Supplementary Table 5: Joinpoint regression of standard deviation trends

| Country | Sex | CauseCategory | Breakpoint 1 (95% CI) | Breakpoint 2 (95% CI) | Breakpoint 3 (95% CI) | AAPC 1 (%) (95% CI) | AAPC 2 (%) (95% CI) | AAPC 3 (%) (95% CI) | AAPC 4 (%) (95% CI) | AAPC Total (%) (95% CI) | Cumulative change (%) (95% CI) |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CZE | Men | All | 2007 (2006.8, 2007.7) | 2016 (2014.7, 2016.2) | - | -1.9\* (-1.9, -1.8) | -1.1\* (-1.1, -1.0) | -0.3\* (-0.5, -0.1) | - | -1.2\* (-1.3, -1.2) | -21.0\* (-21.4, -20.6) |
| CZE | Men | Cancer | 2004 (2003.0, 2004.1) | 2006 (2005.7, 2006.8) | - | -7.2\* (-7.5, -7.0) | -5.5\* (-5.9, -5.1) | -4.2\* (-4.2, -4.1) | - | -4.9\* (-5.0, -4.9) | -61.7\* (-62.0, -61.5) |
| CZE | Men | Cardiovascular | 2005 (2004.3, 2005.0) | 2009 (2008.2, 2010.6) | - | 3.0\* (2.3, 3.8) | -3.7\* (-4.3, -3.2) | -1.9\* (-2.2, -1.7) | - | -1.2\* (-1.3, -1.1) | -20.3\* (-22.3, -18.2) |
| CZE | Men | External | 2002 (2001.7, 2002.7) | 2008 (2007.1, 2007.9) | 2014 (2013.2, 2013.8) | -3.0\* (-3.4, -2.7) | -1.6\* (-1.7, -1.5) | -0.6\* (-0.6, -0.5) | 0.9\* (0.8, 1.0) | -0.7\* (-0.8, -0.7) | -12.8\* (-13.4, -12.3) |
| CZE | Men | Other | 2004 (2001.9, 2006.0) | 2008 (2006.3, 2008.8) | 2011 (2010.2, 2011.4) | -7.3\* (-8.7, -5.9) | -9.7\* (-11.0, -8.3) | -4.8\* (-7.3, -2.3) | 5.8\* (5.3, 6.3) | -1.9\* (-2.1, -1.7) | -30.6\* (-33.2, -27.9) |
| CZE | Women | All | 2004 (2003.1, 2004.0) | 2011 (2010.7, 2012.2) | - | -2.3\* (-2.7, -2.0) | -0.0 (-0.1, 0.1) | -0.8\* (-1.0, -0.7) | - | -0.8\* (-0.8, -0.7) | -14.1\* (-15.0, -13.3) |
| CZE | Women | Cancer | 2008 (2007.0, 2008.4) | 2012 (2010.9, 2012.2) | - | -3.5\* (-3.6, -3.4) | -2.2\* (-2.5, -1.9) | -0.7\* (-0.8, -0.5) | - | -2.1\* (-2.2, -2.1) | -33.6\* (-34.2, -33.0) |
| CZE | Women | Cardiovascular | 2005 (2004.0, 2005.2) | 2010 (2007.8, 2011.8) | 2014 (2012.9, 2014.9) | 2.3\* (1.5, 3.1) | -2.1\* (-2.7, -1.6) | -0.9\* (-1.7, -0.1) | -3.9\* (-4.5, -3.2) | -1.3\* (-1.5, -1.1) | -21.8\* (-24.3, -19.3) |
| CZE | Women | External | 2009 (2007.1, 2011.7) | 2015 (2014.2, 2015.3) | - | -2.7\* (-3.1, -2.3) | -4.5\* (-5.7, -3.3) | 6.5\* (4.6, 8.4) | - | -1.3\* (-1.5, -1.0) | -21.4\* (-25.6, -17.0) |
| CZE | Women | Other | 2009 (2007.8, 2009.3) | 2012 (2011.2, 2012.4) | - | -5.0\* (-5.3, -4.7) | -0.5 (-2.1, 1.1) | 6.0\* (5.7, 6.3) | - | -0.2\* (-0.3, -0.1) | -3.7\* (-5.7, -1.6) |
