

## Irish Population Health: *life expectancy and mortality*

**Patrick Malone**

### **Key Point:**

Over the last decade life-expectancy in Ireland has increased by 2 years for women and 3 years for men since 2007: women living to 84 years and men to 80 years in 2017. Notwithstanding the dramatic rise in life-expectancy across the EU over the last number of decades, there has been a slowdown in life-expectancy in many countries, particularly in Western Europe. In the Irish case, life-expectancy rose by 4.5 years for men and 4 years for women between 2000 and 2010. However, in more recent years the gains in life-expectancy have slowed down considerably – with an increase of 1.9 years for men and 0.9 years for women between 2010 and 2017. Mortality trends over the last decade show that cancer related diseases remain the leading cause of death, causing some 9,000 deaths in 2017. However, the death rate from cancer has decreased by 11% between 2008 and 2017. While diseases of the circulatory system denote the second largest cause of death in 2017, death rates in this area has decreased by over 30% in the last decade (2008-2017). Diseases of the respiratory system account for the third main cause of death in Ireland – with more than 4,000 people dying from respiratory related diseases in 2017. The proportion of deaths caused External injury and poisoning was 1,315 in 2017. In this area, transport accidents and suicide death rates have fallen considerably – decreasing by 44.5% and 26% respectively between the years 2008 and 2017.

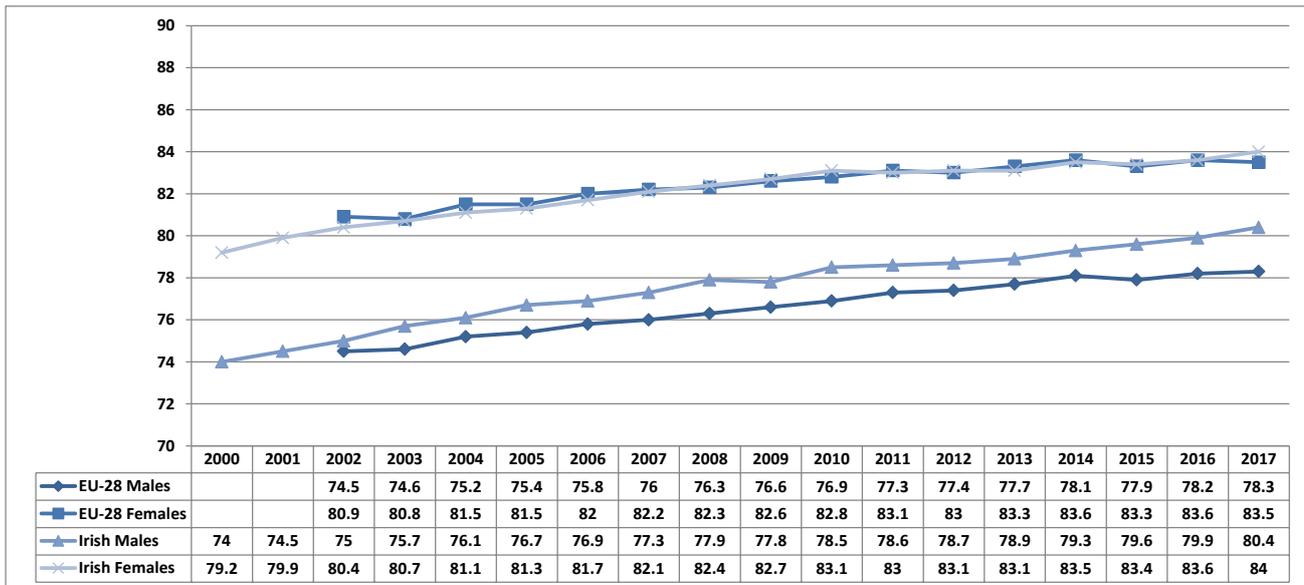
### **Life Expectancy Trends Overtime**

Figure 1 shows life expectancy at birth between the years 2000 and 2017. Life expectancy in Ireland is now above the EU-28 average having increased by 2 years for women and 3 years for men since 2007: with women living to 84 years and men to 80.4 years in 2017. The EU-28 average life expectancy was 83.5 for women and 78.3 years for men in 2017: increasing by 1.3 and 2.3 years for women and men respectively since 2007.

While there has been a dramatic rise in life expectancy across the EU over the last number of decades, life-expectancy has slowed down since 2010 in many countries, particularly in Western Europe (OECD, 2018). In the Irish case, life expectancy rose substantially between the years 2000 and 2010 by 4.5 years for men and 4 years for

women: increasing from 74 years for men and 79 years for women in 2000. However, in more recent years the gains in life-expectancy have slowed down: with an increase of 1.9 years for men and 0.9 years for women between 2010 and 2017. An important factor that has contributed to the recent slowdown in life expectancy in many EU countries is the slowdown in the reduction in death rates from circulatory diseases, which was previously the main driver of life expectancy gains (OECD, 2018).

