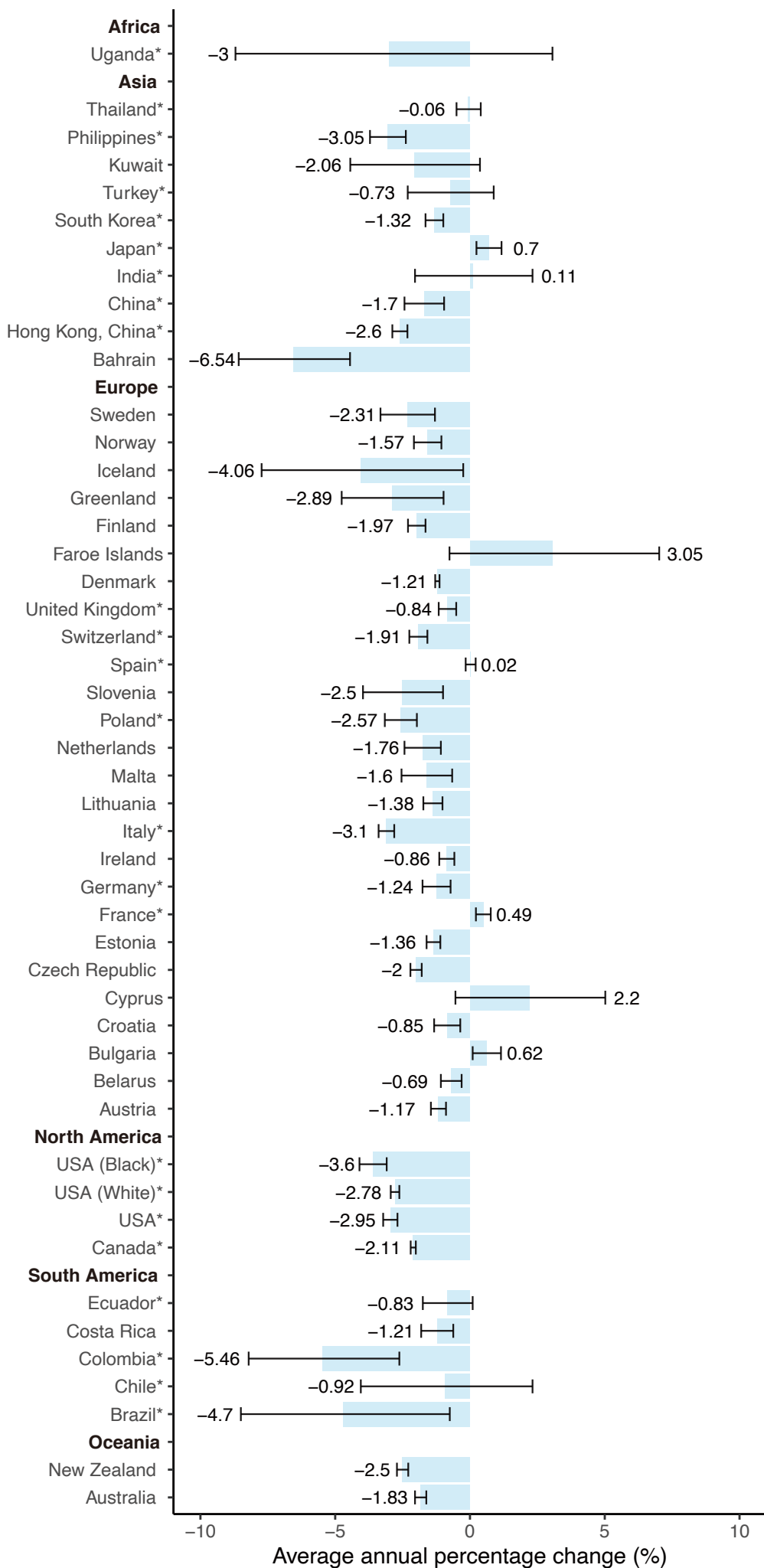
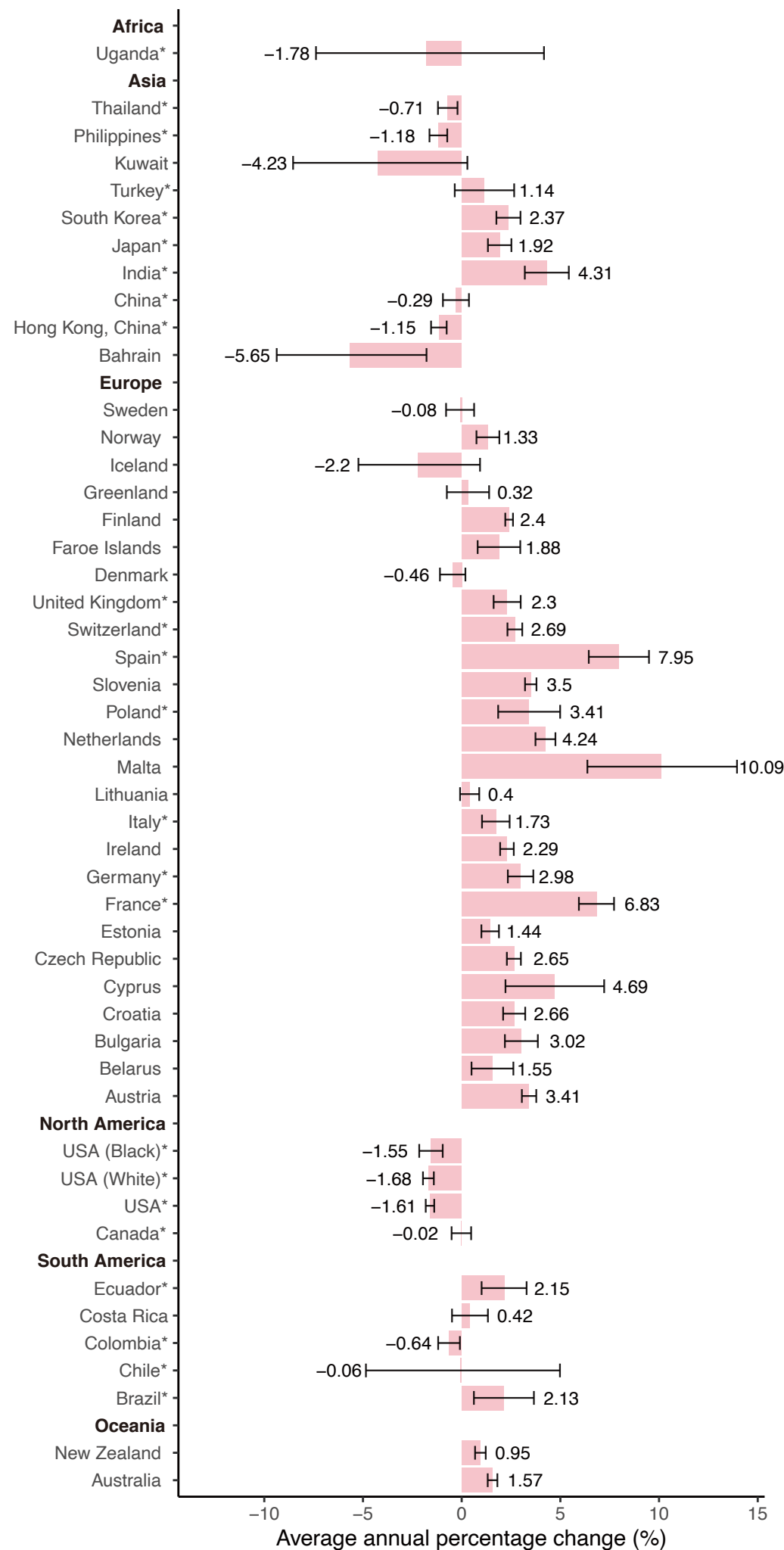