| EST | Men | All | 2004 (2003.9, 2005.0) | 2008 (2007.8, 2008.8) | 2012 (2011.1, 2013.2) | -4.8\* (-5.0, -4.7) | -3.3\* (-3.6, -3.0) | -1.4\* (-1.6, -1.1) | -2.2\* (-2.3, -2.0) | -2.9\* (-2.9, -2.8) | -42.5\* (-42.9, -42.0) |
| EST | Men | Cancer | 2007 (2006.9, 2008.0) | 2012 (2011.8, 2012.7) | - | -3.1\* (-4.4, -1.8) | 14.4\* (12.3, 16.5) | -2.8\* (-4.6, -0.9) | - | 1.6\* (1.2, 2.1) | 32.0\* (22.0, 42.8) |
| EST | Men | Cardiovascular | 2004 (2004.3, 2004.6) | 2009 (2007.9, 2010.1) | 2014 (2014.0, 2014.8) | -4.5\* (-4.7, -4.2) | 0.6\* (0.3, 0.9) | 1.5\* (1.3, 1.7) | -2.9\* (-3.7, -2.1) | -1.0\* (-1.1, -0.9) | -15.9\* (-16.9, -14.8) |
| EST | Men | External | 2002 (2001.4, 2003.0) | 2006 (2003.8, 2007.3) | 2010 (2007.7, 2011.9) | 5.4 (-1.9, 13.2) | -13.9\* (-19.0, -8.5) | -4.3 (-9.2, 0.8) | -13.1\* (-17.0, -8.9) | -8.9\* (-10.4, -7.4) | -79.5\* (-84.6, -72.7) |
| EST | Men | Other | 2010 (2007.5, 2013.1) | - | - | -10.2\* (-11.6, -8.7) | -0.8 (-7.0, 5.9) | - | - | -6.6\* (-8.1, -5.0) | -68.5\* (-76.1, -58.4) |
| EST | Women | All | 2006 (2005.4, 2006.1) | 2010 (2007.9, 2012.1) | - | -4.0\* (-4.1, -3.9) | -2.9\* (-3.0, -2.8) | -3.1\* (-3.2, -3.0) | - | -3.3\* (-3.4, -3.3) | -47.6\* (-47.8, -47.3) |
| EST | Women | Cancer | 2003 (2001.5, 2005.2) | 2009 (2007.9, 2009.4) | - | -6.4\* (-7.1, -5.6) | -5.1\* (-5.6, -4.6) | -8.1\* (-8.5, -7.6) | - | -6.8\* (-7.0, -6.6) | -69.8\* (-70.8, -68.8) |
| EST | Women | Cardiovascular | 2005 (2004.4, 2005.2) | 2010 (2010.0, 2011.0) | - | -19.7\* (-22.1, -17.2) | 20.9\* (17.9, 24.0) | -4.8\* (-6.8, -2.8) | - | -1.6\* (-2.3, -1.0) | -24.4\* (-32.3, -15.6) |
| EST | Women | External | 2005 (2003.9, 2005.2) | 2009 (2008.2, 2009.0) | 2014 (2011.9, 2015.9) | -8.0\* (-8.1, -7.8) | -6.7\* (-6.9, -6.4) | -3.8\* (-4.2, -3.4) | -2.6\* (-3.6, -1.6) | -5.4\* (-5.5, -5.3) | -61.0\* (-61.9, -60.2) |
| EST | Women | Other | 2003 (2002.3, 2003.2) | 2014 (2012.6, 2014.9) | - | 3.2 (-1.0, 7.5) | -13.3\* (-14.0, -12.6) | 6.6 (-4.8, 19.3) | - | -7.2\* (-8.5, -5.8) | -71.7\* (-77.8, -64.0) |
| LTU | Men | All | 2015 (2014.4, 2014.9) | - | - | -0.3 (-0.8, 0.3) | 8.7\* (8.2, 9.2) | - | - | 3.9\* (3.7, 4.2) | 41.2\* (38.3, 44.2) |
| LTU | Men | Cancer | 2014 (2013.3, 2013.8) | - | - | -14.1\* (-16.2, -12.0) | 20.3\* (18.8, 21.8) | - | - | 5.4\* (4.7, 6.1) | 60.3\* (51.1, 70.0) |
