Epidemiological Profile of Overdose Data

Prepared For:
Allegheny County Department of Human Services:
Bureau of Drug & Alcohol Services,
Overdose Conference Strategic Guidance Group, and
Conference Working Groups

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Overdose Data – Allegheny County

1. Introduction

A group of local leaders that has been convened by the Allegheny County Department of Human Services, Bureau of Drug and Alcohol Services, also known as the Strategic Guidance Group (SGG), has been meeting for over a year to discuss how Allegheny County might address the steadily increasing number of drug overdose deaths in our community. These leaders and organizations include: Allegheny County Department of Human Services, Bureau of Drug and Alcohol Services, Allegheny County Medical Examiner's Office, Bridges to Hope, Pyramid Healthcare, Community Care Behavioral Health (CCBHO), Gateway Rehabilitation Center, Prevention Point Pittsburgh, Western Psychiatric Institute and Clinic Narcotic Addiction Treatment Program, along with other provider, and consumer organizations.

The purpose of the presentation and analyses of the data was to assist the Strategic Guidance Group (SGG) with developing the problem statements for our community prevention/intervention initiative. It also assisted with the planning of the one-day conference even that took place May 2, 2008 entitled "Addressing the Problem of Overdose in Allegheny County: How the Community Can Make a Difference." This document depicts data collected on overdoses in Allegheny County, as well as presents some state and national data that supports the evidence that there is a growing problem in our community. There was one overarching problem statement and six detailed problem statements that were developed as a result of the data and analyses.

In examining these data for the purpose of developing the community impact statement, the following points were considered:

- What populations, drugs of choice, mode of drug use, geographic areas, and any other relevant factors that help describe the most significant community impact of the overdose phenomenon?
- Assessing impact can occur by looking at trends (changes over time), magnitude (proportion of all phenomenon represented by a subtype), and attributable risk degree to which a particular type of overdose scenario would be most lethal). To facilitate this evaluation, bulleted conclusions across these factors are provided after each data review topic.

The following are the problem statements that were identified by the SGG and were presented at the one-day conference May 2, 2008.

<u>There has been a significant increase in overdose deaths in Allegheny County.</u>

- Overdose death affects all races and age groups.
- Prescription drugs are prominent in overdose deaths in Allegheny County.
- Polysubstance use increases the risk of overdose deaths.
- Large proportion of substances involved with overdose deaths do respond to naloxone.
- Poor health increases the risk of overdose deaths.
- The stigma and fear of legal and law enforcement consequences associated with drug use contribute to overdose deaths.

This document provides the data and evidence to support the above defined problem statements. Through the work of the Implementation, Capacity and Evaluation Working Groups (populated at the conference), these issues will be addressed via a collaborative effort of the community stakeholders, providers, policy makers and other organizations. Programs, policies and practices will be formulated, implemented and evaluated, while working to reduce the number of overdoses in Allegheny County. In addition to this epidemiological profile, a logic model has been developed to guide the activities of the working groups. These documents will support the development of a strategic plan that will specifically address working towards eliminating overdoses and overdose deaths in our community.

In examining the overdose phenomenon in Allegheny County, it is important to use the consensus definition of "overdose" as developed and agreed upon by the Strategic Guidance Group (SGG). The SGG decided to utilize the medical examiner's definition of overdose. The examiner's office classifies accidental overdoses in two ways. The first is substance abuse related and the second is related to an inadvertent reaction. The following are the two classifications and thus the definition of overdose that will be utilized for this initiative:

- The improper use of prescribed or non-medical substances (e.g., paint thinner, glue, alcohol, street drugs) for the purpose of producing a change in mood, in a non-medical manner.
- Inadvertent reaction between two prescription drugs, or the ingestion of prescribed drugs that exceed the prescribed dosage.

In addition to the above definitions, the SGG reached a consensus regarding the definitions of the following classification of overdoses for the purpose of the conference and data analyses. They are as follows:

Licit: Prescription drugs that could have been legally prescribed to the individual or are over-the-counter medications or the use of alcohol (by individuals over the age of 21). It is not possible to determine if the drugs consumed by the individuals was obtained legally or illegally or the intent of the individuals as to the amount of the substance taken.

Illicit: Street drugs or those that were utilized for non-medical purposes (cocaine, heroin, etc.).

Combination: The use of licit and illicit drugs combined.

The following pages present the local data, trends and observations regarding overdoses in Allegheny County. Demographic data in addition to the areas affected, the drugs involved in overdoses, criminal justice and hospital data are all included. We ask as members of the working groups you familiarize yourself with the data. This will allow the group members to gain the necessary knowledge to assist with the working group activities and develop an effective strategic plan to help those in need in our community.

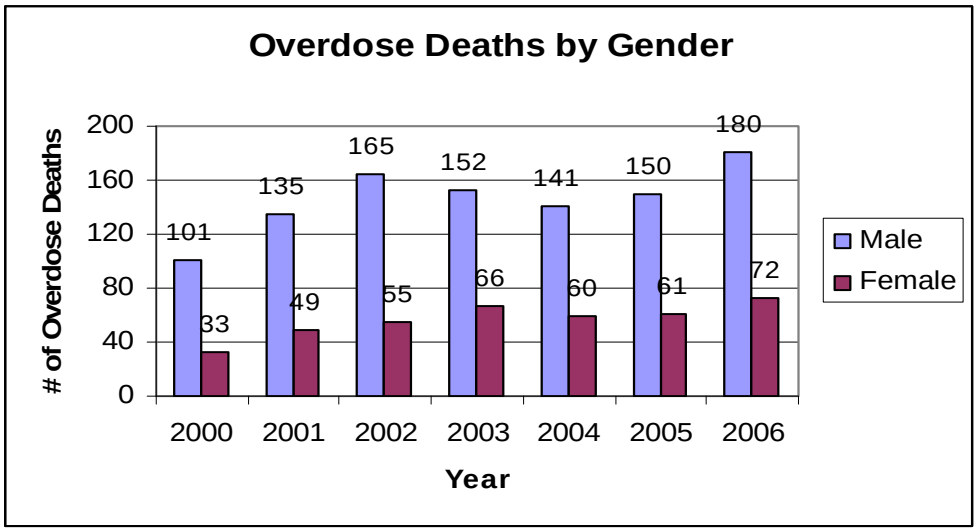
2. Number of Overdoses by Year

The following table depicts the number of overdoses in our community over the past several years.

Year	Number of Overdose Fatalities
1980-1990	Average of 58 per year
1998	104
2001	180
2002	210
2003	228
2004	205
2005	223
2006	252

- Trends/Observations
    - Overdose death rate is increasing in Allegheny County.
    - Overdose death rate is increasing across Pennsylvania and is also increasing nationally.
    - Allegheny County rate is higher than national rate.

3. Drug Overdoses by Gender (Allegheny County 2000-2006)



- Trends/Observations
  - Total number of OD deaths for males outnumbers the females for each year 2000-2006.
  - The percentage of female overdose deaths has increased from approximately 25% in 2000 to 29% in 2006.
  - Among males, the greatest number of deaths occurred between the ages of 46-50.
  - Among females, the greatest number of deaths occurred between the ages of 41-45.

4. Drug Overdoses By Age in Allegheny County (1999-2006)

Year	0-19	20-29	30-39	40-49	50-59	60-69	70+	Total
2000	3 (2.2%)	18 (13.2%)	39 (28.7%)	57 (41.9%)	14 (10.3%)	2 (1.5%)	3 (2.2%)	136
2001	3 (1.6%)	20 (10.8%)	44 (23.8%)	86 (46.5%)	23 (12.4%)	8 (4.3%)	0 (0.5%)	185
2002	4 (1.8%)	34 (15.5%)	49 (22.3%)	93 (42.3%)	35 (15.9%)	3 (1.4%)	1 (1.0%)	220
2003	4 (1.8%)	27 (12.1%)	55 (24.7%)	92 (41.3%)	40 (17.9%)	4 (1.8%)	1 (0.4%)	223
2004	7 (3.4%)	38 (18.3%)	34 (16.3%)	83 (39.9%)	40 (19.2%)	5 (2.4%)	0 (0.5%)	208
2005	0 (0.0%)	38 (17.8%)	41 (19.2%)	84 (39.3%)	45 (21.0%)	5 (2.3%)	1 (0.5%)	214
2006	4 (1.6%)	45 (17.9%)	51 (20.2%)	87 (34.5%)	57 (22.6%)	6 (2.4%)	2 (0.8%)	252

- Trends/Observations
  - 0-19 age range has decreased over past 2 years after slight increase.
  - 20-29 age range has increased 4.7% over the past six years.
  - 30-39 age range has decreased 8.5% over the past six years.
  - 40-49 age range has decreased 7.4% over the past six years, however this age group represents the group with the highest number of overdoses each year since 2000.
  - 50-59 age range has increased 12.3% since 2000 (the largest increase over time in any age range).
  - 60 – 69 age range has increased approximately 1% since 2000 and the 70-79 age range has decreased about 1% over the same time period.

When taking age into consideration, one has to take into account that there has been a fluctuation in the age of the Allegheny population from 2000 to 2006. The table below depicts estimates compiled by the U.S.

Census Bureau for both time periods (2000 and 2006) and the last column shows the percentage of change or difference between the two time periods.

There are increases in the 15-24, 45-54, 55-64, and 75-84 age ranges with the increases for the 55-64 and 85+ age ranges being quite large, at 25% and 52.4% respectively.

