

Overdose deaths and Vancouver's supervised injection facility

The report by Brandon Marshall and colleagues (April 23, p 1429),¹ in which it is claimed that the opening of a supervised injection facility on Sept 21, 2003, in Vancouver, BC, Canada, was associated with a 35% decrease in overdose deaths in its immediate surrounding, contains serious errors.

The claim that all overdose deaths in Vancouver declined between 2001 and 2005 is strongly affected by the highly questionable inclusion of the year 2001—a year of much higher heroin availability and overdose fatalities than all subsequent years. A study period starting from 2002 in fact shows an increasing trend of overdose deaths both for Vancouver and for the Downtown Eastside area in which the facility, Insite, is situated (figure),² the control areas compared in Marshall and colleagues' study.

Curiously, the higher availability of heroin up until 2001, which declined by 2002 and which has remained low since that year, was specifically tracked in two previous articles^{3,4} by three of the current paper's researchers and therein treated as extraordinary. In their latter 2007 study,⁴ the aforesaid three researchers noted that, in a large cohort of Vancouver drug users, 21% had reported non-fatal overdoses in the previous 12 months in 1997, dropping to 12% at the beginning of 2001 and to 5% by the end of 2001, rising to 6% in 2004. They clearly point to reduced heroin supply as the reason, and yet in the *Lancet* paper specifically state that "we have no evidence that significant changes in drug supply or purity occurred during the study period", which of course was 2001 to 2005.

Of even greater concern is the statement in the *Lancet* paper that "we know of no changes in policing policy that could have confounded our results". Again, three of the

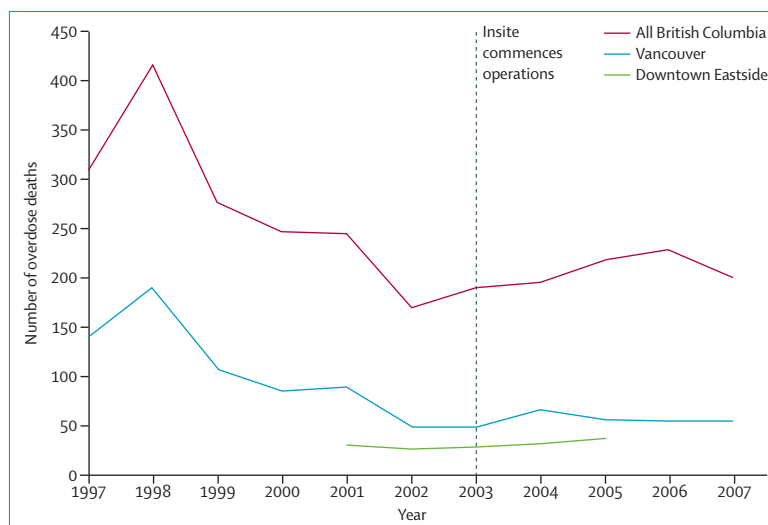


Figure: Drug overdose deaths 2001-05

researchers were so well apprised of major policing changes in the area immediately around Insite during 2003, the same year it opened, that they wrote a 2004 article tracking the "displacement" of drug users out of the policed area around Insite and into other areas of Vancouver.⁵ In that article they record counts of discarded needles reducing by 46% in the policed areas whereas needle counts in other areas of Vancouver increased by similar proportions. Most of the overdoses that were the subject of the questionable 35% reduction immediately around Insite lay specifically in the 12 city blocks patrolled by 48-66 police added in 2003 and operative to this day (personal communication). This major change in policing around Insite is clearly the most likely cause of any real reductions in overdoses that might be found in the immediate vicinity of the injection facility.

Finally, Marshall and colleagues do not declare that 41% of British Columbia's overdose mortality is non-injection-related.⁶ This being the case, the researchers had the obligation of declaring the specific proportion of deaths that were non-injection-related in the vicinity of Insite, compared with the rest of Vancouver.

An extended analysis is available online. We declare that we have no conflicts of interest.

*Gary Christian, Greg Pike, Joe Santamaria, Stuart Reece, Robert DuPont, Colin Mangham
gxian@tpg.com.au

Drug Free Australia, Broadview, SA 5083, Australia (GC); Southern Cross Bioethics Institute, North Plympton, SA, Australia (GP); McCrae, VIC, Australia (JS); Addiction Medicine Practice, Brisbane, QLD, Australia (SR); Institute for Behaviour and Health, Rockville, MD, USA (RD); and Surrey, BC, Canada (CM)

- 1 Marshall BDL, Milloy M-J, Wood E, Montaner JSG, Kerr T. Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *Lancet* 2011; **377**: 1429-37.
- 2 Ministry of Public Safety and Solicitor General. Illicit drug deaths 1997 to 2007. <http://www.pssg.gov.bc.ca/coroners/publications/docs/stats-illicitdrugdeaths-1997-2007.pdf> (accessed Dec 7, 2011).
- 3 Wood E, Stoltz JA, Li K, Montaner JS, Kerr T. Changes in Canadian heroin supply coinciding with the Australian heroin shortage. *Addiction* 2004; **101**: 689-95.
- 4 Kerr T, Fairbairn N, Tyndall M, et al. Predictors of non-fatal overdose among a cohort of polysubstance-using injection drug users. *Drug Alcohol Depend* 2007; **87**: 39-45.
- 5 Wood E, Spittal PM, Small W, et al. Displacement of Canada's largest public illicit drug market in response to a police crackdown. *CMAJ* 2004; **170**: 1551-56.
- 6 Milloy MJ, Wood E, Reading C, Kane D, Montaner J, Kerr T. Elevated overdose mortality rates among First Nations individuals in a Canadian setting: a population-based analysis. *Addiction* 2010; **105**: 1962-70.

For the extended analysis see http://www.drugfree.org.au/fileadmin/Media/Global/Lancet_2011_Insite_Analysis.pdf

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