

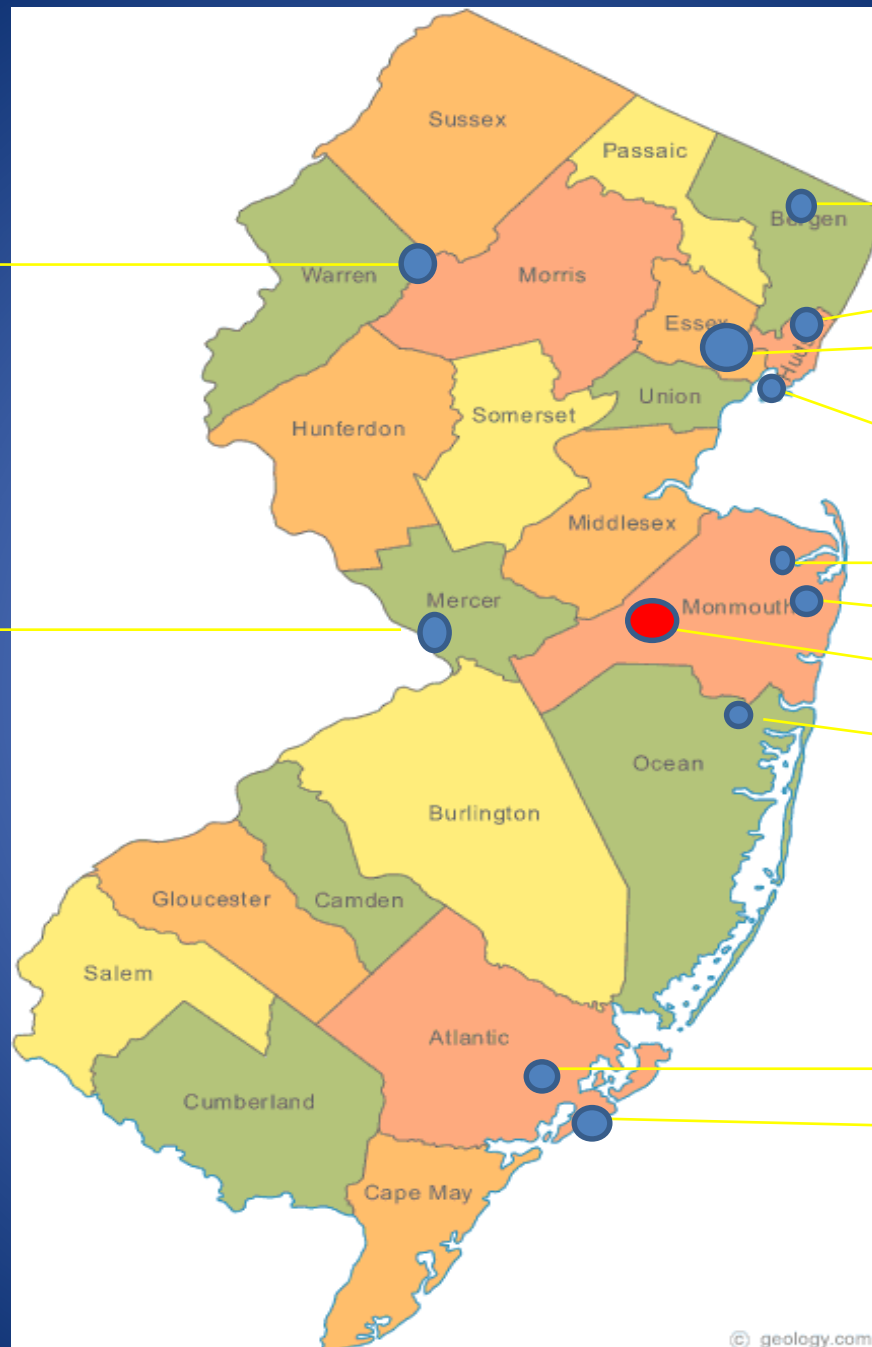
Opioid Abuse: What it means to Medicine

Bruce Bonanno, MD, FACEP

- No declarations
- News 12NJ Medical Director 1996-2006
- Chairperson ACEP-National 2006-08
- NJ-ACEP President 2009-10
- NAMC President 2009-10
- MSNJ- MOMS President 2013-14
- SGUSOM Alumni Association Pres. 2015-

Hackettstown

Helene Fuld



Hackensack

Meadowlands

St. Michaels
UMDNJ

Beth Israel
Bayonne

Bayshore

Monmouth

CentraState

Brick

AC -Mainland

AC-Island

Bruce Bonanno, MD FACEP

- NJ-ACEP President 2009-10
NJ PMP instituted 2011
- Prescription Drug Abuse Campaign: ACEP
March 2012-2015
- NJ-ACEP Opiate Abuse Task Force
April 2013-2015
- MSNJ Opiate Abuse Task Force
May 2013-present
- Rep. Angelini Drug Abuse Forum July 2013
- Senator Vitale Drug Abuse Forum July 2014
- Multiple TV, Radio, and Print interviews

OPIOID OVERDOSES

- 1. How it happened
- 2. How big is the Problem
- 3. How to Battle the Problem



- ZDoggMD.com

TIMELINE

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- 1995 American Pain Society
“Pain as the 5th vital sign”

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- 1996-??PHARMACUETICAL COMPANIES ?

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“Pain as the 5th vital sign”
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Guidelines and required PAIN SCALE
- 2001 JACHO
MUST address pain in ALL patients and
use pain scale

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Dropped the word ALL

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- 2012 CMS

Added to its ED Performance Core Measures “timely” pain treatment for long bone fractures with parental meds

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Issued a statement claiming it was **not responsible** for “pain as the fifth vital sign” **OR** suggesting that pain be treated with opioids.

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- 2016 AMA
Urged dropping “pain-as -the-fifth-vital sign policies

Standard

RI.1.2.8 Patients have the right to appropriate assessment and management of pain.

Intent of RI.1.2.8

Pain can be a common part of the patient experience; unrelieved pain has adverse physical and psychological effects. The patient's right to pain management is respected and supported. The health care organization plans, supports, and coordinates activities and resources to assure the pain of all patients is recognized and addressed appropriately. This includes

- initial assessment and regular reassessment of pain;
- education of all relevant providers in pain assessment and management;
- education of patients, and families when appropriate, regarding their roles in managing pain as well as the potential limitations and side effects of pain treatments; and
- after taking into account personal, cultural, spiritual, and/or ethnic beliefs, communicating to patients and families that pain management is an important part of care.