Age Range	Estimated Allegheny Co. Population 2000	Estimated Allegheny Co. Population 2006	% Difference
Under 5	71,488	66,456	-7.0%
5-14	161,644	145,077	-10.2%
15-24	139,784	164,930	+18.0%
25-34	158,785	123,425	-22.3%
35-44	200,460	169,182	-15.6%
45-54	180,107	201,351	+11.8%
55-64	116,042	145,013	+25.0%
65-74	109,104	91,066	-16.5%
75-84	81,268	82,819	+1.9%
85+	22,367	34,092	+52.4%

5. Drug Overdoses By Age in Allegheny County (AGE ADJUSTED)

Comparisons cannot be done on raw, or crude, numbers of overdoses, cases or deaths because populations may not be comparable with respect to age. Much like finding the common denominator when working with fractions, epidemiologists must calculate age-adjusted incidence or death rates so that the populations of different states or regions are similar enough for comparison. Age-adjusted death rates are computed to eliminate the effect of age on crude death rates for purposes of comparison with other rates. This is done by applying age-specific rates to a standard population. The resulting death rate in the standard population is age-adjusted, and can be compared to other death rates age-adjusted to the same standard population[1]. For example, consider two states, Florida and Alaska. Florida has a relatively old population and Alaska has a relatively young population. If you look only at each state's crude cancer death rate (total number of cancer deaths divided by the total population) it appears as if Florida has a cancer death rate almost three times that of Alaska. That is because the population of Florida is older and the risk of most cancers increase with age. The age difference makes the overall cancer death rate in Florida appear higher than in Alaska[2].

Therefore, epidemiologists use a strategy called age-adjustment so that the rates of different states or regions can be compared among people of similar age. Indeed, when the cancer death rates for Florida and Alaska are age-adjusted, they are almost identical. This means that cancer mortality rates are actually similar in the two states, not separated by a threefold difference that appeared at first glance. Getting to the truth in the numbers is important for understanding risk, and for planning programs and allocating resources appropriately. The following tables depict the age adjusted rate for overdoses in Allegheny County for 2000 and 2006, utilizing the total number of overdoses for the respective years, in addition to the estimated population for the area for each time period.

[1] http://www.state.nj.us/health/chs/localhealth.shtml#ageadjust
[2] http://www.cancer.org/docroot/STT/content/STT_1_Age_Adjusted_Backgrounder.asp

AGE-ADJUSTED DEATH RATE USING 2000 STANDARD POPULATION					
For Year 2000					
	Allegheny	**2000 Allegheny**		**2000 STD.**	**EXPECTED**
AGE	**DEATHS**	**POPULATION[3]**	**RATE**	**MILLION**	**DEATHS**
Under 5	0	71,488	0	69,135	0
5-14	0	161,644	0	145,565	0
15-24	6	139,784	4.29234E-05	138,646	5.951153208
25-34	26	158,785	0.000163743	135,573	22.19918758
35-44	42	200,460	0.000209518	162,613	34.07036815
45-54	32	180,107	0.000177672	134,834	23.95624823
55-64	2	116,042	1.72351E-05	87,247	1.503714172
65-74	1	109,104	9.16557E-06	66,037	0.605266535
75-84	0	81,268	0	44,842	0
85+	1	22,367	4.47087E-05	15,508	0.693342871
N/S	0				
TOTAL	110	1,241,049		1,000,000	88.97928075
AGE-ADJUSTED RATE:					**8.9**

- Number of deaths that occurred within Allegheny County is higher than the number of expected deaths in the following age ranges: **15-24, 35-44, 45-54, 55-64, 65-74 and 85+.**
- The age range with the highest number of deaths over the expected deaths is 45-54.
- Total overdoses expected for 2000 was 88.9, 110 occurred.

AGE-ADJUSTED DEATH RATE USING 2000 STANDARD POPULATION					
For Year 2006					
	Allegheny	**2006 Allegheny**		**2000 STD.**	**EXPECTED**
AGE	**DEATHS**	**POPULATION[4]**	**RATE**	**MILLION**	**DEATHS**
Under 5	1	66,456	1.50476E-05	69,135	1.040312387
5-14	1	145,077	6.89289E-06	145,565	1.003363731
15-24	26	164,930	0.000157643	138,646	21.85652095
25-34	37	123,425	0.000299777	135,573	40.64169334
35-44	70	169,182	0.000413756	162,613	67.28203946
45-54	85	201,351	0.000422148	134,834	56.9199557
55-64	28	145,013	0.000193086	87,247	16.8461862
65-74	2	91,066	2.19621E-05	66,037	1.450310764
75-84	2	82,819	2.4149E-05	44,842	1.082891607
85+	0	34,092	0	15,508	0
N/S	0				
TOTAL	252	1,223,411		1,000,000	208.1232741
AGE-ADJUSTED RATE:					**20.8**

- Number of actual deaths is higher in the following age ranges: **15-24, 35-44, 45-54, 55-64, 65-74 and 75-84.**
- The age range with the highest number of deaths over the expected deaths is 45-54.
- Total overdoses expected for 2006 was 208, 252 occurred.

[3] Estimates – U.S. Census Bureau
[4] Estimates – U.S. Census Bureau

6. Drug Overdoses By Race in Allegheny County 2000-2006

The table below depicts the breakdown of race for the population of Allegheny County for both 2000 and 2006 time periods. The number of white residents decreased slightly as did the number of African American residents while the number of Asian residents increased. The U.S. Census Bureau did not have figures for the number of Hispanic/Latino residents in the area.

	2000	2006
Total Population	**1,281,666**	**1,223,411**
White	**1,091,899**	**1,012,469**
African American	**166,731**	**156,335**
Hispanic/Latino	**Unknown**	**Unknown**
Asian	**24,722**	**28,452**

The following table shows the number and percent of overdoses across various races for Allegheny County. While rates for African Americans are increasing, there is not an increase in the number of African American residents, conversely the number of African Americans in the County decreased slightly over the six year time period. Additionally, the number of white residents decreased while the overdose rate for this population still remained the highest for across the race categories. (Note that the totals do not reflect the totals for each year as data for sex and race are missing for some cases).

Year	White Male	White Female	Afr. Amer. Male	Afr. Amer. Female	Hispan-ic Male	Asian Male	Total
2000	75 (56.8%)	26 (19.7%)	24 (18.2%)	7 (5.3%)	0 (0.0%)	0 (0.0%)	132
2001	112 (60.9%)	43 (23.4%)	23 (12.5%)	6 (3.3%)	0 (0.0%)	0 (0.0%)	184
2002	139 (63.2%)	44 (20.0%)	24 (10.9%)	11 (5.0%)	1 (0.5%)	1 (0.5%)	220
2003	117 (54.2%)	59 (27.3%)	32 (14.8%)	7 (3.2%)	1 (0.5%)	0 (0.0%)	216
2004	118 (58.7%)	52 (25.9%)	23 (11.4%)	8 (4.0%)	0 (0.0%)	0 (0.0%)	201
2005	123 (58.3%)	51 (24.2%)	26 (12.3%)	10 (4.7%)	0 (0.0%)	1 (0.5%)	211
2006	72 (53.3%)	42 (31.1%)	21 (15.6%)	11 (8.1%)	0 (0.0%)	0 (0.0%)	135
Totals	**756 (58.2%)**	**306 (23.6%)**	**173 (13.3%)**	**60 (4.6%)**	**2 (0.2%)**	**2 (0.2%)**	**1299**

- Trends/Observations
  - Rate is highest for white males for every year from 2000 to 2006.
  - Second highest rate for same time period is for white females, followed by African American males and African American females having the lowest rates.
  - Rates for African American females and white females have fluctuated, but ultimately have increased over time (2.8% and 11.4% respectively). The rates for white and African American male populations have also experienced fluctuations, but decreased slightly over time (3.5% and 2.6%).
  - Magnitude – white males predominant. Female rates on the rise.

7. Significant Regression Results

Dependent Variable is Use of Licit and/or Illicit Drugs. (1=Licit, 2=Illicit, 3=Combination)

- Males were more likely to have used illicit or a combination of illicit and licit drugs. ($p < 0.01$)
- Persons who used a greater number of drugs were more likely to have used illicit or a combination of illicit and licit drugs. ($p < 0.01$)
- An interaction of race and age indicated that younger African Americans were more likely to have used illicit or a combination of illicit and licit drugs. ($p < 0.01$)

	Licit	Illicit	Combination of Licit and Illicit
Gender			
Male (n=997)	277 (27.8%)	396 (39.7%)	324 (32.5%)
Female (n=383)	164 (42.8%)	116 (30.3%)	103 (26.9%)
Number of Drugs			
1 (n=561)	165 (29.4%)	396 (70.6%)	0 (0.0%)
2 (n=432)	124 (28.7%)	119 (27.5%)	189 (43.8%)
3 (n=250)	86 (34.4%)	0 (0.0%)	164 (65.6%)
4 (n=95)	43 (45.3%)	0 (0.0%)	52 (54.7%)
5 (n=44)	23 (52.3%)	0 (0.0%)	21 (47.7%)
6 (n=7)	4 (57.1%)	0 (0.0%)	3 (42.9%)
7 (n=2)	0 (0.0%)	0 (0.0%)	2 (100.0%)
11 (n=1)	1 (100.0%)	0 (0.0%)	0 (0.0%)

