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**Traffic fatalities in US states that have legalized recreational cannabis sales and their neighbours**

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**Objectives/aims**

Cannabis impairs driving ability. In recent years, there has been an unprecedented lifting of prohibitions against its use. There is little evidence to guide policy to minimise negative consequences, which can only be guessed at from experience with alcohol and tobacco. We examined the effect of legalising recreational cannabis sales on traffic fatality rates. We also evaluated ‘spillover’ of cannabis policy into neighbouring jurisdictions.

**Methods**

Interrupted time series of monthly traffic fatalities per million residents in three legalising states (Colorado [Jan 2014], Washington [July 2014], and Oregon [Oct 2015]), eight neighbouring jurisdictions, and eight comparator states. Data were derived from the Centers for Disease Control and Prevention’s WONDER dataset and converted to rates using census data. Analyses included adjustments for seasonal patterns in traffic fatality data and autoregressive moving-average terms to adjust for residual autocorrelation between data points.

**Main findings**

Among legalising states, there was only an effect in Washington (level: up 1.13 fatalities per million residents [95% CI: 0.55 to 1.71], trend: up 0.063 per month [-0.091 to -0.034]). Among neighbouring states, there were significant immediate increases followed by long-term reductions in Nebraska (level: 3.76 [2.57 to 4.95]; trend: -0.129 [ -0.173 to -0.085]) and British Columbia (level: 1.84 [1.02 to 2.66]; trend: -0.072 [-0.112 to -0.032]), and significant immediate increases in Utah (2.02 [0.38 to 3.66]) and Oregon as a neighbour of Washington (1.94 [0.34 to 3.54]).