

Dextromethorphan (d-3-methoxy-N-methylmorphinan, DXM) is an over-the-counter (OTC) cough suppressant that is commonly diverted for illicit recreational use among teenagers and young adults. While structurally related to the opiate receptor agonist codeine, DXM in overdose expresses a unique combination of euphoric, stimulant, and dissociative effects in older children and adolescents that is similar to ketamine and phencyclidine (PCP). (See 'Epidemiology' above and 'Pharmacology and cellular toxicology' above.)

<https://www.medpagetoday.com/upload/2008/1/10/coughmedssamhsa-cough.pdf>

Table 1. Misuse of Over-the-Counter (OTC) Cough or Cold Medications in the Lifetime and the Past Year among Persons Aged 12 to 25, by Demographic Characteristics: 2006

| Demographic Characteristic | Lifetime | | Past Year | |
|-----------------------------|----------|----------------|-----------|----------------|
| | Percent | Standard Error | Percent | Standard Error |
| Total Aged 12 to 25 | 5.3 | 0.15 | 1.7 | 0.08 |
| Age Group | | | | |
| 12 to 17 | 3.7 | 0.16 | 1.9 | 0.12 |
| 18 to 25 | 6.5 | 0.24 | 1.6 | 0.12 |
| Gender | | | | |
| Male | 5.6 | 0.22 | 1.7 | 0.12 |
| Female | 4.9 | 0.20 | 1.7 | 0.12 |
| Age Group, by Gender | | | | |
| 12 to 17, Male | 3.0 | 0.20 | 1.5 | 0.14 |
| 12 to 17, Female | 4.3 | 0.24 | 2.3 | 0.18 |
| 18 to 25, Male | 7.7 | 0.35 | 1.8 | 0.17 |
| 18 to 25, Female | 5.4 | 0.29 | 1.3 | 0.16 |
| Race/Ethnicity* | | | | |
| White | 6.2 | 0.20 | 2.1 | 0.12 |
| Black or African American | 2.5 | 0.29 | 0.6 | 0.13 |
| Hispanic or Latino | 4.7 | 0.36 | 1.4 | 0.18 |

Source: SAMHSA, 2006 NSDUH.

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Research findings from the SAMHSA 2006 National Survey on Drug Use and Health (NSDUH)

Misuse of Over-the-Counter Cough and Cold Medications among Persons Aged 12 to 25

- In 2006, about 3.1 million persons aged 12 to 25 (5.3 percent) had ever used an over-the-counter (OTC) cough and cold medication to get high (i.e., "misused" the drug), and nearly 1 million (1.7 percent) had done so in the past year
- Among youths aged 12 to 17, females were more likely than males to have misused OTC cough and cold medications in the past year, but among young adults aged 18 to 25, males were more likely than females to have misused these medications
- Among persons aged 12 to 25 who had misused an OTC cough and cold medication in the past year, 30.5 percent misused a NyQuil® product, 18.1 percent misused a Coricidin® product, and 17.8 percent misused a Robitussin® product

The National Survey on Drug Use and Health (NSDUH) is an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The 2006 data used in this report are based on information obtained from 44,819 persons aged 12 to 25. The survey collects data by administering questionnaires to a representative sample of the population through face-to-face interviews at their place of residence.

The NSDUH Report is prepared by the Office of Applied Studies (OAS), SAMHSA, and by RTI International in Research Triangle Park, North Carolina. (RTI International is a trade name of Research Triangle Institute.)

Information on NSDUH used in compiling data for this report is available in the following publication:

Office of Applied Studies. (2007). *Results from the 2006 National Survey on Drug Use and Health: National findings* (DHHS Publication No. SMA 07-4293, NSDUH Series H-32). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Also available online: <http://www.oas.samhsa.gov>.

Because of improvements and modifications to the 2002 NSDUH, estimates from the 2002 through 2006 surveys should not be compared with estimates from the 2001 or earlier versions of the survey to examine changes over time.



U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Substance Abuse & Mental Health Services Administration
Office of Applied Studies
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. Dextromethorphan: Preventing Teen Cough Medicine Abuse

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CHPA supports legislation that would prohibit the sale of over-the-counter (OTC) cough medicines containing dextromethorphan to teens under the age of 18.

