



## Economic Cost of Suicide and Deliberate Self-Harm in Northern Ireland September 2019

The economic impacts of lost output and health service costs have been estimated to support the implementation of policies to aid prevention and thereby help to reduce the number of suicides in Northern Ireland.

The number of suicides in Northern Ireland for 2017 was recorded as 305. The number of suicides has remained reasonably stable over the last 5 years reaching its highest level in 2015 with 318 recorded suicides in that year.

The economic costs should be viewed as broad estimates of the costs to the economy as calculating these costs is not an exact science.

The economic costs have been divided into 3 categories:

- i) **Direct Costs** – These are costs associated with health service interventions such as ambulance costs and other costs associated with conducting post-mortems and funeral costs.
- ii) **Indirect Costs** – These are made up mainly lost output or earnings from suicide from the labour force over an expected lifetime. The calculation also involves an estimate for unpaid work (e.g. housework and volunteering in community etc.).
- iii) **Intangible Costs** – These costs relate to human grief and suffering including that experienced by family and friends. These costs are the most difficult to measure in monetary terms as they consist of notional costs with no market existing for valuing them directly.

Using the 2017/18<sup>1</sup> figures the **Economic Cost of Suicide** is estimated to be **£473,864,181**.  
(See the Technical Note following for a full breakdown of this final cost).

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<sup>1</sup> Note the number of suicides are from 2017 calendar year while some of the data relates to the 2017/18 financial year - this is the same methodology as adopted for previous economic cost analysis undertaken by the Department.

The calculation can be broken down in to the 3 categories:

- **Direct Costs** – £3,460,225
- **Indirect Costs** – £178,438,958
- **Intangible Costs** – £291,964,997

The methodology reflects that used previously and is based on a study by the Northern Ireland Association for Mental Health (NIAMH) (now known as ‘Inspire’ - Mental Health Charity) and Sainsbury Centre for Mental Health entitled “*Counting the Cost*”<sup>2</sup>.

### Preventative Measures – An Economic Justification

The prevention of suicide in society is reflected in the (draft) PfG (2016 – 2021) in Northern Ireland under Outcome 4 – “we enjoy long, healthy, active lives” - which sets out the suicide prevention strategy. It is acknowledged with the PfG consultation document that suicide remains a huge challenge in Northern Ireland.

The benefits of suicide prevention include lives saved, avoiding human suffering and grief by family, friends and the wider community; improved levels of mental well-being across society, Health and Social Care (HSC) costs avoided and an increase in output in the economy.

By way of illustrating the positive outcome of a measure introduced to reduce suicide and self-harm say it had the impact of reducing the number of suicides and self-harm in Northern Ireland by 10% following its introduction. This 10% reduction, on the basis of 2017/18 values, would result in:

- 30 lives saved, and;
- Approx. £47m economic cost avoided.
- Around 220 incidents of recorded self-harm avoided
- Direct HSC costs of £0.14m saved

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<sup>2</sup> *Counting the Cost: Economic and Social Costs of Mental Illness in Northern Ireland*; Sainsbury Centre for Mental Health, Northern Ireland Association for Mental Health; (2004).

## Deliberate Self Harm Costs to NI Economy

Over a 5-year period the incidents of self-harm in Northern Ireland amounted to an average of 3,141 admissions to hospital – although it is important to note that the Hospital Inpatient System (which records all admissions) is unlikely to capture the full extent of the Mental Health Programme of Care.

The figures for year on year admissions for self-harm show there has been a persistent fall in number of hospital episodes over the five years prior to 2017/18. Whilst this would appear to be a positive development, caution is required in drawing the conclusion that the level of self-harm overall is reducing. There are a number of factors which could impact on whether people presenting at A&E are being admitted to wards. Better triage, different treatment pathways, increased community support etc will all impact on the hospital admissions figures and hence the treatment costs. This does not however translate into a reduction in the overall number of self-harm incidents.

The **average annual cost of treatment** across the five year period up to 2017/18 amounts to **£1.84m**.

