The Worst Drug Epidemic in US History

Representative Matt Baker, Chairman, Health Committee, Pennsylvania House of Representatives

Since 2000, 500,000 deaths in the U.S. have occurred due to drug abuse; one person approximately every 20 minutes. According to new data released by the Centers for Disease Control (CDC) there were 52,404 total deaths in 2015, or 144 drug overdose deaths per day. This number is up 11.4 percent in just one year—from 129 a day in 2014.

In 2015 in Pennsylvania, per the Pennsylvania Coroner's Report, there were 3,505 overdose deaths. The number of overdose deaths exceeds those caused by car accidents and guns combined. Thus, the greatest public health threat in Pennsylvania is drug addiction and related overdose deaths.

The number of deaths in 2015 is a 30 percent increase over 2014, which represents the largest increase in a decade. On average, in Pennsylvania, 10 people die every day from drug poisoning and that number is probably low given the gaps in reporting. Eighty-one percent of those deaths involved opiates, and the vast majority of those who died had more than one drug in their system.

Growth in hospitalizations for heroin overdoses between 2000 and 2014 showed a 509 percent increase per the Pennsylvania Heath Care Cost Containment Council. The rural 10-county, north-central region has the state's largest percentage increase.

History of the opioid problem

Opioid addiction cuts across all age groups, economic sectors and racial demographics. The use, overuse, and abuse costs the Commonwealth more than $12.2 million in hospitalization costs annually as of 2012, per the Pennsylvania Health Care Cost Containment Council. According to the U.S. Surgeon General, the economic impact of drug and alcohol misuse and addiction across the nation amounts to $442 billion each year – topping diabetes at $245 billion. One in seven individuals in the United States will face substance addiction, while only 10 percent of those addicted receive treatment.

In the last 20 years the dramatic rise in use of opioids can be traced to the inclusion of pain as a vital sign. Unlike other vital signs which can be externally monitored by medical devices pain is subjective, and it relies on patient's self-reporting on a 1 to 10 pain scale.

The use of prescription painkillers has exploded. The U.S. consumes 80 percent of all opioids globally, despite only having 5 percent of the world population.[1]

More than 250 million prescriptions for painkillers were written in 2012[2] and prescriptions for opioids have quadrupled from 1999 to 2010.[3] Pennsylvania ranks 21st in the U.S. on the number of prescriptions written for opioids with 88.2 prescriptions per 100 persons.[4] Twenty to 30

percent of those opioids prescribed for pain are being misused, including providing them to others.[5] Fifty-three percent of persons 12 and older have received a prescription opioid from a friend or family member for free for nonmedical purposes.[6]

Heroin-related overdose deaths in Pennsylvania

Based on Pennsylvania Corners Association (PCA) reports in 43 counties, heroin and heroin-related deaths have been on the rise for the past five years (PCA, 2013). Between 2009 and 2013, there were 2,929 heroin-related overdose deaths identified by county coroners. Of these, 490 (17 percent) were heroin only, while 2,439 (83 percent) involved multiple drugs.

Other drugs commonly found along with heroin overdose include other opiates such as methadone, oxycodone, fentanyl, morphine, codeine, tramadol; other Illegal drugs such as marijuana, cocaine; other sedating drugs such as alcohol and benzodiazapines; and antidepressant medications such as Prozac, Celexa, Remeron, trazadone and Zoloft.

The number of deaths where an opioid prescription is solely responsible is difficult to determine. There routinely is confusion or they are reported with heroin overdoses. The CDC reports the number of opioid and heroin overdoses combined caused over 27,000 deaths in 2014. Pennsylvania now leads the nation in drug overdoses among men aged 12 to 25 and is ninth in the country for overdose deaths across the general population. Deaths due to an opioid overdose are most likely to impact middle-class white males, ages 25 and 54.

Drug Related Overdose Deaths in Pennsylvania

Figure 7: Ranking of Frequency of Drugs of Interest Present, and Rate of Change (Δ), In Drug-Related Overdose Decedents, Pennsylvania, 2014-2015

Rank	Drug	% Reported Among 2015 Decedents	Δ From 2014
1	Heroin	**54.6%**	5.4%
2	Fentanyl	27.0%	**92.9%**
3	Cocaine	23.9%	**40.6%**
4	Alprazolam	20.5%	5.7%
5	Oxycodone	18.6%	3.9%
6	Clonazepam	9.9%	3.1%
7	Diazepam	7.5%	-9.6%
8	Marijuana	7.1%	7.6%
9	Methadone	6.7%	-11.8%
10	Hydrocodone	5.8%	7.4%
11	Tramadol	3.8%	-17.4%
12	Acetyl Fentanyl	3.6%	*
13	Methamphetamine	3.1%	95.0%
14	PCP	1.7%	-16.5%

