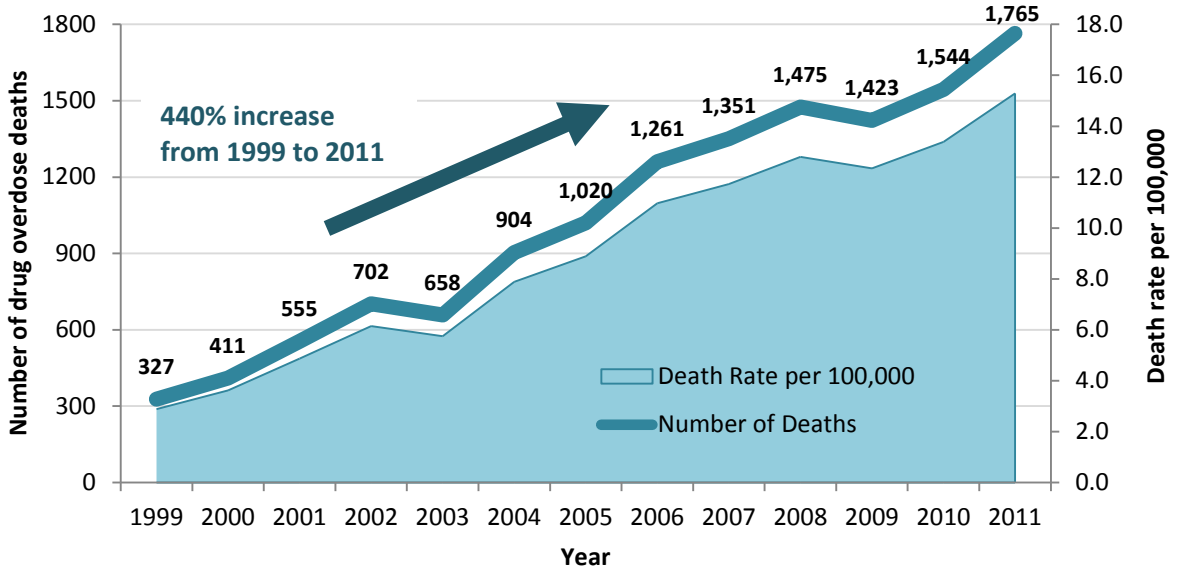
2011 Ohio Drug Overdose Data: General Findings[1]

- Drug overdose deaths continue to be a public health crisis in Ohio with a 440 percent increase in the number of deaths from 1999 to 2011. (*See Figure 1.*)
- Unintentional drug overdoses caused **1,765** deaths to Ohio residents in 2011. **This is the highest number of deaths on record for drug overdose** and surpasses the previous highest number (1,544) in 2010 by 14.3 percent
- In 2011, nearly 5 (4.8) Ohioans died every day from unintentional drug overdose, or one every 5 hours.
- Unintentional drug overdose continues to be the leading cause of injury-related death in Ohio, ahead of motor vehicle traffic crashes, suicide and falls. This trend began in 2007 and continues through 2011.
- Prescription drugs are involved in most of the unintentional drug overdoses and have largely driven the rise in deaths. Pain medications (opioids) and multiple drug use are the largest contributors to the epidemic. (*see Figure 2.)*

Figure 1. Number of deaths and death rate per 100,000 from unintentional drug overdose by year, Ohio residents, 1999-2011[1]



[1] Source: Ohio Department of Health; Office of Vital Statistics, Analysis Conducted by Injury Prevention Program

The Ohio Department of Health and other partners are responding to the crisis through coordinated efforts. A description of Ohio's efforts can be found at: http://bit.ly/ohioaccomplishments**.**