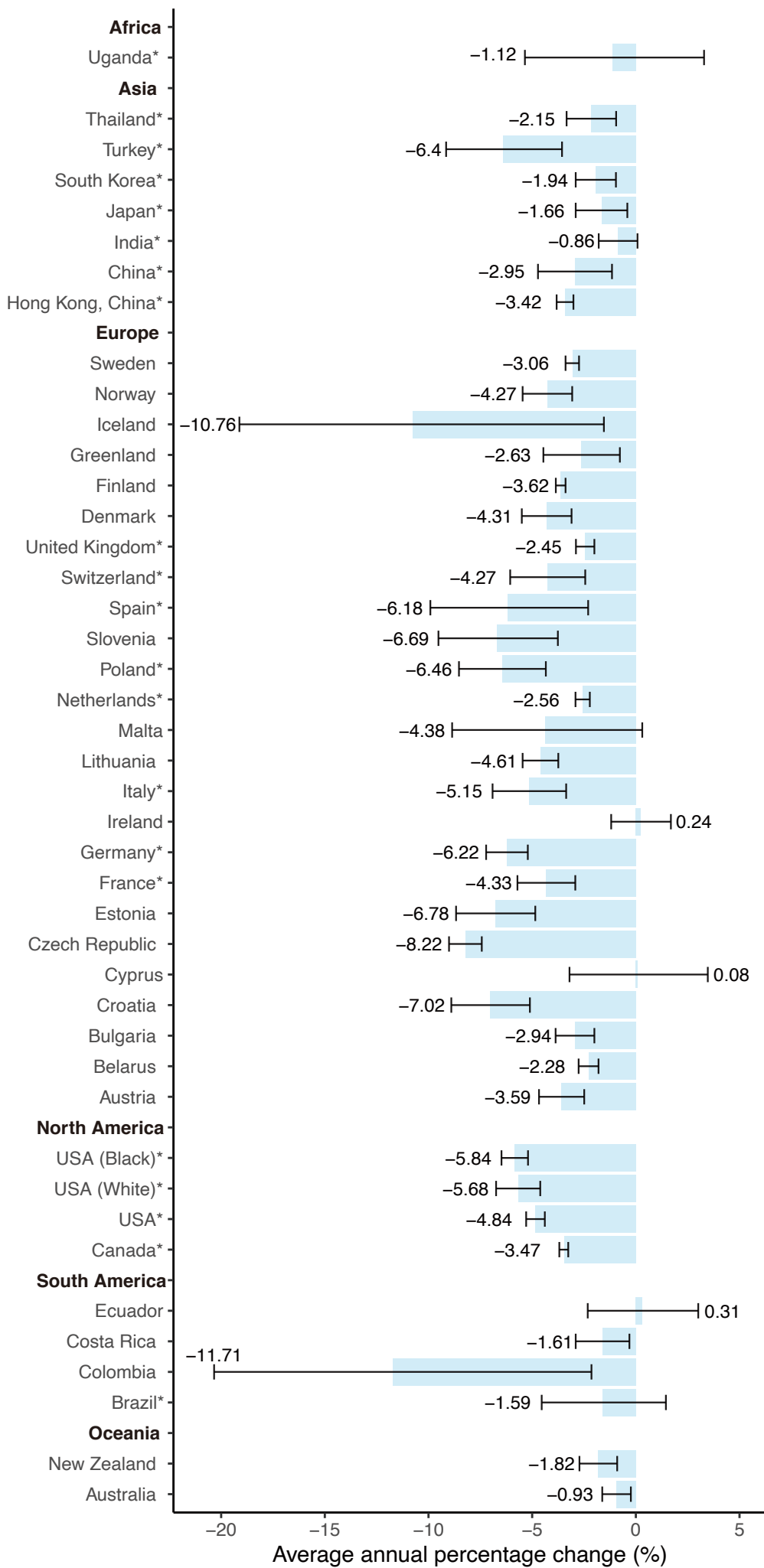
Incidence AAPC for Men (>= 50 years old)



Incidence AAPC for Women (>= 50 years old)



Incidence AAPC for Men (< 50 years old)



Incidence AAPC for Women (< 50 years old)

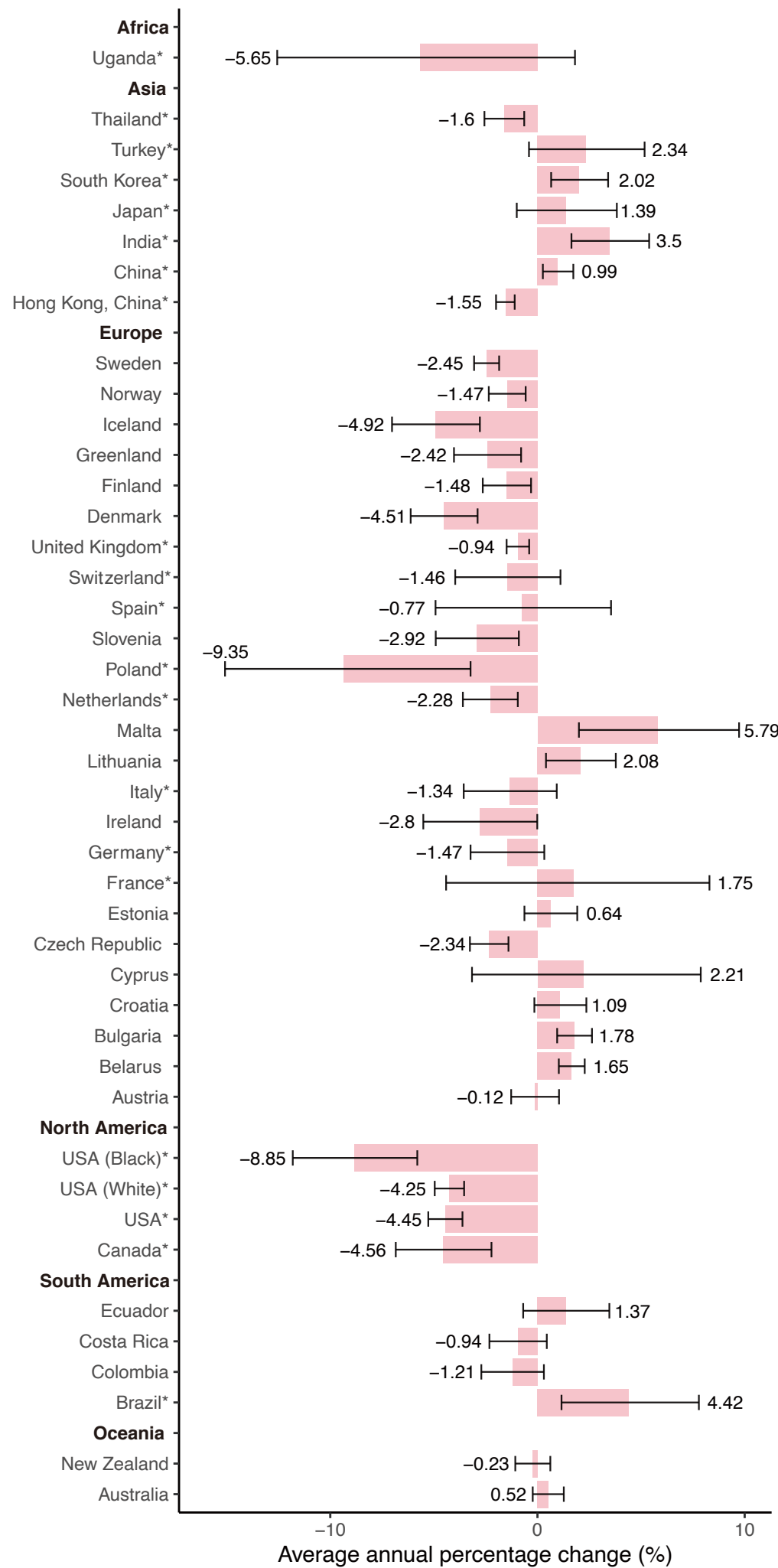


Table S1. The incidence and mortality data of tracheal, bronchus, and lung cancer

