

# Is mental health multimorbidity associated with contact with healthcare services before suicide? Retrospective analysis of Irish coronial data

3. Epidemiology and surveillance

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## Abstract text

**Background:** Healthcare services are potential interventions points before suicide, in particular for clinical populations with physical or/and mental multimorbidity. The aim of the current study was to explore whether mental health (MH) multimorbidity is associated with contact with healthcare services before suicide.

**Methods:** A retrospective study was conducted using data from the Irish Probable Suicide Deaths Study (IPSDS), over the period 2015-2020. The IPSDS cohort (n=3,625), comprising deaths given a coronial verdict of suicide and deaths on the balance of probabilities, was allocated to three mutually exclusive health groups: a) no MH conditions, b) one MH condition only, c) two or more MH conditions ("MH multimorbidity"). Descriptive statistics and binary logistic regression analyses with odds ratios (OR) and 95% CIs are presented. The significance level was set at  $p < 0.05$ .

**Results:** One fifth (20%) of the IPSDS cohort had MH multimorbidity and this was more prevalent among those 35-44 years of age. The unadjusted logistic regression analysis indicated that those with multimorbidity were significantly more likely to have contacted health services before suicide, compared to those with no MH conditions. This finding was substantially unchanged following adjustment for sex, age and labour market position (OR=12.170, 95% CI 9.595 - 15.437,  $p < .001$ ) and in a sensitivity analysis restricted to a subset of deaths given a coronial verdict of suicide (OR=12.728, 95% CI 9.635 - 16.814).

**Conclusion:** Our findings suggest that those who experience MH multimorbidity and are in contact with health services should be targeted with tailor-made suicide prevention interventions.