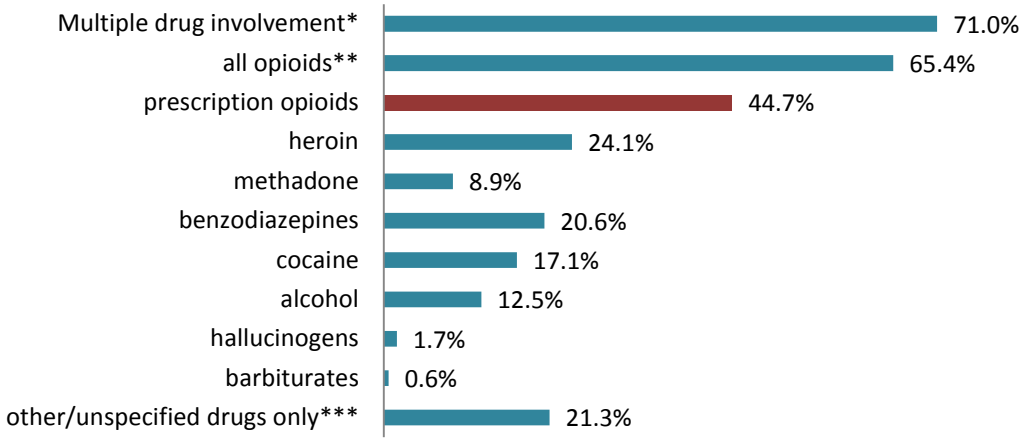
Additional data, resources and background information are available at:
http://www.healthyohioprogram.org/vipp/drug/dpoison.aspx

2011 Ohio Drug Overdose Data: Specific Drug Involvement:

- **Analysis of the substances involved in the deaths reveals increasing heroin use, although prescription opioid-related deaths also continued to increase from 2010-2011.** Approximately two-thirds (1,154; 65.4 percent*) of the drug overdoses involved **any opioid** (prescription or heroin) in 2011, similar to 2010 (979; 63 percent).
- **Prescription opioids (pain medications) remain associated with more fatal overdoses than any other prescription or illegal drug including cocaine, heroin and hallucinogens and combined.** Nearly half (44.7 percent*) of fatal unintentional overdoses involved prescription opioids in Ohio in 2011, an equal percentage to 2010 (see Figure 2).
  - More than one-fourth (505; 28.6 percent*) of the overdoses involved commonly-prescribed opioids such as oxycodone, hydrocodone and morphine (data not shown).
  - Nine percent* of the overdoses involved methadone (prescription opioid) (see Table 1), demonstrating a slight reduction from 2010 (10 percent).
- **Heroin-involved deaths** have continued to increase from 16 percent (233) in 2008 to a high of 24.1 percent (426)*, or one in four, of all drug overdoses in 2011.
- **Deaths involving benzodiazepines** have also increased from 212* (15 percent) in 2009 to 364 (20.6 percent) in 2011.
- **Multiple drug use** is a major contributing factor to the overdose epidemic. In 2011, 71 percent of overdose deaths (*where the number of drugs was specified*) involved more than one drug.

***In approximately one-fifth (21 percent) of the cases, no specific drug is identified in the death certificate data. As such, reported drugs are likely under-estimates of their true contribution to the burden of fatal drug overdose in Ohio.**

Figure 2. Proportion of drug overdoses among Ohio residents involving selected drugs, 2011[1,2]



[1] Source: Ohio Department of Health; Office of Vital Statistics, Analysis Conducted by Injury Prevention Program
[2] Multiple drugs are usually involved in overdose deaths.
* Includes only deaths where the number of substances was specified; number unspecified in 21% of 2011 overdose deaths.
**Includes involvement of prescription opioids and/or heroin.
***No specific drug was identified

2011 Ohio Drug Overdose Data: Specific Drug Involvement:

Unintentional drug overdose deaths of Ohio residents involving specific drug(s), as mentioned on the death certificate, by year, 2000-2011[1-3]

Drug Category[4]	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total	% of 2011 deaths
all opioids*	198	266	344	296	429	489	551	631	735	783	979	**1,154**	**6,855**	**65.4%**
prescription opioids	138	199	257	221	319	388	462	508	546	550	694	**789**	**5,071**	**44.7%**
heroin	71	81	108	87	124	131	117	146	233	283	338	**426**	**2,145**	**24.1%**
benzodiazepines	46	63	79	38	69	90	121	133	154	211	300	**364**	**1,668**	**20.6%**
cocaine	102	112	154	140	221	223	317	287	252	220	213	**302**	**2,543**	**17.1%**
alcohol	49	50	43	40	38	58	89	135	181	173	195	**221**	**1,272**	**12.5%**
methadone	14	30	47	55	116	144	161	176	170	169	155	**157**	**1,394**	**8.9%**
hallucinogens	1	1	7	7	8	8	10	13	14	9	26	**30**	**134**	**1.7%**
barbiturates	1	7	6	5	3	5	3	7	3	5	13	**11**	**69**	**0.6%**
other/unspecified drugs only***	96	139	186	154	256	289	378	453	475	396	343	**376**	**3,541**	**21.3%**
Multiple Drug Involvement											888[5]	980[6]		71%[6]
Total unintentional poisoning deaths	411	555	702	658	904	1,020	1,261	1,351	1,475	1,423	1,544	1,765	13,069	
Crude annual death rate per 100,000	3.6	4.9	6.1	5.7	7.9	8.9	11.0	11.7	12.8	12.3	13.4	15.3		

