

**Preventing Unintentional Prescription Drug Poisoning Project  
2011 Annual Report**

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## Summary of 2011 Project Activities

This narrative addresses the three broad categories of project objectives for 2011:

- (1) The maintenance of a *Prescription Drug Poisoning Coalition* to address the problem of unintentional prescription drug overdose deaths by reviewing relevant data and making recommendations to Public Health – Dayton & Montgomery County (PHDMC) and the Ohio Department of Health (ODH).
- (2) The continued development and operation of a *Poisoning Death Review (PDR)* process focusing on prescription drugs.
- (3) The facilitation and conduct of targeted *Information, Training, and Educational Activities* to help address and prevent prescription drug overdoses.

### *Drug Poisoning Coalition*

The coalition consisted of representatives from public health agencies, drug abuse treatment programs, hospitals, pharmacies, law enforcement, fire department/emergency services, a medical school, the coroner's office, a pain clinic, the community-at-large, the alcohol, drug and mental health board, and Family and Children First Council (see attached Membership List). One new member was added in 2011: a representative of the WSU School of Nursing. There were four meetings of the Drug Poisoning Coalition. Notes from these meetings are available at: [www. med.wright.edu/citar/prescriptiondrugs.html](http://www.med.wright.edu/citar/prescriptiondrugs.html). Coalition members prioritized activities, focusing on identifying the nature and extent of the unintentional drug poisoning problem in Montgomery County. They continued to review data on overdose deaths, prescriber and first responder views of the problem, and available research findings on the problem. The Coalition also reviewed information provided at Ohio Prescription Drug Abuse Action Group meetings, attended by the project's Injury Prevention Coordinator.

In 2011, the project began examining the local prescription drug overdose problem from two new perspectives. The first of these was the initiation of a qualitative study of accidental drug overdose survivors: "Unintentional Overdoses Related to Pain Pill Use: Survivor Experiences". Although undertaken with the approval of the Coalition, the qualitative effort was funded by the Wright State's Center for Intervention, Treatment, and Addictions Research, and not by the Unintentional Drug Poisoning Project grant. When sufficient data are available from the investigation, a report will be provided to Public Health—Dayton & Montgomery County and the Montgomery County ADAMHS Board.

The second study involved county-wide, non-fatal overdose data. This study examined 2007-2010 demographic and diagnostic data (ICD-9 codes) on Montgomery County residents who had presented to Emergency Departments (EDs) at hospitals in Montgomery County for treatment of an accidental drug overdose (OD). Prior to this report, the Coalition's examination of the issue had been framed largely by mortality data from the Montgomery County Coroner's Office and the Ohio Department of Health. While highly informative and extremely useful, those data only partially reflected the nature and extent of the problem, as they were based solely on people who had died from an accidental drug overdose. The purpose of the review of non-fatal overdose data was to broaden the perspective on the unintentional drug overdose problem as manifested in Montgomery County and to help inform the discussion and guide the Coalition to appropriate responses to the overdose problem. The report on non-fatal overdoses, "Montgomery County Residents Hospital Emergency Department Visits for Accidental Overdose on Selected Drugs, 2007-2010" is posted on the Coalition website and is attached to this report.

In addition to these initiatives, the Coalition considered and approved recommendations for addressing the prescription drug overdose issue, including the naloxone education and distribution program recommendation required by ODH. Given the overwhelming evidence that naloxone can save lives, coupled with the high medical benefit-to-risk ratio of its use, the Coalition recommended that naloxone education and distribution programs be implemented in Ohio. The Coalition realized that an assortment of medico-legal, financial, and social marketing issues would need to be addressed before programs could be implemented, and believed those issues would be creatively and effectively addressed at the executive levels of local and state government.

#### *Poisoning Death Review 2011*

As of this writing, we estimate that the 2011 Poisoning Death Review will be completed in March 2012, after the Coroner's Office has completed their findings in all 2011 cases. When the findings are available, an updated report will be provided. The current report is based on the first 97 cases of 2011 (through mid-Fall).

The PDR process continued with few modifications from 2010. The process included the seven essential steps described in the attached PDR description. After some experimentation with electronic data transfer, it became apparent that some coroner data were not amenable to inclusion in the Excel file developed by the Injury Prevention Coordinator and the Coroner's office administrator. All data are now being transmitted electronically, but some forms, such as death certificates and summary postmortem

reports, are sent in pdf format. There are no hard copy documents in the PDR. In terms of actual data compilation and analysis, some categories were modified based on 2010 findings in order to streamline data entry. For example, "Central Nervous System" was eliminated from the Physical Disability worksheet because there were no CNS disabilities described in the 127 cases in 2010, and gabapentin, topiramate, and hydroxyzine were given their own variable names because they had occurred with enough frequency in 2010's "Other Prescription Drug" category.

The following narrative describes the preliminary PRD data for 2011 (through mid-Fall):

Cases of Unintentional Drug Poisoning Fatalities reviewed in 2011: 97

Estimated Completion Date for all 2011 Cases: March 15, 2012

Projected Unintentional Drug Poisoning Fatalities, 2011: 135

Unintentional Drug Poisoning Fatalities, 2008: 132

Unintentional Drug Poisoning Fatalities, 2009: 126

Unintentional Drug Poisoning Fatalities, 2010: 127

Demographic Characteristics of Population:

Male: 61%

White: 88%

Average Age: 42.4

High School Graduate: 66%

Single: 39% Married: 32% Divorced: 23%

53% of the deaths occurred in the decedent's home; 20% in the home of a friend; and 22% in a medical facility.

Most overdose deaths (77%) occurred among individuals with a mental or physical disability; 56% of the decedents suffered from heart disease of varying severity.

The population consisted primarily of poly-drug users, with high rates of prescription opioid use (63%) and frequent exposure to sedatives (73%), including benzodiazepines (61%).

Coroner's Office toxicology report data show that prescription opioids consisted primarily of methadone (37%), hydrocodone (16%), and oxycodone (16%).

Alprazolam was the most prevalent benzodiazepine (42% of all cases), followed by clonazepam (19%) and diazepam (13%).

Heroin was present in 23% of the deaths. However, only 5% of the deaths involved heroin without alcohol, sedatives, or prescription opioids.

There was a verifiable valid prescription for 36% of the controlled drugs listed on the toxicology reports. However, since no Ohio Automated Prescription Drug Reporting System (OARRS) data were available that could be matched to individual cases, these data reflect only prescription drugs found in their containers at the scene of death or in the home of the decedent.

The demographic characteristics of the group of 61 opioid users were nearly identical to those of the other 36 individuals in the population.

The incidence of overdoses that might have been prevented by the use of opioid antagonists by family members, fellow users, or other by-standers was 11%. This should be interpreted with caution because the context in which a person overdosed is often difficult to assess.

It is important to note that all data used in the PDR are from people who died in Montgomery County, regardless of whether they were county residents. Consequently, Montgomery County PDR data may not precisely mirror ODH drugs and death data as ODH assigns decedents to their county of residence, regardless of where in Ohio they died.

#### *Information, Training, and Educational Activities*

The project's principal activities related to this objective in 2011 were to implement training and educational opportunities consistent with needs that were identified and recommended by the Coalition in 2010.

This effort began 18 months ago with a survey of coalition members' views of the unintentional poisoning death problem. The Coalition membership survey was followed by an on-line survey of prescribers who were identified through the Montgomery County Medical Society, the Dayton Dental Society, and area hospitals. Additionally, area first responders were surveyed electronically through the membership list of the Greater Miami Valley Emergency Medical Services Council. The Coalition also identified opportunities to provide OARRS training and further training with medical students, emergency department physicians, and first responders.