| Country | Incidence | | Mortality | |
|------------------|-----------|---------|-----------|---------|
| Australia | 1993-2012 | CI5 | 1979-2018 | WHO |
| Austria | 1998-2012 | CI5 | 1980-2019 | WHO |
| Bahrain | 1998-2012 | CI5 | 1985-2014 | WHO |
| Belarus | 1983-2012 | CI5 | 1981-2018 | WHO |
| Belgium | NA | NA | 1979-2016 | WHO |
| Brazil | 1993-2012 | CI5* | 1979-2018 | WHO |
| Bulgaria | 1998-2012 | CI5 | 1980-2018 | WHO |
| Canada | 1983-2012 | CI5* | 1979-2019 | WHO |
| Chile | 1998-2012 | CI5* | 1980-2018 | WHO |
| China | 1998-2012 | CI5* | NA | NA |
| Colombia | 1983-2012 | CI5* | 1984-2017 | WHO |
| Costa Rica | 1982-2011 | CI5 | 1980-2018 | WHO |
| Croatia | 1988-2012 | CI5 | 1985-2017 | WHO |
| Cyprus | 1998-2012 | CI5 | 1999-2018 | WHO |
| Czech Republic | 1983-2012 | CI5 | 1986-2019 | WHO |
| Denmark | 1943-2018 | Nordcan | 1970-2018 | Nordcan |
| Ecuador | 1985-2012 | CI5* | 1979-2017 | WHO |
| Estonia | 1983-2012 | CI5 | 1994-2019 | WHO |
| Faroe Islands | 1961-2018 | Nordcan | 1983-2018 | Nordcan |
| Finland | 1953-2018 | Nordcan | 1953-2018 | Nordcan |
| France | 1998-2011 | CI5* | 1979-2016 | WHO |
| Germany | 1998-2012 | CI5* | 1990-2019 | WHO |
| Greenland | 1977-2018 | Nordcan | 1983-2018 | Nordcan |
| China, Hong Kong | 1983-2012 | CI5* | 1979-2017 | WHO |
| Iceland | 1955-2018 | Nordcan | 1951-2018 | Nordcan |
| India | 1983-2012 | CI5* | NA | NA |
| Ireland | 1994-2012 | CI5 | 1979-2015 | WHO |
| Israel | 1963-2012 | CI5 | 1979-2018 | WHO |
| Italy | 1998-2010 | CI5* | 1979-2017 | WHO |
| Japan | 1998-2010 | CI5* | 1979-2017 | WHO |
| South Korea | 1999-2012 | CI5* | 1985-2019 | WHO |
| Kuwait | 1998-2012 | CI5 | 1979-2017 | WHO |
| Latvia | NA | NA | 1984-2018 | WHO |
| Lithuania | 1988-2012 | CI5 | 1993-2019 | WHO |
| Malta | 1993-2012 | CI5 | 1979-2017 | WHO |
| Netherlands | 1989-2012 | CI5 | 1979-2018 | WHO |
| New Zealand | 1983-2012 | CI5 | 1979-2016 | WHO |
| Norway | 1953-2018 | Nordcan | 1961-2018 | Nordcan |
| Philippines | 1983-2012 | CI5* | 1992-2014 | WHO |
| Poland | 1998-2012 | CI5* | 1980-2018 | WHO |
| Portugal | NA | NA | 1980-2018 | WHO |

| | | | | |
|--------------------|-----------|---------|-----------|---------|
| Russian Federation | NA | NA | 1980-2019 | WHO |
| Singapore | NA | NA | 1979-2019 | WHO |
| Slovenia | 1983-2012 | CI5 | 1985-2019 | WHO |
| Spain | 1993-2010 | CI5* | 1980-2017 | WHO |
| Sweden | 1960-2018 | Nordcan | 1952-2018 | Nordcan |
| Switzerland | 1998-2012 | CI5* | 1995-2017 | WHO |
| Turkey | 1998-2012 | CI5* | NA | NA |
| Thailand | 1993-2012 | CI5* | 1979-2019 | WHO |
| Uganda | 1993-2012 | CI5* | NA | NA |
| United Kingdom | 1995-2012 | CI5* | 1979-2016 | WHO |
| USA | 1975-2018 | SEER* | 1969-2019 | SEER |
| USA Black | 1975-2018 | SEER* | 1969-2020 | SEER |
| USA White | 1975-2018 | SEER* | 1969-2021 | SEER |

CI5: Cancer Incidence in Five Continents V; NORDCAN: Nordic Cancer Registries; SEER: Surveillance, Epidemiology, and End Results Program; WHO: World Health Organization; NA: not available.

*Subnational data; Brazil, Goiania; Canada (excl. Nunavut, Quebec and Yukon); Chile, Valdivia; China (5 registries); Colombia, Cali; Ecuador, Quito; France (9 registries); Germany (2 registries); India, Chennai; Italy (8 registries); Japan (4 registries); Korea (5 registries); Republic of Korea; Philippines, Manila; Poland, Kielce; Spain (9 registries); Switzerland (6 registries); Thailand (4 registries); Turkey (2 registries); Uganda, Kampala; UK, England; USA, (9 registries)

Table S2. The AAPC of the mortality of tracheal, bronchus, and lung cancer in individuals of all ages.

| Country | Lower endpoint | Upper endpoint | AAPC | 95%CI-Low | 95%CI-High | P-value | Sex |
|--------------------|----------------|----------------|--------|-----------|------------|---------|------|
| Asia | | | | | | | |
| Bahrain | 2005 | 2014 | -12.18 | -14.01 | -10.3 | < 0.001 | male |
| Hong Kong, China | 2008 | 2017 | -2.98 | -3.38 | -2.58 | < 0.001 | male |
| Israel | 2009 | 2018 | -1.59 | -2.03 | -1.14 | < 0.001 | male |
| Japan | 2009 | 2018 | -2.27 | -2.57 | -1.97 | < 0.001 | male |
| South Korea | 2010 | 2019 | -3.66 | -4.17 | -3.15 | < 0.001 | male |
| Kuwait | 2008 | 2017 | -3.13 | -3.68 | -2.58 | < 0.001 | male |
| Philippines | 2001 | 2014 | -2.52 | -3.11 | -1.92 | < 0.001 | male |
| Singapore | 2009 | 2019 | -5.69 | -9.76 | -1.44 | 0.009 | male |
| Thailand | 2010 | 2019 | 0.68 | 0.35 | 1.01 | < 0.001 | male |
| Europe | | | | | | | |
| Austria | 2010 | 2019 | -2.11 | -2.21 | -2 | < 0.001 | male |
| Belarus | 2002 | 2018 | -2.06 | -2.26 | -1.86 | < 0.001 | male |
| Belgium | 2007 | 2016 | -2.83 | -3.02 | -2.64 | < 0.001 | male |
| Bulgaria | 2009 | 2018 | -1.38 | -2.02 | -0.73 | < 0.001 | male |
| Croatia | 2008 | 2017 | -1.4 | -1.57 | -1.23 | < 0.001 | male |
| Cyprus | 2009 | 2018 | 1.52 | -0.06 | 3.12 | 0.057 | male |
| Czech Republic | 2010 | 2019 | -3.98 | -4.22 | -3.75 | < 0.001 | male |
| Estonia | 2010 | 2019 | -2.35 | -2.63 | -2.08 | < 0.001 | male |
| France | 2007 | 2016 | -1.96 | -2.2 | -1.71 | < 0.001 | male |
| Germany | 2010 | 2019 | -2.21 | -3.06 | -1.34 | < 0.001 | male |
| Ireland | 2006 | 2015 | -2.45 | -2.63 | -2.26 | < 0.001 | male |
| Italy | 2008 | 2017 | -2.98 | -3.08 | -2.89 | < 0.001 | male |
| Latvia | 2009 | 2018 | -1.73 | -1.97 | -1.49 | < 0.001 | male |
| Lithuania | 2010 | 2019 | -1.86 | -2.03 | -1.69 | < 0.001 | male |
| Malta | 2008 | 2017 | -1.96 | -2.31 | -1.61 | < 0.001 | male |
| Netherlands | 2009 | 2018 | -3.62 | -4.13 | -3.11 | < 0.001 | male |
| Poland | 2009 | 2018 | -2.85 | -3.04 | -2.66 | < 0.001 | male |
| Portugal | 2009 | 2018 | 0.09 | -0.09 | 0.27 | 0.32 | male |
| Russian Federation | 2010 | 2019 | -1.9 | -2.11 | -1.69 | < 0.001 | male |
| Slovenia | 2010 | 2019 | -2.57 | -2.82 | -2.32 | < 0.001 | male |
| Spain | 2008 | 2017 | -1.8 | -1.98 | -1.63 | < 0.001 | male |
| Switzerland | 2008 | 2017 | -3.17 | -3.7 | -2.64 | < 0.001 | male |
| United Kingdom | 2007 | 2016 | -2.63 | -2.74 | -2.52 | < 0.001 | male |
| Denmark | 2009 | 2018 | -3.44 | -4.67 | -2.19 | < 0.001 | male |