1. Source: ODH, Office of Vital Statistics, Analysis by Injury Prevention Program
2. Total includes out of state deaths of Ohio residents for all years
3. Individual drugs do not add up to totals as more than one drug may be listed on the death certificate for one death.
4. Data completeness varies from year to year for residents who died out of state; approximately 2% of the fatal overdoses on average each year.
5. 343 deaths in 2010 involved an unknown number of drugs
6. 376 deaths in 2011 involved an unknown number of drugs; multiple drug involvement percent is based on 1,389 deaths with known number of drugs included on death certificate.

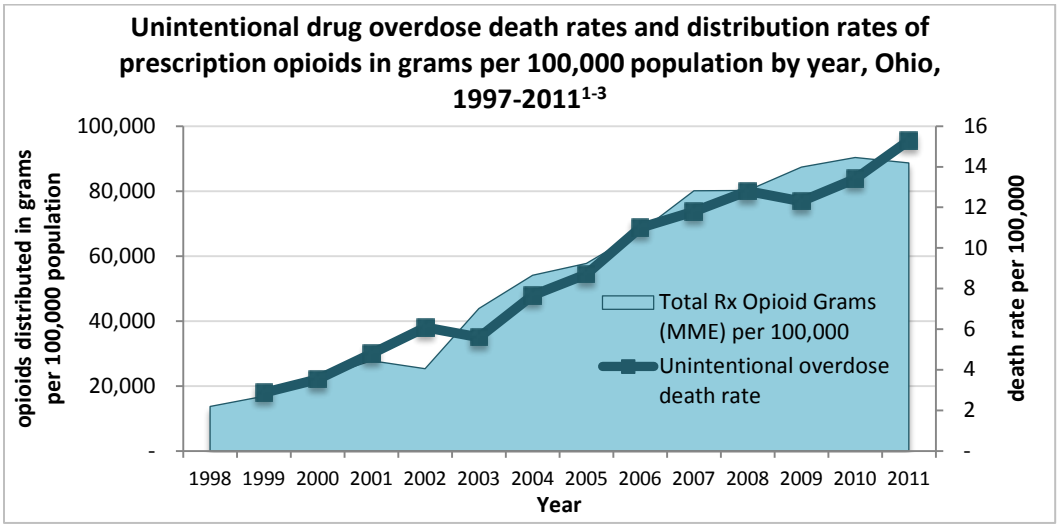
* Includes prescription opioids and heroin

**Includes all instances where 'T50.9' (other/unspecified) is included as contributing to death

***Includes only those instances where no other drug than T50.9 (other/unspecified) is included as contributing to death

Contributing Factors

- Key factors leading to this epidemic include 1) **changes in clinical pain management guidelines** in the late 1990's (i.e., Federation of State Medical Boards releases *Model Guidelines for the Use of Controlled Substances for the Treatment of Pain;* Ohio Revised Code 4731.21 Drug Treatment of Intractable Pain) and 2) **aggressive marketing by pharmaceutical companies** of new, extended-release prescription opioids to physicians (*Source: FDA Warning Letters)*. These factors initially led to rapidly increasing use of prescription opioids.
- From 1997 to 2011, there was a 643 percent increase in the amount of prescription opioid grams per 100,000 population distributed to retail pharmacies in Ohio *(Source: DEA ARCOS)*.



Sources: 1. Ohio Vital Statistics; 2. DEA, ARCOS Reports, Retail Drug Summary Reports by State, Cumulative Distribution Reports (Report 4) Ohio, 1997-2007 http://www.deadiversion.usdoj.gov/arcos/retail_drug_summary/index.html; 3. Calculation of oral morphine equivalents used the following assumptions: (a All drugs other than fentanyl are taken orally; fentanyl is applied transdermally. b) These doses are approximately equianalgesic: morphine: 30 mg; codeine 200 mg; oxycodone and hydrocodone: 30 mg; hydromorphone; 7.5 mg; methadone: 4 mg; fentanyl: 0.4 mg; meperidine: 300 mg.