Building on the success of the 2010 on-line community forum, a series of educational videos targeting community members and prescribers was produced in 2011. The series consists of 9 stand-alone segments that run from 4-9 minutes in length. The topic areas covered include pain management contracts, alternatives to opioids for pain relief, substance use disorders, prescribing opioids, talking with someone who has a drug problem, and epidemiology of the problem from national, state and local perspectives. Links to additional resources are provided for each video. The series was and still is being publicized through local hospitals and professional societies. The video series is now available on YouTube as well as a WSU channel. Links to the videos are also available on the project web site. As of January 2, 2012, the videos had been viewed more than 725 times in less than 2 months. They were posted on line in November 2011. This is a combination of YouTube and non-YouTube views (some organizations, like hospitals, block YouTube). More than 100 views that may have occurred during developmental stages of the project were subtracted out of the views through January 2. Consequently, the 725 is a somewhat conservative number. There are no plans to remove the videos from YouTube anytime soon, so the numbers will likely grow.

Additional educational programs included a session with 13 medical residents, during which they were provided an overview of the problem with national, state and local data. This session also included an extended dialogue about medical resident perceptions of the prescription drug abuse phenomenon and what, if anything, they think should be done about it in: (a) the community at large; (b) the medical community at large; and (c) the medical school curriculum.

The Coalition sustained its efforts to increase awareness of the Ohio Automated Prescription Drug Reporting System (OARRS), targeting emergency department residents and medical students completing their psychiatry rotation. The sessions included discussions of resident and student perception of OARRS and its usefulness in reducing prescription drug abuse. Of 24 individuals participating in the sessions, 21 affirmed a commitment to register with OARRS.

Continuing into 2012, the CITAR staff will participate in a February training event for family practice residents, which will include informational presentations, clinical vignettes, and policy and regulatory updates by the Ohio State Medical Board.

The project website (<http://www.med.wright.edu/citar/prescriptiondrugs>) will continue to provide updated information on the problem.

## **Project Activities Attachments**

Coalition Membership

Montgomery County Residents Hospital Emergency Department Visits for Accidental Overdose  
on Selected Drugs, 2007-2010

Background and Description of the Poisoning Death Review (PDR) process

Poisoning Death Review Summary Report, 2011

Poisoning Death Review Summary Report, 2007-2011

Rx Drug Abuse Educational Video Series: Prescription Drugs: Questions and Answers —  
Education for Health Care Professionals and the Community

Final Recommendations

## Montgomery County Unintentional Drug Poisoning Death Coalition Membership List

**Gary LeRoy, M.D.**

Chair, Unintentional Drug Poisoning Coalition  
Associate Dean  
WSU Boonshoft School of Medicine

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Vice-Chair, Unintentional Drug Poisoning Coalition  
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Medical Director  
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Co-PI, Unintentional Drug Poisoning Project  
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Co-I, Unintentional Drug Poisoning Project  
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Children First

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WSU Boonshoft School of Medicine

**D. Timothy Lane, M.Ed.\***

Injury Prevention Coordinator  
Unintentional Drug Poisoning Project  
CITAR, WSU Boonshoft School of Medicine

**Lee D. Lehman, Ph.D., M.D.**

Chief Deputy Coroner  
Montgomery County Coroner's Office

**Lauren Marinetti, Ph.D., D-ABFT**

Chief Toxicologist  
Montgomery County Coroner's Office &  
Miami Valley Regional Crime Laboratory

**Bradford Nickels**

Division of Emergency Services  
Dayton Fire Department

**Jeffrey Payne**

Assistant Chief  
Division of Emergency Services  
Dayton Fire Department

**Brenda Roman, M.D.**

Professor of Psychiatry  
WSU Boonshoft School of Medicine

**Willie Scales**

Community Representative

**Chris Stieritz, R.Ph.**

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Kettering Health Network

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Clinical Nurse Specialist  
Miami Valley Hospital

\* Center for Interventions, Treatment & Addictions Research (CITAR) Unintentional Drug Poisoning Project Staff



# **Montgomery County Residents Hospital Emergency Department Visits for Accidental Overdose on Selected Drugs, 2007-2010**

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Dayton, OH

September 2011

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Public Health - Dayton & Montgomery County.

## **Introduction**

This brief report describes, in very general terms, Montgomery County residents who presented to Emergency Departments (EDs) at hospitals in Montgomery County for treatment of an accidental drug overdose (OD) from 2007-2010. Its purpose is to broaden the perspective on the unintentional drug overdose problem as manifested in Montgomery County, Ohio. To date, the issue has been framed largely by mortality data from the Montgomery County Coroner's Office and the Ohio Department of Health. While highly informative and extremely useful, these data only partially reflect the nature and extent of the problem as they are based solely on people who have died from an accidental drug overdose. It is our hope that bringing local ED OD data to light will help inform the discussion and lead to an appropriate response to a public health problem that is affecting our community and many others.

## **Methods**

Tabulations in this report are based on data provided in a de-identified form by the Greater Dayton Area Hospital Association. The data were used to gain a better understanding accidental OD phenomenon in Montgomery County as well as to develop a very rough profile of residents who presented to EDs in Montgomery County for treatment of accidental drug overdoses.

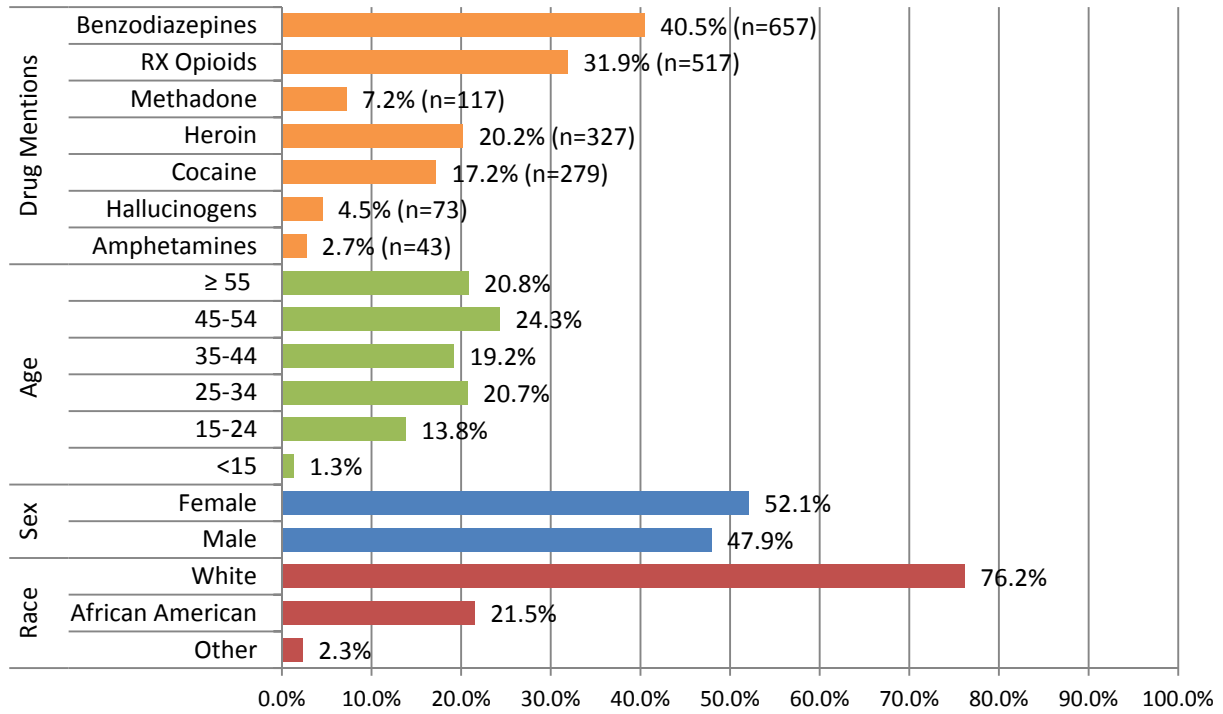
The variables considered were age, gender, race/ethnicity, residency, and ICD-9 codes for selected drugs. Residency was determined by the zip code information collected by the hospitals. ICD-9 codes identified accidental (as opposed to intentional) overdoses associated with specific drugs or drug types. International Classification of Diseases – Ninth Revision (ICD-9) codes are used by hospitals to specify diagnoses on billable reimbursement claims. ICD-9 codes were used to enumerate ED ODs associated with the following 7 drugs/drug types: amphetamines, benzodiazepines, cocaine, hallucinogens, heroin, methadone, and prescription (Rx) opioids other than methadone.