Examples of Implementation for RI.1.2.8

1. Pain is considered a "fifth" vital sign in the hospital's care of patients. Pain intensity ratings are recorded during the admission assessment along with temperature, pulse, respiration, and blood pressure.
2. Every patient is asked a "screening" question regarding pain on admission. Patients and families receive information verbally and in an electronic or printed format at the time of initial evaluation that effective pain relief is an important part of treatment.
3. Competency in pain assessment and treatment is determined during the orientation of all new clinical staff.
4. The following statement on pain management is posted in all patient care areas (patient rooms, clinic rooms, waiting rooms, etc):

Statement on Pain Management: All patients have a right to pain relief.

 - Inform patients at the time of their initial evaluation that relief of pain is an important part of their care and respond quickly to reports of pain.
 - Ask patients on initial evaluation and as part of regular assessments about presence, quality, and intensity of pain and use the patient's self report as the primary indicator of pain.
 - Work together with the patient and other health care providers to establish a goal for pain relief and develop and implement a plan to achieve that goal.

Review and modify the plan of care for patients who have unrelieved pain.
5. The hospital demonstrates its commitment to pain management by inclusion in educational programs for staff awareness events regarding pain assessment and treatment.
6. The hospital supplies educational materials about pain to all patients. For outpatient surgery patients, information is mailed to patients prior to the day of surgery.
7. Any telephone follow-up (for example, outpatient surgery, short stay obstetrics, evaluation of discharge planning) includes asking the patient about their pain status.

Examples of Evidence of Performance for RI.1.2.8

- Interviews with patients and families
- Interviews with clinical staff
- Policies and procedures, practice standards or other processes for addressing effective pain management
- Records and content outlines of staff educational offerings
- Educational materials for patients and families
- Patient rights or other statements delineating the organization's commitment to effective pain management

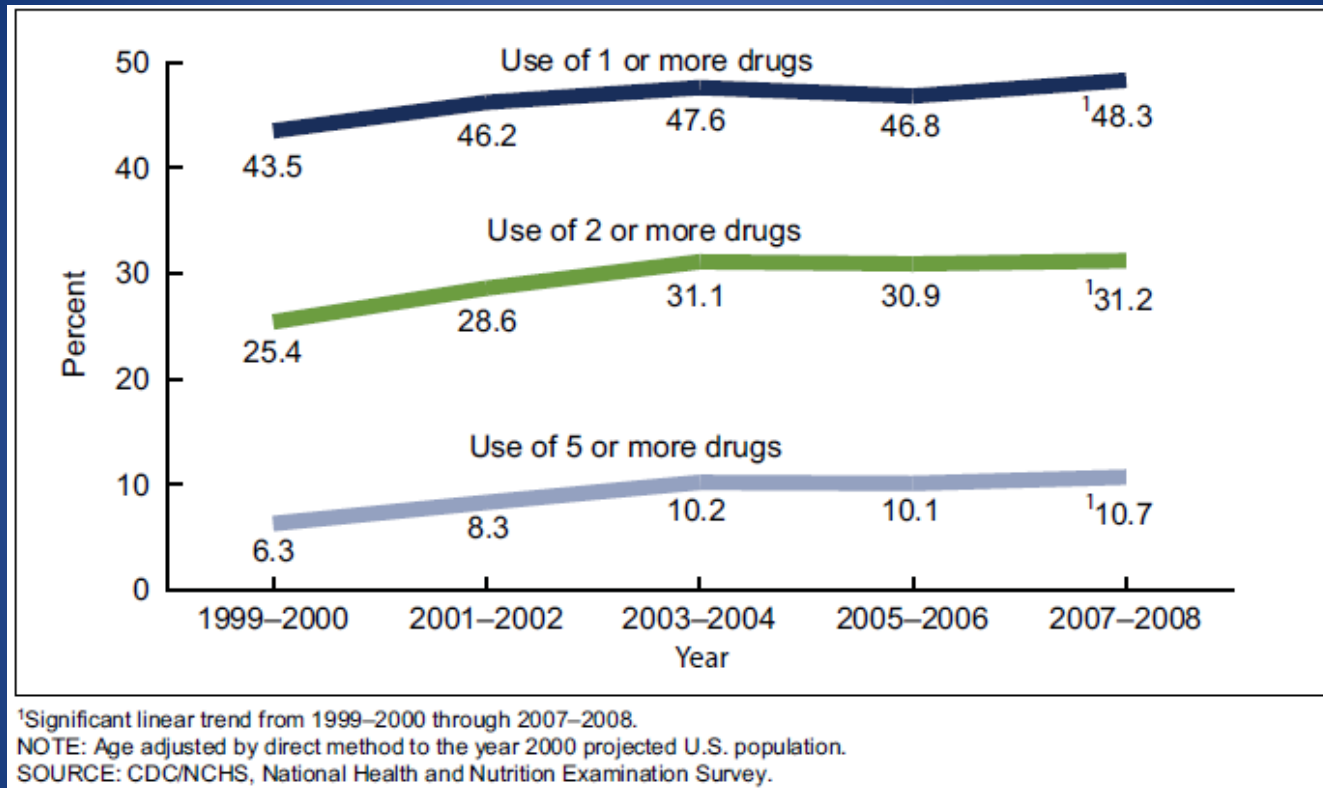
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“This includes a initial assessment and regular reassessment of pain”

