

Add ADHD Meds To Call Burden For Poison Control Centers



By Jamie Wells, M.D. — May 21, 2018



By epSos.de via Wikimedia Commons

[1]

A [new study](#) [2] published in *Pediatrics* details the call burden on US Poison Control Centers by analyzing the 156,365 reports of unintentional and intentional exposures to medications used to treat attention-deficit/hyperactivity disorder (ADHD). The data collected spans the time period from 2000 to 2014 in those under 19 years of age. Due to the nature of these substances being derivatives of the stimulant amphetamine, excessive doses from misuse, abuse or diversion can cause adverse effects like rapid heart rate, high blood pressure, vomiting, agitation, hallucinations and even death.

Just substitute the substance and it is the same old story. But, I will get to that *why* shortly, first let's see what they identified.

The study's [main findings](#) [2]

Though there was variability, 2000-2011 showed an overall increase of reports by 71.2% with a 6.2% decline from 2011 to 2014. The sweeping majority were unintentional (81.9%) involving kids twelve years old and younger (76%). In adolescents, intentional exposures (e.g. suicide, abuse, misuse) reflected 50.2% of the reports in the 13 to 19 year old bracket. Fortunately, most (60.4%) did not require referral to more acute care facilities (e.g. hospital) with 24.6% being treated and released, 3.4% admitted, 2.8% hospitalized to a critical care unit and 1.8% to an inpatient psychiatric center. Compared to other ADHD drugs, the exposures came mainly from amphetamine and methylphenidate with more serious medical consequences occurring with the former. Teens experienced more of these than the younger population and represented the three deaths. There were regional disparities, in general, and most events occurred at a residence.

Why is this the same old story?

Whether it is cold and cough suppressant misuse or abuse, [opioids](#) [3] and now [ADHD drugs](#) [2], the why to the patterns don't change. The very young, in this case those 0 to 5 years old, are most at risk of general unintentional exposures because they are in a phase of rapid growth and development. At this stage, they become increasingly mobile, fascinated by their environment - its scents, textures, shapes. They put everything in their mouths and what they can access from one week to the next is subject to dynamic change.

Then, unintentional therapeutic errors become more common in the 6 to 12 year old set. Though they are less inclined than their younger counterparts to be somewhat more discerning about what they ingest, they are still typically in a household with multiple kids and/or caregivers. For example, medication errors like double dosing can happen when a parent is unaware another parent administered a dose or the wrong medicine entirely is accidentally given due to using a sibling's prescription.

Adolescence is a time of experimentation and testing limits, so intentional abuse or misuse is more often the culprit - hence why episodes of significant adverse effects happened in this group.

Understanding that the *why* depends on the *who* is essential to addressing the problem

In 2017, [Clinical Toxicology](#) [4] published work demonstrating medication mistakes outside of a healthcare facility are on the rise and resulting in serious outcomes—with home locations leading the pack. It tracked unintentional therapeutic pharmaceutical errors and focused on those causing profound impairment, disability and death (there was a 100% rate increase from 2000 to 2012). All age groups reflected such an increase, except those under six years of age (likely explained by the FDA's 2007 restriction of cold and cough suppressant sales to children that age due to their lack of proven efficacy and their ability to do harm).

See [here](#) [5] to understand the challenges to proper use and how to prevent medical error.

Pediatricians go over childproofing as well as the issue of misuse and abuse repeatedly throughout the developmental spectrum. Labeling changes have been implemented. Dispensing has been modified. From pharmacists to medical professionals in all fields, discussions take place routinely on the importance of adhering to medication instructions and best ways to avoid error.

And still the issue poses a profound healthcare burden that runs the gamut of physical, emotional

and economic costs. The latest study, likely an underestimation, doesn't even touch on treatment or resources used in the outpatient setting.

Patient non-compliance or improper medication use is such an issue, especially with those on many drugs for chronic disease, that the FDA recently approved the [first pill with an ingestible tracking sensor](#). [6] Though the jury is out on whether this is ingenious or Big Brother, the innovation speaks to the many angles being considered to fix this societal problem.

Since human nature is clearly at play, targeted approaches to respective populations will yield the greatest dividends. Raising awareness about the hazards of prescription sharing, a dangerous but all too common and accepted practice, needs especially to be at the forefront of discussions surrounding ADHD drugs, [opioids](#) [7] and other substances of abuse. Approaches to intentional and unintentional drug exposures need to be dissimilar and strategic if we hope to move the needle. Conflating them, which is a constant problem with respect to the [current opioid situation](#) [8], does not best serve solutions.

COPYRIGHT © 1978-2016 BY THE AMERICAN COUNCIL ON SCIENCE AND HEALTH

Source URL: <https://www.acsh.org/news/2018/05/21/add-adhd-meds-call-burden-poison-control-centers-12995>

Links

[1] https://upload.wikimedia.org/wikipedia/commons/4/46/Illegal_Drug_Addiction_and_Substance_Abuse.png

[2] <http://pediatrics.aappublications.org/content/early/2018/05/17/peds.2017-3872..info>

[3] <https://www.acsh.org/news/2018/05/08/hey-media-can-we-get-past-politics-melania-trump%E2%80%99s-%E2%80%98best%E2%80%99-highlights-much-ignored-opioid-issue-12935>

[4] <https://www.tandfonline.com/doi/abs/10.1080/15563650.2017.1337908?needAccess=true>

[5] <https://www.acsh.org/news/2017/07/17/serious-medication-mistakes-happening-home%E2%80%94why-depends-who-11563>

[6] <https://www.acsh.org/news/2017/11/16/fda-approves-pill-tracking-sensor-ingenious-or-big-brother-12152>

[7] <https://www.acsh.org/news/2016/12/13/opioid-addicted-babies-rise-10586>

[8] <https://www.acsh.org/news/2018/03/19/forgotten-children-opioid-epidemic-12718>