Univariate statistics were used to describe the data where applicable.

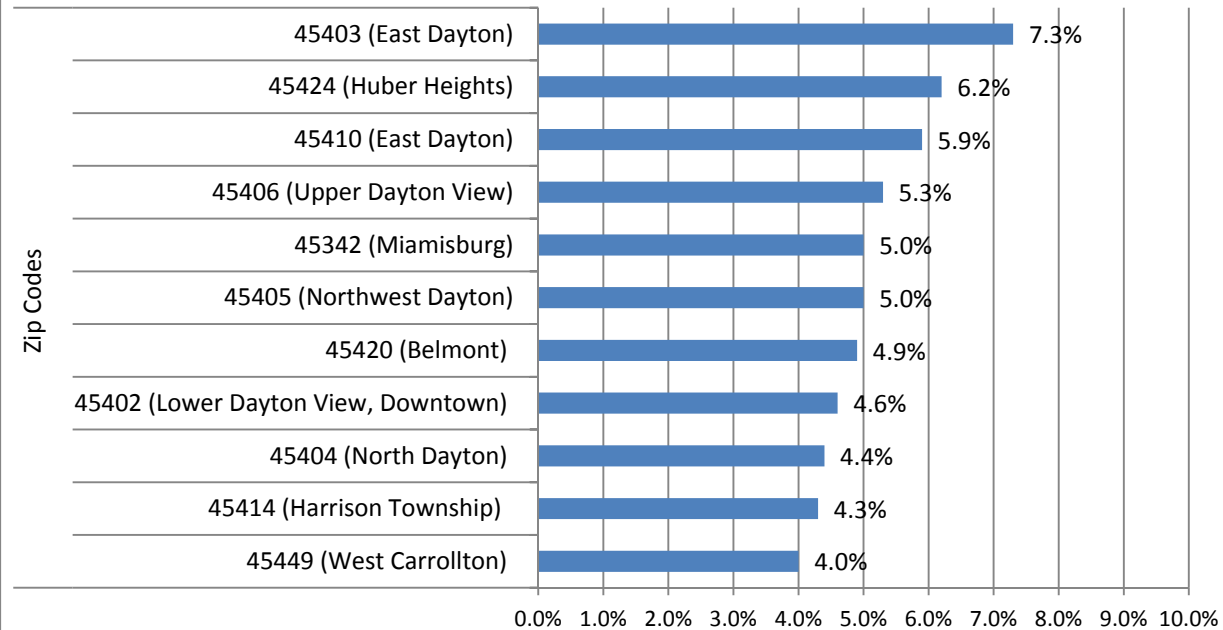
## **Findings**

Between January 1, 2007 and December 31, 2010, EDs in Montgomery County treated 1,937 Montgomery County residents who received ICD-9 codes indicating accidental drug poisonings. Of these, 1622 (83.7%) visits (373 in 2007; 447 in 2008; 415 in 2009; 387 in 2010) involved one or more of the aforementioned 7 drugs (*see Graphs on pages 2-3*). Of the 315 cases not included in this report, 265 (84.1%) involved either antidepressants or anti-psychotics. The remainder involved barbiturates, alcohol, or other drugs whose identity could not be determined with certainty from the ICD-9 coding.

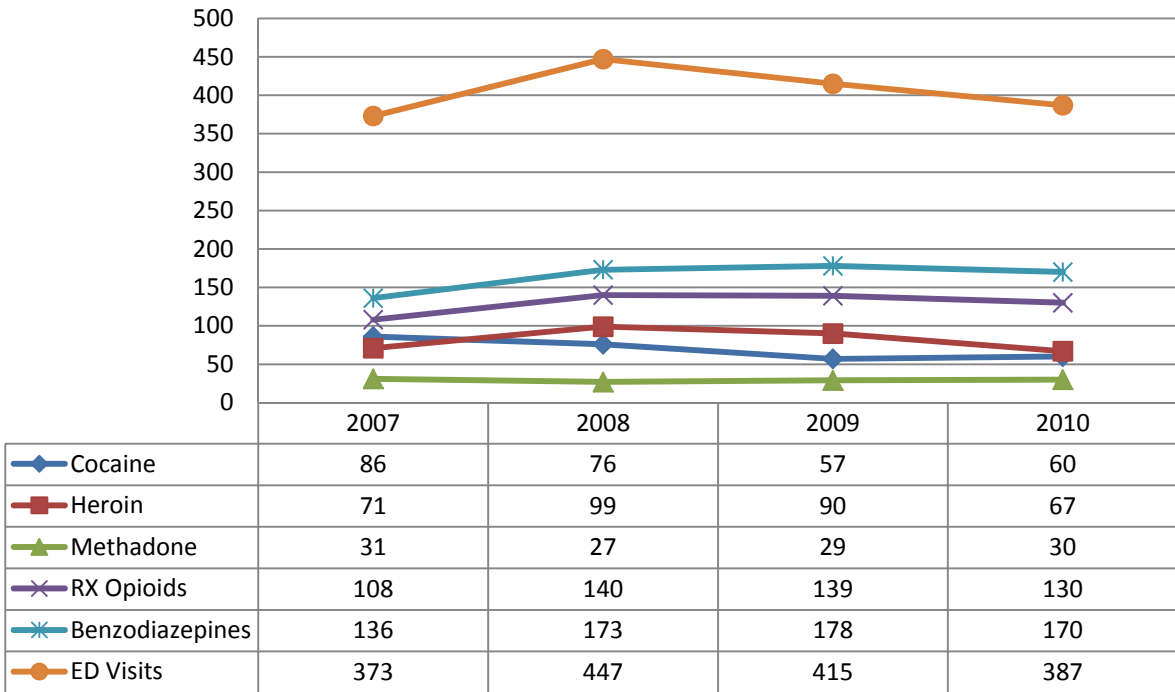
### Characteristics of ED Visits for 7 Selected Drugs, 2007-2010 (N=1,622)