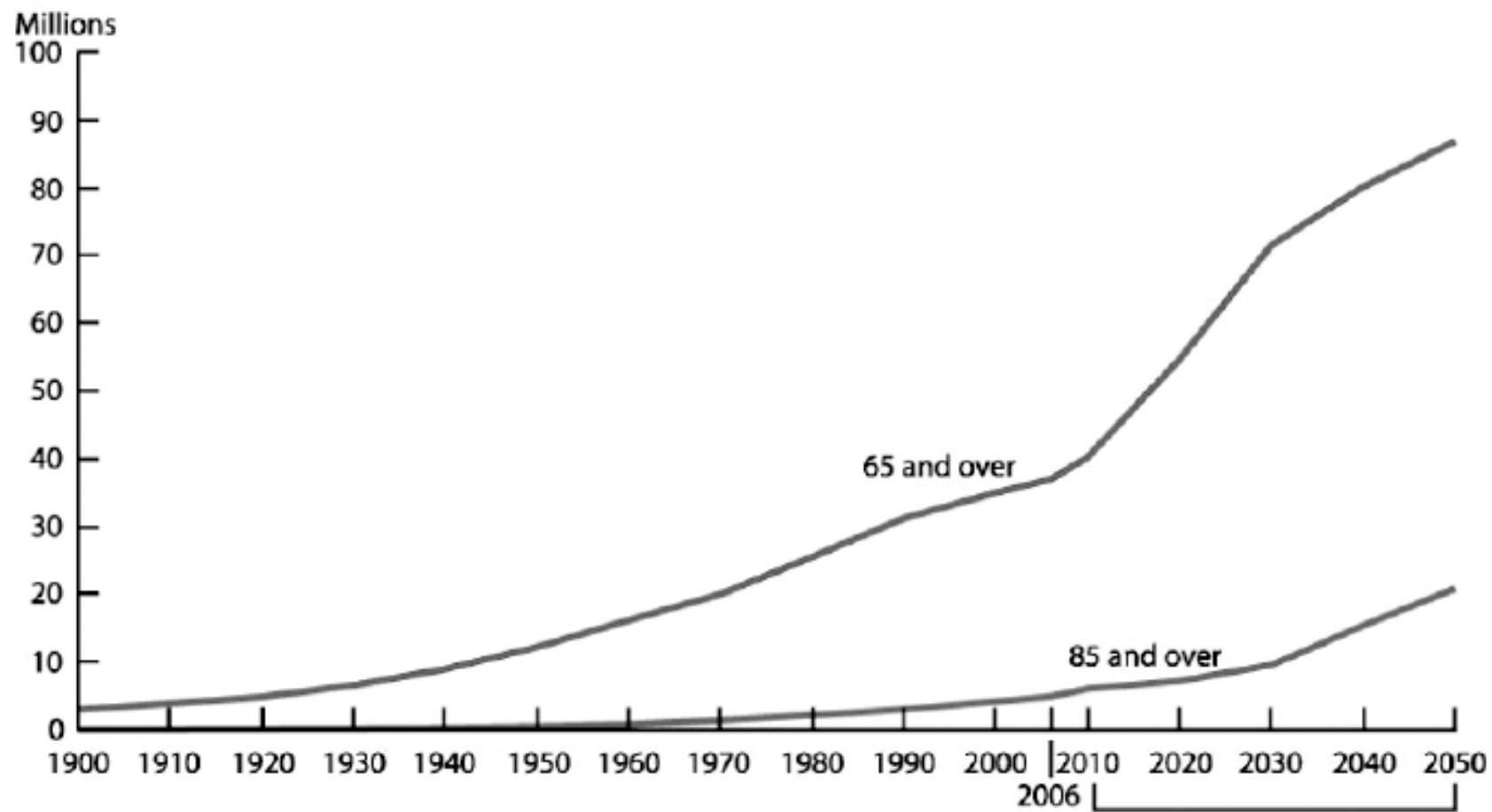
Examples of Implementation for RI.1.2.8

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Trends: Percent Using Rx Drugs



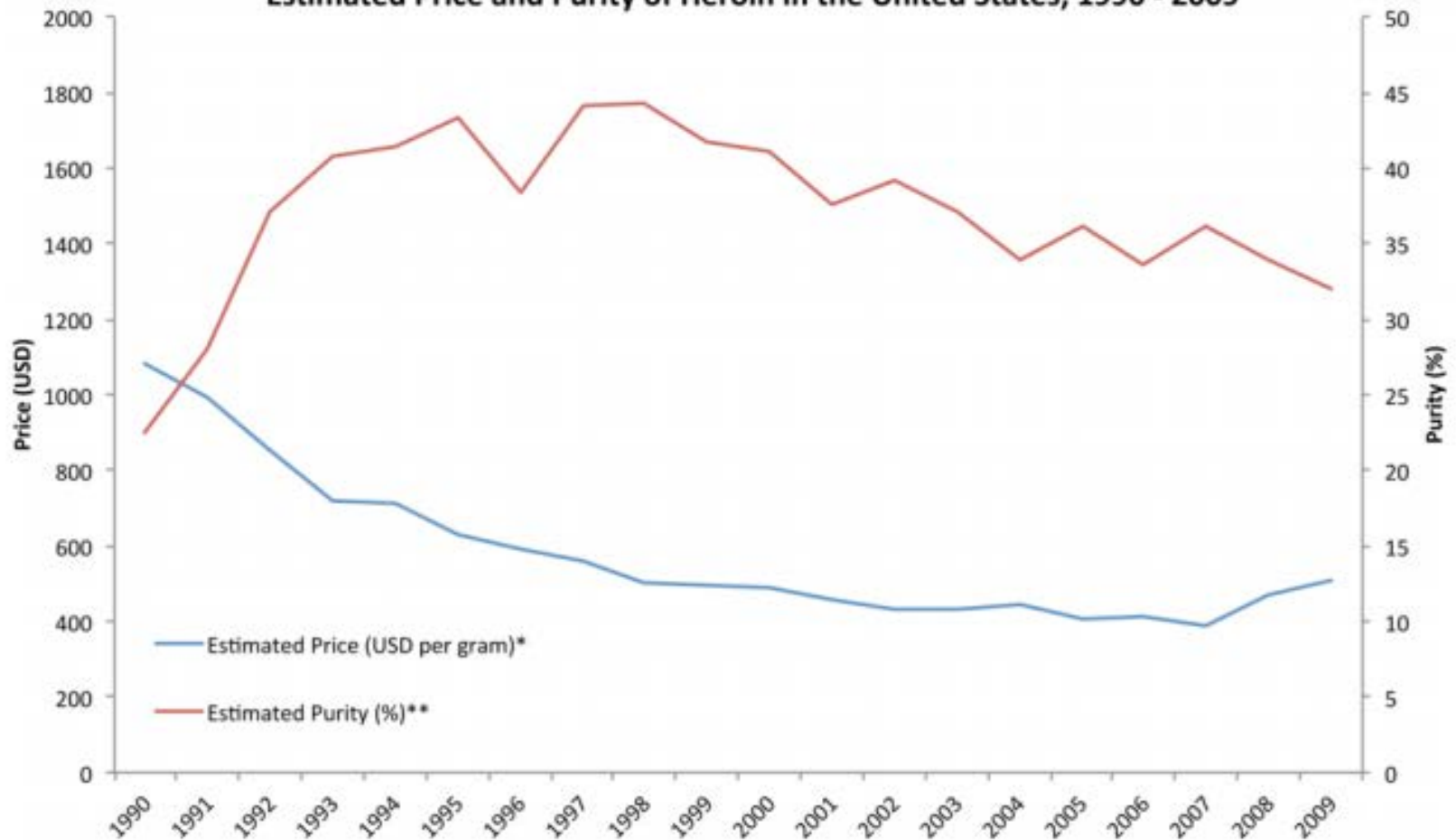
- 48 percent of Americans used at least one Rx drug in the past month
 - 11 percent of Americans used five or more in the last month
- (<http://www.cdc.gov/nchs/data/databriefs/db42.htm>)