| LTU | Men | Cardiovascular | 2013 (2013.0, 2013.8) | 2016 (2015.1, 2017.1) | - | -6.6\* (-7.9, -5.4) | 6.3\* (4.6, 7.9) | 12.8\* (10.7, 14.8) | - | 3.1\* (2.7, 3.6) | 32.1\* (27.1, 37.3) |
| LTU | Men | External | 2016 (2016.0, 2017.0) | - | - | -11.0\* (-11.3, -10.8) | -3.4\* (-5.3, -1.4) | - | - | -8.9\* (-9.3, -8.6) | -56.9\* (-58.3, -55.5) |
| LTU | Men | Other | 2013 (2012.9, 2013.6) | 2016 (2015.5, 2017.0) | - | -1.7\* (-2.2, -1.3) | 3.2\* (2.7, 3.7) | 5.7\* (5.0, 6.3) | - | 2.1\* (2.0, 2.3) | 20.6\* (19.0, 22.3) |
| LTU | Women | All | 2012 (2009.8, 2014.2) | 2014 (2012.6, 2016.3) | 2016 (2015.1, 2017.8) | -11.6\* (-13.3, -9.8) | -5.8\* (-9.3, -2.0) | 1.6 (-2.4, 5.7) | 11.1\* (8.9, 13.4) | -1.0\* (-1.4, -0.6) | -8.7\* (-12.1, -5.2) |
| LTU | Women | Cancer | 2012 (2011.4, 2013.3) | 2014 (2013.4, 2015.6) | 2017 (2012.5, 2021.0) | -8.9\* (-10.5, -7.2) | 0.9 (-1.7, 3.5) | 8.2\* (6.0, 10.5) | 10.1\* (8.6, 11.6) | 2.2\* (1.8, 2.6) | 21.6\* (17.9, 25.5) |
| LTU | Women | Cardiovascular | 2014 (2012.8, 2014.1) | 2016 (2015.8, 2016.7) | - | -5.7\* (-6.5, -5.0) | -1.1\* (-1.9, -0.2) | 5.5\* (4.4, 6.6) | - | -1.0\* (-1.2, -0.7) | -8.3\* (-10.3, -6.3) |
| LTU | Women | External | 2013 (2012.2, 2014.2) | 2016 (2015.1, 2016.3) | - | -11.5\* (-12.8, -10.1) | -0.1 (-4.0, 4.1) | 8.5\* (6.9, 10.1) | - | -2.4\* (-2.8, -1.9) | -19.4\* (-22.9, -15.7) |
| LTU | Women | Other | 2012 (2011.0, 2014.0) | 2014 (2013.1, 2015.9) | 2016 (2015.8, 2017.3) | -3.3\* (-3.9, -2.8) | -1.3\* (-2.1, -0.4) | 0.8 (-0.1, 1.6) | 4.4\* (3.9, 4.9) | 0.1\* (0.0, 0.3) | 1.2\* (0.1, 2.3) |
| POL | Men | All | - | - | - | - | - | - | - | -1.7\* (-1.7, -1.6) | -19.8\* (-20.4, -19.2) |
| POL | Men | Cancer | 2009 (2007.9, 2010.3) | 2012 (2010.1, 2013.6) | 2016 (2015.7, 2017.2) | -5.4\* (-6.1, -4.7) | -2.4\* (-4.1, -0.7) | -0.6\* (-1.0, -0.2) | 3.2\* (2.0, 4.3) | -1.4\* (-1.6, -1.3) | -17.0\* (-18.9, -15.2) |
| POL | Men | Cardiovascular | 2017 (2016.1, 2017.1) | - | - | -2.9\* (-3.1, -2.8) | 3.3\* (1.4, 5.2) | - | - | -1.8\* (-2.0, -1.6) | -21.0\* (-23.2, -18.7) |
| POL | Men | External | 2008 (2007.3, 2009.3) | 2012 (2010.1, 2013.5) | - | -2.3\* (-2.8, -1.7) | -0.9\* (-1.3, -0.5) | -1.5\* (-1.6, -1.4) | - | -1.5\* (-1.6, -1.4) | -17.6\* (-18.4, -16.8) |
| POL | Men | Other | 2009 (2008.0, 2009.1) | 2012 (2011.6, 2013.3) | 2016 (2016.0, 2016.9) | -9.2\* (-11.0, -7.4) | -0.6 (-1.5, 0.3) | 3.5\* (2.6, 4.3) | 12.0\* (10.4, 13.6) | 1.2\* (0.9, 1.5) | 16.8\* (12.9, 20.9) |