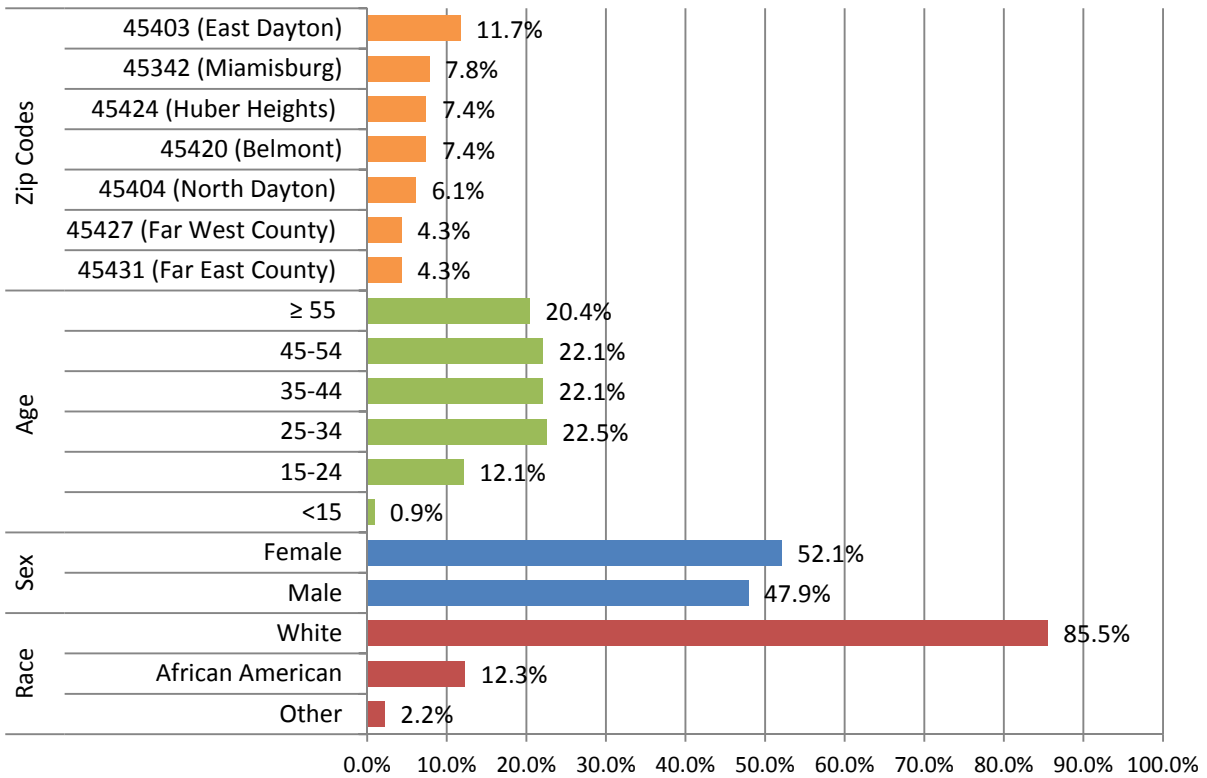
### Zip Codes Contributing ≥4% of Total ODs at EDs (2007-2010)



**ED Visits and Mentions of Selected Drugs by Year, 2007-2010**



**ED Visits with ICD-9 Codes for Multiple\* Opioids or Opioids/Benzodiazepines, 2007-2010 (N=231)**



\*Includes cases that were coded as methadone and another Rx opioid or any Rx opioid (including methadone) and a benzodiazepine.

## Discussion

The data upon which this report is based are subject to a number of limitations. First, the data are from hospital billing departments, not medical record reviews. Sometimes there are differences between patient medical records and how diagnoses are coded and subsequently billed. Second, not all accidental drug overdoses are diagnosed as such. Thus, the data in this report likely somewhat underestimate the extent of the problem. Third, for a variety of reasons, the identity of the drug(s) on which a person has overdosed is not always verified by toxicology tests at a hospital during an ED visit. Simply, sometimes there is no quick test for the drug which has caused the problem. For example, as of this writing, methcathinone, MDPV and mephedrone, possible ingredients in some “bath salts,” are not detectable with an instant urine or saliva test. Further, there is, as of this writing, some variation in the ICD-9 coding of “bath salt” overdoses. Sometimes they are coded under Hallucinogens, sometimes under Stimulants, and sometimes under Unspecified agents. Consequently, there is some reason to believe that not every accidental drug overdose case is coded appropriately with respect to the poisoning agent. Fourth, a person who has overdosed on two (or more) drugs that fall under the same ICD-9 code, e.g., hydrocodone and oxycodone (ICD-9 code E850.2), are coded only once. Thus, the number of mentions for a specific drug (or drug type or drug class) cited in this report are likely lower than their actual occurrence since a single code may not reflect the complete poisoning picture. Fifth, zip codes are imperfect indicators of the extent and location(s) of the problem within the county. This has a number of implications. For example, only people who reported an address with a Montgomery County zip code are included in the data set. Thus, *non-residents* who overdosed in Montgomery County and visited a hospital in Montgomery County are not included in the data. Similarly, Montgomery County residents who overdosed and presented at a hospital outside of Montgomery County are not included in the data either. In addition, although the vast majority of zip codes in this report are contained within the boundaries of Montgomery County, several bleed into contiguous counties. Sixth, the data presented represent visits/cases, not separate individuals. Since the data were de-identified, it is not possible to ascertain the number of people who contributed more than one case to the data base. Seventh, although the data show how many cases were treated at EDs in Montgomery County from 2007-2010, they do not reflect the extent of the overdose problem, not only for some of the reasons noted above, but also because there is evidence to indicate the vast majority of persons who die from accidental drug overdoses die before reaching an ED. For example, in 2010, only 20 of the 127 (15.7%) people who died in Montgomery County from an unintentional drug overdose reached a hospital ED. Thus, when factoring in data from the Montgomery County Coroner’s Office, there is good reason to think there are, on average, 500 plus cases of accidental drug overdose the in the county each year involving the selected drugs highlighted in this report. In addition, for a variety of reasons, an unknown number of drug overdoses never come to the attention of medical centers or legal authorities. Some ODs are treated by bystanders, friends and family at the scene of the event for fear of legal repercussions.

Even with these limitations, the data provide important perspective on the accidental drug overdose problem in Montgomery County. Perhaps the most interesting and potentially useful finding emanates from the zip code data. Although OD ED cases occur across the county (indeed, the Miami Valley, Ohio and the US) and in all zip codes, more than one-half (52.5%) of the cases occurred among people whose residence was in one of eleven zip codes (*see Maps on*

pages 8-10). There are 39 zip codes in Montgomery County. It is important to note that population density varies across zip codes as do a host of economic and demographic factors. Nevertheless, while these findings may surprise some observers and not others, they can help geographically target neighborhood-level interventions to help reduce the accidental OD problem. Such interventions could be implemented following well-known health behavior theory and public health practices. While interventions targeting users and their families may help reduce the problem, they will not solve it as the problem is multi-factorial in nature (Webster et al. 2011), and public health-oriented interventions will not impact all factors.

Drug mentions from ED ODs are very consistent with Montgomery County Coroner's Office toxicology reports in that data from both sources show sedatives/tranquilizers and Rx opioids are the most frequently mentioned drugs relative to other drugs in accidental OD cases. The most frequently mentioned drugs in the Coroner's Office 2010 autopsy reports were sedatives, 93% of which were benzodiazepines, followed Rx opioids (WSU CITAR 2011); the most frequently mentioned drugs in ED OD cases, regardless of the sample size (1937 or 1622), were benzodiazepines, such as alprazolam, followed by Rx opioids, such as hydrocodone and oxycodone. The relatively large number of people suffering an OD caused or complicated by benzodiazepines demonstrates not only that they are widely prescribed and misused but that their use can result in symptoms which may precipitate an ED visit. Fortunately, most benzodiazepines have relatively high margins of safety when *not* combined with other drugs that depress the central nervous system (CNS). When combined with other CNS depressants, such as an opioid or alcohol, benzodiazepine use can be very problematic, sometimes lethal.

Specific drug mention data for the four year time period covered by this report show a large increase in benzodiazepine and Rx opioids (exclusive of methadone) mentions from 2007 to 2008, then stabilization. Methadone mentions (virtually all of which are related to methadone prescribed for pain relief, not methadone used to treat drug addiction) have remained stable over the reporting period. Cocaine mentions appear to have decreased somewhat, while heroin mentions reveal no pattern. Notably, any given case can contribute more than one drug to the drug mention count. In fact, data show that, at a minimum, given the aforementioned limitation in ICD-9 coding, about 14% of the ED OD cases involved people who had more than one opioid (heroin, methadone, other Rx opioids) in their system, or an opioid and a benzodiazepine, upon arrival at the hospital. Generally, accidental ODs involving multiple CNS depressants have the highest likelihood of very bad outcomes.

