




Key Messages

Suicide* risk following hospital attendance with self-harm (IPSDS 2015-2017 cohort)

Griffin, E., Corcoran, P., Arensman, E. Kavalidou, K., Perry, I., & McMahon, E., (2023) Suicide risk following hospital attendance with self-harm: a national cohort study in Ireland. *Nature Mental Health* 1, 982–989


1



High Suicide Risk Post Self-Harm

Within 12 months of hospital presentation for self-harm, 0.9% of patients died by suicide; 1.3% of men and 0.6% of women.


2



Elevated Relative Risk

Compared to the general population, women were nearly 140 times more likely and men 70 times more likely to die by suicide after a hospital presentation for self-harm.

3



Older Age Increases Risk

Suicide risk was highest among those aged over 55, aligning with international findings that older adults have greater suicidal intent and vulnerability.

4



Method Matters

Attempted hanging and combined methods (e.g., overdose plus cutting) were strongly associated with higher suicide risk than overdose alone.

5



Alcohol Involvement

Self-harm involving alcohol was linked to lower suicide risk, possibly due to lower suicidal intent at the time.


6



Repeat Self-Harm

Multiple self-harm presentations within a year significantly increased suicide risk, especially in the days and weeks following hospital discharge.

7



Clinical Implications

Findings underscore the need for timely psychosocial assessments, safety planning, and follow-up care; particularly for older adults and those using violent methods.



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HSE National Office for Suicide Prevention

* This study used three years of data from the Irish Probable Suicide Death Study (IPSDS) 2015–2020, derived from an annual census of closed coronial files for the corresponding years. The IPSDS applies the civil standard of proof—suicide on the balance of probabilities—and includes both coroner determined and research determined suicides. Throughout this paper, the term “suicide” refers to both categories”.

Key Findings

Suicide risk following hospital attendance with self-harm (IPSDS 2015-2017 Cohort)

This is a summary of the findings presented in Griffin, E., Corcoran, P., Arensman, E. Kavalidou, K., Perry, I., & McMahon, E., (2023) Suicide risk following hospital attendance with self-harm: a national cohort study in Ireland. [Nature Mental Health](#) 1, 982–989.

Summary

Self-harm is the strongest predictor of suicide, yet few national studies assess subsequent suicide risk in clearly defined clinical populations. This national cohort study analysed records from the National Self-Harm Registry Ireland (n = 23,764) between 1 January 2015 and 31 December 2017, linked to the Irish Probable Suicide Death Study (IPSDS) 2015–2017 dataset. Among nearly 24,000 individuals who presented to hospital with self-harm during this period, 0.9% died by suicide within 12 months. Men had a higher absolute risk (1.3%) compared to women (0.6%). However, women had a more elevated relative risk compared to the general population, nearly 140 times higher, versus 70 times for men. Key risk factors included older age, previous self-harm, and use of more lethal methods like hanging. Suicide risk was highest in the days and weeks following hospital presentation. Interestingly, self-harm involving alcohol was linked to lower suicide risk, possibly due to lower suicidal intent. These findings highlight the need for timely psychosocial assessment and follow-up, especially for older adults and those using violent methods.



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1. Cohort characteristics

- **Total presentations:** 23,764 persons presented to hospital for self-harm between Jan 2015 and Dec 2017.
- **Sex:** The majority were female (54.4%, n = 12,919).
- **Age:** Over one-third were under 25 years (37.3%, n = 8,861).
- **Methods of self-harm:**
 - Drug overdose only: 59.5% (n = 14,142)
 - Self-cutting only: 17.6% (n = 4,184)
 - Combination (drug overdose + cutting): 4.5% (n = 1,678)
 - Attempted hanging: 5.5% (n = 1,310)
 - Attempted drowning: 1.7% (n = 220)
- **Alcohol involvement:** 31.4% (n = 7,456) consumed alcohol during the episode.
- **Hospital outcomes:**
 - Discharged from ED: 55.3% (n = 13,141)
 - Admitted: 32.8% (n = 7,803)
 - Medical admission: 25.7% (n = 6,117)
 - Psychiatric ward: 7.1% (n = 1,686)
 - Left before treatment/refused: 11.9% (n = 2,820)
- **Psychosocial assessment:** 73.2% (n = 16,450) received one.
- **Repeat presentations:** 17.1% (n = 4,066) had ≥1 previous episode in the prior 12 months.

2. Suicide following self-harm hospital presentation

- **Follow-up:** Median = 539 days (range: 1–1,095).
- **Suicide deaths:** 217 individuals (0.91%).
- **12-month cumulative incidence:**
 - All persons: 0.92% (95% CI: 0.79–1.08)
 - Males: 1.30% (1.07–1.59)
 - Females: 0.60% (0.46–0.79)
- **Timing:** Highest risk in first month following hospital presentation (38.7% of suicides), then declines sharply.
- **Relative risk:** 81 times higher than general population.
 - Men: 69 times higher
 - Women: 136 times higher
- **Age-specific risk:** Highest in <25 years (IRR = 101) and ≥55 years (IRR = 142).
- **Suicide methods:** Hanging (53%), poisoning (23.5%), drowning (12%).

3. Factors Associated with increased suicide risk

- **Demographics:**
 - Male sex: HR = 1.88 (95% CI: 1.39–2.56)
 - Age ≥55 years: HR = 4.60 (2.81–7.53)
- **Self-harm method:**
 - Attempted hanging: HR = 5.09 (3.35–7.71)
 - Attempted drowning: HR = 2.25 (1.03–4.91)
- **Alcohol involvement:** Lower risk (HR = 0.65, 0.46–0.92).
- **Hospital admission:** Medical admission increases risk (HR = 2.37, 1.71–3.28).
- **Previous self-harm:** Strong predictor; ≥2 prior episodes HR = 4.56 (3.04–6.82).
- **Psychiatric review:** Not significant.
- **Sex-specific findings:**
 - Women aged 45–54 years: HR = 5.61 (2.38–12.40)
 - Combination of cutting + overdose: Increased risk for men only (HR = 2.30).
 - Hanging: Elevated risk for both sexes (men HR = 4.73; women HR = 6.41).