

# US and Mexican controls on precursor chemicals may reduce cocaine and methamphetamine use in the US

In December 2006, the USA regulated sodium permanganate, a chemical essential to the manufacture of cocaine. In March 2007, Mexico, the USA's primary source for methamphetamine, closed a chemical company accused of illicitly importing more than 60 tons of pseudoephedrine, a methamphetamine precursor chemical. A study published today by the scientific journal *Addiction* found that those two events were associated with large, extended reductions in cocaine users and methamphetamine users in the USA -- impacts that have lasted approximately eight years so far.

After changing little during the early 2000s, cocaine use in the USA began a downward shift at the time of the sodium permanganate regulation. In association with that regulation, there was an estimated decrease of approximately 1.9 million past-year cocaine users (a drop of 32%) and 0.7 million past-month cocaine users (-29%). During the period examined following the sodium permanganate regulation (December 2006 to December 2014), there was little or no recovery in the number of cocaine users.

Methamphetamine use in the USA also began a downward shift at the time of the chemical company closure. In association with Mexico's 03/2007 chemical company closure, there was an estimated decrease of approximately half a million past-year methamphetamine users (-35%), and a decrease of a little more than a quarter million past-month methamphetamine users (-45%). During the period examined following closure of the chemical company (March 2007 to December 2014), methamphetamine user numbers generally remained below pre-closure levels, though a partial recovery in the numbers may have occurred in 2013.

Lead author James Cunningham, PhD, says, "Cocaine and methamphetamine production for international markets requires access to massive amounts of legally manufactured chemicals. Disrupting that access should disrupt the drugs' availability and use." He also says, "Strategies directed towards individual users, for example, information campaigns and direct medical care, have not yet fully addressed the public health problem of cocaine and methamphetamine abuse, indicating the need for additional approaches. To this end, and given our study's findings, control of essential and precursor chemicals warrants a closer look."

Dr Cunningham is a social epidemiologist with the Department of Family and Community Medicine at the University of Arizona College of Medicine - Tucson.

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For editors:

Cunningham JK, Lui L-M, Callaghan RC (2016) Essential/precursor chemicals and drug consumption: Impacts of US sodium permanganate and Mexico pseudoephedrine controls on the numbers of US cocaine and methamphetamine users. *Addiction* 111: [doi: 10.1111/add.13480](https://doi.org/10.1111/add.13480)

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