Recently published data from the CDC show the most widely prescribed drugs in the United States for people aged 20-59 were anti-depressants followed very closely by analgesics. CDC data also show that proportionately more women than men are prescribed these drugs, as are whites compared to other racial/ethnic groups (Gu et al. 2010). Thus, it is not surprising that women and whites made up a larger proportion of the ED OD population in Montgomery County than did other groups. Notably, age and race/ethnicity data for Montgomery County ED ODs are very much in concert with 2010 US Census data for the county. In terms of gender, census data show about 52% of Montgomery County residents are women; racially/ethnically, about 74% of the county residents white and 21% are African American.

Although this report focuses on the general demographics of people who overdosed and the specific types of drugs that brought them to an ED, the cost of OD ED visits merits some mention. We computed the average billed cost of outpatient treatment (an ED OD visit where the patient was not admitted to the hospital as an inpatient, aka treat-and-release) for an opioid (including heroin) overdose in 2010. The average cost, based on 54 visits where the primary ICD-9 code was an opioid poisoning, was \$4588 per case. This suggests that the cost of treating the 227 opioid cases presenting at area hospital EDs in 2010 was, at a minimum, \$1,041,476. Notably, these costs do not factor in those associated with the services provided by publically-funded Emergency Medical Services. Additionally, if opioid OD cases resulting in inpatient treatment had been considered, the monetary costs would be substantially more, as the cost for these cases is much higher than for treat-and-release cases. Further, the OD treatment cost for other drugs, such as benzodiazepines, was not calculated. The critically important point here is that, aside from the incalculable human costs associated with drug overdoses, there is a substantial financial cost as well.

## **Conclusion**

This is a brief report with a number of limitations. Still, it provides information that allows additional insight into the accidental drug overdose problem in our community. The nature and extent of the phenomenon are clearer. Aside from the 500 plus Montgomery County residents who experienced an OD in 2010, their family, friends, and co-workers were also affected by the event in some way. So, in a real sense, these unintentional ODs likely touched thousands of people. We also now have a better idea of the short-term health care costs associated with a segment of the OD problem. Virtually all of us pay for the problem, and the costs, whether human and financial, are not insignificant. We also know that although the problem exists across the county, it is more prevalent in some areas than in others. This finding could be useful in the development and implementation of various interventions to reduce the problem.

## **Acknowledgments**

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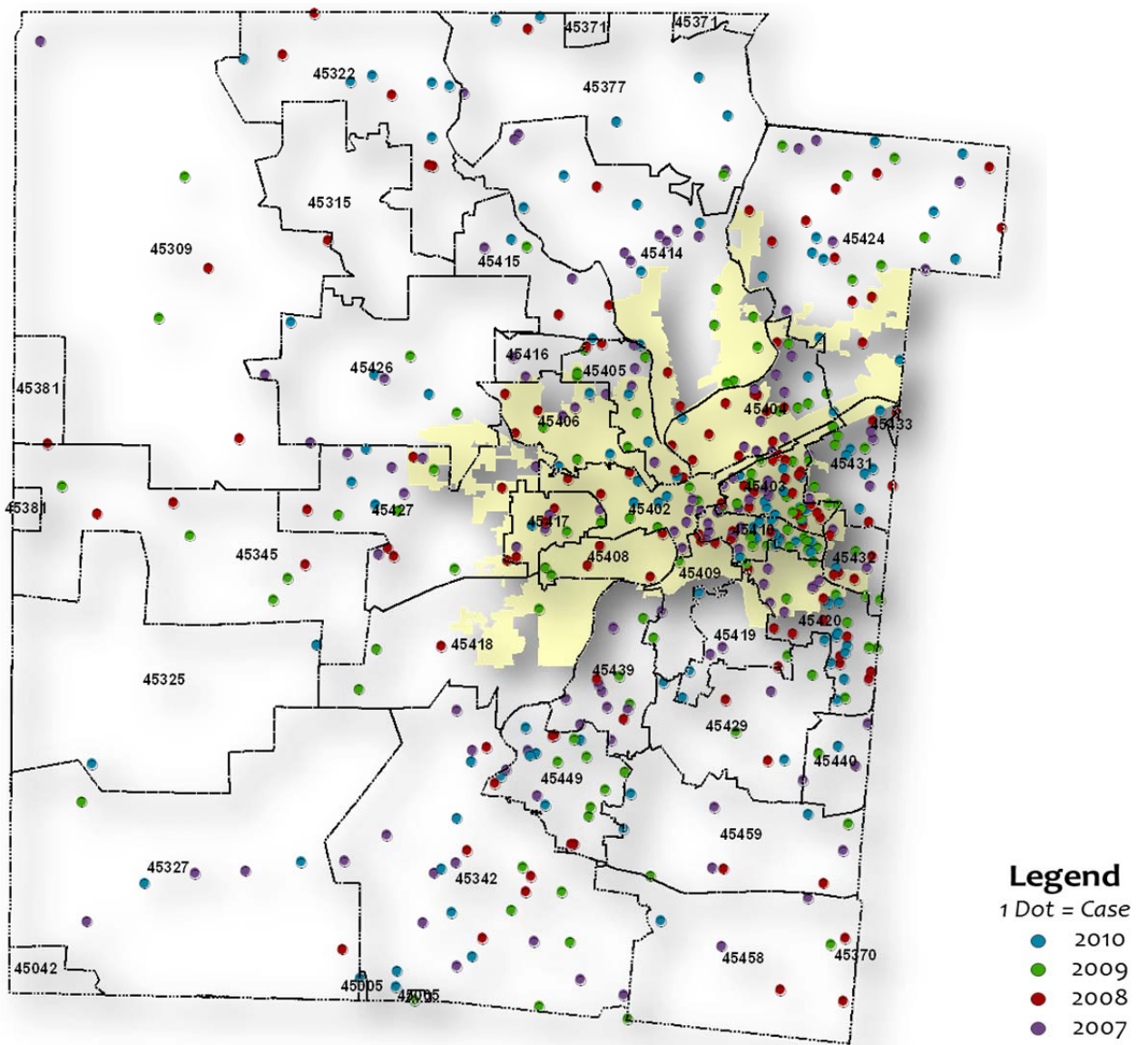
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Webster LR, Cochella S, Dasgupta N et al. 2011. An analysis of the root causes for opioid-related overdose deaths in the United States. *Pain Medicine*, 12 (s26-35).