| | | | | | | | |
|------------------|------|------|-------|-------|-------|---------|--------|
| Faroe Islands | 2009 | 2018 | -2.36 | -3.31 | -1.4 | < 0.001 | male |
| Finland | 2009 | 2018 | -2.37 | -2.78 | -1.96 | < 0.001 | male |
| Greenland | 2009 | 2018 | -3.73 | -5.9 | -1.5 | 0.002 | male |
| Iceland | 2009 | 2018 | -1.77 | -2.39 | -1.14 | < 0.001 | male |
| Norway | 2009 | 2018 | -3.71 | -4.42 | -2.98 | < 0.001 | male |
| Sweden | 2009 | 2018 | -2.94 | -3.37 | -2.52 | < 0.001 | male |
| North America | | | | | | | |
| Canada | 2010 | 2019 | -4.05 | -4.44 | -3.65 | < 0.001 | male |
| USA | 2010 | 2019 | -4.7 | -4.95 | -4.44 | < 0.001 | male |
| USA (White) | 2010 | 2019 | -4.63 | -4.89 | -4.37 | < 0.001 | male |
| USA (Black) | 2010 | 2019 | -5.21 | -5.58 | -4.83 | < 0.001 | male |
| South America | | | | | | | |
| Brazil | 2010 | 2019 | -1.53 | -1.7 | -1.36 | < 0.001 | male |
| Chile | 2009 | 2018 | -1.39 | -1.57 | -1.21 | < 0.001 | male |
| Colombia | 2008 | 2017 | -2.2 | -2.58 | -1.82 | < 0.001 | male |
| Costa Rica | 2010 | 2019 | -2.8 | -3.13 | -2.47 | < 0.001 | male |
| Ecuador | 2008 | 2017 | -3.14 | -4.64 | -1.61 | < 0.001 | male |
| Oceania | | | | | | | |
| Australia | 2009 | 2018 | -2.92 | -3.01 | -2.84 | < 0.001 | male |
| New Zealand | 2007 | 2016 | -2.86 | -3 | -2.73 | < 0.001 | male |
| Asia | | | | | | | |
| Bahrain | 2005 | 2014 | -3.44 | -5.64 | -1.18 | 0.005 | female |
| Hong Kong, China | 2008 | 2017 | -2.25 | -4.35 | -0.1 | 0.04 | female |
| Israel | 2009 | 2018 | -1.46 | -3.11 | 0.22 | 0.088 | female |
| Japan | 2009 | 2018 | -1.49 | -2.02 | -0.96 | < 0.001 | female |
| South Korea | 2010 | 2019 | -3.53 | -4.2 | -2.86 | < 0.001 | female |
| Kuwait | 2008 | 2017 | -1.95 | -2.74 | -1.16 | < 0.001 | female |
| Philippines | 2001 | 2014 | -0.57 | -1.32 | 0.19 | 0.139 | female |
| Singapore | 2009 | 2019 | -2.7 | -2.98 | -2.41 | < 0.001 | female |
| Thailand | 2010 | 2019 | 1.68 | 1.34 | 2.03 | < 0.001 | female |
| Europe | | | | | | | |
| Austria | 2010 | 2019 | 1.91 | 1.78 | 2.03 | < 0.001 | female |
| Belarus | 2002 | 2018 | -0.71 | -1.48 | 0.06 | 0.07 | female |
| Belgium | 2007 | 2016 | 1.76 | 0.76 | 2.78 | 0.001 | female |
| Bulgaria | 2009 | 2018 | 2.17 | 1.45 | 2.9 | < 0.001 | female |
| Croatia | 2008 | 2017 | 2.54 | 2.31 | 2.77 | < 0.001 | female |
| Cyprus | 2009 | 2018 | 1.89 | -0.68 | 4.52 | 0.139 | female |
| Czech Republic | 2010 | 2019 | 0.32 | 0.03 | 0.61 | 0.033 | female |
| Estonia | 2010 | 2019 | 0.57 | 0.29 | 0.86 | < 0.001 | female |

| | | | | | | | |
|--------------------|------|------|-------|-------|-------|---------|--------|
| France | 2007 | 2016 | 2.28 | 1.82 | 2.74 | < 0.001 | female |
| Germany | 2010 | 2019 | 0.92 | 0.6 | 1.24 | < 0.001 | female |
| Ireland | 2006 | 2015 | -0.18 | -0.41 | 0.06 | 0.133 | female |
| Italy | 2008 | 2017 | 1.62 | 1.49 | 1.75 | < 0.001 | female |
| Latvia | 2009 | 2018 | 0.97 | 0.34 | 1.6 | 0.004 | female |
| Lithuania | 2010 | 2019 | 2.45 | 0.32 | 4.62 | 0.025 | female |
| Malta | 2008 | 2017 | 2.3 | 1.53 | 3.08 | < 0.001 | female |
| Netherlands | 2009 | 2018 | -0.42 | -1.21 | 0.39 | 0.308 | female |
| Poland | 2009 | 2018 | 1.5 | 0.87 | 2.14 | < 0.001 | female |
| Portugal | 2009 | 2018 | 2.35 | 1.86 | 2.83 | < 0.001 | female |
| Russian Federation | 2010 | 2019 | 0.14 | -0.11 | 0.4 | 0.253 | female |
| Slovenia | 2010 | 2019 | 2.46 | 2.21 | 2.7 | < 0.001 | female |
| Spain | 2008 | 2017 | 3.94 | 3.25 | 4.64 | < 0.001 | female |
| Switzerland | 2008 | 2017 | 0.15 | -0.48 | 0.77 | 0.631 | female |
| United Kingdom | 2007 | 2016 | -0.8 | -1.09 | -0.5 | < 0.001 | female |
| Denmark | 2009 | 2018 | -2.28 | -3.24 | -1.31 | < 0.001 | female |
| Faroe Islands | 2009 | 2018 | 2.11 | 0.31 | 3.94 | 0.023 | female |
| Finland | 2009 | 2018 | 0.55 | -1.07 | 2.19 | 0.51 | female |
| Greenland | 2009 | 2018 | -0.31 | -1.6 | 1 | 0.633 | female |
| Iceland | 2009 | 2018 | -3.53 | -6.64 | -0.31 | 0.032 | female |
| Norway | 2009 | 2018 | -1.03 | -1.78 | -0.27 | 0.009 | female |
| Sweden | 2009 | 2018 | -1.06 | -1.47 | -0.64 | < 0.001 | female |
| North America | | | | | | | |
| Canada | 2010 | 2019 | -2.79 | -3.47 | -2.1 | < 0.001 | female |
| USA | 2010 | 2019 | -3.25 | -3.47 | -3.02 | < 0.001 | female |
| USA (White) | 2010 | 2019 | -3.13 | -3.36 | -2.91 | < 0.001 | female |
| USA (Black) | 2010 | 2019 | -3.99 | -4.58 | -3.41 | < 0.001 | female |
| South America | | | | | | | |
| Brazil | 2010 | 2019 | 1.11 | 0.63 | 1.6 | < 0.001 | female |
| Chile | 2009 | 2018 | 0.46 | -1.96 | 2.94 | 0.712 | female |
| Colombia | 2008 | 2017 | -1.32 | -1.79 | -0.84 | < 0.001 | female |
| Costa Rica | 2010 | 2019 | 0.73 | -2.29 | 3.84 | 0.641 | female |
| Ecuador | 2008 | 2017 | 0.27 | -0.35 | 0.9 | 0.386 | female |
| Oceania | | | | | | | |
| Australia | 2009 | 2018 | -1.39 | -2.02 | -0.75 | < 0.001 | female |
| New Zealand | 2007 | 2016 | -0.15 | -0.42 | 0.11 | 0.239 | female |

CI: Confidence Interval; AAPC: average annual percent change.

