

Canada's Role in the Global Meth Market



BUILDING A SAFE AND RESILIENT CANADA

According to preliminary estimates, Canada produces 0.6 – 4.6% of the world's supply of amphetamine-type stimulants, including ecstasy. This finding suggests that Canada is not a major global exporter of amphetamine-type stimulants.

Previous research funded by Public Safety Canada demonstrated that there was a lack of reliable evidence regarding the prevalence of amphetamine-type stimulants (ATS) and 3,4-methylenedioxy-N-methamphetamine (MDMA or ecstasy) in Canada. This research represents a first step towards discovering a more reliable measurement of Canada's role as a producer and exporter in the global ATS market. This innovative research involved much more sophisticated methodologies than previous research that primarily relied on using seizure data and assumptions about the market.

In order to make estimates, existing survey, arrest, and seizure data were used. The authors used an innovative multi-method approach, including multiplier methods, synthetic estimation methods, capture-recapture methods, and economic modeling methods. Most of the methods yielded consistent results, however, more research is needed to validate the study's findings; as such, the results of this study should be viewed with caution.

To estimate the populations of meth and ecstasy dealers, the authors used capture-recapture and multiplier methods based on arrest data from Quebec. Capture-recapture methods are used to estimate hidden populations from information about known populations, and were originally used to estimate wild animal populations. Using capture-recapture methods, the authors infer that there are 3,358 meth dealers and 16,980 ecstasy dealers in Canada.

"Multiplier methods" is an umbrella term for methods that use a "ratio from an observed part of the

population to make inferences on the unobserved part of the population" (23). Findings from multiplier methods provide some validation to the capture-recapture results: the multiplier methods infer that there is a low of 3,457 to a high of 11,113 meth dealers, and a low of 17,897 to a high of 57,525 ecstasy dealers. Given the substantial range in results, the authors note that these findings should be used with caution. More data from across Canada would markedly improve the validity of these numbers.

Synthetic estimation methods could be considered to belong to the family of multiplier methods, but is used as a separate category for the purposes of this research. These methods derive estimates from observed data from all possible sub-populations (e.g., "school students, general adult populations, individuals involved with the criminal justice system, and the homeless" (27)), and combine them into one estimate. Low counts made using synthetic estimation methods suggest that "there are roughly 52,000 meth users and 270,000 ecstasy users in Canada"(6); higher end counts (which assume 50% underreporting) estimate that there are "77,788 meth users and 402,677 ecstasy users" (6) in Canada.

Economic modeling methods are based on the presupposition that the ATS market is a business, and is subject to pressures similar to those found in legitimate enterprises. It draws upon economic principles to estimate the number of ATS labs in Canada. This model is only applicable to businesses, and as such was only used to estimate the number of ATS labs in Canada.

Consistent with previous findings, research from the supply side of the market suggests that there was a steep increase in the supply of ATS between 1999 and 2009 in Quebec.



An economic model was used to estimate the number of ATS labs and producers, which estimated a low of 560 labs to a high of 1,400 labs. This information was used to estimate the number of producers. "A ratio of 3.5 producers per lab was established, resulting in an estimated low of 1,960 ATS producers if 560 labs were in operation to a high of 4,900 producers if 1,400 labs were in operation in Canada." (7)

If the lower estimate of 560 labs was correct, then about 2,297 kg of ATS was produced; if the higher estimate of 1,400 labs was correct, then the number would be closer to 5,743 kg. The authors also provided estimates assuming that two 'cooks' were at each lab (instead of 3.5). This analysis provided a low estimate of 4,594 kg and a high estimate of 11,485 kg.

Meth consumption was estimated to be between 678 and 847 kg; ecstasy consumption was estimated to be between 1,643 and 2,054 kg. Putting this together, total ATS consumption in Canada ranges between 2,321 to 2,902 kg.

Instead of using the high or low numbers, the authors used mid-point (median) estimation for consumption and seizure data to assess annual exportation, resulting in an estimate of 1,733 kg to 8,624 kg of Canadian ATS exported annually.

Considering the level of national demand, Canadian producers may export between 38% and 75% of domestically produced ATS. And as noted, these estimates suggest that Canada produces 0.6 to 4.6% of the world's supply of ATS. This finding suggests that Canada is not a major global exporter of amphetamine-type stimulants.

The authors provide five recommendations that might improve estimates of the ATS drug market.

1. A more concerted effort to monitor national trends in synthetic drug markets – especially the supply side – could be made.
2. Trends in domestic illegal ATS precursor importations could be monitored.
3. Trends in Canadian produced synthetic drugs in other countries could be monitored.
4. Wastewater analysis could be adopted as a

method to estimate the amount of ATS used in large Canadian cities.

5. The use of capture-recapture methods to estimate the size of illegal markets could be made a priority for Canada.

Bouchard, M., Morselli, C., Gallupe, O., Easton, S., Descormiers, K., Turcotte, M., and Boivin, R. *Estimating the Size of the Canadian Illicit Meth and MDMA Markets: A Multi-Method Approach*. Ottawa: Public Safety Canada, 2012.

See also:

Bouchard, Martin, Gallupe, Ow. and Dercormiers, K. *Estimation of the Size of the Illicit Methamphetamine and MDMA Markets in Canada*. Ottawa: Public Safety Canada, 2010.

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