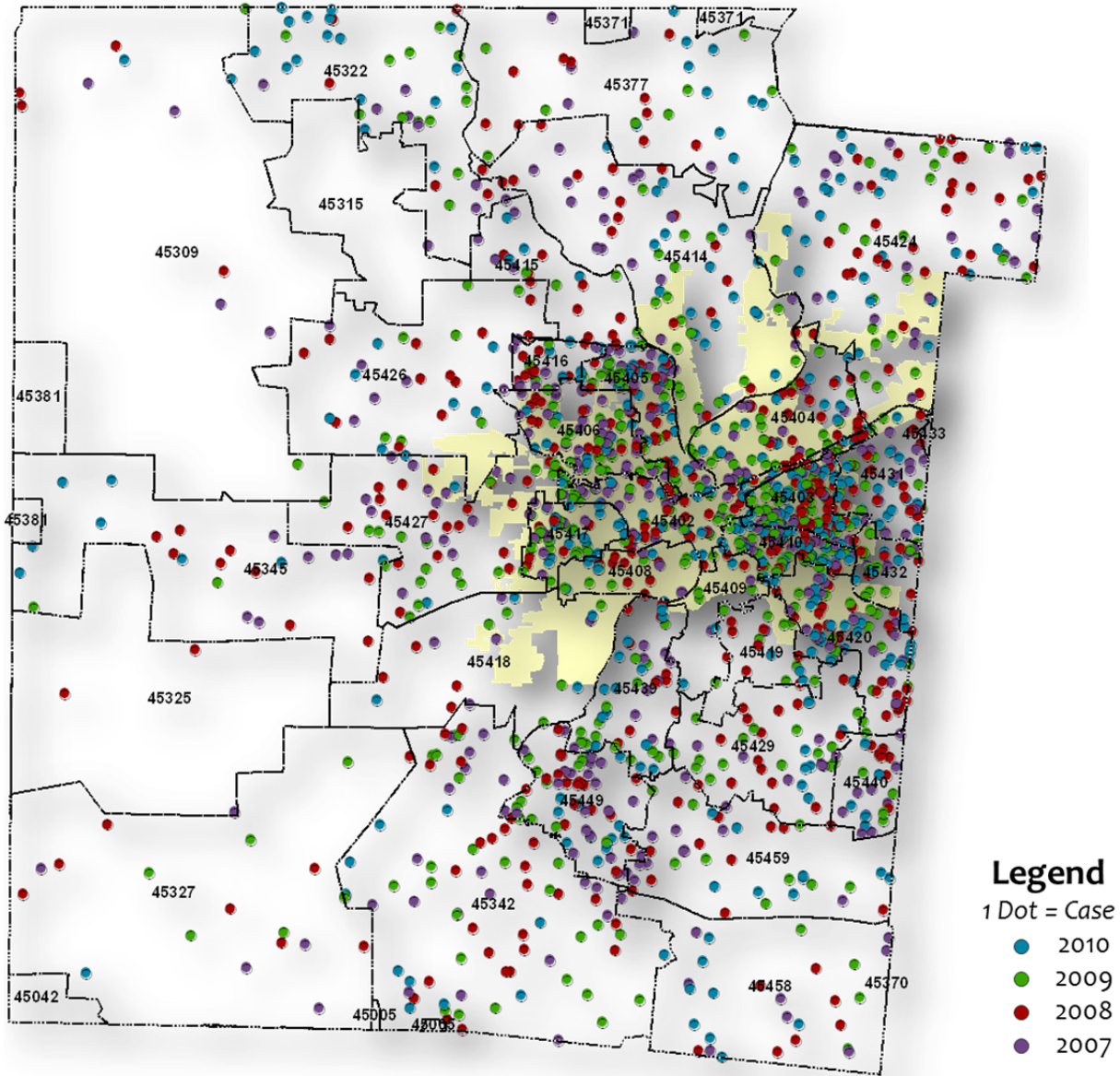
Wright State University Center for Interventions, Treatment and Addictions Research (CITAR). 2011. Unintentional Rx Drug Poisoning Project, Poison Death Review Summary Report, 2010. ([www.med.wright.edu/citar/prescriptiondrugs](http://www.med.wright.edu/citar/prescriptiondrugs))

**Overdose Cases Resulting in Death, 2007-2010**  
*Montgomery County, Ohio*

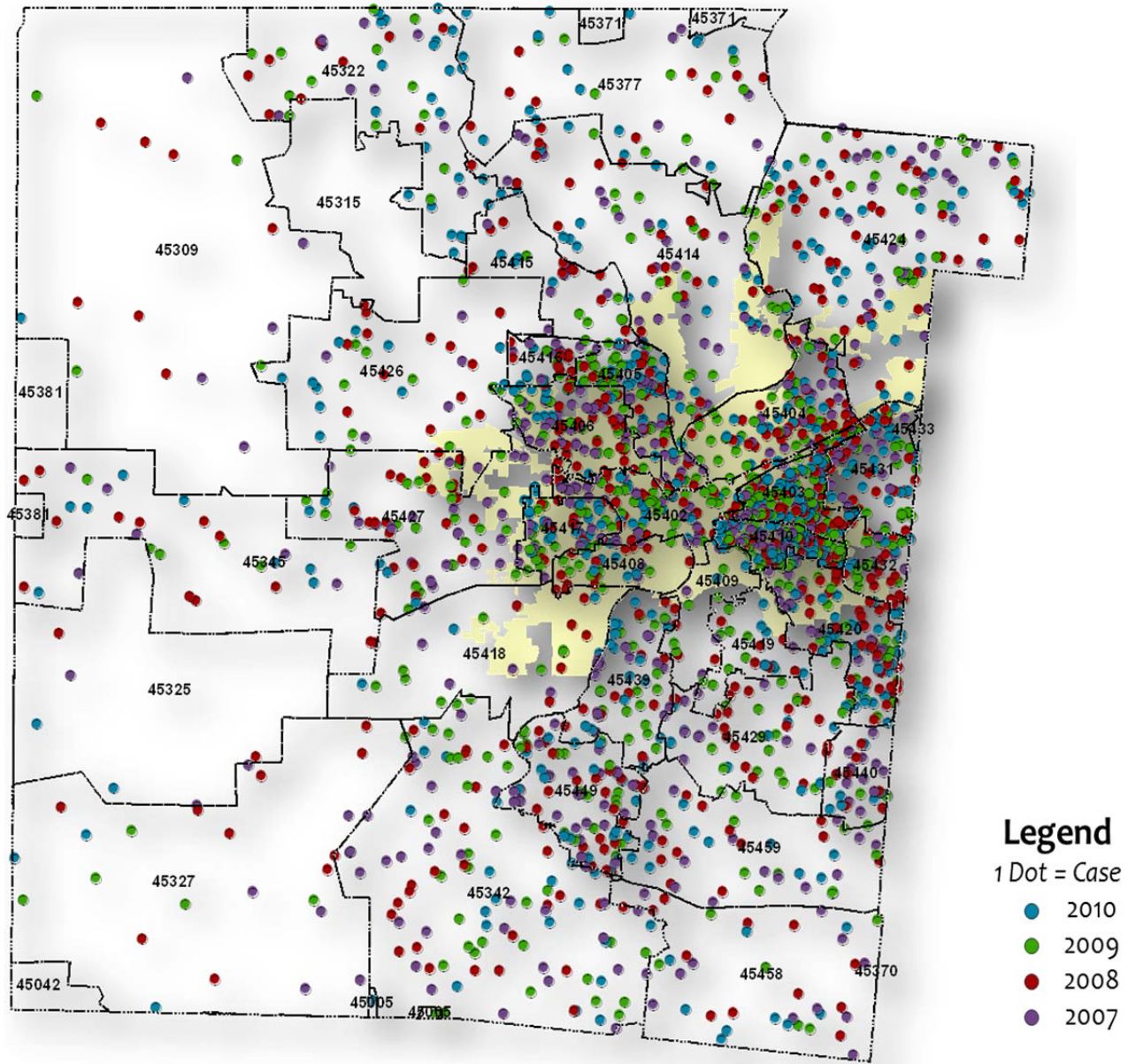




**Overdose Cases Resulting in ED Visits, 2007-2010**  
*Montgomery County, Ohio*



**Overdose Cases, 2007-2010**  
**(ED ODs and Deaths Combined)**  
*Montgomery County, Ohio*



## **Background and Description of the Poisoning Death Review (PDR) process**

The Montgomery County Poisoning Death Review process is informed by:

1. Examination of Ohio's Child Fatality Review process;
2. Review of other states' death review mechanisms;
3. Evaluation of the ODH pilot data entry form; and
4. Assessment of local capacity for gathering and disseminating poisoning death data.

