Installation of a bridge barrier as a suicide prevention strategy in Montréal, Québec, Canada.

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Abstract: We investigated whether the installation of a suicide prevention barrier on Jacques-Cartier Bridge led to displacement of suicides to other jumping sites on Montréal Island and Montérégie, Québec, the 2 regions it connects.

Suicides on Montréal Island and Montérégie were extracted from chief coroners’ records. We used Poisson regression to assess changes in annual suicide rates by jumping from Jacques-Cartier Bridge and from other bridges and other sites and by other methods before (1990-June 2004) and after (2005-2009) installation of the barrier.

Suicide rates by jumping from Jacques-Cartier Bridge decreased after installation of the barrier (incidence rate ratio [IRR] = 0.24; 95% confidence interval [CI] = 0.13, 0.43), which persisted when all bridges (IRR = 0.39; 95% CI = 0.27, 0.55) and all jumping sites (IRR = 0.66; 95% CI = 0.54, 0.80) in the regions were considered.

Little or no displacement to other jumping sites may occur after installation of a barrier at an iconic site such as Jacques-Cartier Bridge. A barrier’s design is important to its effectiveness and should be considered for new bridges with the potential to become symbolic suicide sites.

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