

THE CASE FOR NARxCHECK

*A Practitioner's View on the Case for Use of an
EMR-integrated Rx Drug Monitoring Program*

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Health care providers wrote 259 million prescriptions for painkillers in 2012, **enough for every American adult to have a bottle of pills.**

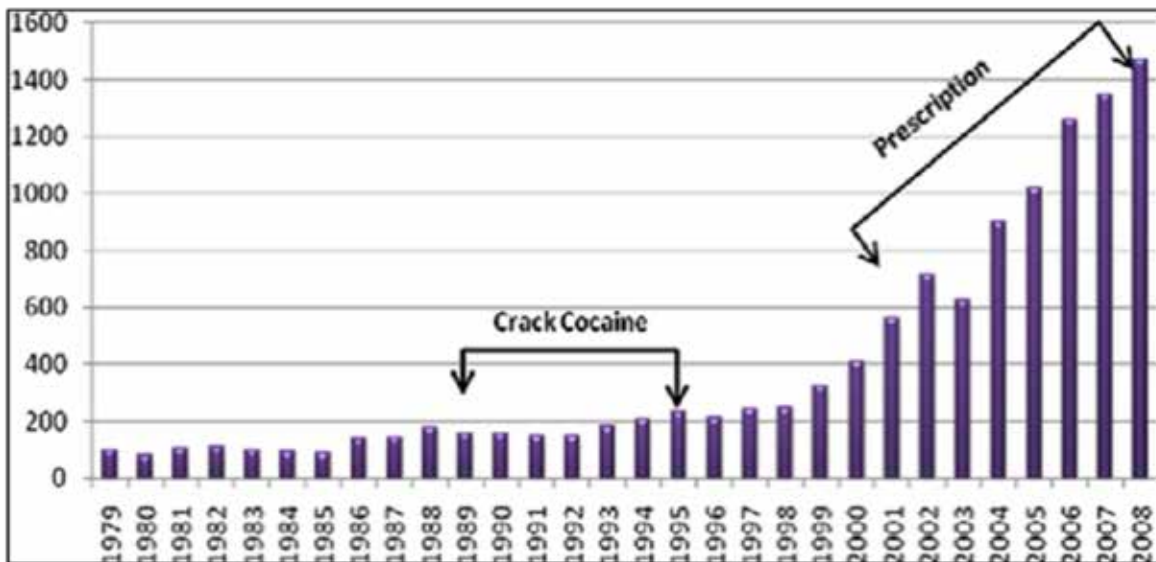
– CDC Vital Signs

The Issues

Mortality

In 2008, unintentional drug poisoning became the leading cause of injury death in the United States, surpassing motor vehicle crashes for the first time on record. Addiction, overdoses and deaths involving non-medical prescription drug use, especially narcotic pain relievers, have risen dramatically over the last decade, surpassing those due to illicit drugs such as heroin and cocaine. According to a recent Morbidity and Mortality Weekly Report (MMWR) - National death rates from prescription opioid pain reliever (OPR) overdoses quadrupled during 1999–2010. These numbers are likely to be significantly underreported because of the difficulties in specifically identifying the cause of death as due to OPRs.

The current prescription drug abuse epidemic is responsible for considerably more deaths than previous ones with mortality rates currently 4-5 times higher than the rates during the “black tar” heroin epidemic in the mid-1970’s and more than 3 times what they were during the peak years of crack cocaine epidemic of the 1990’s.