*No Acetyl Fentanyl Reported in 2014

Source: Pennsylvania Coroner Data

Drug Related Overdose Deaths in Pennsylvania

Figure 22: Ranking of the Rate of Drug-Related Overdose Deaths per 100,000 People in Pennsylvania Counties, 2014-2015

2015 Rank	New 2014 Rank	County Name	Drug-Related Deaths per 100,000 people	2015 Rank	New 2014 Rank	County Name	Drug-Related Deaths per 100,000 people	2015 Rank	New 2014 Rank	County Name	Drug-Related Deaths per 100,000 people
1	1	Philadelphia	45.93	26	49	Columbia	24.00	51	46	Pike	12.51
2	10	Armstrong*	43.25	27	54	Northampton*	23.60	52	26	Bedford*	12.35
3	3	Cambria*	42.52	28	6	York	22.35	53	47	Chester*	12.21
4	51	Indiana*	41.40	29	32	Beaver*	21.91	54	43	Mifflin	10.75
5	14	Greene	37.31	30	48	Lycoming*	21.54	55	55	Clinton	10.14
6	9	Delaware*	35.82	31	23	Somerset*	21.19	56	44	Clarion	10.13
7	13	Westmoreland	35.20	32	24	Venango*	20.71	57	8	Elk	9.72
8	5	Wayne	35.16	33	19	Fulton	20.51	58	58	Adams	8.80
9	33	Washington*	35.05	34	38	McKean	18.86	59	52	Centre*	9.34
10	20	Lawrence	34.06	35	29	Bucks	18.65	60	56	Tioga	7.16
11	34	Lackawanna*	33.03	36	40	Jefferson	18.01	61	42	Perry	6.57
12	11	Allegheny	32.43	37	60	Huntingdon	17.52	62	n/a	Potter	5.85
13	27	Crawford	32.38	38	35	Blair	17.52	63	59	Union	4.45
14	n/a	Montour	32.33	39	50	Schuylkill	17.29	64	n/a	Juniata	4.04
15	12	Lehigh*	31.88	40	28	Northumberland	17.16	65	n/a	Snyder	2.47
16	4	Fayette	30.68	41	37	Cumberland*	16.64		n/a	Cameron	0.00
17	21	Dauphin*	30.04	42	39	Berks*	16.62		61	Warren	0.00
18	18	Luzerne*	29.83	43	22	Montgomery*	16.60				
19	7	Carbon*	28.14	44	25	Clearfield	16.05				
20	45	Monroe	27.64	45	36	Sullivan	15.80				
21	67	Forest	26.99	46	15	Mercer*	15.76				
22	30	Bradford	26.11	47	53	Lancaster	14.91				
23	16	Wyoming	25.18	48	41	Lebanon*	14.59				
24	31	Butler*	25.16	49	2	Susquehanna	14.40				
25	17	Erie	24.46	50	57	Franklin*	13.67				

*2014 rank changed due to updated 2014 data (possibly due to other counties' data changes)

Represents rural county[17]

Source: Pennsylvania Coroner Data and www.census.gov

[DEA, 2016]

Fifty-six percent of overdoses are among men.[7] In 2015, Pennsylvania men represented two-thirds of overdose deaths. Deaths in adults aged 55 to 64 have increased seven-fold from 1999 to 2013.[8] Deaths in women have increased 400 percent since 1999.[9] Of the overdose hospitalizations in Pennsylvania, 28 percent are within the 50 to 59 age group.[10] Annual costs of prescription opioid abuse for the country are estimated at $55 billion.[12]

The link between opioids and heroin

Opioids and heroin are from same derivative product. The U.S. has seen a dramatic increase in heroin use that statistically parallels the use of opioids. Nearly half of young people who inject heroin reported abusing prescription opioids before starting heroin. Some individuals reported taking up heroin because it's cheaper and easier to obtain than prescription opioids.[13]

States that have enacted a prescription drug monitoring data base, such as our ABC-MAP, have seen dramatic increases in heroin use immediately after implementation of the monitoring program due to a decrease in access to opioids.