The process for review of drug poisoning deaths consists of:

1. Montgomery County Coroner's Office identification of individuals whose death has been determined to be the result of an unintentional drug poisoning.
2. Coroner's Office provision of the following data:
  - a. General information report, including case synopsis by coroner's office investigator
  - b. ODH Supplemental Medical Certification
  - c. ODH Certificate of Death
  - d. Report of postmortem examination
  - e. Toxicology laboratory report
  - f. Toxicology inventory of prescription drugs found at the scene of death
3. Review of the data by the Unintentional Prescription Drug Poisoning project team (Principal Investigator, Co-Investigators, and Injury Prevention Coordinator).
4. Consultation, when appropriate, with expert members of the coalition, such as toxicologists, pharmacists, and physicians.
5. Entry of the data into the database developed by the team's data specialist.
6. Data analysis.
7. Review of data by members of the Coalition.

Poisoning Death Review Summary Report, 2011

POISONING DEATH REVIEW SUMMARY REPORT, 2011					
2011 Cases	Jan 1 - Sep 9		2011 Cases: 97		2010 Cases: 127
DEMOGRAPHICS					
Characteristic	Data Source	Category	Freq	Percent	2010 Percent
Age	Death Certificate	<15 years	0	0%	0%
		15-24 years	6	6%	14%
		25-34 years	17	18%	22%
		35-44 years	25	26%	28%
		45-54 years	32	33%	18%
		55-64 years	10	10%	16%
		65-74 years	1	1%	2%
		75+ years	0	0%	0%
Gender	Death Certificate	Male	59	61%	57%
		Female	38	39%	43%
Race	Death Certificate	White	85	88%	90%
		Black	12	12%	10%
		Other	0	0%	0%
Hispanic	Death Certificate	Hispanic/Latino	0	0%	0%
Education	Death Certificate	<High School	29	30%	20%
		HS graduate	63	66%	76%
		College graduate	3	3%	2%
		Post-graduate	1	1%	1%
Marital Status	Death Certificate	Single	37	39%	41%
		Married	31	32%	29%
		Divorced	22	23%	26%
		Separated	4	4%	2%
		Widowed	2	2%	2%
Military	Death Certificate	Ever in US Armed Forces	3	3%	13%

<b>HEALTH</b>					
<b>Characteristic</b>	<b>Data Source</b>				
			<b>Freq</b>	<b>Percent</b>	<b>2010 Percent</b>
Physical Disability/Illness	Case Synopsis and Postmortem Report		70	72%	79%
Heart Disease			54	56%	65%
Mental Disability/Illness			27	28%	27%
<b>HISTORY OF SUBSTANCE ABUSE</b>					
		<b>2011 Cases</b>	<b>97</b>		<b>2010 Cases: 127</b>
<b>Substance Abuse</b>	<b>Data Source</b>				
			<b>Freq</b>	<b>Percent</b>	<b>2010 Percent</b>
Any history	Case Synopsis and Postmortem Report		83	86%	75%
Alcohol			20	21%	13%
Cocaine			17	18%	12%
Marijuana			2	2%	5%
Heroin			25	26%	26%
Prescription opioids			32	33%	27%
Benzodiazepines			20	21%	15%
Other Prescription Medications			7	7%	3%
Over-the-Counter Medications			0	0%	0%
<b>DEATH INVESTIGATION</b>					
<b>Characteristic</b>	<b>Data Source</b>	<b>Category</b>			
			<b>Freq</b>	<b>Percent</b>	<b>2010 Percent</b>
Location of death	Case Synopsis	Decedent's home	51	53%	68%
		Relative's home	0	0%	2%
		Friend's home	19	20%	14%
		Place of work	1	1%	0%
		School	0	0%	0%
		Hospital	21	22%	9%

<b>DEATH INVESTIGATION (continued)</b>					
		Drug tx facility	0	0%	0%
		Jail/detention area	0	0%	0%
		Public area	0	0%	2%
		Other	5	5%	4%
911 called	Case Synopsis	Yes	96	99%	96%
Person reporting death	Case Synopsis	Coroner	0	0%	1%
		Hospital physician	21	22%	17%
		Other physician	0	0%	0%
		Mortician	0	0%	0%
		EMS/Police	76	78%	82%
Possible prevention by use of opioid antagonist?	Case Synopsis Postmortem Report Toxicology Report		11	11%	11%
<b>TOXICOLOGY REPORT</b>					
		<b>2011 Cases</b>	<b>97</b>		<b>2010 Cases: 127</b>
<b>Characteristic</b>	<b>Data Source</b>	<b>Category</b>	<b>Freq</b>	<b>Percent</b>	<b>2010 Percent</b>
Alcohol	Toxicology Report	Alcohol	23	24%	23%
Illicit Drugs		Marijuana	39	40%	30%
		Cocaine	39	40%	30%
		Methamphetamine	2	2%	1%
		Heroin	32	33%	31%
<b>Prescription Opioids</b>		<b>Any</b>	61	63%	74%
		Oxycodone	16	16%	23%
		Hydrocodone	16	16%	24%
		Methadone	36	37%	32%
		Fentanyl	7	7%	7%
		Tramadol	4	4%	6%
		Hydromorphone	0	0%	1%
		Morphine	8	8%	9%
		Other	4	4%	4%
<b>Anti-Depressants</b>		<b>Any</b>	29	30%	38%
<b>Sedatives (Including Benzodiazepines)</b>		<b>Any</b>	71	73%	76%

TOXICOLOGY REPORT (Continued)						
<b>Benzodiazepine</b>		<b>Any</b>	59	<b>61%</b>	<b>70%</b>	
Any Prescription Opioid + Any Anti-Depressant (disregarding presence or absence of other drugs)			21	<b>22%</b>	<b>29%</b>	
Any Prescription Opioid + Any Benzodiazepine (disregarding presence or absence of other drugs)			45	<b>46%</b>	<b>57%</b>	
Any Prescription Opioid + Any Benzodiazepine, BUT WITHOUT Heroin or Anti-Depressants			22	<b>23%</b>	<b>28%</b>	
Any Prescription Opioid, Without Heroin or any Sedative--disregarding presence or absence any other drug	Toxicology Report		7	<b>7%</b>	<b>9%</b>	
<b>Heroin+ Any Prescription Opioid AND/OR Any Sedative</b>			22	<b>23%</b>	<b>21%</b>	
<b>Heroin WITHOUT Alcohol, Prescription Opioids, or Sedatives</b>			5	<b>5%</b>	<b>4%</b>	
Other Prescription		Any	32	<b>33%</b>	<b>39%</b>	
Over-the-counter		Any	20	<b>21%</b>	<b>20%</b>	
Verifiable Valid Prescription for Controlled Drugs in Toxicology Report					<b>36%</b>	<b>33%</b>