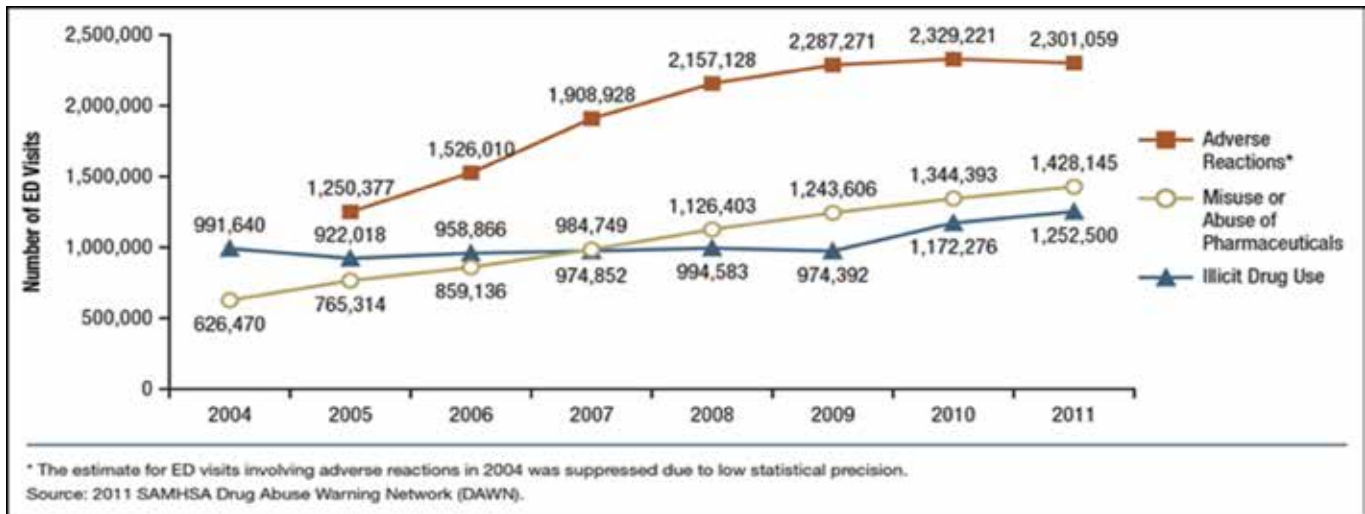


Impact on the Healthcare System

The CDC estimates that over 16,000 people die every year from overdoses involving opioid or narcotic pain relievers which equaled an average of 44 deaths per day in 2011. It is critical to note that for every one death, there were:

- 10 treatment admissions for abuse
- 32 emergency department visits
- 130 people who abuse or are addicted
- 825 non-medical users

The rate of hospital stays involving opioid overuse among adults increased more than 150 percent between 1993 and 2012. By 2012, there were 709,500 total opioid-related hospital stays representing a rate of 295.6 stays per 100,000 population. Emergency medicine physicians specifically have a very important role in addressing this epidemic and are bearing a large part of the burden. The ED is the largest ambulatory source with 39% of all opioids prescribed, administered, or continued coming from emergency departments. ED visits involving misuse or abuse of pharmaceuticals increased from 2004 (626,470 visits) through 2011 (1,428,145 visits); the most commonly involved drugs were anti-anxiety/insomnia medications and narcotic pain relievers (160.9 and 134.8 visits per 100,000 population, respectively).



Financial Consequences

Abuse of and addiction to alcohol, nicotine, and illicit and prescription drugs cost Americans more than \$700 billion a year in increased health care costs, crime, and lost productivity. Avoidable costs of more than \$200 billion are incurred each year in the U.S. healthcare system as a result of all prescription medicines not being used responsibly by patients and healthcare professionals, according to a 2013 study released today by the IMS Institute for Healthcare Informatics. This represents 8% of the country's total annual healthcare expenditures and amounts to millions of avoidable hospital admissions, outpatient treatments, pharmaceutical prescriptions and emergency room visits for patients.

Overall, the medical and prescription costs associated with opioid addiction and diversion have been estimated at \$72.5 billion annually for private and public healthcare payers. Much of the financial cost of prescription opioid abuse, addiction, and associated health consequences is borne by private and public health insurers. Individuals addicted to prescription opioids, as well as those who sell them, obtain them by diverting prescriptions, frequently paid for by insurers or government programs. In addition to the cost of the drugs themselves, individuals who do not adhere to opioid incur higher total healthcare costs than adherent patients, probably due to the serious health consequences of opioid abuse and addiction. Mean annual direct health care costs for opioid abusers were more than 8 times higher than for non-abusers (\$15,884 vs. \$1,830, $P < 0.01$). Mean drug costs for opioid abusers were more than 5 times higher than costs for non-abusers (\$2,034 vs. \$386, $P < 0.01$).