Dependent Variable is Heroin Use. (0=No Use, 1=Use, 2=Use in Combination)

- Males were more likely to have used heroin or a combination of heroin and other drugs. ($p < 0.01$)
- Older persons were less likely to have used heroin or a combination of heroin and other drugs. ($p < 0.01$)

	No Use of Heroin	Use of Heroin	Use of a Combination of Heroin and Other Drugs
Gender			
Male (n=1024)	542 (52.9)	196 (19.1%)	286 (27.9%)
Female (n=396)	275 (69.4%)	52 (13.1%)	69 (17.4%)
Age			
0-19 Years (n=25)	14 (56.0%)	7 (28.0%)	4 (16.0%)
20-29 Years (n=220)	95 (43.2%)	65 (29.5%)	60 (27.3%)
30-39 Years (n=313)	180 (57.5%)	46 (14.7%)	87 (27.8%)
40-49 Years (n=582)	345 (59.3%)	90 (15.5%)	147 (25.3%)
50-59 Years (n=254)	164 (64.6%)	33 (13.0%)	57 (22.4%)
60 + Years (n=44)	33 (75.0%)	8 (18.2%)	3 (6.8%)

8. Deaths By Race and Age in Allegheny County 2000-2006

White Population

Year	0-19	20-29	30-39	40-49	50-59	60-69	70+	Total
2000	3 (2.9%)	15 (14.7%)	31 (30.4%)	**39 (38.2%)**	10 (9.8%)	2 (2.0%)	2 (2.0%)	102
2001	3 (1.9%)	20 (12.9%)	40 (25.8%)	**73 (47.1%)**	14 (9.0%)	4 (2.6%)	1 (0.6%)	155
2002	4 (2.2%)	32 (17.5%)	45 (24.6%)	**78 (42.6%)**	21 (11.5%)	1 (0.5%)	2 (1.0%)	183
2003	3 (1.7%)	23 (13.1%)	46 (26.1%)	**77 (43.8%)**	23 (13.1%)	3 (1.7%)	1 (0.6%)	176
2004	7 (4.1%)	37 (21.8%)	27 (15.9%)	**67 (39.4%)**	29 (17.1%)	2 (1.2%)	1 (0.6%)	170
2005	0 (0.0%)	36 (20.7%)	35 (20.1%)	**69 (39.7%)**	31 (17.8%)	3 (1.7%)	0 (0.0%)	174
2006	2 (1.9%)	23 (22.3%)	21 (20.4%)	**42 (40.8%)**	15 (14.6%)	0 (0.0%)	0 (0.0%)	103
Totals	22 (2.1%)	186 (17.5%)	245 (23.0%)	**445 (41.9%)**	143 (13.5%)	15 (1.4%)	7 (0.7%)	1063

Trend/Observations for White Population

- Rate for 0-19 age range decreased slightly, 0.8% over the time 2000-2006.
- Rate for 20-29 increased 2.8%.

- Rate for 30-39 age range decreased approximately 7%.
- 40-49 age range has the highest rate for each year and overall, it also increased about 4%.
- There was a 3.7% increased in the 50-59 age range over time.
- There was a 0.5% in the 60-69 age range and a 1.3% decrease in the 70+ age range.

African American Population

Year	0-19	20-29	30-39	40-49	50-59	60-69	70+	Total
2000	0 (0.0%)	3 (9.7%)	7 (22.6%)	**16 (51.6%)**	4 (12.9%)	0 (0.0%)	1 (3.2%)	31
2001	0 (0.0%)	0 (0.0%)	4 (13.8%)	**12 (41.4%)**	9 (31.0%)	4 (13.8%)	0 (0.0%)	29
2002	0 (0.0%)	0 (0.0%)	4 (11.4%)	**15 (42.9%)**	14 (40.0%)	2 (5.7%)	0 (0.0%)	35
2003	1 (2.5%)	3 (7.5%)	8 (20.0%)	11 (27.5%)	**16 (40.0%)**	1 (2.5%)	0 (0.0%)	40
2004	0 (0.0%)	0 (0.0%)	6 (18.2%)	**13 (39.4%)**	11 (33.3%)	3 (9.1%)	0 (0.0%)	33
2005	0 (0.0%)	1 (2.8%)	6 (16.7%)	**14 (38.9%)**	12 (33.3%)	2 (5.6%)	1 (2.8%)	36
2006	0 (0.0%)	4 (12.5%)	6 (18.8%)	7 (21.9%)	**12 (37.5%)**	2 (6.3%)	1 (3.1%)	32
Totals	1 (0.4%)	11 (4.7%)	41 (17.4%)	**88 (37.3%)**	78 (33.1%)	14 (5.9%)	3 (1.3%)	236

- Trends/Observations for African American Population
  - The rate for 0-19 age range has increased slightly, or 0.4%.
  - The rate for the 20-29 age range has increased 2.8% since 2000.
  - The rate for 30-39 age range has decreased 3.8%.
  - While the rate for the 40-49 age range has decreased 29.7%, it still remains the age range with the highest percentage of deaths the past several years.
  - The rate for African Americans ages 50-59 has increased significantly, 24.6% over the past several years.
  - The rate for 60-69 age range has also increased, from 0.0% in 2000 to 6.3% in 2006.

9. Deaths by Number of Drugs by Race:

An examination of the Race and Age distribution by the number of drugs showed the following:

Number of Drugs:

- For all years combined (2000-2006) African Americans were less likely to be polysubstance users than the white population.
- The age category with more drugs used was 40-49 year olds.

# of Drugs	White	African American	Asian	Hispanic
1	402 (37.9%)	129 (54.9%)	0 (0.0%)	1 (50.0%)
2	344 (32.5%)	63 (26.8%)	2 (100.0%)	1 (50.0%)
3	191 (18.0%)	34 (14.5%)	0 (0.0%)	0 (0.0%)
4	70 (6.6%)	8 (3.4%)	0 (0.0%)	0 (0.0%)
5	36 (3.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
6	12 (1.1%)	1 (0.4%)	0 (0.0%)	0 (0.0%)
7	4 (0.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
8	1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Total	1060	235	2	2

10. Allegheny County – Number of Deaths Involving Heroin, Fentanyl and Methadone 2000-2006

Year	Total # of Overdose Deaths	# Deaths Due to Heroin	# Deaths Due to Fentanyl	# of Deaths Due to Methadone
2000	140[5]	78 (55.7%)	1 (0.7%)	7 (5.0%)
2001	189	124 (65.6%)	5 (2.6%)	14 (7.4%)
2002	220	116 (52.7%)	7 (3.2%)	26 (11.8%)
2003	224	98 (43.8%)	14 (6.3%)	25 (11.2%)
2004	208	76 (36.5%)	14 (6.7%)	30 (14.4%)
2005	220	77 (35.0%)	10 (4.5%)	33 (15.0%)
2006	252	40 (15.8%)	42 (16.7%)	64 (25.4%)

- The number of deaths involving heroin decreased over time while the number of death involving both fentanyl and methadone increased. It is not known if the fentanyl and/or methadone were legally prescribed or illicit.

11. Allegheny County Overdose Deaths by Types of Drugs 2000-2006

For each year, there were more individuals who took at least one drug that would respond to naloxone.

Year	Respond to Naloxone	Not Respond to Naloxone	Total
2000	103 (73.6%)	37 (26.4%)	140[5]
2001	158 (83.6%)	31 (16.4%)	189
2002	176 (80.0%)	44 (20.0%)	220
2003	169 (75.4%)	55 (24.6%)	224
2004	147 (70.7%)	61 (29.3%)	208
2005	149 (67.7%)	71 (32.3%)	220
2006	181 (71.8%)	71 (28.2%)	252
Totals	**1083 (74.5%)**	**370 (25.5%)**	**1453**

Year	Heroin Only	Heroin & Other Drugs	Morphine only or in combination	Opiates only or in combination	Other Drugs Deaths	Complication of drug abuse	Total
2000	25.5%	**51.8%**	N/A	N/A	22.7%	N/A	110
2001	27.7%	**45.0%**	N/A	N/A	27.2%	N/A	180
2002	26.6%	**29.5%**	6.6%	2.4%	27.6%	5.2%	210
2003	15.8%	28.1%	7.0%	1.7%	**40.1%**	6.1%	228
2004	20.5%	17.1%	10.1%	%	**47.8%**	3.9%	205
2005	11.2%	23.3%	4.5%	9.9%	**51.1%**	-	223
2006	4.8%	10.7%	9.5%	1.9%	**73.0%**	-	252

12. Drugs Deaths by Drug Type:

Drugs were classified into three categories, licit, illicit and combination of licit and illicit. Note, it is unknown if licit drugs (prescription) were legally prescribed or utilized in the correct manner (dosage, etc.).

- Licit-including prescription medications and alcohol (if of legal drinking age), either alone or in combination with other legal medication.

[5] 30 cases were included in the dataset that were not included in previous totals or reports, increasing the total from original 110 to 140.

- Illicit- including non-prescription drugs (i.e. cocaine, heroin), either alone or in combination with other illegal drugs.
- Combination- a death from the combination of licit and illicit drugs.

The rate of deaths due to the usage of licit drugs increased over the time period of 2000-2006, while the number of deaths to illicit drug use decreased slightly.

