## Suicide and self-harm among people prescribed opioid agonist treatment in New South Wales: a retrospective data linkage study

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**Introduction:** Opioid agonist treatment (OAT) engagement has been found to be associated with a reduction in suicide mortality and self-harm hospitalisation. We aimed to estimate the age- and sex-standardised mortality rates and incidence of suicide and self-harm among people with a history of OAT, and to determine the impact of treatment status on incidence.

**Method:** The cohort comprised people receiving OAT in New South Wales between August 2002 and December 2017. The linked data resource included OAT, hospital, mental health, and custodial information. Self-harm (i.e., non-fatal) and suicide (i.e., fatal) included intentional: overdose, cutting or piercing, violent or other methods. Analysis is underway.

**Results:** 45739 people (male: 67.7%; median age: 32) were prescribed OAT between 2002 and 2017, 4817 (10.5%) of which recorded a hospitalisation for intentional self-harm. Overdose was the most common intentional self-harm method (n: 3314). In the study period, 591 (1.3%) people died by suicide, most of which were by violent methods (n: 371), followed by overdose (n: 190). The crude rate of suicide overall was 1.37 (95%CI: 1.26-1.49) per 1000 person-years. The crude rate was 0.66 (95%CI: 0.56-0.76) per 1000 person-years for time in OAT, and 2.74 (95%CI: 2.47-3.03) per 1000 person-years for time out of OAT. The age-standardised mortality rates for suicide were 1.02 (95%CI: 0.86-1.18) overall, 0.514 (95%CI: 0.36-0.67) in OAT, and 1.02 (95%CI: 0.86-1.18) out of OAT.

**Discussions/Conclusions:** Preliminary findings from this study indicate that the rate of suicide was elevated in time out of OAT, compared to time in OAT.

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