# Technical Note

## Economic Costs of Suicide

### Direct Costs

- Emergency Services Cost: an ambulance attends most incidents of suicide – the average cost of a journey in 2017/18 is £292 (source: NIAS, Finance Branch).
- Police service and coroner service attendance costs at suicides and follow up investigations are recognised costs but not attributable to this costing exercise due to lack of data.
- NIFRS – In some instances NIFRS are utilised to retrieve remains – this is again a recognised cost that has not been costed in this exercise due to a lack of data.
- Post Mortem costs – The average cost of a post-mortem in 2017/18 was £2,148 (source: State Pathology Office, DOJ NI).
- Funeral costs applicable: The cost of an average funeral in the UK was £8,905 (source: ‘Sunlife’ Life Insurance 2017).

If the above are all summed up then the full direct cost of suicide in Northern Ireland amounts to: **£3,460,225** in 2017/18 (305 suicides in 2017 - NISRA Demography Branch).

### Indirect Costs

The source for lost output from a road fatality (£628,480) for paid work has been taken from Department for Transport’s Transport Analysis Guidance (TAG) – these were used as a proxy for a suicide to give an estimated value of the cost of suicide of **£148,748,748** after adjusting for NI’s lower GVA (77.6%)<sup>3</sup>.

The values attached to unpaid work were calculated using a Scottish Executive report in to suicide entitled “Evaluation of the First Phase of *Choose Life*” (September 2006) and were uplifted to the 2017 calendar year based on the GDP Deflator (UK) (1.124) (source: HMT GDP Deflator Tables; Quarterly National Accounts for ONS). The values found for men were

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<sup>3</sup> NISRA GVA NI figures 2017 - <https://www.nisra.gov.uk/statistics/economic-output-statistics/gross-value-added>

£17,851,878 and for women were £11,838,332 respectively, giving a total value of **£29,690,211**.

The total for the Indirect Costs is **£178,438,958**.

### Intangible Costs

The Department for Transport's Transport Analysis Guidance (TAG) also provides information on the human cost of a fatality (£1,233,585 - DfT UK).

The value from TAG for the intangible human costs is £1.23m and is multiplied by the number of suicides in NI in 2017 (305) to get the final value of **£291,964,997**. (As with the indirect costs figure an adjustment for NI GVA has been applied at 77.6% of UK GVA).

### **Deliberate Self Harm (DSH)**

The costing of the Deliberate Self Harm (DSH) section of the table below can be divided into two parts:

- I) **Direct Costs** – These are attributable to hospital costs in treating the incident and sourced from Hospital Information Branch (HIB) of DoH NI; (Direct Costs - £1.841m)
  
- II) **Indirect Costs** – These are based on a study by Kennelly et al into Suicide and Self-Harm in Ireland<sup>4</sup> that distinguished indirect costs into market costs (lost output to the economy) and non-market costs (voluntary output eg housework, community participation etc).

An adjustment was then made for the euro/sterling exchange rate (base year 2001) and GDP deflator to bring 2001 values up to 2017/18 values (NB: No adjustment was made for differences in RoI/NI wage rates).

Indirect Costs – **Paid (i.e. market costs) £2.11m Voluntary (non-market costs) - £0.83m**

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<sup>4</sup> "The Economic Cost of Suicide and Deliberate Self Harm in Ireland" by Kennelly, Ennis and O'Shea (2004).

## Estimated Economic Costs of Suicide & Self-harm in Northern Ireland 2017/18

<b>Suicides</b>			
Registration Year 2017*	Males (n = 234)	Females (n = 71)	All Persons (n = 305)
Direct Costs (£):	-	-	<b>3,460,225</b>
Indirect Costs (£):			<b>178,438,958</b>
Paid	-	-	148,748,748
Voluntary	17,851,878	11,838,332	29,690,211
Intangible Costs (£): (£957,262 per person)	223,999,375	67,965,622	<b>291,964,997</b>
<b>Total Costs of Suicide (£):</b>	-	-	<b>473,864,181</b>
<b>Self-Harm</b>			
Direct (hospital) treatment costs (£):	-	-	1,841,021
Indirect Costs (£):			
Paid	-	-	2,107,959
Voluntary	-	-	830,827
<b>Total Costs of Self-harm (£):</b>	-	-	<b>4,779,807</b>
<b>Total Costs of Suicide and Self-harm (£):</b>	-	-	<b>478,643,987</b>

\*Source: NISRA - Number of Deaths from Suicide registered in NI in 2017.

	<b>2017/18</b>
Cost per Suicide	£1,553,653