Year	Licit	Illicit	Combination	Total[6]
2000	34 (25.4%)	**58 (43.3%)**	42 (31.3%)	134
2001	37 (20.2%)	**76 (41.5%)**	70 (38.3%)	183
2002	69 (32.2%)	**90 (42.1%)**	55 (25.7%)	214
2003	**82 (37.4%)**	77 (35.2%)	60 (27.4%)	219
2004	61 (31.3%)	**79 (40.5%)**	55 (28.2%)	195
2005	62 (31.6%)	**73 (37.2%)**	61 (31.1%)	196
2006	**101 (40.1%)**	62 (24.6%)	89 (35.3%)	252
Totals	**446 (32.0%)**	**515 (37.0%)**	**432 (31.0%)**	**1393**

- Trends/Observations:
  - For most years, the rate of illicit drug use was higher than licit or a combination of licit and illicit.
  - For years 2003 and 2006, the rate of licit drugs utilized was higher than that of both illicit drugs and combination.

13. Top 20 Drugs

The medical examiner's office noted each drug that was in an individual's system at the time of death. The following is a list of the top 20 or most frequently found substances in all years of the data that were analyzed. Note that individuals could be utilizing more than one substance, meaning the drug categories are not mutually exclusive and the percentages for the top 20 drugs are not going to equal 100%.

Drug	N	%
1. Heroin	609	41.9%
2. Cocaine	556	38.3%
3. Alcohol	349	24.0%
4. Methadone	199	13.7%
5. Oxycodone	125	8.6%
6. Morphine	109	7.5%
7. Fentanyl	93	6.4%
8. Alprazalam	92	6.3%
9. Diazepam	54	3.7%
10. Hydrocodone	43	3.0%

Drug	N	%
11. Benzodiazapine	42	2.9%
12. Citalopram	40	2.8%
13. Propoxyphene	41	2.8%
14. Amitriptylene	38	2.6%
15. Opiates	27	1.9%
16. Nordiazepam	26	1.8%
17. Trazodone	22	1.5%
18. Quetiapine	20	1.4%
19. Tramadol	18	1.2%
20. Diphenhydramine	16	1.1%

[6] There was missing data for each year so the totals may not equal the total number of overdose deaths for that particular year.

14. Deaths By Area – In or Outside City of Pittsburgh

Year	% of deaths in City/% outside of City	Areas w/ highest rate (In CITY)	Areas w/ highest rate (Outside of CITY)
2000	49% -- **51%**	-	-
2001	48.3% -- **51.7%**	**North Side, Hill District**	-
2002	46.6% -- **53.4%**	**North Side, Hill District, Lawrenceville**	-
2003	**50.2%** -- 49.8%	**North Side**, Brookline, **Hill District, Lawrenceville**	**Penn Hills**, Baldwin, Ross, **Clairton**, Monroeville
2004	**59.0%** -- 41.0%	**North Side, Hill District**, Mt. Washington, Hazlewood	Bethel Park, **McKeesport**, **Penn Hills**, **Clairton**
2005	43.9% -- **56.1%**	**Northside, Lawrenceville**, **E. Liberty, Hill District**	**Penn Hills**, **McKeesport**, Coraopolis, Bethel Park, **McKees Rocks**, Monroeville, **Clairton**
2006	40.5% -- **59.5%**	**North Side, E. Liberty, Hill District**	**McKeesport, McKees Rocks,** Plum, Baldwin, Sharpsburgh

- Trends
  - Within the City, the Northside and Hill District have been identified as having higher rates since 2001. East Liberty and Lawrenceville have also had higher rates of overdose in more than one year.
  - Outside of the City, Penn Hills, McKeesport, and McKees Rocks had higher rates of overdoses. Clairton and Bethel Park also had higher rates for several years.
  - For most years (5 out of 7), areas outside of the City, but still within Allegheny County, had slightly higher rates of overdoses.

15. Allegheny County EMS Data

- Total of 2,608 emergency responses for overdoses in 2006.
- Majority of patients involved in emergency responses were 20-29 years of age (25.7%).
- Patient condition on scene in majority of incidents was moderate (47.8%), followed by minor (28.6%), life threatening (21.7%) and unknown (1.9%).
- Majority of patients' condition became stable at facility/hospital (63.7%).

Top Ten Locations for EMS Responses to Overdoses

In CITY	Outside of CITY
Oakland	Penn Hills
Downtown	Ross
Middle Hill	Mt. Lebanon
South Side	Moon
Northside	Wilkinsburg
Lawrenceville	West Mifflin
Sq. Hill (south)	Baldwin
Carrick	Bethel Park
Highland Park	Dormont
Shadyside	Plum

16. Pennsylvania Youth Survey (PAYS) Data

Since 1989, the Commonwealth of Pennsylvania has conducted a survey of secondary school students on their behavior, attitudes, and knowledge concerning alcohol, tobacco, other drugs, and violence. The Pennsylvania Youth Survey (PAYS) of public school students in grades 6, 8, 10, and 12 is conducted every two years. Key survey results from the 2005 PAYS are compared to survey results from the 2003 and 2001 PAYS and the University of Michigan's Monitoring the Future (MTF) survey. The MTF survey is a measure widely used to assess current substance abuse and risky behaviors, and the PAYS shares many of the same survey items.

The final statewide sample frame produced a statewide sample of 232 randomly selected schools. Statewide, 92 of the 232 randomly selected schools participated in the survey. The 92 participating schools yielded 14,926 surveys for an overall student response rate of 40 percent. A weighting factor was applied to each student survey record to adjust for nonresponse and for varying probabilities of selection.

While the data is statewide, the data is also reported in regions, including a SW region that includes Allegheny County. However, many Allegheny County school districts did not participate in the survey. The following are some of the results of both the statewide data and regional data.

Use of Narcotics (Statewide)

For the first time, the 2005 PAYS asked respondents 12 questions about prescription medicines and their use for nonmedical purposes. Since this is a first for Pennsylvania, there are no trend data. For the most part, the use of prescription drugs by Pennsylvania youth, especially those in grades 6, 8, and 10, models MTF prevalence rates, and Pennsylvania prevalence rates are lower, especially in grade 8. However, prevalence rates for 12th graders in Pennsylvania outpace MTF rates.

- 12th graders in the state seem to be engaged in risky behaviors and practices that surpasses what is reported in the MTD results. This reality is especially true for the use of narcotics such as opium, morphine, or OxyContin. Approximately 5% of PA high school seniors reported using narcotics for nonmedical purposes on a monthly basis and nearly 12% did so in the past 12 months (compared to 9% in MTF report).
- Statewide, a fairly high percentage of students in grade 12 reported using other narcotics during the past 30 days, 12 months, and their lifetime on one or more occasions. These rates are **higher** than those reported for MTF 12th graders.
- 16.6% of the students in Pennsylvania used other narcotics during their lifetime compared to 12.8% of those in the MTF sample.

Use of Heroin (2005 – Statewide)

Rates that are listed below are similar to national averages.

Lifetime use	Past 30 Day Use
• 6th grade = 0.2%	• 6th grade = 0.1%
• 8th grade = 0.4%	• 8th grade = 0.2%
• 10th grade = 1.0%	• 10th grade = 0.3%
• 12th grade = 2.3%	• 12th grade = 0.6%

Narcotics Other Than Heroin

Lifetime, past-12-month, and past-30-day prevalence of use of narcotics other than heroin was measured using this survey question: There are a number of narcotics other than heroin, such as methadone, opium, morphine, codeine, Demerol, Vicodin, OxyContin, and Percocet. These are sometimes prescribed by doctors. On how many occasions (if any) have you taken narcotics other than heroin on your own—that is, without a doctor telling you to take them?

Lifetime Use:

- Lifetime prevalence of other narcotic use ranges from a low of 0.5% for 6th graders to a high of 16.6% for 12th graders.
- Overall, 6.8% of PAYS 2005 Statewide students have used other narcotics at least once in their lifetimes.
- Compared to national findings, 12th graders reported a **higher rate** of lifetime other narcotic use.

Past-12-Month Use:

- Past-12-month prevalence of other narcotic use ranges from a low of 0.2% for 6th graders to a high of 11.6% for 12th graders.
- Overall, 4.8% of PAYS 2005 Statewide students have used other narcotics at least once in the last 12 months.
- Compared to national findings, 12th graders reported a **higher rate** of past-12-month other narcotic use.