What Can Be Done

Nearly every state in the union has formed some sort of task force to combat the epidemic at this point in time. National leaders and workgroups, including the White House, are weighing in with their opinions as well. All of these organizations have some version of the same plan that includes the three basic tenets of prevention, treatment, and law enforcement. Most healthcare systems and practitioners are currently best equipped to contribute meaningfully to the following simple 3-part plan that is mostly centered on prevention.

- Prevent more Substance Use Disorder
- Decrease the supply of controlled substances to those with SUD
- Keep patients alive and get them to treatment

Obviously treatment is a critical part of the plan, but it will take significant time to train more specialists and expand the capabilities of many of the programs throughout the country. The most immediate and effective impact that most medical professionals can make is centered on the initial portions of the 3-part plan above. One of the best ways to accomplish these goals is through the regular and rigorous usage of each state's PDMP (Prescription Drug Monitoring Program). Further supporting the usage of PDMPs is a recent study published in JAMA based on CDC data that found people who frequently abuse opiate painkillers are just as likely to get the drugs via doctor shopping as they are through friends and family members. This study resulted in the publication of the following concerning statement by the CDC:

“Physicians are a leading source of prescription opioids for the highest-risk users.”

The Role of PDMPs (Prescription Drug Monitoring Programs)

Currently there are 49 states and one US Territory with operating PDMPs which collect data from pharmacies on dispensed controlled substance prescriptions. They are important tools in the effort to curb major sources of prescription drug diversion: prescription fraud, forgeries, doctor shopping and illicit, medically unwarranted prescribing on the part of some practitioners and pharmacists. PDMPs are also important resources for practitioners and third party payers, giving them information on patients' use of controlled substances that is crucial for providing good medical care and ensuring patient safety. PDMP's therefore serve an essential function in combating all aspects of the current prescription drug abuse epidemic through the following key functions:

- Improving clinical decision making and patient care
- Improving doctor's confidence in prescribing actions
- Reducing inappropriate prescriptions or over-prescribing
- Potentially reducing ancillary tests and cost of care
- Potentially improving accuracy and efficiency in assessing patient's need

These capabilities are demonstrated in some of the following studies:

- A study of medical providers in Ohio emergency departments found that 41% of those given PMP data altered their prescribing for patients receiving multiple simultaneous narcotics prescriptions. Of these providers, 61% prescribed no narcotics or fewer narcotics than originally planned, while 39% prescribed more.
- In California, 74% of physician responders to a survey indicated they had changed their prescribing practices as a result of using PMP Patient Activity Reports (PAR), and 91% rated the “effectiveness of PAR in maintaining the care and health of your patient” as good to excellent.
- A 2010 survey of users of Kentucky’s PMP, Kentucky All Schedule Prescription Electronic Reporting (KASPER), found that PMP reports were an aid to clinical practice, with 70% of prescribers and dispensers judging them “very” or “somewhat” important to clinical care.
- Data from the Virginia PDMP show that in the period following a rapid increase in PDMP data utilization in 2009, the number of individuals meeting criteria for doctor shopping dropped by 44% in 2010. From 2012 to 2013, as requests for information from the PMP increased 50%, this number dropped again, by 73%.
- Subsequent to adoption of mandates for prescribers to use their PDMPs, Kentucky, Tennessee and New York saw declines in the prescribing of opioids. In Kentucky, doses dispensed declined for hydrocodone (-10.3%), oxycodone (-11.6%), and oxymorphone (-35%); in Tennessee the number of opioid prescriptions fell over 7% and the total MME (morphine milligram equivalents) dispensed declined nearly 6%; in New York total opioid prescriptions decreased by over 9%.
- A January 2013 report from the California’s Workers’ Compensation Institute estimates that the potential savings from enhanced opioid management controls made possible by California’s PDMP would be \$57.2 million, with a return on investment estimated at \$15.50 to \$1.47. Given the potential for PDMP data to reduce the costs of workers’ compensation claims and lost productivity attributable to prescription drug abuse, the American Insurance Association recommends that “It is essential for there to be broad [third party payer] access to PDMP data.”