Dextromethorphan (DXM) is a safe and effective ingredient found in more than 100 over-the-counter (OTC) cough and cold medicines. First approved by the U.S. Food and Drug Administration (FDA) in the 1950s, it is a non-narcotic cough suppressant that works by raising the coughing threshold in the brain. It has no pain-relieving properties and is not addictive.



While millions of Americans use DXM safely each year to relieve cough symptoms due to the common cold or flu, data released in December 2016 by the National Institute on Drug Abuse (NIDA) annual [Monitoring the Future](#) survey shows that approximately 3 percent of teens (1 in 30) admit to abusing OTC cough medicines containing DXM to get high.

To address this issue, CHPA has collaborated with established and trusted leaders that specialize in substance abuse prevention and community mobilization as well as makers of OTC cough and cold medicines containing DXM to engage in efforts aimed at curbing abuse for over a decade. We've highlighted the results of this case study on targeted interventions below and in a short video [here](#).

Federal and State Congressional Activity

CHPA supports federal and state legislation to ban the sale of OTC cough medicines containing DXM to minors (those under the age of 18) and to ban the sale of raw, unfinished DXM to ensure only entities registered with the FDA – such as scientists, researchers, and manufacturers – have access to this form of the ingredient. A nationwide ban on sales of cough medicine to minors would lead to a greater decrease in the abuse rate of these medicines by teens, while also maintaining access for the millions of legitimate consumers of these products each year. To complement our educational efforts, we continue to advocate for both federal and state legislation.

States Taking Action to Prohibit Sales to Minors

- **California** became the first state to prohibit sales to minors when Governor Jerry Brown signed S.B. 514. State Sen. Joe Simitian (D-Palo Alto) sponsored the bill, which took effect January 1, 2012.
- **New York** Governor Andrew Cuomo signed into law AB 933-B and SB 696-B. Sponsored by State Asm. Ellen Jaffee (D- Suffern) and State Sen. Mark Grisanti (R-Buffalo), respectively. The law took effect on March 26, 2014.
- **Arizona** Governor Jan Brewer signed H.B. 2086, which was sponsored by State Rep. Heather Carter (R-Cave Creek.) The law took effect July 24, 2014.

- **Louisiana** Governor Bobby Jindal signed H.B. 514, which was sponsored by State Rep. Cameron Henry (R-Metairie.) The law took effect August 1, 2014.
- **Virginia** Governor Terry McAuliffe signed into law H.B. 505, which was authored by State Del. Keith Hodges (R- Urbanna). The law took effect January 1, 2015.
- **Tennessee** Governor Bill Haslam signed S.B. 45, which was sponsored by State Rep. William Lamberth (R-Cottontown) and State Sen. Ferrell Haile (R-Gallatin). The law took effect January 1, 2016.
- **Kentucky** Governor Steve Beshear signed H.B. 24, which was sponsored by State Rep. Fitz Steele (D-Hazard). The law took effect June 24, 2015.
- **Washington** Governor Jay Inslee signed 2S.H.B. 2163, which was sponsored by State Rep. Paul Harris (R-Vancouver). The law took effect July 1, 2015.
- **New Jersey** Governor Chris Christie signed A.B. 622, which was sponsored by State Sen. Peter Barnes (D-Edison) and State Asms. Paul Moriarty (D-Gloucester), Patrick Diegnan, Benjie Wimberly, Valerie Vainieri Huttie, Reed Gusciora and Shavonda Sumter, Mary Pat Angelini and Nancy F. Muñoz. The law took effect February 1, 2016.
- **Florida** Governor Rick Scott signed S.B. 938, which was sponsored by State Sen. Lizbeth Benacquisto (R-Fort Myers) and State Rep. Doug Broxson (R-Gulf Breeze). The law took effect January 1, 2017.
- **Alaska** Governor Bill Walker signed H.B. 125, which was sponsored by House Majority Leader, Rep. Charisse Millett (R-Anchorage). The law took effect June 3, 2016.
- **Delaware** Governor Jack Markell signed H.B. 329, which was sponsored by State Rep. David Bentz (D-Newark) and State Sen. Nicole Poore (D-New Castle). The law took effect June 16, 2017.
- **Nevada** Governor Brian Sandoval signed S.B. 159, which was sponsored by State Sen. Patricia Farley (I-Las Vegas). The law took effect October 1, 2017
- **Oregon** Governor Kate Brown signed S.B. 743. The law will take effect January 1, 2018.