**Figure 1: Life-expectancy at birth for Ireland and EU-28, 2000-2017**

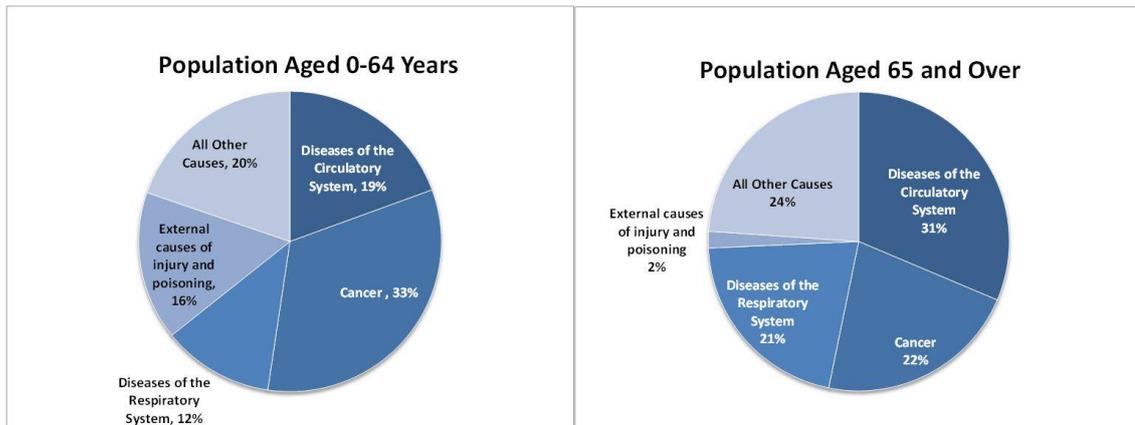


Source: Eurostat (2019) Note: life expectancy statistics for EU-28 Males and Females in 2000 and 2001 were not available.

Figure 2 shows the principle causes of death for the Irish population aged 0-64 years and 65 years and over in 2017. Amongst the 0-64 year age group, cancer related diseases accounted for 33% of the deaths in 2017. This was followed by diseases of the circulatory system (19%) and external cause of injury and poisoning (16%). Diseases of the respiratory system accounted for 12% of deaths in 2017.

Amongst adults aged 65 years and over, the principle cause of death was diseases of the circulatory system at 31% in 2017. This was followed by Cancer (22%) and Diseases of the Respiratory System (21%). External causes of injury and poisoning accounted for 2% of deaths in 2017.

**Figure 2: Principle Cause of Death 2017**



Source: DOH (2018). Note: the figures for 2017 are provisional as the numbers of deaths registered in this year are incomplete. Data up until 2016 is final.

Table 1 shows the principle causes of death over the last decade. In 2017, over 30,000 deaths were registered, representing a decrease in the mortality rate of 15% on 2008.

Cancer is a leading cause of death in Ireland, causing some 9,000 deaths in 2017: with the total number of deaths increasing by almost 1,000 (+12%) on 2008. However, when expressed as per 100,000 of the population, the mortality rate has decreased by 11%. Cancer of the Trachea, Bronchus and Lung represent a common cause of cancer accounting for almost 2,000 deaths in 2017, rising by 245 deaths on 2008. Cancer of the Female Breast accounted for over 750 deaths in 2017: with death rate for this cause of death decreasing by 16% on 2008.

Diseases of the circulatory system are the second main cause of mortality, with 8,930 deaths occurring in 2017: decreasing from 9,960 in 2008 (-10%). Since 2008, the deaths rates for circulatory diseases decreased by almost 31.5%. Circulatory diseases consist of a range of illnesses related to the circulatory system including ischaemic heart diseases (e.g. heart attacks) and cerebrovascular diseases (e.g. strokes). Death rates from Ischaemic heart disease decreased by almost 38%: with the total number of deaths decreasing from 5,185 in 2008 to 4,340 in 2017. Cerebrovascular (Stroke) diseases were the cause of some 1,700 deaths in 2017: representing a decrease of almost 40% in the death rate on 2008. The overall decline of mortality rates in these areas in part can be explained by the increased policy focus on prevention, risk assessment and improvements in the quality of services provided (DOH, 2019).

Respiratory diseases account for the third main cause of death in Ireland. More than 4,000 people died from respiratory diseases in 2017, representing a 13% decrease in the death rate on 2008. Some of the main causes of death include chronic lower respiratory diseases (CLRD) (e.g. asthma and bronchitis) and pneumonia. The number of CLRD increased from 1,365 deaths in 2008 to 1,710 in 2016, before decreasing to 1,610 in 2017. This represented a decline in CLRD death rates of almost 10% over the last

decade. Pneumonia related diseases accounted for more than 1,100 deaths in 2017: with the death rate decreasing substantially by almost 40% over the last decade.