Note: Data for 2010–2050 are projections of the population.

Reference population: These data refer to the resident population.

Estimated Price and Purity of Heroin in the United States, 1990 - 2009



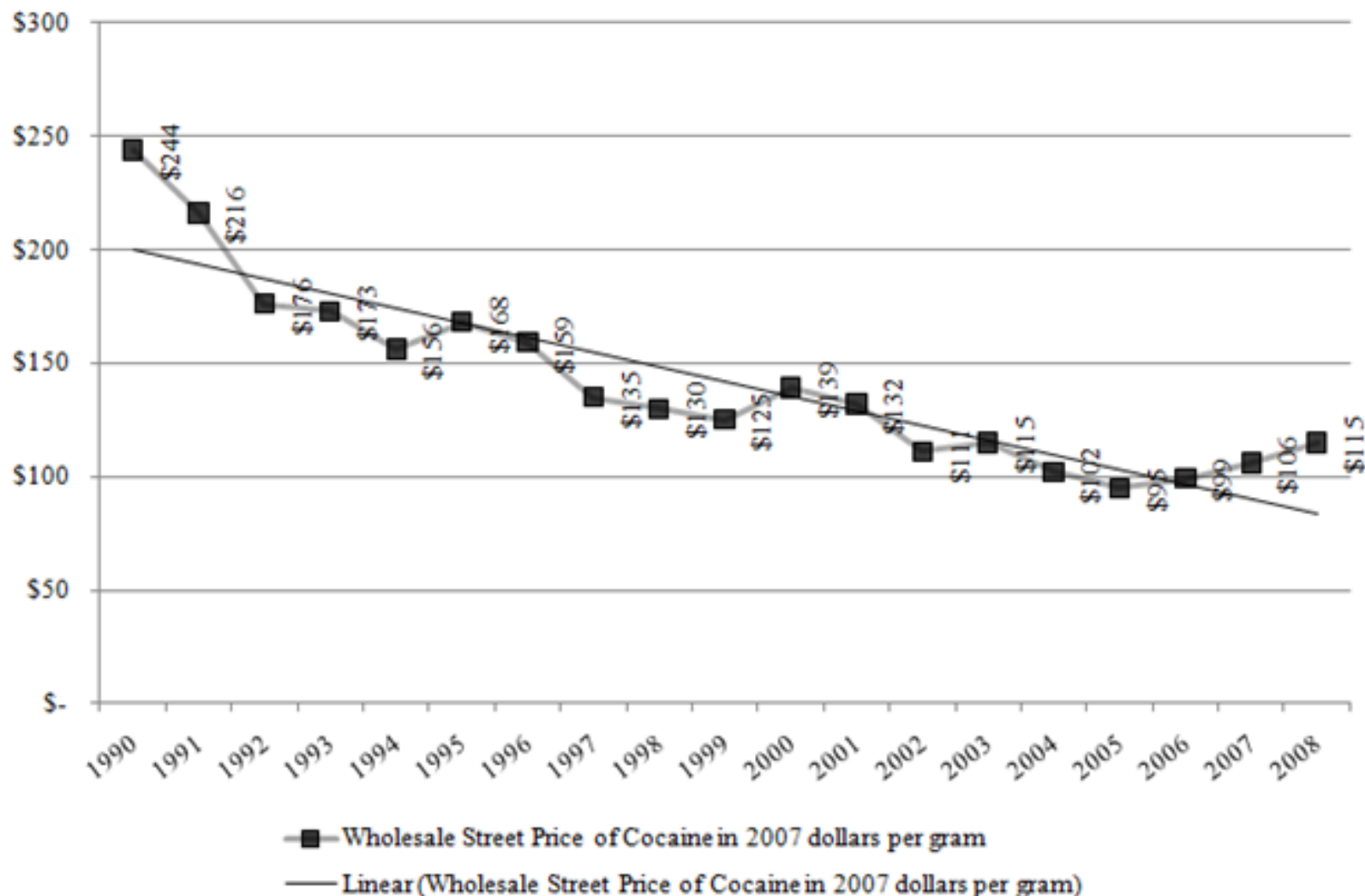
Source: Drug Enforcement Agency STRIDE Surveillance System

Note: Price adjusted for purity and inflation and expressed in 2011 USD

* Test for trend $p < 0.001$

** Test for trend $p = 0.943$

Wholesale Street Price of Cocaine in 2007 dollars per gram



Poll: What is the leading cause of accidental death in the United States?