Table S3. The AAPC of the incidence of tracheal, bronchus, and lung cancer in individuals of all ages.

| Country | Lower endpoint | Upper endpoint | AAPC | 95%CI-Low | 95%CI-High | P-value | Sex |
|-------------------|----------------|----------------|-------|-----------|------------|---------|------|
| Africa | | | | | | | |
| Uganda* | 2003 | 2012 | -1.41 | -6.23 | 3.67 | 0.56 | male |
| Asia | | | | | | | |
| Bahrain | 2003 | 2012 | -6.53 | -8.54 | -4.49 | < 0.001 | male |
| China* | 2003 | 2012 | -1.78 | -2.39 | -1.16 | < 0.001 | male |
| Hong Kong, China* | 2003 | 2012 | -2.58 | -2.84 | -2.32 | < 0.001 | male |
| India* | 2003 | 2012 | -0.14 | -2.29 | 2.05 | 0.897 | male |
| Israel | 2003 | 2012 | -0.82 | -1.77 | 0.14 | 0.093 | male |
| Japan* | 2001 | 2010 | 0.55 | 0.15 | 0.96 | 0.008 | male |
| South Korea* | 2003 | 2012 | -1.35 | -1.67 | -1.03 | < 0.001 | male |
| Turkey* | 2003 | 2012 | -1.23 | -2.76 | 0.32 | 0.118 | male |
| Kuwait | 2003 | 2012 | -2.44 | -4.68 | -0.14 | 0.039 | male |
| Philippines* | 2003 | 2012 | -4.69 | -7.42 | -1.89 | 0.001 | male |
| Thailand* | 2003 | 2012 | -0.25 | -0.67 | 0.18 | 0.233 | male |
| Europe | | | | | | | |
| Austria | 2003 | 2012 | -1.37 | -1.63 | -1.11 | < 0.001 | male |
| Belarus | 2003 | 2012 | -0.79 | -1.16 | -0.42 | < 0.001 | male |
| Bulgaria | 2003 | 2012 | 0.21 | -0.26 | 0.67 | 0.352 | male |
| Croatia | 2003 | 2012 | -2.71 | -3.56 | -1.85 | < 0.001 | male |
| Cyprus | 2003 | 2012 | 2.14 | -2.29 | 6.77 | 0.349 | male |
| Czech Republic | 2003 | 2012 | -2.35 | -2.54 | -2.15 | < 0.001 | male |
| Estonia | 2003 | 2012 | -1.62 | -1.88 | -1.36 | < 0.001 | male |
| France* | 2002 | 2011 | 0.12 | -0.13 | 0.37 | 0.321 | male |
| Germany* | 2003 | 2012 | -1.59 | -2.09 | -1.08 | < 0.001 | male |
| Ireland | 2003 | 2012 | -0.81 | -1.09 | -0.53 | < 0.001 | male |
| Italy* | 2001 | 2010 | -3.21 | -3.53 | -2.88 | < 0.001 | male |
| Lithuania | 2003 | 2012 | -1.61 | -1.96 | -1.26 | < 0.001 | male |
| Malta | 2003 | 2012 | -1.79 | -2.72 | -0.85 | 0.001 | male |
| Netherlands | 2003 | 2012 | -1.76 | -2.5 | -1.01 | < 0.001 | male |
| Poland* | 2003 | 2012 | -2.85 | -3.4 | -2.3 | < 0.001 | male |
| Slovenia | 2003 | 2012 | 3.31 | 3.06 | 3.57 | < 0.001 | male |
| Spain* | 2001 | 2010 | -0.34 | -0.53 | -0.15 | 0.002 | male |
| Switzerland* | 2003 | 2012 | -2.08 | -2.35 | -1.81 | < 0.001 | male |
| United Kingdom* | 2003 | 2012 | -0.86 | -1.19 | -0.53 | < 0.001 | male |
| Denmark | 2009 | 2018 | -1.27 | -1.34 | -1.19 | < 0.001 | male |

| | | | | | | | |
|------------------|------|------|-------|-------|-------|---------|--------|
| Faroe Islands | 2009 | 2018 | 5.06 | 0.75 | 9.56 | 0.022 | male |
| Finland | 2009 | 2018 | -1.82 | -2.2 | -1.45 | < 0.001 | male |
| Greenland | 2009 | 2018 | -2.82 | -4.84 | -0.75 | 0.009 | male |
| Iceland | 2009 | 2018 | -4.24 | -8.92 | 0.68 | 0.09 | male |
| Norway | 2009 | 2018 | -1.45 | -1.95 | -0.94 | < 0.001 | male |
| Sweden | 2009 | 2018 | -1.1 | -1.2 | -0.99 | < 0.001 | male |
| North America | | | | | | | |
| Canada* | 2003 | 2012 | -2.18 | -2.27 | -2.09 | < 0.001 | male |
| USA* | 2009 | 2018 | -3.06 | -3.32 | -2.79 | < 0.001 | male |
| USA (White)* | 2009 | 2018 | -2.87 | -3.02 | -2.71 | < 0.001 | male |
| USA (Black)* | 2009 | 2018 | -3.76 | -4.24 | -3.28 | < 0.001 | male |
| South America | | | | | | | |
| Brazil* | 2003 | 2012 | -4.61 | -8.69 | -0.35 | 0.034 | male |
| Chile* | 2003 | 2012 | -1.48 | -4.49 | 1.62 | 0.317 | male |
| Colombia* | 2003 | 2012 | -5.69 | -8.21 | -3.11 | < 0.001 | male |
| Costa Rica | 2002 | 2011 | -1.23 | -1.8 | -0.66 | < 0.001 | male |
| Ecuador* | 2003 | 2012 | -0.74 | -1.67 | 0.21 | 0.122 | male |
| Oceania | | | | | | | |
| Australia | 2003 | 2012 | -1.78 | -1.99 | -1.57 | < 0.001 | male |
| New Zealand | 2003 | 2012 | -2.5 | -2.7 | -2.29 | < 0.001 | male |
| Africa | | | | | | | |
| Uganda* | 2003 | 2012 | -2.14 | -7.86 | 3.92 | 0.454 | female |
| Asia | | | | | | | |
| Bahrain | 2003 | 2012 | -5.72 | -9.61 | -1.65 | 0.01 | female |
| China* | 2003 | 2012 | -0.16 | -0.75 | 0.43 | 0.571 | female |
| Hong Kong, China | 2003 | 2012 | -1.09 | -1.46 | -0.72 | < 0.001 | female |
| India* | 2003 | 2012 | 4.34 | 3.32 | 5.36 | < 0.001 | female |
| Israel | 2003 | 2012 | 2.06 | 1.68 | 2.43 | < 0.001 | female |
| Japan* | 2001 | 2010 | 2.32 | 1.55 | 3.1 | < 0.001 | female |
| South Korea* | 2003 | 2012 | 2.35 | 1.79 | 2.9 | < 0.001 | female |
| Turkey* | 2003 | 2012 | 0.99 | -0.48 | 2.48 | 0.188 | female |
| Kuwait | 2003 | 2012 | -4.43 | -8.55 | -0.13 | 0.045 | female |
| Philippines* | 2003 | 2012 | -3.21 | -5.6 | -0.76 | 0.01 | female |
| Thailand* | 2003 | 2012 | -0.8 | -1.27 | -0.33 | 0.002 | female |
| Europe | | | | | | | |
| Austria | 2003 | 2012 | 2.9 | 2.52 | 3.3 | < 0.001 | female |