- In 2011, there was an average of 59 doses of opioids dispensed for every Ohio resident. In Scioto County, incidentally having one of the highest fatal overdose rates in the State, this ratio was 33 percent higher with 79 doses for every Scioto County resident *(Source: Ohio Board of Pharmacy, Ohio Automated Rx Reporting System).*
- Additional societal and medical trends that contributed to this complex problem include marketing of medications directly to consumers, over-prescribing, substance abuse, widespread diversion of medications, deception of providers including doctor shopping and prescription fraud, illegal online "pharmacies," unscrupulous providers (e.g., "pill mills"), overmedication and mixing medications, and improper storage and disposal of excess medications.

National Data:

- 38,329 people died from a drug overdose in the United States in 2010, up from 37,004 deaths in 2009.[1]
- Overdose deaths involving opioid pain medications have shown a similar increase. Starting with 4,030 deaths in 1999, the number of deaths increased to 15,597 in 2009 and 16,651 in 2010.[1]
- The quantity of prescription painkillers sold to pharmacies, hospitals, and doctors' offices was four times larger in 2010 than in 1999.[2]
- Enough prescription opioids were prescribed in 2010 to medicate every American adult around-the-clock for a month.[2]

1 Jones C, Mack K, Paulozzi L. Pharmaceutical Overdose Deaths, United States, 2010. JAMA. 2013;309(7):657-659.
2 Centers for Disease Control and Prevention. Vital Signs: Prescription Painkiller Overdoses in the US. November 2011. http://www.cdc.gov/Vitalsigns/pdf/2011-11-vitalsigns.pdf

What is Being Done to address the Problem?

Ohio Department of Health

- **Surveillance of drug overdose trends and patterns** and providing data on the Ohio Drug Poisoning website.
- **Coordinating of the Prescription Drug Abuse Action Group (PDAAG)** in conjunction with ODADAS. The PDAAG is an ongoing state-level work group comprised of over 100 member organizations dedicated to reducing prescription drug abuse, misuse and overdose in Ohio. The PDAAG serves as a conduit for information sharing, networking and the development of state-level recommendations to address the issue.

- **Conducting a social marketing campaign: *Prescription for Prevention: Stop the Epidemic* (P4P) (http://www.p4pohio.org).** P4P is a multi-level social marketing campaign to combat the epidemic of prescription drug overdose that includes coalition establishment and support in high risk counties, public education and outreach, TV and radio public service announcements, peer-to-peer programs in schools and education at work sites.

- **Funding two pilot projects in Scioto and Montgomery Counties from 2010-2013** with funding from the CDC's Preventive Health and Health Services Block Grant. These projects engage in activities such as coalition development, education of healthcare prescribers and service providers, formation of a poison death review committee, policy development and implementation of public education and awareness campaigns.
- **Providing technical support and resources to support implementation of naloxone education and distribution programs such as Project DAWN** (**D**eaths **A**voided **w**ith **N**aloxone) in Scioto and Cuyahoga Counties. http://www.healthyohioprogram.org/vipp/drug/ProjectDAWN.aspx

- **Encouraging excess drug disposal solutions and methods.** In order to foster a more permanent and sustainable method of drug disposal, ODH worked with local law enforcement to purchase prescription drug drop boxes from the National Association of Drug Diversion Investigators. In collaboration with the Ohio Attorney General and Drug Free Action Alliance, this initiative provided 66 drug drop boxes to 23 Southern Ohio counties**.**
- **Implementing Initiatives for Systems Change:** Development of the Ohio Emergency and Acute Care Facility Opioid and Other Controlled Substances Prescribing Guidelines. As part of the Governor's Cabinet Opiate Action Team (GCOAT), ODH and the Ohio Department of Aging convened a multi-disciplinary Professional Education Workgroup to develop guidelines to help emergency and other acute care facilities reduce the inappropriate use of opioid and other controlled substances while preserving their vital role of treating patients with emergent medical conditions. To read the guidelines and supporting background materials, please visit: http://www.healthyohioprogram.org/ed/guidelines.
- **Collaboration with other state organizations to plan conferences, summits and educational opportunities.**

For complete information on what ODH is doing to address the issue, please visit: http://www.healthyohioprogram.org/vipp/drug/dpoison.aspx