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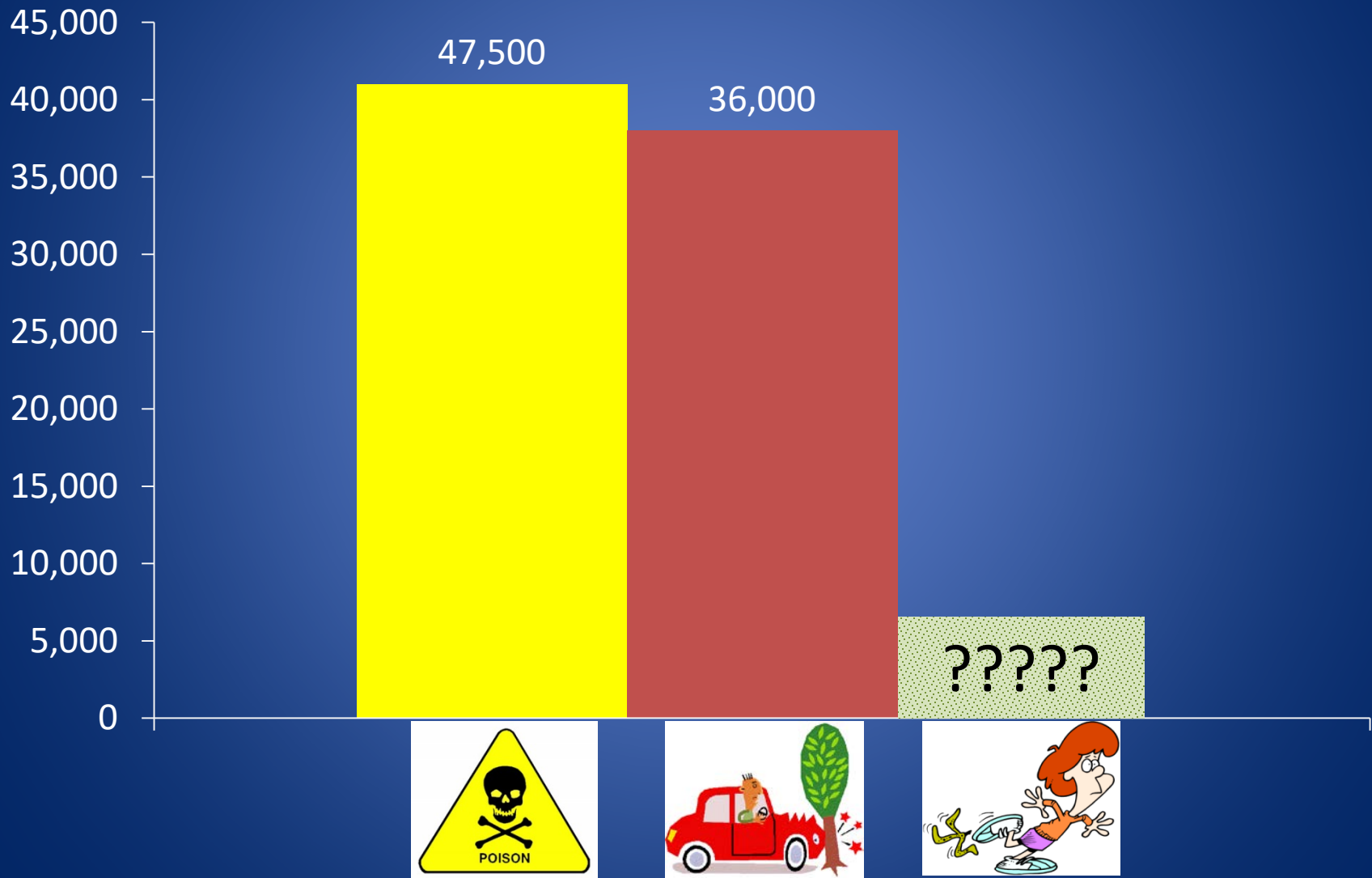
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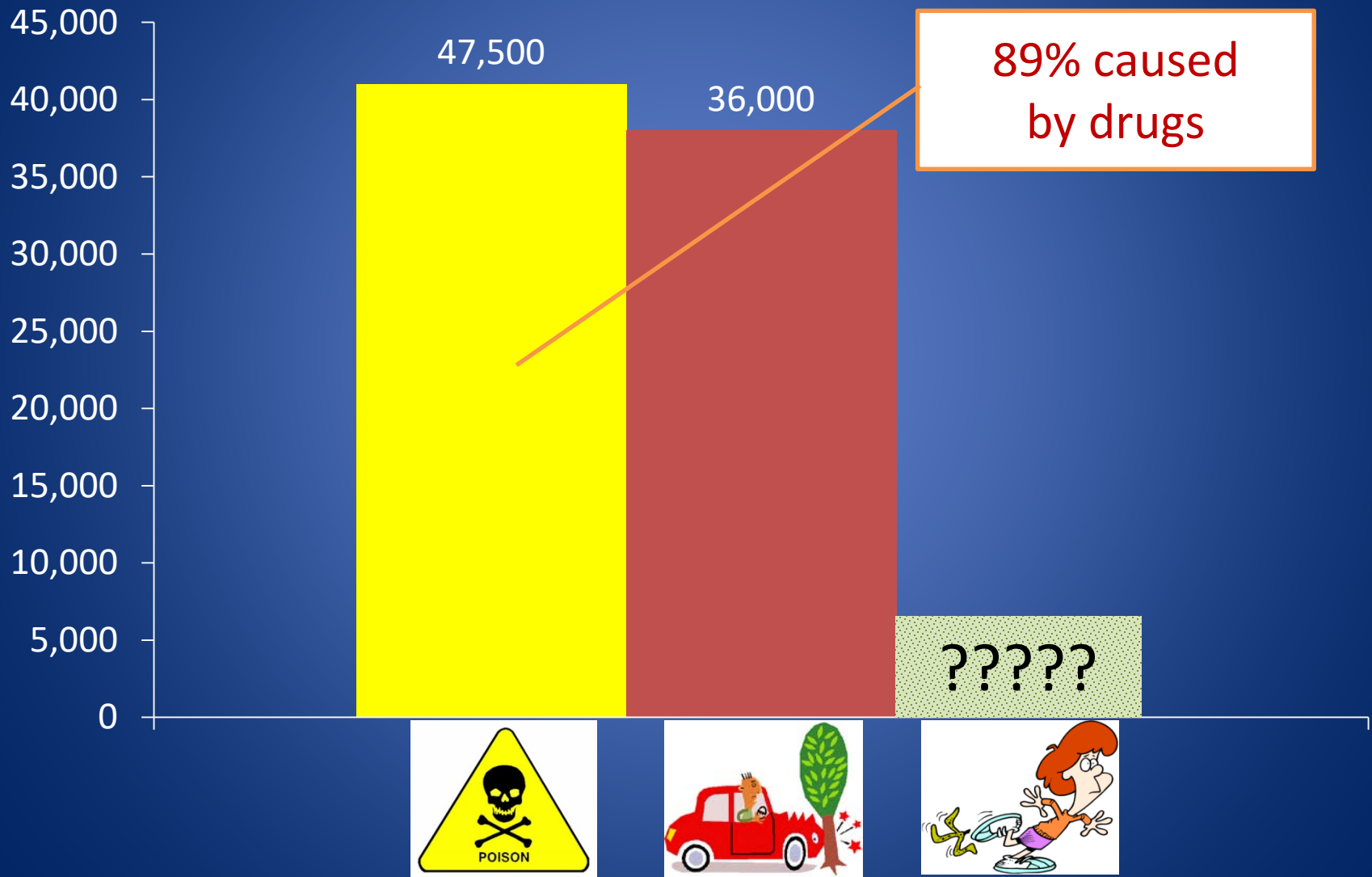
Poll: What is the leading cause of accidental death in the United States?