| | | | | | | | |
|-----------------|------|------|-------|-------|-------|---------|--------|
| Belarus | 2003 | 2012 | 1.62 | 0.68 | 2.58 | 0.002 | female |
| Bulgaria | 2003 | 2012 | 2.8 | 2.1 | 3.51 | < 0.001 | female |
| Croatia | 2003 | 2012 | 2.41 | 1.79 | 3.03 | < 0.001 | female |
| Cyprus | 2003 | 2012 | 4.67 | 2.22 | 7.18 | 0.001 | female |
| Czech Republic | 2003 | 2012 | 2.17 | 1.85 | 2.5 | < 0.001 | female |
| Estonia | 2003 | 2012 | 1.36 | 0.93 | 1.79 | < 0.001 | female |
| France* | 2002 | 2011 | 5.7 | 4.87 | 6.53 | < 0.001 | female |
| Germany* | 2003 | 2012 | 2.37 | 1.7 | 3.04 | < 0.001 | female |
| Ireland | 2003 | 2012 | 2.23 | 1.93 | 2.54 | < 0.001 | female |
| Italy* | 2001 | 2010 | 1.34 | 0.62 | 2.06 | 0.002 | female |
| Lithuania | 2003 | 2012 | 0.62 | 0.16 | 1.08 | 0.01 | female |
| Malta | 2003 | 2012 | 9.39 | 6.43 | 12.43 | < 0.001 | female |
| Netherlands | 2003 | 2012 | 3.41 | 2.81 | 4.01 | < 0.001 | female |
| Poland* | 2003 | 2012 | 2.43 | 0.96 | 3.93 | 0.003 | female |
| Slovenia | 2003 | 2012 | -1.92 | -2.35 | -1.49 | < 0.001 | female |
| Spain* | 2001 | 2010 | 5.5 | 4.95 | 6.04 | < 0.001 | female |
| Switzerland* | 2003 | 2012 | 2.2 | 1.7 | 2.69 | < 0.001 | female |
| United Kingdom* | 2003 | 2012 | 2.01 | 1.74 | 2.28 | < 0.001 | female |
| Denmark | 2009 | 2018 | -0.16 | -0.63 | 0.31 | 0.499 | female |
| Faroe Islands | 2009 | 2018 | 1.73 | 0.66 | 2.82 | 0.002 | female |
| Finland | 2009 | 2018 | 1.98 | 1.84 | 2.12 | < 0.001 | female |
| Greenland | 2009 | 2018 | 1.18 | 0.14 | 2.23 | 0.027 | female |
| Iceland | 2009 | 2018 | -2.71 | -6.58 | 1.33 | 0.186 | female |
| Norway | 2009 | 2018 | 1.22 | 0.57 | 1.87 | < 0.001 | female |
| Sweden | 2009 | 2018 | 0.3 | -0.33 | 0.92 | 0.344 | female |
| North America | | | | | | | |
| Canada* | 2003 | 2012 | -0.32 | -0.81 | 0.17 | 0.202 | female |
| USA* | 2009 | 2018 | -1.79 | -2 | -1.58 | < 0.001 | female |
| USA (White)* | 2009 | 2018 | -1.84 | -2.1 | -1.57 | < 0.001 | female |
| USA (Black)* | 2009 | 2018 | -2.12 | -2.75 | -1.48 | < 0.001 | female |
| South America | | | | | | | |
| Brazil* | 2003 | 2012 | 2.43 | 1.01 | 3.88 | 0.002 | female |
| Chile* | 2003 | 2012 | 0.12 | -4.3 | 4.73 | 0.956 | female |
| Colombia* | 2003 | 2012 | -0.62 | -1.19 | -0.05 | 0.033 | female |
| Costa Rica | 2002 | 2011 | 0.28 | -0.57 | 1.14 | 0.503 | female |
| Ecuador* | 2003 | 2012 | 2.13 | 1.05 | 3.22 | < 0.001 | female |

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|-------------|------|------|------|------|------|---------|--------|
| Oceania | | | | | | | |
| Australia | 2003 | 2012 | 1.47 | 1.23 | 1.7 | < 0.001 | female |
| New Zealand | 2003 | 2012 | 1.05 | 0.79 | 1.31 | < 0.001 | female |

*Subnational data; CI: Confidence Interval; AAPC: average annual percent change.

Table S4. The AAPC of the incidence of tracheal, bronchus, and lung cancer in individuals older than 50 years old.

| Country | Lower endpoint | Upper endpoint | AAPC | 95%CI-Low | 95%CI-High | P-value | Sex |
|-------------------|----------------|----------------|-------|-----------|------------|---------|------|
| Africa | | | | | | | |
| Uganda* | 2003 | 2012 | -3 | -8.7 | 3.06 | 0.302 | male |
| Asia | | | | | | | |
| Bahrain | 2003 | 2012 | -6.54 | -8.58 | -4.45 | < 0.001 | male |
| China* | 2003 | 2012 | -1.7 | -2.43 | -0.96 | < 0.001 | male |
| Hong Kong, China* | 2003 | 2012 | -2.6 | -2.88 | -2.32 | < 0.001 | male |
| India* | 2003 | 2012 | 0.11 | -2.04 | 2.32 | 0.918 | male |
| Japan* | 2001 | 2010 | 0.7 | 0.24 | 1.17 | 0.003 | male |
| South Korea* | 2003 | 2012 | -1.32 | -1.65 | -0.99 | < 0.001 | male |
| Turkey* | 2003 | 2012 | -0.73 | -2.31 | 0.88 | 0.374 | male |
| Kuwait | 2003 | 2012 | -2.06 | -4.44 | 0.37 | 0.089 | male |
| Philippines* | 2003 | 2012 | -3.05 | -3.71 | -2.38 | < 0.001 | male |
| Thailand* | 2003 | 2012 | -0.06 | -0.5 | 0.4 | 0.797 | male |
| Europe | | | | | | | |
| Austria | 2003 | 2012 | -1.17 | -1.45 | -0.89 | < 0.001 | male |
| Belarus | 2003 | 2012 | -0.69 | -1.08 | -0.31 | 0.001 | male |
| Bulgaria | 2003 | 2012 | 0.62 | 0.1 | 1.15 | 0.022 | male |
| Croatia | 2003 | 2012 | -0.85 | -1.33 | -0.36 | 0.002 | male |
| Cyprus | 2003 | 2012 | 2.2 | -0.54 | 5.02 | 0.116 | male |
| Czech Republic | 2003 | 2012 | -2 | -2.21 | -1.79 | < 0.001 | male |
| Estonia | 2003 | 2012 | -1.36 | -1.61 | -1.1 | < 0.001 | male |
| France* | 2002 | 2011 | 0.49 | 0.22 | 0.77 | 0.002 | male |
| Germany* | 2003 | 2012 | -1.24 | -1.76 | -0.72 | < 0.001 | male |
| Ireland | 2003 | 2012 | -0.86 | -1.14 | -0.58 | < 0.001 | male |
| Italy* | 2001 | 2010 | -3.1 | -3.39 | -2.81 | < 0.001 | male |
| Lithuania | 2003 | 2012 | -1.38 | -1.73 | -1.02 | < 0.001 | male |
| Malta | 2003 | 2012 | -1.6 | -2.54 | -0.66 | 0.002 | male |
| Netherlands | 2003 | 2012 | -1.76 | -2.43 | -1.08 | < 0.001 | male |
| Poland* | 2003 | 2012 | -2.57 | -3.16 | -1.97 | < 0.001 | male |
| Slovenia | 2003 | 2012 | -2.5 | -3.97 | -1 | 0.001 | male |
| Spain* | 2001 | 2010 | 0.02 | -0.16 | 0.21 | 0.778 | male |
| Switzerland* | 2003 | 2012 | -1.91 | -2.25 | -1.58 | < 0.001 | male |
| United Kingdom* | 2003 | 2012 | -0.84 | -1.16 | -0.51 | < 0.001 | male |
| Denmark | 2010 | 2019 | -1.21 | -1.29 | -1.13 | < 0.001 | male |