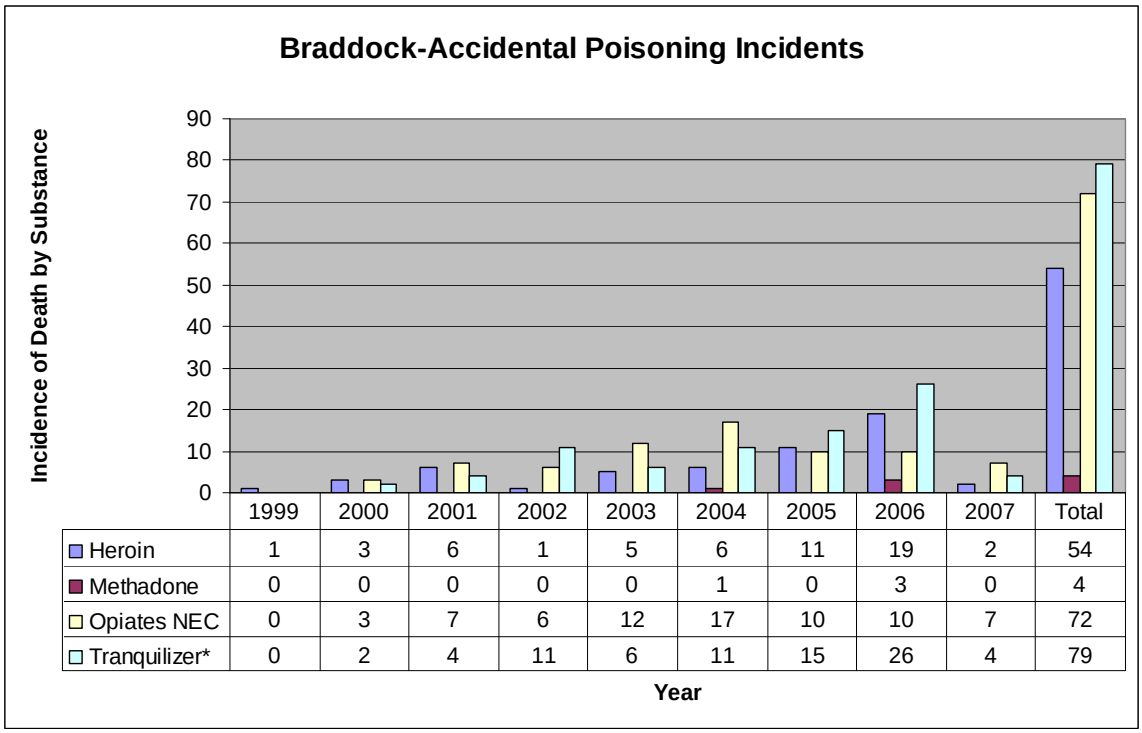
17. Data Collected from UPMC ERs

Disclaimer: The substances depicted in the following tables were chosen for their relevance to the project. These are **not inclusive of data reported** from hospitals.

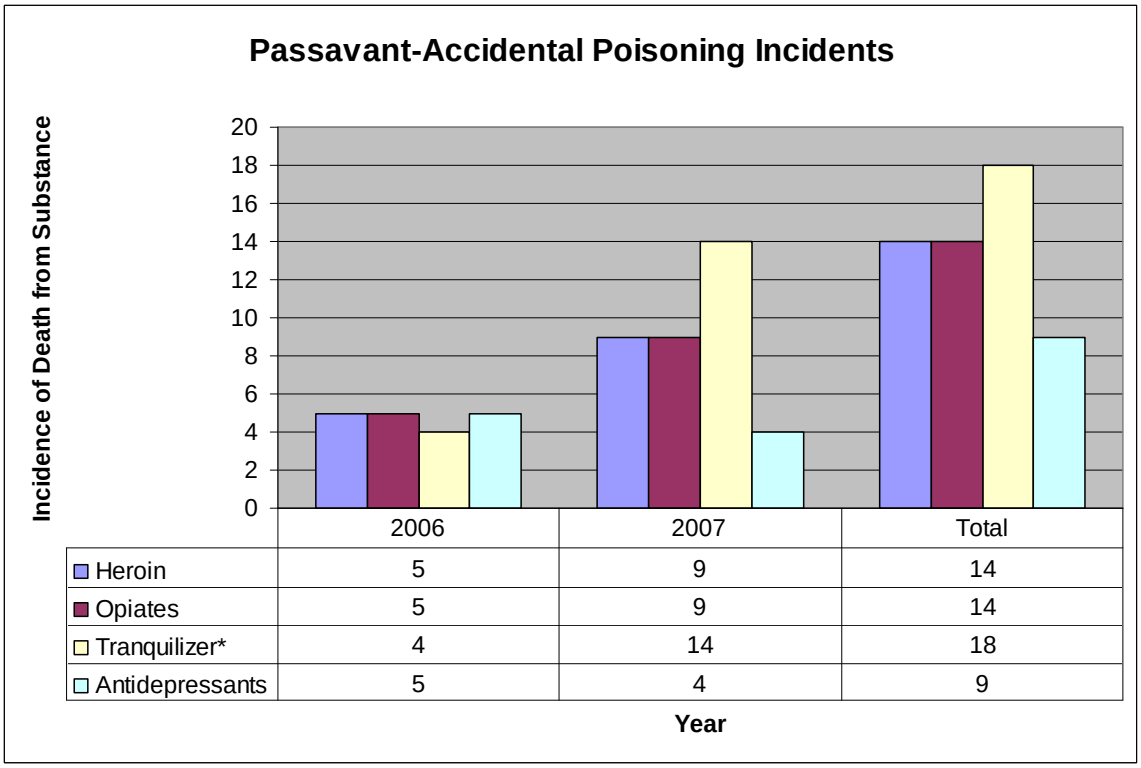
Also note that tranquilizers category includes a variety of different tranquilizers and were condensed to show them in one category rather than individual categories. Each time tranquilizers are included in the following tables, they are marked with an asterisk (*) representing the combining of various substances. The tranquilizer category thus includes Barbiturates, Phenthiaz Tranquilizers, Benzdiaz Tranquilizers, Tranquilizer NEC (Not elsewhere categorized), Tranquilizer NOS (Not otherwise specified) if reported. Similarly, the sedative category has also been combined or condensed and includes Sedatives NEC and Sedatives NOS if reported and the condensed category is represented with a double asterisk (**).

Additionally, some hospitals have more years of data collected while others only have several years. They range from 1997 to present to 2006 to present. There are tables for the following hospitals:

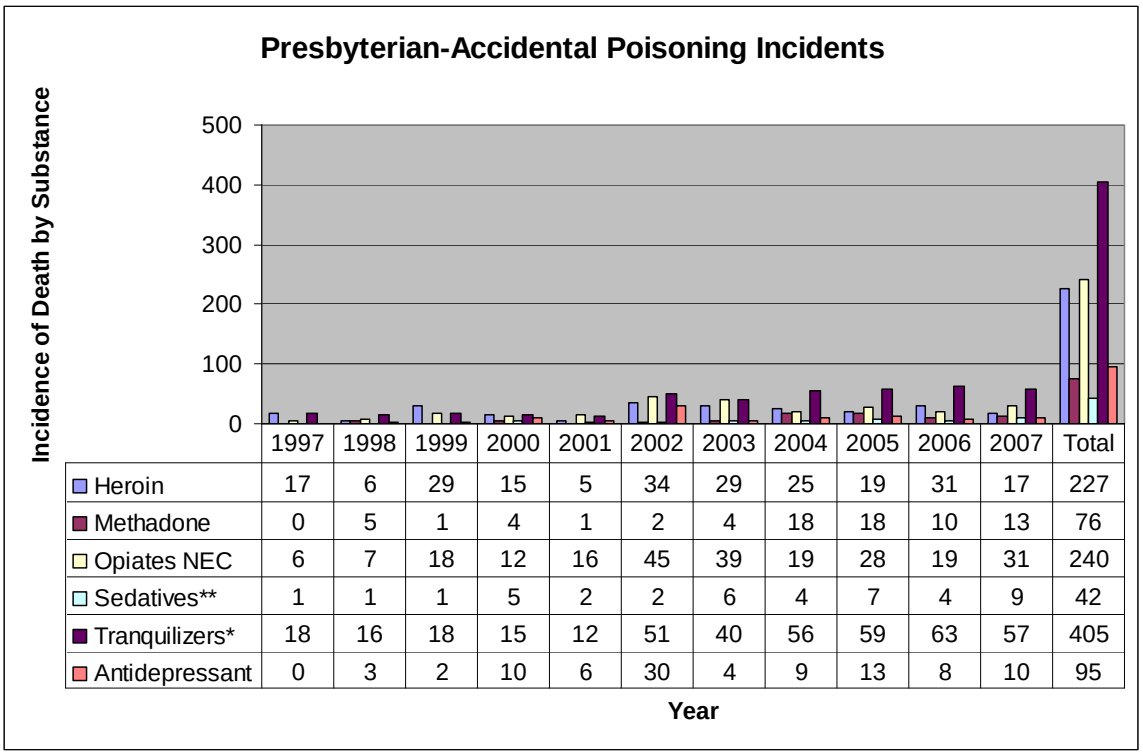
1. Braddock
2. Passavant
3. Presbyterian
4. Shadyside
5. St. Margarets
6. McKeesport
7. South Side
8. Summary – All hospitals combined.