Accidental Deaths



Accidental Deaths



10 Leading Causes of Unintentional Death

10 Leading Causes of Injury Death by Age Group Highlighting Unintentional Injury Deaths, United States – 2005

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 748	Unintentional Drowning 493	Unintentional MV Traffic 560	Unintentional MV Traffic 763	Unintentional MV Traffic 10,657	Unintentional MV Traffic 7,047	Unintentional Poisoning 6,729	Unintentional Poisoning 6,363	Unintentional MV Traffic 4,267	Unintentional Fall 15,802	Unintentional MV Traffic 43,667
2	Unintentional MV Traffic 140	Unintentional MV Traffic 489	Unintentional Fire/burn 138	Suicide Suffocation 172	Homicide Firearm 4,499	Unintentional Poisoning 4,386	Unintentional MV Traffic 6,491	Unintentional MV Traffic 6,179	Suicide Firearm 2,470	Unintentional MV Traffic 7,046	Unintentional Poisoning 23,618
3	Homicide Unspecified 129	Unintentional Fire/burn 208	Unintentional Drowning 121	Homicide Firearm 143	Unintentional Poisoning 2,434	Homicide Firearm 3,780	Suicide Firearm 2,855	Suicide Firearm 3,472	Unintentional Poisoning 2,007	Unintentional Unspecified 5,069	Unintentional Fall 19,656
4	Homicide Other Spec., Classifiable 99	Homicide Unspecified 153	Unintentional Other Land Transport 47	Unintentional Drowning 132	Suicide Firearm 1,962	Suicide Firearm 2,269	Homicide Firearm 2,010	Suicide Poisoning 1,707	Unintentional Fall 1,451	Suicide Firearm 3,889	Suicide Firearm 17,002
5	Unintentional Drowning 64	Unintentional Pedestrian, Other 129	Homicide Firearm 44	Unintentional Fire/burn 85	Suicide Suffocation 1,570	Suicide Suffocation 1,524	Suicide Suffocation 1,670	Suicide Suffocation 1,197	Suicide Poisoning 892	Unintentional Suffocation 3,271	Homicide Firearm 12,352
6	Undetermined Suffocation 50	Unintentional Suffocation 126	Unintentional Suffocation 44	Suicide Firearm 84	Unintentional Drowning 649	Suicide Poisoning 757	Suicide Poisoning 1,456	Unintentional Fall 1,191	Suicide Suffocation 575	Adverse Effects 1,708	Suicide Suffocation 7,248
7	Unintentional Fire/burn 36	Homicide Other Spec., Classifiable 74	Unintentional Pedestrian, Other 25	Unintentional Other Land Transport 63	Homicide Cut/pierce 528	Undetermined Poisoning 564	Undetermined Poisoning 944	Homicide Firearm 1,097	Unintentional Suffocation 509	Unintentional Fire/burn 1,178	Unintentional Unspecified 6,551
8	Undetermined Unspecified 30	Unintentional Natural/Environment 38	Unintentional Natural/Environment 17	Unintentional Suffocation 59	Suicide Poisoning 361	Homicide Cut/pierce 474	Unintentional Fall 607	Undetermined Poisoning 1,026	Homicide Firearm 405	Unintentional Natural/Environment 1,069	Unintentional Suffocation 5,900
9	Homicide Suffocation 27	Homicide Firearm 37	Unintentional Poisoning 17	Unintentional Firearm 37	Unintentional Other Land Transport 298	Unintentional Drowning 385	Unintentional Drowning 467	Unintentional Fire/burn 506	Unintentional Fire/burn 405	Unintentional Poisoning 931	Suicide Poisoning 5,744
10	Unintentional Unspecified 22	Unintentional Fall 34	Three Tied* 15	Unintentional Poisoning 34	Undetermined Poisoning 292	Unintentional Fall 295	Homicides Cut/pierce 426	Unintentional Drowning 462	Unintentional Natural/Environment 376	Suicide Poisoning 603	Undetermined Drowning 3,582

*Three causes are: Unintentional Firearm, Unintentional Struck by/Against, and Unintentional Unspecified.

Source: National Vital Statistics System, National Center for Health Statistics, CDC.

Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States – 2010

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 905	Unintentional Drowning 436	Unintentional MV Traffic 354	Unintentional MV Traffic 452	Unintentional MV Traffic 7,024	Unintentional Poisoning 6,767	Unintentional Poisoning 7,476	Unintentional Poisoning 9,662	Unintentional Poisoning 4,451	Unintentional Fall 21,649	Unintentional MV Traffic 33,687
2	Homicide Unspecified 154	Unintentional MV Traffic 343	Unintentional Drowning 134	Suicide Suffocation 168	Homicide Firearm 3,889	Unintentional MV Traffic 5,558	Unintentional MV Traffic 4,552	Unintentional MV Traffic 5,154	Unintentional MV Traffic 4,134	Unintentional MV Traffic 6,037	Unintentional Poisoning 33,041
3	Homicide Other Spec., classifiable 82	Homicide Unspecified 163	Unintentional Fire/Burn 89	Unintentional Drowning 117	Unintentional Poisoning 3,183	Homicide Firearm 3,331	Suicide Firearm 2,914	Suicide Firearm 4,092	Suicide Firearm 3,387	Unintentional Unspecified 4,596	Unintentional Fall 26,009
4	Unintentional MV Traffic 76	Unintentional Fire/Burn 151	Homicide Firearm 58	Homicide Firearm 107	Suicide Firearm 2,046	Suicide Firearm 2,594	Suicide Suffocation 1,839	Suicide Poisoning 2,061	Unintentional Fall 2,011	Suicide Firearm 4,276	Suicide Firearm 19,392
5	Undetermined Suffocation 39	Unintentional Suffocation 134	Unintentional Suffocation 31	Suicide Firearm 80	Suicide Suffocation 1,824	Suicide Suffocation 1,910	Homicide Firearm 1,673	Suicide Suffocation 1,965	Suicide Poisoning 1,382	Unintentional Suffocation 3,400	Homicide Firearm 11,078
6	Unintentional Drowning 39	Unintentional Pedestrian, Other 103	Unintentional Other Land Transport 26	Unintentional Suffocation 48	Unintentional Drowning 656	Suicide Poisoning 787	Suicide Poisoning 1,279	Unintentional Fall 1,283	Suicide Suffocation 1,130	Adverse Effects 1,544	Suicide Suffocation 9,493
7	Undetermined Unspecified 35	Homicide Other Spec., classifiable 84	Unintentional Pedestrian, Other 20	Unintentional Fire/Burn 46	Homicide Cut/Pierce 420	Undetermined Poisoning 580	Undetermined Poisoning 712	Homicide Firearm 1,097	Unintentional Suffocation 613	Unintentional Poisoning 1,402	Suicide Poisoning 6,599
8	Adverse Effects 22	Unintentional Natural/Environment 52	Adverse Effects 14	Unintentional Other Land Transport 42	Suicide Poisoning 371	Unintentional Drowning 476	Unintentional Fall 493	Undetermined Poisoning 955	Homicide Firearm 533	Unintentional Fire/Burn 1,088	Unintentional Suffocation 6,165
9	Unintentional Fire/Burn 22	Homicide Firearm 43	Unintentional Natural/Environment 14	Unintentional Poisoning 40	Undetermined Poisoning 282	Homicide Cut/Pierce 438	Unintentional Drowning 409	Unintentional Drowning 578	Undetermined Poisoning 480	Suicide Poisoning 709	Unintentional Unspecified 5,688
10	Unintentional Natural/Environment 22	Unintentional Struck by or Against 37	Unintentional Poisoning 14	Unintentional Firearm 26	Unintentional Other Land Transport 221	Unintentional Fall 299	Homicide Cut/Pierce 349	Unintentional Suffocation 464	Unintentional Fire/Burn 479	Suicide Suffocation 648	Unintentional Drowning 3,782

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System.

Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC using WISQARS™.



Center for Disease Control and Prevention
National Center for Injury Prevention and Control

10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States – 2011

Age Groups											
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	Total
1	Unintentional Suffocation 896	Unintentional Drowning 438	Unintentional MV Traffic 350	Unintentional MV Traffic 437	Unintentional MV Traffic 6,926	Unintentional Poisoning 7,652	Unintentional Poisoning 8,075	Unintentional Poisoning 10,379	Unintentional Poisoning 5,048	Unintentional Fall 22,901	Unintentional Poisoning 36,280
2	Homicide Unspecified 142	Unintentional MV Traffic 330	Unintentional Drowning 128	Suicide Suffocation 177	Homicide Firearm 3,825	Unintentional MV Traffic 5,569	Unintentional MV Traffic 4,425	Unintentional MV Traffic 5,240	Unintentional MV Traffic 4,184	Unintentional MV Traffic 6,225	Unintentional MV Traffic 33,783
3	Unintentional MV Traffic 93	Homicide Unspecified 181	Unintentional Fire/Burn 81	Homicide Firearm 107	Unintentional Poisoning 3,440	Homicide Firearm 3,271	Suicide Firearm 2,837	Suicide Firearm 4,100	Suicide Firearm 3,522	Unintentional Unspecified 4,630	Unintentional Fall 27,483
4	Homicide Other Spec., Classifiable 82	Unintentional Suffocation 144	Homicide Firearm 55	Unintentional Drowning 107	Suicide Firearm 2,168	Suicide Firearm 2,740	Suicide Suffocation 1,959	Suicide Suffocation 2,062	Unintentional Fall 2,141	Suicide Firearm 4,526	Suicide Firearm 19,990
5	Unintentional Drowning 52	Unintentional Fire/Burn 130	Unintentional Suffocation 34	Suicide Firearm 91	Suicide Suffocation 1,898	Suicide Suffocation 2,055	Homicide Firearm 1,718	Suicide Poisoning 1,946	Suicide Poisoning 1,411	Unintentional Suffocation 3,402	Homicide Firearm 11,068
6	Undetermined Suffocation 40	Homicide Other Spec., Classifiable 92	Unintentional Other Land Transport 31	Unintentional Other Land Transport 47	Unintentional Drowning 543	Suicide Poisoning 816	Suicide Poisoning 1,280	Unintentional Fall 1,368	Suicide Suffocation 1,107	Adverse Effects 1,628	Suicide Suffocation 9,913
7	Unintentional Unspecified 28	Unintentional Pedestrian, Other 88	Unintentional Natural/Environment 28	Unintentional Suffocation 43	Homicide Cut/Pierce 395	Undetermined Poisoning 594	Undetermined Poisoning 655	Homicide Firearm 1,147	Unintentional Suffocation 644	Unintentional Poisoning 1,581	Suicide Poisoning 6,564
8	Unintentional Fire/Burn 24	Unintentional Struck by or Against 56	Unintentional Firearm 16	Unintentional Fire/Burn 42	Suicide Poisoning 349	Homicide Cut/Pierce 447	Unintentional Fall 524	Undetermined Poisoning 952	Homicide Firearm 546	Unintentional Fire/Burn 1,073	Unintentional Suffocation 6,242
9	Homicide Suffocation 23	Homicide Firearm 48	Unintentional Pedestrian, Other 16	Unintentional Poisoning 35	Undetermined Poisoning 252	Unintentional Drowning 442	Unintentional Drowning 414	Unintentional Suffocation 536	Unintentional Fire/Burn 522	Unintentional Natural/Environment 825	Unintentional Unspecified 5,871
10	Unintentional Natural/Environment 21	Unintentional Natural/Environment 40	Two Tied* 15	Unintentional Other Transport 32	Unintentional Fall 205	Unintentional Fall 279	Homicide Cut/Pierce 317	Unintentional Drowning 479	Unintentional Unspecified 496	Suicide Poisoning 751	Unintentional Drowning 3,556

* Unintentional Other Transport and Unintentional Poisoning tied.