| POL | Women | All | 2008 (2007.8, 2008.7) | 2012 (2010.3, 2013.5) | 2016 (2015.8, 2016.9) | -2.9\* (-3.5, -2.4) | -0.3 (-0.7, 0.1) | -0.9\* (-1.1, -0.8) | 1.5\* (1.0, 2.0) | -0.6\* (-0.7, -0.5) | -7.8\* (-8.8, -6.7) |
| POL | Women | Cancer | 2009 (2008.0, 2009.2) | 2012 (2011.9, 2013.1) | 2016 (2015.6, 2017.2) | -5.7\* (-6.8, -4.6) | -1.5\* (-1.9, -1.1) | 1.1\* (0.7, 1.6) | 4.0\* (3.1, 5.0) | -0.5\* (-0.7, -0.3) | -6.4\* (-8.4, -4.4) |
| POL | Women | Cardiovascular | 2014 (2013.2, 2014.5) | 2016 (2016.2, 2016.8) | - | -4.0\* (-4.1, -3.8) | -1.8\* (-2.5, -1.1) | 4.7\* (3.9, 5.6) | - | -1.9\* (-2.0, -1.8) | -22.1\* (-23.2, -21.1) |
| POL | Women | External | 2009 (2008.8, 2010.0) | 2012 (2011.9, 2013.1) | 2016 (2015.0, 2016.2) | -8.7\* (-9.1, -8.3) | -5.7\* (-6.3, -5.1) | -2.3\* (-3.0, -1.5) | 2.2\* (1.5, 2.9) | -3.6\* (-3.8, -3.5) | -38.3\* (-39.4, -37.2) |
| POL | Women | Other | 2009 (2008.0, 2009.3) | 2013 (2011.7, 2013.5) | 2016 (2016.0, 2016.9) | -7.9\* (-9.9, -5.8) | 0.1 (-0.9, 1.1) | 4.2\* (3.3, 5.2) | 14.4\* (12.5, 16.3) | 2.3\* (2.0, 2.6) | 33.8\* (28.7, 39.2) |
| ROU | Men | All | 2009 (2008.1, 2009.2) | 2013 (2012.1, 2013.1) | - | -1.4\* (-1.6, -1.3) | 1.1\* (0.7, 1.6) | 3.7\* (3.5, 3.9) | - | 0.8\* (0.7, 0.9) | 16.5\* (15.2, 17.8) |
| ROU | Men | Cancer | 2006 (2004.5, 2006.7) | 2009 (2008.1, 2010.6) | 2013 (2011.6, 2014.8) | -1.5\* (-1.9, -1.1) | 0.2 (-0.4, 0.8) | 2.1\* (1.4, 2.7) | 0.9\* (0.5, 1.2) | 0.3\* (0.2, 0.4) | 5.2\* (3.3, 7.2) |
| ROU | Men | Cardiovascular | 2004 (2003.2, 2004.3) | 2010 (2010.0, 2010.8) | 2016 (2015.8, 2017.1) | -0.5\* (-0.9, -0.0) | -2.7\* (-2.9, -2.5) | 0.2 (-0.0, 0.4) | 2.4\* (1.6, 3.2) | -0.7\* (-0.7, -0.6) | -12.0\* (-13.3, -10.7) |
| ROU | Men | Other | 2005 (2002.7, 2006.4) | 2012 (2012.2, 2012.7) | 2016 (2015.2, 2015.9) | -2.4\* (-2.8, -2.0) | -3.1\* (-3.3, -3.0) | 3.5\* (2.9, 4.2) | 8.5\* (8.0, 9.0) | 0.2\* (0.1, 0.2) | 3.4\* (1.9, 4.8) |
| ROU | Women | All | 2003 (2002.6, 2003.8) | 2010 (2010.1, 2010.8) | 2014 (2014.0, 2014.8) | -0.9\* (-1.2, -0.5) | -2.3\* (-2.4, -2.2) | -0.1 (-0.4, 0.2) | 2.5\* (2.3, 2.8) | -0.5\* (-0.5, -0.4) | -8.4\* (-9.3, -7.5) |
| ROU | Women | Cancer | 2003 (2002.3, 2004.4) | 2007 (2005.9, 2007.6) | - | -1.3\* (-1.6, -1.0) | -0.3 (-0.7, 0.1) | 0.7\* (0.7, 0.8) | - | 0.2\* (0.1, 0.2) | 3.7\* (2.8, 4.5) |
| ROU | Women | Cardiovascular | 2011 (2010.2, 2012.2) | - | - | -2.3\* (-2.4, -2.1) | -0.8\* (-1.1, -0.6) | - | - | -1.7\* (-1.8, -1.6) | -27.5\* (-28.6, -26.3) |