**Table 1: Principle Causes of Death. 2008-2017**

		2008	2012	2016	2017	% change 2008-2017
<b>Diseases of the Circulatory System</b>						
<b>All Circulatory System Diseases:</b>	<b>Number</b>	<b>9,956</b>	<b>9,480</b>	<b>9,237</b>	<b>8,927</b>	<b>-10.3</b>
	<b>Rate</b>	<b>426.8</b>	<b>360.5</b>	<b>313.6</b>	<b>292.3</b>	<b>-31.5</b>
<i>of which contains</i>						
<i>Ischemic Heart Disease</i>	Number	5,185	4,758	4,449	4,238	-18.3
	Rate	218.9	178.2	148	135.9	-37.9
<i>Stroke</i>	Number	2,142	1,935	1,830	1,710	-20.2
	Rate	93.5	75.2	63.2	56.7	-39.4
<b>Cancer</b>						
<b>All Malignant Neoplasms:</b>	<b>Number</b>	<b>8,199</b>	<b>8,571</b>	<b>9,171</b>	<b>9,175</b>	<b>11.9</b>
	<b>Rate</b>	<b>306.2</b>	<b>290.1</b>	<b>279.7</b>	<b>271.7</b>	<b>-11.3</b>
<i>of which contains</i>						
<i>Cancer of Trachea, Bronchus and Lung</i>	Number	1,681	1,801	1,911	1,926	14.6
	Rate	62.2	60.6	57.6	56.7	-8.8
<i>Cancer of the Female Breast</i>	Number	736	689	755	752	2.2
	Rate	46.8	40.2	40.7	39.3	-15.9
<b>Diseases of the Respiratory System</b>						
<b>All Respiratory System Diseases:</b>	<b>Number</b>	<b>3,522</b>	<b>3,497</b>	<b>3,935</b>	<b>4,079</b>	<b>15.8</b>
	<b>Rate</b>	<b>156.4</b>	<b>137.6</b>	<b>135.8</b>	<b>136.7</b>	<b>-12.6</b>
<i>of which contains</i>						
<i>Chronic Lower Respiratory Disease</i>	Number	1,365	1,587	1,712	1,610	17.9
	Rate	57.3	59.8	57.3	52.3	-8.7
<i>Pneumonia</i>	Number	1,356	1,086	1,086	1,109	-18.2
	Rate	63.9	45.8	39.9	39.1	-38.7
<b>External causes of injury and poisoning</b>						
<b>All Deaths from External Causes:</b>	<b>Number</b>	<b>1,721</b>	<b>1,577</b>	<b>1,323</b>	<b>1,315</b>	<b>-23.6</b>
	<b>Rate</b>	<b>46.6</b>	<b>40.9</b>	<b>33.0</b>	<b>32.5</b>	<b>-30.1</b>
<i>of which contains</i>						
<i>Transport Accidents</i>	Number	256	162	145	145	-43.4
	Rate	6.2	3.9	3.5	3.4	-44.5
<i>Suicide</i>	Number	506	541	437	392	-22.5
	Rate	11.3	12.1	9.5	8.4	-26.0
<b>Infant Mortality</b>						
<b>Infant Mortality Rate (per 1,000 live births)</b>	<b>Number</b>	<b>284</b>	<b>237</b>	<b>194</b>	<b>174</b>	<b>-38.7</b>
	<b>Rate</b>	<b>3.8</b>	<b>3.3</b>	<b>3.0</b>	<b>2.8</b>	<b>-25.9</b>
<b>All Causes of Death</b>	<b>Number</b>	<b>28,274</b>	<b>29,186</b>	<b>30,667</b>	<b>30,484</b>	<b>7.8</b>
	<b>Rate</b>	<b>1,125.0</b>	<b>1,048.5</b>	<b>994.3</b>	<b>957.3</b>	<b>-14.9</b>

Source: DOH (2018) Note: the figures for 2017 are provisional as the numbers of deaths registered in this year are incomplete. Data up until 2016 is final. The rates provided in the table are age standardised to the European standard population and are presented as rates per 100,000 population except for infant mortality rates which are expressed as deaths per 1,000 live births. Diseases of the respiratory system exclude cancer of the Trachea, Bronchus and Lung.

External causes of injury and poisoning caused 1,315 deaths in 2017, decreasing from 1,720 deaths in 2008 (-405). In this domain, transport accidents and suicide death rates have fallen considerably – decreasing by 44.5% and 26% respectively between the years 2008 and 2017. Infant mortality rates have also decreased significantly by 30% during these years.

### References

Department of Health (2019) *National Healthcare Quality Reporting System: Annual Report 2019* [Online] available at: <https://health.gov.ie/wp-content/uploads/2019/07/NHQRS-2019-FINAL.pdf>

Department of Health (2018) *Health in Ireland: Key Trends 2018* [Online] available at: <https://health.gov.ie/wp-content/uploads/2018/12/Key-Trends-2018.pdf>

Eurostat (2019) *Life Expectancy at Birth by Sex* [Online] available at: [https://ec.europa.eu/eurostat/databrowser/view/sdg\\_03\\_10/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/sdg_03_10/default/table?lang=en)

OECD (2018) *Health at a Glance: Europe 2018: State of Health in the EU Cycle* [Online] available at: [https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-europe-2018\\_health\\_glance\\_eur-2018-en](https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-europe-2018_health_glance_eur-2018-en)