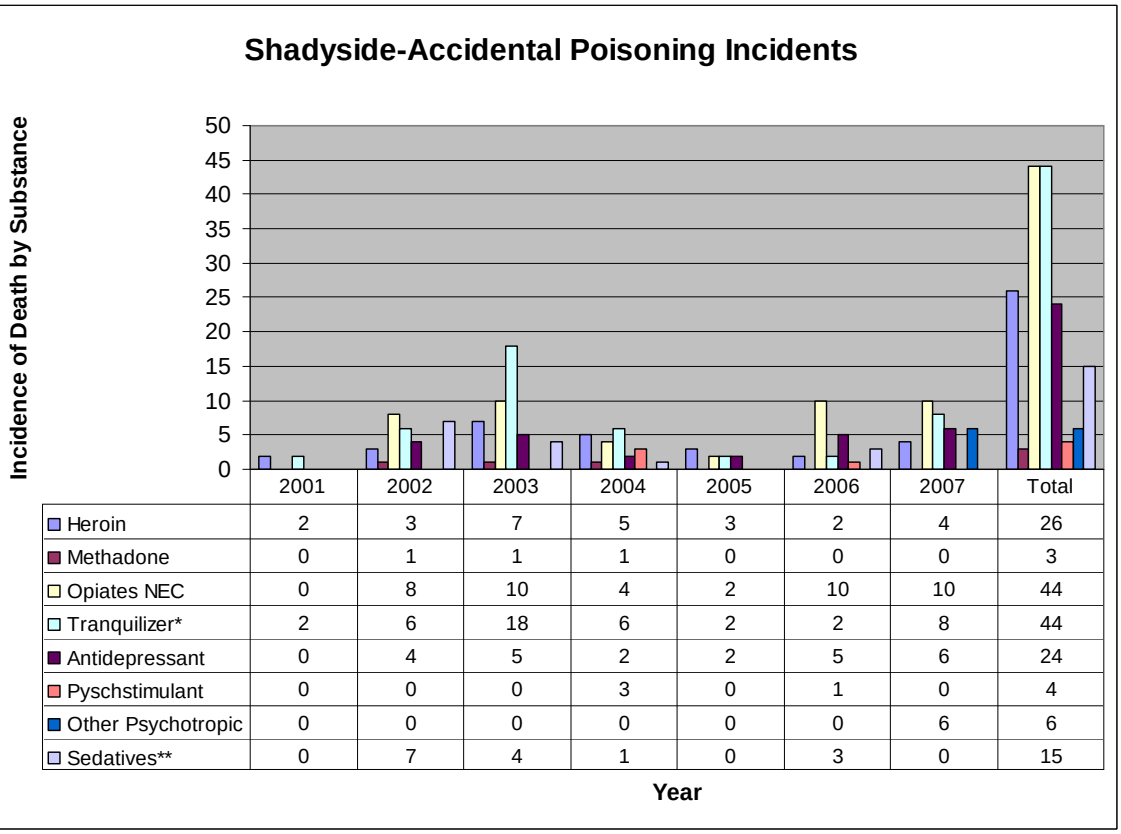
	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Heroin	1	3	6	1	5	6	11	19	2	54
Methadone	0	0	0	0	0	1	0	3	0	4
Opiates NEC	0	3	7	6	12	17	10	10	7	72
Tranquilizer*	0	2	4	11	6	11	15	26	4	79



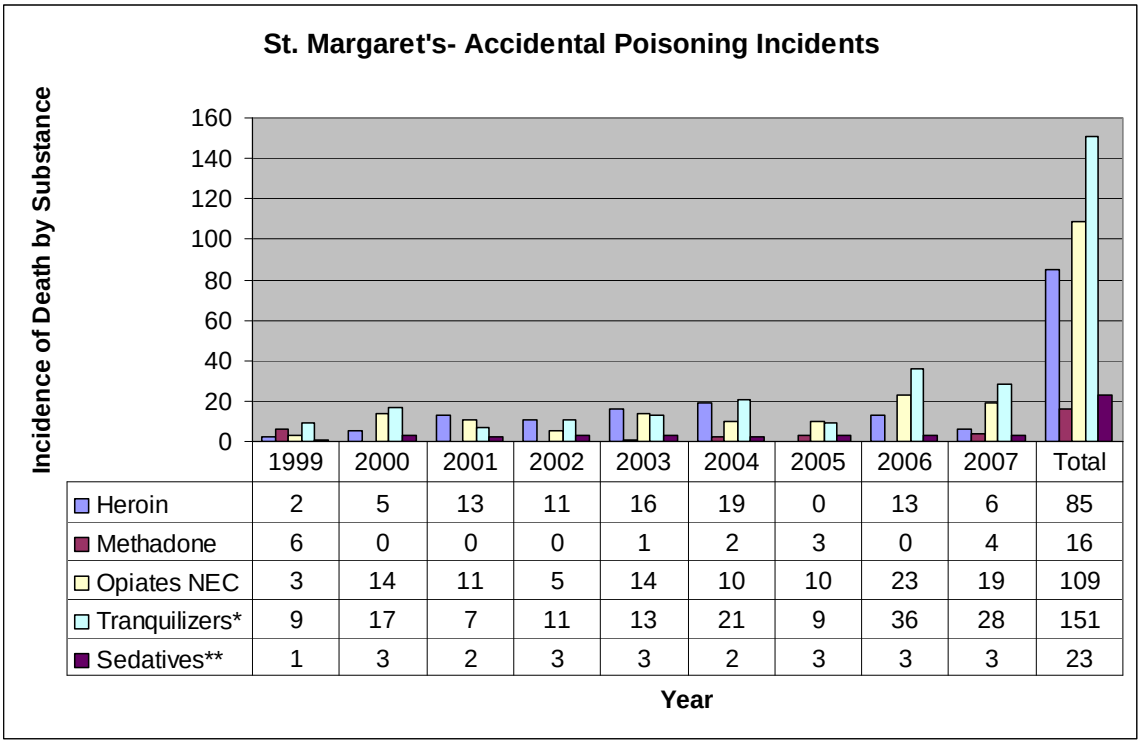
	2006	2007	Total
Heroin	5	9	14
Opiates	5	9	14
Tranquilizer*	4	14	18
Antidepressants	5	4	9



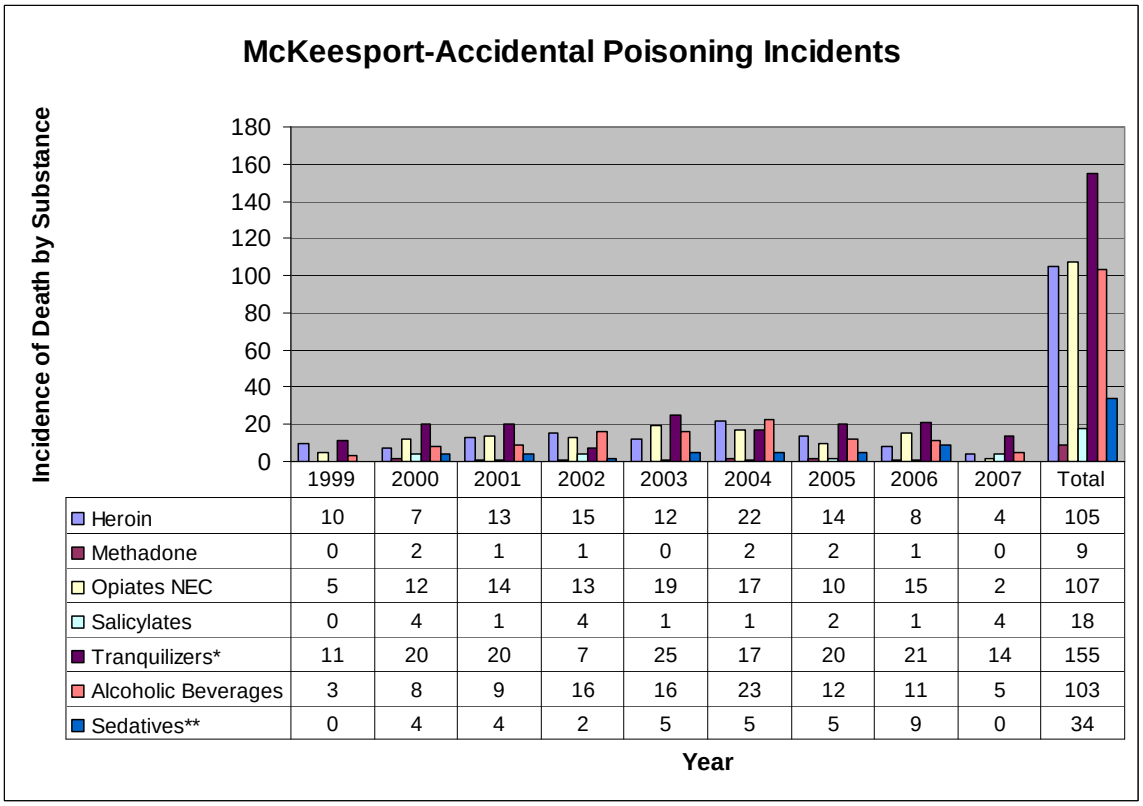
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Heroin	17	6	29	15	5	34	29	25	19	31	17	227
Methadone	0	5	1	4	1	2	4	18	18	10	13	76
Opiates NEC	6	7	18	12	16	45	39	19	28	19	31	240
Sedatives**	1	1	1	5	2	2	6	4	7	4	9	42
Tranquilizers*	18	16	18	15	12	51	40	56	59	63	57	405
Antidepressant	0	3	2	10	6	30	4	9	13	8	10	95