| ROU | Women | Other | 2004 (2001.9, 2005.2) | 2011 (2010.2, 2011.0) | 2014 (2013.2, 2013.9) | -5.3\* (-6.2, -4.5) | -4.0\* (-4.2, -3.7) | 1.4\* (0.4, 2.5) | 8.1\* (7.7, 8.6) | -0.0 (-0.2, 0.1) | -0.8 (-3.1, 1.5) |
| SVK | Men | All | 2004 (2003.3, 2004.0) | 2011 (2010.6, 2012.2) | 2014 (2013.3, 2015.4) | -5.1\* (-5.7, -4.5) | 0.2\* (0.0, 0.3) | -1.8\* (-2.6, -1.1) | -3.6\* (-4.1, -3.1) | -2.1\* (-2.2, -2.0) | -33.3\* (-34.6, -32.0) |
| SVK | Men | Cancer | 2005 (2004.5, 2005.3) | 2011 (2010.0, 2011.9) | 2015 (2014.4, 2015.2) | 1.9\* (1.6, 2.1) | -0.4\* (-0.5, -0.3) | 0.3\* (0.1, 0.5) | 2.4\* (2.2, 2.5) | 0.9\* (0.9, 1.0) | 19.3\* (18.4, 20.2) |
| SVK | Men | Cardiovascular | 2006 (2005.8, 2006.8) | 2010 (2009.0, 2010.1) | 2016 (2015.9, 2016.8) | 3.6\* (3.2, 4.0) | -1.6\* (-2.6, -0.6) | -6.0\* (-6.3, -5.7) | 4.2\* (1.6, 6.8) | -0.7\* (-0.9, -0.5) | -12.9\* (-16.3, -9.3) |
| SVK | Men | External | 2003 (2001.1, 2004.1) | 2010 (2009.3, 2010.3) | - | -1.8\* (-2.6, -0.9) | -0.6\* (-0.8, -0.4) | -2.9\* (-3.0, -2.7) | - | -1.9\* (-1.9, -1.8) | -29.9\* (-30.9, -28.8) |
| SVK | Men | Other | 2005 (2004.0, 2005.7) | 2009 (2008.9, 2010.0) | 2015 (2014.1, 2015.0) | -6.7\* (-7.1, -6.2) | -4.6\* (-4.9, -4.2) | -1.6\* (-2.0, -1.2) | 3.5\* (2.9, 4.1) | -2.5\* (-2.6, -2.4) | -38.1\* (-39.3, -36.8) |
| SVK | Women | All | 2002 (2001.6, 2003.4) | 2005 (2004.0, 2005.2) | 2012 (2011.7, 2012.6) | -10.6\* (-12.1, -9.0) | -5.5\* (-8.3, -2.6) | 1.8\* (1.5, 2.1) | -3.8\* (-4.3, -3.3) | -2.7\* (-2.9, -2.6) | -41.1\* (-43.1, -39.1) |
| SVK | Women | Cancer | 2010 (2009.2, 2010.1) | 2017 (2016.0, 2017.2) | - | -2.6\* (-2.7, -2.6) | -1.9\* (-2.0, -1.8) | -0.7\* (-1.1, -0.3) | - | -2.1\* (-2.2, -2.1) | -33.6\* (-34.0, -33.2) |
| SVK | Women | Cardiovascular | 2004 (2003.9, 2004.5) | 2010 (2010.2, 2010.8) | 2017 (2016.2, 2017.2) | -9.7\* (-10.7, -8.7) | 4.1\* (3.4, 4.8) | -8.3\* (-9.1, -7.5) | 5.2\* (1.0, 9.6) | -3.1\* (-3.5, -2.8) | -45.5\* (-48.9, -41.8) |
| SVK | Women | External | 2006 (2004.7, 2006.4) | 2012 (2010.4, 2012.5) | - | -3.5\* (-4.7, -2.4) | 2.8\* (1.9, 3.8) | -1.6\* (-2.4, -0.9) | - | -0.8\* (-1.1, -0.5) | -14.6\* (-19.2, -9.8) |
| SVK | Women | Other | 2004 (2003.9, 2004.7) | 2010 (2009.3, 2010.1) | 2015 (2015.0, 2015.8) | -4.6\* (-5.7, -3.6) | 6.1\* (5.2, 6.9) | -1.9\* (-2.4, -1.4) | 7.5\* (6.3, 8.8) | 1.4\* (1.2, 1.6) | 30.8\* (26.0, 35.7) |