The U.S. has experienced a 63 percent increase in the use of heroin from 2002 to 2013,[14] a 26 percent increase in heroin overdoses from 2013 to 2014,[15] with more than 800 people dying in Pennsylvania due to a heroin overdose in 2014.[16]

Pennsylvania's strategy

There have been four areas of focus in Pennsylvania's strategy to battle these drug issues.

Address the growing problem without eliminating access to legitimate users by 1) using system innovations such as patient review and restriction programs, treatment options, including medication assisted treatment, and a rapid response project; 2) including technology advances including abuse-deterrent technologies for medications, the incorporation of ABC-MAP and electronic health records, and interstate data sharing on ABC-MAP data; 3) practicing innovations related to rethinking treating pain with methadone, insurance and MA coverage for alternative pain management, and continuing education for providers, both in detection of addiction and appropriate pain treatment; and 4) enhancing public education regarding the appropriate use of opioids and parental detection of abuse of opioids.

Legislative initiatives have revolved around the PA Heroin, Opioid Prevention and Education (PA-HOPE) Caucus, a bipartisan group of legislators working to address the growing opioid epidemic, and the House Policy Committee holding public hearings across the state to gain facts.

The Pennsylvania House of Representatives formed a House Task Force and Advisory Committee and proposed a series of bills designed to proactively address the growing opioid epidemic during the 2015-16 session.

Five bills were introduced and successfully signed into law before the end of the 2015-16 session that set a seven-day limit on the discharge prescription of opioids in emergency departments;

provide for the proper disposal of unused prescriptions and over-the-counter medications; require prescribers and dispensers to obtain education in pain management, identification of addiction and the use of opioids; prohibit prescribing an opioid to a minor, with certain limitations, for more than seven days; and require the state boards of Dentistry, Medicine, Nursing, Optometry, Osteopathic Medicine and Podiatry to create a safe opioid prescribing curriculum to be offered in medical schools across Pennsylvania by August 2017, and direct the Department of Health to establish a form for a patient to complete which will opt the patient out of being offered opioids.

Furthermore, Act 191 of 2014 (known as the Achieving Better Care by Monitoring All Prescriptions Program-- (ABC-MAP) Act) is a prescription drug monitoring program intended to increase the quality of patient care; give prescribers/dispensers access to patient's prescription medication history; provide an electronic system that will alert medical professionals to potential dangers for purposes of making treatment determinations; give patients an easily obtainable record of their prescriptions so they can make educated and thoughtful health care decisions; and aid regulatory and law enforcement agencies in the detection and prevention of fraud, drug abuse and the criminal diversion of controlled substances. It became functional August 25, 2016.

Act 37 of 2016 was also enacted to prevent further spread of substance abuse through precursor drugs. It amends the Controlled Substance, Drug, Device and Cosmetic Act and provides the Pennsylvania Department of Health with authority to control the schedules and regulations of controlled substances, liquefied ammonia gas, precursors and chemicals. It also allows the Secretary of Health to temporarily reschedule controlled substances to a higher schedule, works to prevent widespread use of substances potentially harmful/fatal to the public and allows

quicker prosecution of those engaged in manufacture, distribution and sale of designer illegal drugs.

As government leaders, we also must expand our understanding of drug abuse to include new hybrids, many of which when mixed with opioids, and are resistant to the lifesaving medication Naloxone. They can cause death at even microscopic doses. For instance W-18 and Carfentanil are 10,000 times more powerful than morphine and 100 times more powerful than Fentanyl. Law now allows the Secretary of Health to protect the public by having the authority to temporarily declare a “designer drug” an illegal drug, make changes and notify the public 30 days before the rescheduling takes effect. The rescheduling remains in effect for one year and the Secretary can work with the attorney general and the regulatory process to get the substance permanently scheduled.

We still have much work to do in order to address this growing epidemic; however, I am encouraged we will continue to make great strides in the fight due to the dedicated cooperation of the governor, state and local elected leaders, and both the law enforcement and medical communities.

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About the Author

Matt Baker is currently serving his 13th term in the Pennsylvania House of Representatives, representing all of Tioga County and parts of Bradford and Potter counties. He has more than 35 years of knowledge and experience of public service and state government with him as a state representative.

In the House, Baker serves as majority chairman of the House Health Committee and is a member of the Rules Committee. Representative Baker has been recognized by many organizations for his many accomplishments during his tenure including legislation to combat the spread of substance abuse.

Conflict of Interest

I declare that I have no proprietary, financial, professional or other personal interest of any nature or kind in any product, service and/or company that could be construed as influencing the position presented in, or the review of, the manuscript entitled *The Worst Drug Epidemic in US History*.