PRESCRIPTION OPIOIDS			2011 Cases with Prescription Opioids		2010 Cases with Prescription Opioids
<b>Decedents with Postmortem Prescription Opioids:</b>			<b>61</b>	<b>63%</b>	<b>74%</b>
<b>Age</b>	<b>Death Certificate</b>	<b>&lt;15 years</b>	0	0%	0%
		<b>15-24 years</b>	5	8%	13%
		<b>25-34 years</b>	10	16%	23%
		<b>35-44 years</b>	15	25%	27%
		<b>45-54 years</b>	22	36%	19%
		<b>55-64 years</b>	9	15%	17%
		<b>65-74 years</b>	0	0%	1%
		<b>75+ years</b>	0	0%	0%
<b>Gender</b>	<b>Death Certificate</b>	<b>Male</b>	29	48%	53%
		<b>Female</b>	32	52%	47%
<b>Race</b>	<b>Death Certificate</b>	<b>White</b>	55	90%	93%
		<b>Black</b>	6	10%	7%
<b>Hispanic</b>	<b>Death Certificate</b>	<b>Hispanic/Latino</b>	0	0%	0%
<b>Education</b>	<b>Death Certificate</b>	<b>&lt;High School</b>	18	31%	22%
		<b>HS graduate</b>	39	67%	74%
		<b>College graduate</b>	0	0%	3%
		<b>Post-graduate</b>	1	2%	1%
<b>Marital Status</b>	<b>Death Certificate</b>	<b>Single</b>	21	34%	39%
		<b>Married</b>	24	39%	34%
		<b>Divorced</b>	13	21%	23%
		<b>Separated</b>	2	3%	1%
		<b>Widowed</b>	1	2%	2%
<b>Military</b>	<b>Death Certificate</b>	<b>Ever in US Armed Forces</b>	0	0%	11%
<b>Verifiable Physical Illness</b>	<b>Case Synopsis and Postmortem Report</b>	<b>Any</b>	44	72%	83%
<b>Heart Disease</b>	<b>Case Synopsis and Postmortem Report</b>		33	54%	67%
<b>Verifiable Valid Prescription</b>				36%	33%



**Poisoning Death Review Summary Report, 2007-2011**

<b>POISONING DEATH REVIEW SUMMARY REPORT 2007-2010 +2011</b>		<b>2011 Jan-Sep 9</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>	<b>2007</b>
<b>Total Cases</b>		<b>97</b>	<b>127</b>	<b>120</b>	<b>138</b>	<b>127</b>
<b>DEMOGRAPHICS</b>						
<b>Characteristic</b>						
	<b>Category</b>	<b>Percent</b>	<b>Percent</b>	<b>Percent</b>	<b>Percent</b>	<b>Percent</b>
<b>Age</b>	<15 years	0%	0%	1%	0%	0%
	15-24 years	6%	14%	10%	9%	8%
	25-34 years	18%	22%	18%	21%	17%
	35-44 years	26%	28%	23%	22%	25%
	45-54 years	33%	18%	27%	29%	33%
	55-64 years	10%	16%	7%	8%	11%
	65-74 years	1%	2%	0%	1%	1%
	75+ years	0%	0%	1%	1%	0%
<b>Gender</b>	Male	61%	57%	57%	61%	63%
	Female	39%	43%	43%	39%	37%
<b>Race</b>	White	88%	90%	84%	86%	80%
	Black	12%	10%	16%	14%	20%
<b>TOXICOLOGY REPORT</b>						
<b>Characteristic</b>		<b>2011 Frequency</b>	<b>2011 Percent</b>	<b>2010 Percent</b>		
<b>Alcohol</b>	<b>Alcohol</b>	23	<b>24%</b>	<b>23%</b>		
<b>Illicit Drugs</b>	<b>Marijuana</b>	39	<b>40%</b>	<b>30%</b>		
	<b>Cocaine</b>	39	<b>40%</b>	<b>30%</b>		
	<b>Heroin</b>	32	<b>33%</b>	<b>31%</b>		
<b>Prescription Opioids</b>	<b>Any</b>	61	<b>63%</b>	<b>74%</b>		
	Oxycodone	16	16%	23%		
	Hydrocodone	16	16%	24%		
	Methadone	36	37%	32%		
<b>Benzodiazepines</b>	<b>Any</b>	59	<b>61%</b>	<b>70%</b>		
<b>Frequent Combinations</b>						
Any Prescription Opioid + Any Benzodiazepine		45	<b>46%</b>	<b>57%</b>		
Any Prescription Opioid + Any Anti-Depressant		21	<b>22%</b>	<b>29%</b>		
<b>Heroin Alone</b>		5	<b>5%</b>	<b>7%</b>		25

## Rx Drug Abuse Educational Video Series

### Prescription Drugs: Questions and Answers — Education for Health Care Professionals and the Community

The nine videos highlighted below, available on YouTube, comprise an educational series on prescription drug disorders produced by the Center for Interventions, Treatment & Addictions Research (CITAR) at the Wright State University Boonshoft School of Medicine. The series was produced to meet an educational objective under a contract from Public Health — Dayton and Montgomery County (PHDMC). This project was funded, in part, by the Preventive Health and Health Services Block Grant from the Centers for Disease Control and Prevention (CDC) and administered by the Ohio Department of Health (ODH). The contents of the series are solely the responsibility of the presenters and do not necessarily represent the official views of the CDC, ODH, PHDMC or Wright State University.

The series was created and developed by Russel Falck, M.A., associate professor of community health and project PI, with Robert Carlson, Ph.D., professor of community health, project co-PI and CITAR director; Raminta Daniulaityte, Ph.D., research assistant professor of community health and project co-investigator; and Tim Lane, M.Ed., the project's injury prevention coordinator. Videotaping and editing was provided by Wright State's Computing and Telecommunications Services.

- **Pain Management Contracts** — featuring Rick Buenaventura, M.D., Anesthesiologist & Interventional Pain Management Physician, Pain Relief of Dayton
- **Alternatives to Opioids for Pain Management** — featuring Rick Buenaventura, M.D., Anesthesiologist & Interventional Pain Management Physician, Pain Relief of Dayton
- **Prescription Drugs and Their Effects (Opioids and Benzodiazepines)** — featuring Douglas Teller, M.D., Internal Medicine & Addiction Medicine Specialist, Kettering Health Network
- **Prescribing Multiple Drugs: Prescriber Perspectives** — featuring Douglas Teller, M.D., Internal Medicine & Addiction Medicine Specialist, Kettering Health Network
- **Substance Use Disorders** — featuring Brenda Roman, M.D., Professor of Psychiatry, Wright State University Boonshoft School of Medicine

- **Treating Substance Use Disorders** — featuring Brenda Roman, M.D., Professor of Psychiatry, Wright State University Boonshoft School of Medicine
  - **Talking with Someone About Prescription Drug Abuse** — featuring Monica Sutter, R.N., Chemical Dependency Resource Nurse, Good Samaritan Hospital, Dayton
  - **Multiple Drug Prescriptions: Patient Perspectives** — featuring Douglas Teller, M.D., Internal Medicine & Addiction Medicine Specialist, Kettering Health Network
  - **Drug Overdose in Montgomery County: The Scope of the Problem** —featuring Tim Lane, M.Ed., Injury Prevention Coordinator, Wright State University Boonshoft School of Medicine, Center for Interventions, Treatment & Addictions Research
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## Final Recommendations

The Montgomery County Unintentional Poisoning Death Coalition makes the following recommendations:

1. Continue to focus on Unintentional Prescription Drug Overdoses by incorporating the membership and objectives of the Drug Poisoning Coalition into the Montgomery County Community Opiate Task Force, overseen by the Montgomery County ADAMHS Board, when it is formed. Consider building on Coalition objectives by forming a sub-group of the Task Force that focuses on preventing prescription drug overdose deaths.
2. Continue the Poisoning Death Review process. The continued cooperation of the Montgomery County Coroner's Office would be an essential element of the process, and additional resources may be needed to allow the Coroner's Office to provide the data that forms the basis for all PDR activities.
3. Consider implementing a public health-oriented, social marketing campaign with a hierarchical risk reduction message targeting people at high risk for unintentional drug overdose. This effort could be informed in part by Montgomery County Residents Hospital Emergency Department Visits for Accidental Overdose on Selected Drugs, 2007-2010.
4. The Center for Interventions, Treatment, and Addictions Research should continue to support Information, Training, and Educational Opportunities, by:
  - maintaining the Coalition web site, including access to the series of nine educational videos;
  - participating in the scheduled February 2012 training event for clinicians at the Miami Valley Hospital; and
  - should resources become available, conducting an evaluation of a Naloxone Distribution and Education Pilot program, if such a program is conducted in Montgomery County.