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|------------------|------|------|-------|-------|-------|---------|--------|
| Faroe Islands | 2010 | 2019 | 3.05 | -0.76 | 7.02 | 0.116 | male |
| Finland | 2010 | 2019 | -1.97 | -2.3 | -1.65 | < 0.001 | male |
| Greenland | 2010 | 2019 | -2.89 | -4.76 | -0.98 | 0.004 | male |
| Iceland | 2010 | 2019 | -4.06 | -7.73 | -0.25 | 0.037 | male |
| Norway | 2010 | 2019 | -1.57 | -2.08 | -1.06 | < 0.001 | male |
| Sweden | 2010 | 2019 | -2.31 | -3.32 | -1.3 | < 0.001 | male |
| North America | | | | | | | |
| Canada* | 2003 | 2012 | -2.11 | -2.2 | -2.01 | < 0.001 | male |
| USA* | 2009 | 2018 | -2.95 | -3.22 | -2.69 | < 0.001 | male |
| USA (White)* | 2009 | 2018 | -2.78 | -2.94 | -2.62 | < 0.001 | male |
| USA (Black)* | 2009 | 2018 | -3.6 | -4.1 | -3.09 | < 0.001 | male |
| South America | | | | | | | |
| Brazil* | 2003 | 2012 | -4.7 | -8.5 | -0.75 | 0.02 | male |
| Chile* | 2003 | 2012 | -0.92 | -4.05 | 2.32 | 0.546 | male |
| Colombia* | 2003 | 2012 | -5.46 | -8.21 | -2.62 | < 0.001 | male |
| Costa Rica | 2002 | 2011 | -1.21 | -1.81 | -0.62 | < 0.001 | male |
| Ecuador* | 2003 | 2012 | -0.83 | -1.75 | 0.1 | 0.079 | male |
| Oceania | | | | | | | |
| Australia | 2003 | 2012 | -1.83 | -2.04 | -1.62 | < 0.001 | male |
| New Zealand | 2003 | 2012 | -2.5 | -2.71 | -2.29 | < 0.001 | male |
| Africa | | | | | | | |
| Uganda* | 2003 | 2012 | -1.78 | -7.38 | 4.17 | 0.525 | female |
| Asia | | | | | | | |
| Bahrain | 2003 | 2012 | -5.65 | -9.37 | -1.78 | 0.008 | female |
| China* | 2003 | 2012 | -0.29 | -0.95 | 0.37 | 0.36 | female |
| Hong Kong, China | 2003 | 2012 | -1.15 | -1.55 | -0.76 | < 0.001 | female |
| India* | 2003 | 2012 | 4.31 | 3.2 | 5.43 | < 0.001 | female |
| Japan* | 2001 | 2010 | 1.92 | 1.33 | 2.52 | < 0.001 | female |
| South Korea* | 2003 | 2012 | 2.37 | 1.76 | 2.98 | < 0.001 | female |
| Turkey* | 2003 | 2012 | 1.14 | -0.35 | 2.66 | 0.135 | female |
| Kuwait | 2003 | 2012 | -4.23 | -8.54 | 0.29 | 0.064 | female |
| Philippines* | 2003 | 2012 | -1.18 | -1.63 | -0.73 | < 0.001 | female |
| Thailand* | 2003 | 2012 | -0.71 | -1.2 | -0.21 | 0.008 | female |
| Europe | | | | | | | |
| Austria | 2003 | 2012 | 3.41 | 3.05 | 3.78 | < 0.001 | female |
| Belarus | 2003 | 2012 | 1.55 | 0.5 | 2.62 | 0.006 | female |

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|--------------------|------|------|-------|-------|-------|---------|--------|
| Bulgaria | 2003 | 2012 | 3.02 | 2.19 | 3.86 | < 0.001 | female |
| Croatia | 2003 | 2012 | 2.66 | 2.1 | 3.22 | < 0.001 | female |
| Cyprus | 2003 | 2012 | 4.69 | 2.22 | 7.22 | 0.001 | female |
| Czech Republic | 2003 | 2012 | 2.65 | 2.29 | 3 | < 0.001 | female |
| Estonia | 2003 | 2012 | 1.44 | 1 | 1.89 | < 0.001 | female |
| France* | 2002 | 2011 | 6.83 | 5.94 | 7.72 | < 0.001 | female |
| Germany* | 2003 | 2012 | 2.98 | 2.34 | 3.63 | < 0.001 | female |
| Ireland | 2003 | 2012 | 2.29 | 1.95 | 2.64 | < 0.001 | female |
| Italy* | 2001 | 2010 | 1.73 | 1.03 | 2.43 | < 0.001 | female |
| Lithuania | 2003 | 2012 | 0.4 | -0.08 | 0.89 | 0.099 | female |
| Malta | 2003 | 2012 | 10.09 | 6.37 | 13.95 | < 0.001 | female |
| Netherlands | 2003 | 2012 | 4.24 | 3.74 | 4.75 | < 0.001 | female |
| Poland* | 2003 | 2012 | 3.41 | 1.85 | 4.99 | < 0.001 | female |
| Slovenia | 2003 | 2012 | 3.5 | 3.21 | 3.79 | < 0.001 | female |
| Spain* | 2001 | 2010 | 7.95 | 6.44 | 9.49 | < 0.001 | female |
| Switzerland* | 2003 | 2012 | 2.69 | 2.32 | 3.07 | < 0.001 | female |
| United Kingdom* | 2003 | 2012 | 2.3 | 1.62 | 2.99 | < 0.001 | female |
| Denmark | 2010 | 2019 | -0.46 | -1.1 | 0.19 | 0.164 | female |
| Faroe Islands | 2010 | 2019 | 1.88 | 0.81 | 2.97 | 0.001 | female |
| Finland | 2010 | 2019 | 2.4 | 2.21 | 2.6 | < 0.001 | female |
| Greenland | 2010 | 2019 | 0.32 | -0.75 | 1.39 | 0.554 | female |
| Iceland | 2010 | 2019 | -2.2 | -5.23 | 0.93 | 0.166 | female |
| Norway | 2010 | 2019 | 1.33 | 0.75 | 1.91 | < 0.001 | female |
| Sweden | 2010 | 2019 | -0.08 | -0.79 | 0.63 | 0.814 | female |
| North America | | | | | | | |
| Canada* | 2003 | 2012 | -0.02 | -0.51 | 0.48 | 0.947 | female |
| USA* | 2009 | 2018 | -1.61 | -1.82 | -1.39 | < 0.001 | female |
| USA (White)* | 2009 | 2018 | -1.68 | -1.96 | -1.41 | < 0.001 | female |
| USA (Black)* | 2009 | 2018 | -1.55 | -2.15 | -0.96 | < 0.001 | female |
| South America | | | | | | | |
| Brazil* | 2003 | 2012 | 2.13 | 0.62 | 3.66 | 0.008 | female |
| Chile* | 2003 | 2012 | -0.06 | -4.85 | 4.98 | 0.98 | female |
| Colombia* | 2003 | 2012 | -0.64 | -1.19 | -0.09 | 0.024 | female |
| Costa Rica | 2002 | 2011 | 0.42 | -0.49 | 1.33 | 0.352 | female |
| Ecuador* | 2003 | 2012 | 2.15 | 1.01 | 3.29 | 0.001 | female |
| Oceania | | | | | | | |

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|-------------|------|------|------|------|------|---------|--------|
| Australia | 2003 | 2012 | 1.57 | 1.32 | 1.81 | < 0.001 | female |
| New Zealand | 2003 | 2012 | 0.95 | 0.68 | 1.22 | < 0.001 | female |

*Subnational data; CI: Confidence Interval; AAPC: average annual percent change.

Table S5. The AAPC of the incidence of tracheal, bronchus, and lung cancer in individuals younger than 50 years old.