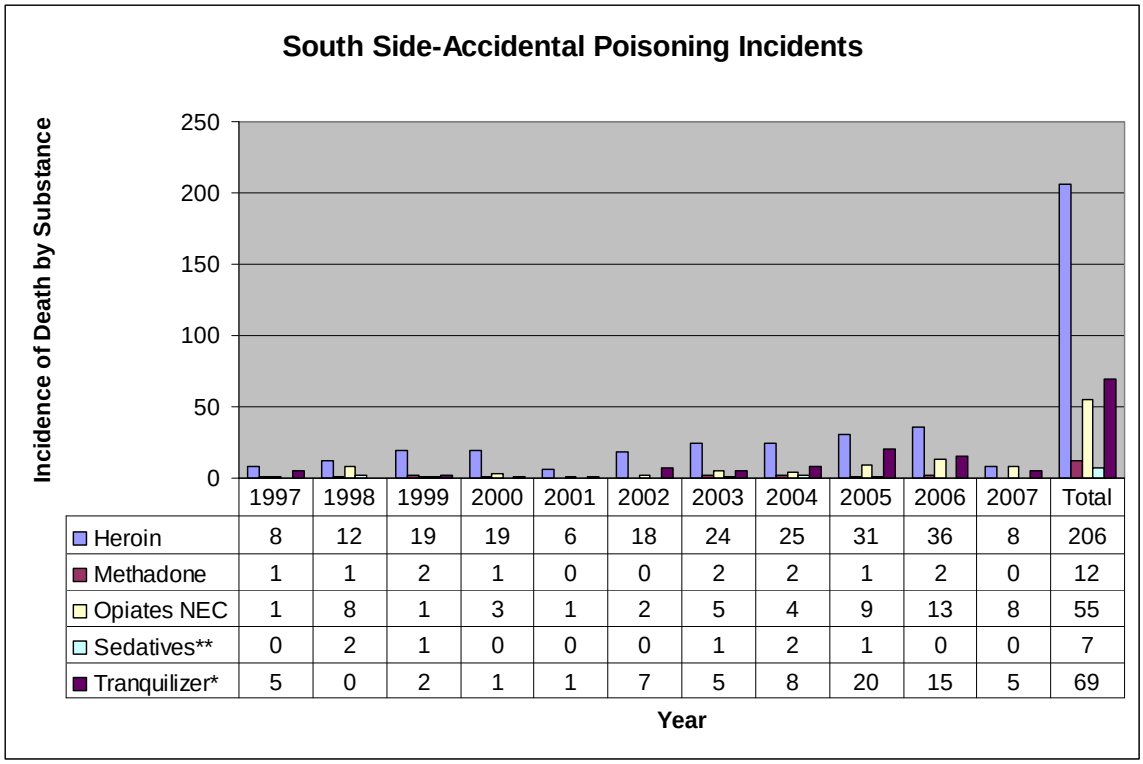
	2001	2002	2003	2004	2005	2006	2007	Total
Heroin	2	3	7	5	3	2	4	26
Methadone	0	1	1	1	0	0	0	3
Opiates NEC	0	8	10	4	2	10	10	44
Tranquilizer*	2	6	18	6	2	2	8	44
Antidepressant	0	4	5	2	2	5	6	24
Pyschstimulant	0	0	0	3	0	1	0	4
Other Psychotropic	0	0	0	0	0	0	6	6
Sedatives**	0	7	4	1	0	3	0	15



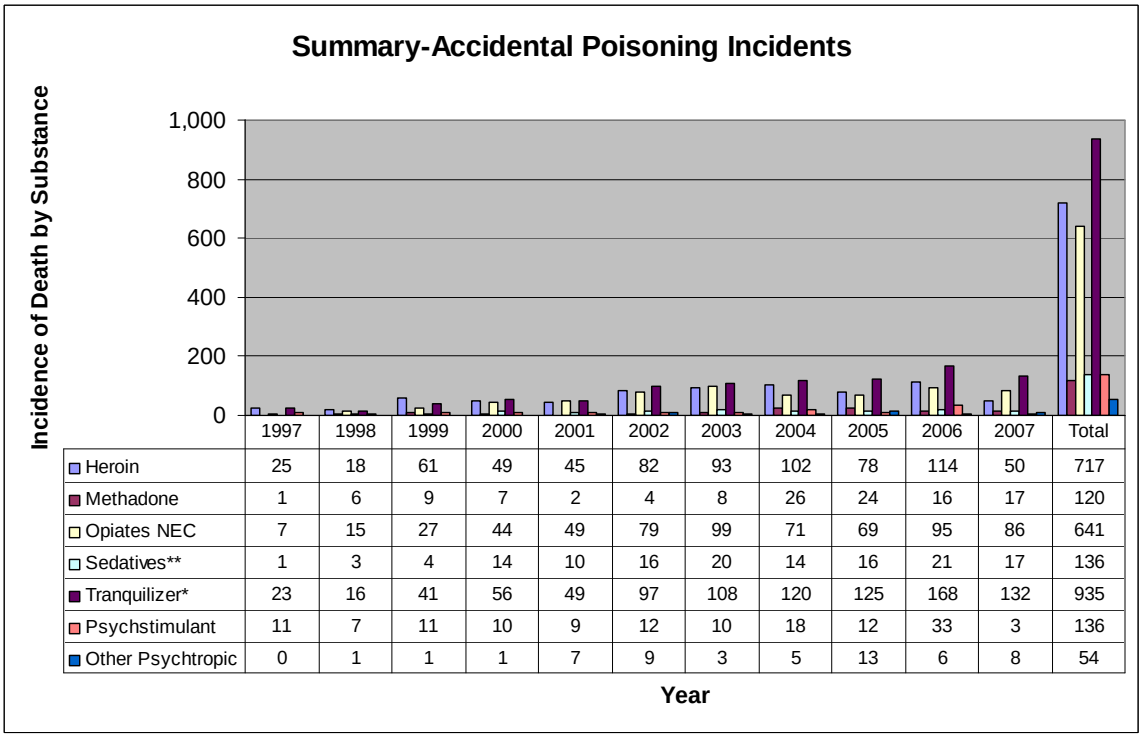
	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Heroin	2	5	13	11	16	19	0	13	6	85
Methadone	6	0	0	0	1	2	3	0	4	16
Opiates NEC	3	14	11	5	14	10	10	23	19	109
Tranquilizers*	9	17	7	11	13	21	9	36	28	151
Sedatives**	1	3	2	3	3	2	3	3	3	23



	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Heroin	10	7	13	15	12	22	14	8	4	105
Methadone	0	2	1	1	0	2	2	1	0	9
Opiates NEC	5	12	14	13	19	17	10	15	2	107
Salicylates	0	4	1	4	1	1	2	1	4	18
Tranquilizers*	11	20	20	7	25	17	20	21	14	155
Alcoholic Beverages	3	8	9	16	16	23	12	11	5	103
Sedatives**	0	4	4	2	5	5	5	9	0	34



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Heroin	8	12	19	19	6	18	24	25	31	36	8	206
Methadone	1	1	2	1	0	0	2	2	1	2	0	12
Opiates NEC	1	8	1	3	1	2	5	4	9	13	8	55
Sedatives**	0	2	1	0	0	0	1	2	1	0	0	7
Tranquilizer*	5	0	2	1	1	7	5	8	20	15	5	69



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
Heroin	25	18	61	49	45	82	93	102	78	114	50	717
Methadone	1	6	9	7	2	4	8	26	24	16	17	120
Opiates NEC	7	15	27	44	49	79	99	71	69	95	86	641
Sedatives**	1	3	4	14	10	16	20	14	16	21	17	136
Tranquilizer*	23	16	41	56	49	97	108	120	125	168	132	935
Psychstimulant	11	7	11	10	9	12	10	18	12	33	3	136
Other Psychtropic	0	1	1	1	7	9	3	5	13	6	8	54

Results from National Survey on Drug Use and Health

- In 2006, 5.2 million individuals were current non-medical users of prescription pain relievers. The estimate in 2005 was 4.7 million, an increase of a half million new users.
    - In addition, there were 1.8 million who used tranquilizers for nonmedical purposes.
    - 1.2 million individuals who utilized stimulants for nonmedical purposes.
    - 385,000 individuals who utilized sedatives for nonmedical purposes.
    - These figures were similar to those for 2005.
- Number of current heroin users increased from 136,000 in 2005 to 338,000 in 2006. The prevalence rate increased from 0.06% to 0.14% (this was for adults age 26 and older).
    - In 2006, there were 91,000 individuals age 12 or older who used heroin for the first time within the past 12 months. The average age at first use among recent initiates aged 12-49 was 20.7 years of age in 2006. There were no significant changes in the number of initiates or in the average age of first use from 2005 to 2006.
- Sources of prescription drugs
    - In 2006, 55.7% reported they got the prescription drugs from a friend or family member for free, and that the friend/family member had gotten the script from just one physician. Another 9.3% bought the drugs from a friend/family member. Only 3.9% got the prescription drugs from a drug dealer and even less (0.1%) reported buying the prescription drugs online.
- In 2006, there were 2.6 million individuals who utilized prescription pain relievers for the first time. The average age was 22.9.

18. Pennsylvania Uniform Crime Report[7]

Data were available on the Pennsylvania Uniform Crime Reporting System website as to the total number of arrests made across the state for drug abuse offenses. These offenses include all violations of state and local ordinances relating to the unlawful possession, sale, use, growing, manufacture and making of narcotic drugs. The website does not list what is included in narcotic drugs.

State Totals

2001 – 40,391 arrests for drug abuse offenses across PA.
2006 – 56,446 arrests for drug abuse offenses across PA.

Allegheny Information

You can utilize the website in order to search for various crimes and categories in order to get information and data regarding the number of arrests (not including conviction, etc.). When drug offense data from Allegheny County was accessed, there was only information on the following drug charges:

- Drug sale/manufacture opium/cocaine
- Drug sale/manufacture marijuana
- Drug sale/manufacture synthetic
- Drug sale/manufacture other
- Drug possessions opium/cocaine
- Drug possession marijuana
- Drug possession synthetic
- Drug possession other

Total arrests in Allegheny County for the above listed crimes for 2000 = 3,396
Total arrests in Allegheny County for the above listed crimes for 2006 = 6,459

[7] http://ucr.psp.state.pa.us/UCR/Reporting/Annual/AnnualFrames.asp?year=2006

There was not major difference for either year in the ethnicity/race of the arrestees and the majority were male. Below is a breakdown of age for the arrests for the two years for the above listed offenses.