Further supporting the information above is the following infographic data from the CDC:



Underutilization of PDMPs

Regardless of all of the positive evidence about these programs, and the fact that many states are now requiring usage, there are many significant obstacles to utilization of PDMP data in daily patient care. Most commonly expressed concerns by practitioners are:

- Difficulty with Access - Initial registration for PDMP access can be cumbersome; also there is often difficulty in accessing and navigating the PDMP.
- Insufficient Training and Guidance on how to: Interpret findings for use in patient care, integrate the PDMP into workflow, and discuss results with patients.
- Lack of Automation in Accessing and Analyzing PDMP information – PDMP data access is not coded into the EMR as part of the clinical workflow creating inconsistency in when/how PDMP is accessed by clinicians.
 - The time savings of an integrated PDMP program can be significant to the clinician and can be the definitive difference between choosing to access the data or not.
- Patient satisfaction ratings such as Press-Ganey scores - Some organizations take these scores very seriously (e.g., align clinicians' financial incentives with scores). Clinicians may perceive that withholding narcotic prescriptions and taking extra time to review PDMP data can worsen scores.

The Case for Implementation of NARxCHECK

As has been clearly laid out in this paper, the current prescription drug epidemic is a major cause of significant increases in mortality, healthcare utilization, and financial impact in the US right now with no clear resolution in sight. Both clinicians and healthcare administrators can play a critical part in addressing this catastrophic issue as delineated in the following:

Goals of the Clinician

1. Provide the absolute best care to the patient
 - a. Treat pain in a compassionate and informed manner
2. Don't contribute to the ongoing prescription drug abuse epidemic
 - a. Appropriate prescribing of controlled substances
3. Comply with state medical board and pharmacy board regulations
 - a. Retain ability to practice in constantly changing world of increasing regulation
4. Reduce liability associated with prescribing of controlled substances
 - a. Physicians are being sued for prescribing in multiple scenarios

Goals of the Healthcare Administrator

1. Provide an environment in which the provider can give the highest quality and safest care
 - a. Improving the patient experience of care (including quality and satisfaction)
 - b. Improving the health of populations
 - c. Reducing the per capita cost of health care
2. Ensure compliance for both the provider and the health system
 - a. Regardless of the challenges associated with access, state legislators are mandating PDMP use by providers. Nineteen (19) states presently require a provider to review PDMP report data prior to writing controlled substances under varying circumstances
3. Reduce liability and cost associated with prescribing/administration of controlled substances

NARxCHECK, an analytics engine that automates access to PDMP data and analyzes it for multiple factors that are indicative of potential risk of prescription drug abuse, can play a key role in improving both the quantity of usage of PDMPs as well as the quality of information that clinicians are presented. These impactful changes are best seen when the program is utilized in a fully integrated manner with the EMR of a given healthcare system. When implemented in this way, NARxCHECK can serve to significantly reduce two of the barriers that were described previously: Difficulty with access, and insufficient training and guidance.

A meaningful clinical increase of usage and understanding of PDMP data cannot be given enough credence. The confirmation of impact of PDMPs presented earlier in this paper is only a small representation of the evidence that is currently available and the list is growing quickly. In a recent brief study of an integrated application of NARxCHECK in Ohio the following observations were made:

	OARRS	NARxCHECK	% change
Clinicians with access	26 providers	65 providers	+ 160%
% of all patients seen in ED	3.8%	11.9%	+ 213%
Clinician monthly utilization	100 reports	316 reports	+ 216%
% of patients with score >500 **	8.03%	4.63%	- 42.3%

****NARxCHECK score >500 has been demonstrated to be representative of concerns for controlled prescription drug usage. This decrease in score was seen by comparing measurements taken immediately before and then ~6 months after the implementation of an integrated instance of NARxCHECK.**

In reverence of the disastrous consequences of the current prescription drug epidemic and understanding the clear evidence of significant impact of PDMPs, the decision must be made to remove any and all obstacles from the clinical utilization of this data. **NARxCHECK is an excellent choice** to do this and to address the goals described in this section. It is critical that both clinicians and administrators realize the importance of these issues, and take meaningful steps to apply the lessons learned to their healthcare environments.

“As an emergency physician, I have found the OARRS program [Ohio’s PDMP] extremely useful. I am shocked daily by the number of prescriptions and prescribers that some of my patients possess.”

- Ohio physician

“Instant access to controlled substance history is critical to the safe management of patients.”

– Massachusetts physician

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