| Country | Lower endpoint | Upper endpoint | AAPC | 95%CI-Low | 95%CI-High | P-value | Sex |
|-------------------|----------------|----------------|--------|-----------|------------|---------|------|
| Africa | | | | | | | |
| Uganda* | 2003 | 2012 | -1.12 | -5.35 | 3.29 | 0.592 | male |
| Asia | | | | | | | |
| China* | 2003 | 2012 | -2.95 | -4.72 | -1.15 | 0.001 | male |
| Hong Kong, China* | 2003 | 2012 | -3.42 | -3.82 | -3.01 | < 0.001 | male |
| India* | 2003 | 2012 | -0.86 | -1.79 | 0.08 | 0.071 | male |
| Japan* | 2001 | 2010 | -1.66 | -2.9 | -0.41 | 0.014 | male |
| South Korea* | 2003 | 2012 | -1.94 | -2.9 | -0.96 | 0.001 | male |
| Turkey* | 2003 | 2012 | -6.4 | -9.15 | -3.56 | < 0.001 | male |
| Thailand* | 2003 | 2012 | -2.15 | -3.34 | -0.95 | 0.002 | male |
| Europe | | | | | | | |
| Austria | 2003 | 2012 | -3.59 | -4.67 | -2.49 | < 0.001 | male |
| Belarus | 2003 | 2012 | -2.28 | -2.76 | -1.8 | < 0.001 | male |
| Bulgaria | 2003 | 2012 | -2.94 | -3.87 | -2 | < 0.001 | male |
| Croatia | 2003 | 2012 | -7.02 | -8.9 | -5.11 | < 0.001 | male |
| Cyprus | 2002 | 2012 | 0.08 | -3.2 | 3.47 | 0.959 | male |
| Czech Republic | 2003 | 2012 | -8.22 | -9.01 | -7.43 | < 0.001 | male |
| Estonia | 2003 | 2012 | -6.78 | -8.67 | -4.85 | < 0.001 | male |
| France* | 2002 | 2011 | -4.33 | -5.71 | -2.92 | < 0.001 | male |
| Germany* | 2003 | 2012 | -6.22 | -7.22 | -5.21 | < 0.001 | male |
| Ireland | 2003 | 2012 | 0.24 | -1.19 | 1.69 | 0.731 | male |
| Italy* | 2001 | 2010 | -5.15 | -6.91 | -3.36 | < 0.001 | male |
| Lithuania | 2003 | 2012 | -4.61 | -5.46 | -3.74 | < 0.001 | male |
| Malta | 2003 | 2012 | -4.38 | -8.86 | 0.31 | 0.065 | male |
| Netherlands | 2003 | 2012 | -2.56 | -2.91 | -2.22 | < 0.001 | male |
| Poland* | 2003 | 2012 | -6.46 | -8.53 | -4.34 | < 0.001 | male |
| Slovenia | 2003 | 2012 | -6.69 | -9.52 | -3.76 | < 0.001 | male |
| Spain* | 2001 | 2010 | -6.18 | -9.91 | -2.3 | 0.002 | male |
| Switzerland* | 2003 | 2012 | -4.27 | -6.06 | -2.44 | < 0.001 | male |
| United Kingdom* | 2003 | 2012 | -2.45 | -2.89 | -2 | < 0.001 | male |
| Denmark | 2010 | 2019 | -4.31 | -5.5 | -3.1 | < 0.001 | male |
| Finland | 2010 | 2019 | -3.62 | -3.86 | -3.39 | < 0.001 | male |
| Greenland | 2007 | 2019 | -2.63 | -4.46 | -0.77 | 0.007 | male |
| Iceland | 2009 | 2019 | -10.76 | -19.12 | -1.54 | 0.024 | male |
| Norway | 2010 | 2019 | -4.27 | -5.46 | -3.07 | < 0.001 | male |

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|------------------|------|------|--------|--------|-------|---------|--------|
| Sweden | 2010 | 2019 | -3.06 | -3.39 | -2.74 | < 0.001 | male |
| North America | | | | | | | |
| Canada* | 2003 | 2012 | -3.47 | -3.69 | -3.26 | < 0.001 | male |
| USA* | 2009 | 2018 | -4.84 | -5.29 | -4.39 | < 0.001 | male |
| USA (White)* | 2009 | 2018 | -5.68 | -6.74 | -4.61 | < 0.001 | male |
| USA (Black)* | 2009 | 2018 | -5.84 | -6.48 | -5.2 | < 0.001 | male |
| South America | | | | | | | |
| Brazil* | 2003 | 2012 | -1.59 | -4.54 | 1.45 | 0.284 | male |
| Colombia | 2003 | 2012 | -11.71 | -20.34 | -2.14 | 0.018 | male |
| Costa Rica | 2002 | 2011 | -1.61 | -2.9 | -0.31 | 0.017 | male |
| Ecuador | 2003 | 2012 | 0.31 | -2.32 | 3.01 | 0.812 | male |
| Oceania | | | | | | | |
| Australia | 2003 | 2012 | -0.93 | -1.62 | -0.24 | 0.011 | male |
| New Zealand | 2003 | 2012 | -1.82 | -2.72 | -0.9 | < 0.001 | male |
| Africa | | | | | | | |
| Uganda* | 2003 | 2012 | -5.65 | -12.56 | 1.81 | 0.125 | female |
| Asia | | | | | | | |
| China* | 2003 | 2012 | 0.99 | 0.26 | 1.73 | 0.011 | female |
| Hong Kong, China | 2003 | 2012 | -1.55 | -2 | -1.1 | < 0.001 | female |
| India* | 2003 | 2012 | 3.5 | 1.64 | 5.39 | 0.001 | female |
| Japan* | 2001 | 2010 | 1.39 | -1 | 3.83 | 0.23 | female |
| South Korea* | 2003 | 2012 | 2.02 | 0.66 | 3.41 | 0.007 | female |
| Turkey* | 2003 | 2012 | 2.34 | -0.41 | 5.17 | 0.089 | female |
| Thailand* | 2003 | 2012 | -1.6 | -2.56 | -0.64 | 0.003 | female |
| Europe | | | | | | | |
| Austria | 2003 | 2012 | -0.12 | -1.27 | 1.04 | 0.821 | female |
| Belarus | 2003 | 2012 | 1.65 | 1.03 | 2.28 | < 0.001 | female |
| Bulgaria | 2003 | 2012 | 1.78 | 0.95 | 2.63 | < 0.001 | female |
| Croatia | 2003 | 2012 | 1.09 | -0.15 | 2.36 | 0.083 | female |
| Cyprus | 2002 | 2012 | 2.21 | -3.16 | 7.88 | 0.395 | female |
| Czech Republic | 2003 | 2012 | -2.34 | -3.26 | -1.4 | < 0.001 | female |
| Estonia | 2003 | 2012 | 0.64 | -0.63 | 1.92 | 0.314 | female |
| France* | 2002 | 2011 | 1.75 | -4.41 | 8.3 | 0.587 | female |
| Germany* | 2003 | 2012 | -1.47 | -3.23 | 0.33 | 0.1 | female |
| Ireland | 2003 | 2012 | -2.8 | -5.51 | -0.01 | 0.049 | female |
| Italy* | 2001 | 2010 | -1.34 | -3.56 | 0.93 | 0.218 | female |

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|-----------------|------|------|-------|--------|-------|---------|--------|
| Lithuania | 2003 | 2012 | 2.08 | 0.41 | 3.78 | 0.017 | female |
| Malta | 2003 | 2012 | 5.79 | 2 | 9.73 | 0.005 | female |
| Netherlands | 2003 | 2012 | -2.28 | -3.6 | -0.95 | 0.001 | female |
| Poland* | 2003 | 2012 | -9.35 | -15.08 | -3.23 | 0.003 | female |
| Slovenia | 2003 | 2012 | -2.92 | -4.91 | -0.9 | 0.007 | female |
| Spain* | 2001 | 2010 | -0.77 | -4.92 | 3.55 | 0.721 | female |
| Switzerland* | 2003 | 2012 | -1.46 | -3.97 | 1.11 | 0.238 | female |
| United Kingdom* | 2003 | 2012 | -0.94 | -1.49 | -0.4 | 0.002 | female |
| Denmark | 2010 | 2019 | -4.51 | -6.12 | -2.89 | < 0.001 | female |
| Finland | 2010 | 2019 | -1.48 | -2.64 | -0.31 | 0.014 | female |
| Greenland | 2006 | 2018 | -2.42 | -4.03 | -0.79 | 0.005 | female |
| Iceland | 2009 | 2019 | -4.92 | -7.02 | -2.78 | < 0.001 | female |
| Norway | 2010 | 2019 | -1.47 | -2.35 | -0.57 | 0.002 | female |
| Sweden | 2010 | 2019 | -2.45 | -3.06 | -1.85 | < 0.001 | female |
| North America | | | | | | | |
| Canada* | 2003 | 2012 | -4.56 | -6.84 | -2.22 | < 0.001 | female |
| USA* | 2009 | 2018 | -4.45 | -5.27 | -3.62 | < 0.001 | female |
| USA (White)* | 2009 | 2018 | -4.25 | -4.96 | -3.54 | < 0.001 | female |
| USA (Black)* | 2009 | 2018 | -8.85 | -11.81 | -5.8 | < 0.001 | female |
| South America | | | | | | | |
| Brazil* | 2003 | 2012 | 4.42 | 1.16 | 7.79 | 0.01 | female |
| Colombia | 2003 | 2012 | -1.21 | -2.71 | 0.31 | 0.112 | female |
| Costa Rica | 2002 | 2011 | -0.94 | -2.32 | 0.45 | 0.175 | female |
| Ecuador | 2003 | 2012 | 1.37 | -0.69 | 3.47 | 0.185 | female |
| Oceania | | | | | | | |
| Australia | 2003 | 2012 | 0.52 | -0.23 | 1.27 | 0.162 | female |
| New Zealand | 2003 | 2012 | -0.23 | -1.07 | 0.62 | 0.585 | female |

*Subnational data; CI: Confidence Interval; AAPC: average annual percent change.