Age Range	2000 totals	2006 totals
18-24	1,470	2,777
25-34	906	1,795
35-44	718	1,107
45-54	267	631
55-64	27	130
65+	8	19
Totals	**3,396**	**6,459**

19. Studies supporting the role of fear of legal involvement as an important factor affecting overdose mortality and morbidity (national, international, regional and local data).

- Structured interview of 101 current heroin users in Albuquerque, New Mexico from January 7 through the 26th 2002 indicated that despite the fact that three or more persons were present during 84% of the overdoses most recently witnessed, an ambulance was called in only 44% of the time. Seventy-five percent of the persons who witnessed the overdose reported that police involvement was an important reason for delay or absence of a 911 call for help (Baca & Grant, 2007).
- Self-reported experiences of witnessing heroin-related overdoses from structured interviews among 973 street-recruited current injectors under 30 years of age indicated that for the 48% of the overdoses of which there was at least one witness no emergency services were contacted. Fifty-six percent of the respondents indicated that the main reason for not contacting emergency services was a fear of police (Davidson, et al., 2002).
- A sample of 329 Australian heroin users was interviewed using a semi-structured interview. The majority (86%) indicated that they had witnessed an overdose, but only 17% of these involved contacting emergency services. Forty-four percent (44%) of the respondents indicated that the most common reason for not contacting emergency services was fear of police involvement (Darke, Ross & Hall, 1996).
- In a review article of a large number of studies about factors associated with death from drug overdose, Darke & Hall reported that: (1) the majority of heroin users (70%) in cross sectional samples report that they have witnessed an overdose; (2) instantaneous death is rare so there is time to intervene in the majority of heroin overdose deaths and in most cases, there are people present who could intervene; (3) however, in 79% of the cases no intervention occurred prior to the death; (4) calling an ambulance is rarely the first action taken and if one is called it may only be after considerable delay, increasing the risk of death or anoxia; (5) by far, the most common reason given for delaying seeking help is fear of police involvement (Darke & Hall, 2003).
- In a paper describing the need for additional research regarding the use of naloxone programs for preventing drug overdose deaths, Sporer and Kral state that in two studies of providing prescription naloxone that EMS was called in only 10-31% of the cases that involve successful resuscitation (Sporer and Kral, 2007).
- Sample of 397 current or former drug users in Baltimore, Maryland who reported having witnessed a drug overdose were surveyed and having four or more witnesses, having only males present, fear of being arrested and having prior exposure to the police were all associated with the decreased likelihood of contacting EMS (calling 911) during a person's overdose. Fear of being arrested and prior exposure to the police presented a significant interaction effect (greatly increased likelihood that 911 would NOT be called (Tobin, Davey & Latkin, 2005).

- An sample of 1184 heroin, crack and cocaine users in New York City was interviewed between November 2001 and February 2004. The authors supported that the reduction of police involvement at overdose events may improve overdose-related morbidity and mortality (Tracy et al., 2005).
- Prevention Point Philadelphia Data: Participants (n=105) who were given Narcan were asked about calling 911, 22 (21%) had called 911 themselves when they were overdosing and 52 (50%) reported that they called 911 when they witnessed another person overdosing. They also collected information from individuals who previously had used Narcan, specifically asking if 911 was called during an overdose they had witnessed. The respondents could respond yes/no and if no, why 911 was not called. There were 26 respondents.
    a. 8 reported calling 911 (31%)
    b. 8 reported that 911 was not called as the individual overdosing was "ok" or "woke up." (31%)
    c. 6 reported being afraid of police involvement (23%)
    d. 4 indicated that they did not know why 911 was not called (15%)
- Prevention Point Pittsburgh Data: Based upon data collected from the medical histories conducted with 366 participants of the naloxone prescription program, participants reported having witnessed 1586 incidents of drug overdoses in their life times, but in those incidents observed that EMT was called only 522 (32%) of the time.
- Prevention Point Pittsburgh Data: Participants (n = 172) seeking a refill for naloxone, indicating they probably either intervened with someone or themselves during a drug overdose, 153 (89%) of these persons reported not calling 911 and 108 (63%) reported that the reason they did not call 911 was because they were afraid of police involvement.

20. Comparing Non-Natural Deaths between Cuyahoga County, Ohio and Allegheny County, PA

Cuyahoga County, in Ohio is similar to Allegheny County, in PA in many ways. The total population between the two cities is within 143,111 individuals (Table 1).

Table 1

Year	Total Population		Total Number of Deaths	
	Cuyahoga	Allegheny	Cuyahoga	Allegheny
2006	1,393,978	N/A	N/A	N/A
2005	N/A	N/A	N/A	N/A
2004	N/A	1,250,867	14,668	14,507
2003	N/A	1,261,303	14,671	15,104
2002	N/A	1,269,904	15,177	15,100

Table 2

Year	Autopsies		Homicide		OD		Suicide	
	Cuyahoga	Allegheny	Cuyahoga	Allegheny	Cuyahoga	Allegheny	Cuyahoga	Allegheny
2006	1385	1275	146	96	249	**252**	142	155
2005	1386	1260	147	92	214	**223**	168	156
2004	1450	1317	108	83	**213**	205	162	163
2003	1380	1339	113	125	222	**228**	133	150
2002	1522	1248	117	89	186	**210**	167	133

- Trends/Observations:
  - Each location has around 14,500 deaths annually (Table 1).
  - Cuyahoga County Coroner's Office conducts a slightly higher number of autopsies compared to the Allegheny County Medical Examiner's Office.
  - Comparing non-natural deaths showed that the Cuyahoga office handled more homicides in 4 of the last 5 years compared to the Allegheny ME office, while the number of suicides and drug overdose handled were very similar (Table 2).
  - While the number of overdose deaths are very similar for the two locations, Allegheny had a slightly higher total number in all years with the exception of 2004.

Single Drug Deaths (C=Cuyahoga, A=Allegheny)
(NOTE: Bolded numbers indicate higher numbers for that year/location)

	2006		2005		2004		2003		2002	
	C	**A**	**C**	**A**	C	**A**	**C**	**A**	**C**	**A**
Cocaine	66	43	50	28	69	26	56	16	44	15
Heroin	12	12	11	**25**	11	**42**	16	**32**	19	**56**
Methadone	6	**11**	5	4	1	**6**	2	2	0	0
Fentanyl	3	**8**	1	**3**	1	**2**	1	**5**	**1**	0
Oxycodone	1	**5**	0	**2**	1	**2**	0	**4**	0	**4**
Totals	**88**	79	**67**	62	**83**	78	**75**	59	64	**75**

- Trends/Observations:
  - A detailed examination of drug deaths between the two locations showed that deaths from Cocaine alone were greater in Cuyahoga while deaths from Methadone, Fentanyl, and Oxycodone were more frequent in Allegheny County.
  - Heroin deaths were higher in Allegheny County for all years.
  - Overall rates across years shows that Cuyahoga had higher rates of overdose deaths due to single drug use than Allegheny County with the exception of 2002.

Combined Drugs (C=Cuyahoga, A=Allegheny)
(NOTE: Bolded numbers indicate higher numbers for that year/location)

	2006		2005		2004		2003		2002	
	C	**A**	**C**	**A**	C	**A**	**C**	**A**	**C**	**A**
Cocaine + Heroin	11	6	0	**28**	11	**17**	0	**20**	5	**19**
Cocaine + Ethanol	14	2	5	1	0	**4**	5	2	3	1
Heroin + Ethanol	3	**4**	3	**8**	3	3	7	**12**	1	**14**
Totals	28	12	8	**37**	14	**24**	12	**34**	9	**34**

- Trends/Observations:
  - For combined drug deaths, Allegheny County had a higher number of overdose deaths for all years reported with the exception of 2006. This shows that there are more polysubstance deaths in Allegheny County than in Cuyahoga.
  - Cocaine and Heroin is the category with the highest number of deaths, for both locations.

Deaths among Allegheny County by status of the drug involved in the death.

Year	Illegal Drug Alone	Multiple Illegal	Illegal + Legal	Legal Drug Alone	Multiple Legal	TOTAL
2006	55 (22%)	6 (3%)	89 (35%)	41 (16%)	61 (24%)	252
2005	53 (24%)	28 (13%)	67 (30%)	37 (17%)	38 (17%)	223
2004	68 (33%)	17 (8%)	54 (26%)	25 (12%)	41 (20%)	205
2003	48 (21%)	20 (9%)	68 (30%)	35 (15%)	57 (25%)	228
2002	71 (34%)	19 (9%)	52 (25%)	23 (11%)	45 (21%)	210

- Trends/Observations:
  - Illegal drugs taken with legal drugs accounted for about 30% of the deaths.
  - Illegal drugs alone accounted for approximately 25% of the deaths.
  - Combined legal drugs accounted for about 21% of the deaths.
  - Legal drugs alone accounted for about 14% of the deaths
  - Multiple illegal drugs accounted for approximately 8% of the deaths.

During the past 5 years, deaths from illegal drugs (alone or in combination) have been decreasing. However, deaths from legal drugs combined with illegal compounds have increased.