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System.

Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC using WISQARS™.



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Control and Prevention
National Center for Injury
Prevention and Control

10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States – 2014

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 991	Unintentional Drowning 388	Unintentional MV Traffic 345	Unintentional MV Traffic 384	Unintentional MV Traffic 6,531	Unintentional Poisoning 9,334	Unintentional Poisoning 9,116	Unintentional Poisoning 11,009	Unintentional Poisoning 7,013	Unintentional Fall 27,044	Unintentional Poisoning 42,032
2	Homicide Unspecified 119	Unintentional MV Traffic 293	Unintentional Drowning 125	Suicide Suffocation 225	Homicide Firearm 3,587	Unintentional MV Traffic 5,856	Unintentional MV Traffic 4,308	Unintentional MV Traffic 5,024	Unintentional MV Traffic 4,554	Unintentional MV Traffic 6,373	Unintentional MV Traffic 33,736
3	Homicide Other Spec., Classifiable 83	Homicide Unspecified 149	Unintentional Fire/Burn 68	Suicide Firearm 174	Unintentional Poisoning 3,492	Homicide Firearm 3,260	Suicide Firearm 2,830	Suicide Firearm 3,953	Suicide Firearm 3,910	Suicide Firearm 5,367	Unintentional Fall 31,959
4	Unintentional MV Traffic 61	Unintentional Suffocation 120	Homicide Firearm 58	Homicide Firearm 115	Suicide Firearm 2,270	Suicide Firearm 2,829	Suicide Suffocation 2,057	Suicide Suffocation 2,321	Unintentional Fall 2,558	Unintentional Unspecified 4,590	Suicide Firearm 21,334
5	Undetermined Suffocation 40	Unintentional Fire/Burn 117	Unintentional Other Land Transport 36	Unintentional Drowning 105	Suicide Suffocation 2,010	Suicide Suffocation 2,402	Homicide Firearm 1,835	Suicide Poisoning 1,795	Suicide Poisoning 1,529	Unintentional Suffocation 3,692	Suicide Suffocation 11,407
6	Unintentional Drowning 29	Unintentional Pedestrian, Other 107	Unintentional Suffocation 34	Unintentional Fire/Burn 49	Unintentional Drowning 507	Suicide Poisoning 800	Suicide Poisoning 1,274	Unintentional Fall 1,340	Suicide Suffocation 1,509	Unintentional Poisoning 1,993	Homicide Firearm 10,945
7	Homicide Suffocation 26	Homicide Other Spec., Classifiable 73	Unintentional Natural/Environment 22	Unintentional Other Land Transport 49	Suicide Poisoning 363	Undetermined Poisoning 575	Undetermined Poisoning 637	Homicide Firearm 1,132	Unintentional Suffocation 698	Adverse Effects 1,554	Suicide Poisoning 6,808
8	Unintentional Natural/Environment 17	Homicide Firearm 47	Unintentional Pedestrian, Other 18	Unintentional Suffocation 33	Homicide Cut/Pierce 314	Homicide Cut/Pierce 430	Unintentional Fall 504	Undetermined Poisoning 820	Undetermined Poisoning 539	Unintentional Fire/Burn 1,151	Unintentional Suffocation 6,580
9	Undetermined Unspecified 16	Unintentional Struck by or Against 38	Unintentional Struck by or Against 16	Unintentional Poisoning 22	Undetermined Poisoning 229	Unintentional Drowning 399	Unintentional Drowning 363	Unintentional Suffocation 452	Homicide Firearm 538	Suicide Poisoning 1,028	Unintentional Unspecified 5,848
10	Unintentional Fire/Burn 15	Unintentional Natural/Environment 35	Unintentional Firearm (Tied) 14	Homicide Cut/Pierce 19	Unintentional Other Land Transport 177	Unintentional Fall 285	Homicide Cut/Pierce 313	Unintentional Drowning 442	Unintentional Unspecified 530	Suicide Suffocation 880	Unintentional Drowning 3,406

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System.
Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.



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National Center for Injury
Prevention and Control

10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States – 2015

Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 1,125	Unintentional Drowning 390	Unintentional MV Traffic 351	Unintentional MV Traffic 412	Unintentional MV Traffic 6,787	Unintentional Poisoning 11,231	Unintentional Poisoning 10,580	Unintentional Poisoning 11,670	Unintentional Poisoning 7,782	Unintentional Fall 28,486	Unintentional Poisoning 47,478
2	Homicide Unspecified 135	Unintentional MV Traffic 332	Unintentional Drowning 129	Suicide Suffocation 234	Homicide Firearm 4,140	Unintentional MV Traffic 6,327	Unintentional MV Traffic 4,686	Unintentional MV Traffic 5,329	Unintentional MV Traffic 5,008	Unintentional MV Traffic 6,860	Unintentional MV Traffic 36,161
3	Homicide Other Spec., Classifiable 69	Homicide Unspecified 153	Unintentional Fire/Burn 72	Suicide Firearm 139	Unintentional Poisoning 3,920	Homicide Firearm 3,996	Suicide Firearm 2,952	Suicide Firearm 3,882	Suicide Firearm 3,951	Suicide Firearm 5,511	Unintentional Fall 33,381
4	Unintentional MV Traffic 64	Unintentional Suffocation 131	Homicide Firearm 69	Homicide Firearm 121	Suicide Firearm 2,461	Suicide Firearm 3,118	Suicide Suffocation 2,219	Suicide Suffocation 2,333	Unintentional Fall 2,504	Unintentional Unspecified 5,204	Suicide Firearm 22,018
5	Undetermined Suffocation 50	Unintentional Fire/Burn 100	Unintentional Other Land Transport 32	Unintentional Drowning 87	Suicide Suffocation 2,119	Suicide Suffocation 2,504	Homicide Firearm 2,197	Suicide Poisoning 1,835	Suicide Poisoning 1,593	Unintentional Suffocation 3,837	Homicide Firearm 12,979
6	Unintentional Drowning 30	Unintentional Pedestrian, Other 75	Unintentional Suffocation 31	Unintentional Other Land Transport 51	Unintentional Drowning 504	Suicide Poisoning 769	Suicide Poisoning 1,181	Homicide Firearm 1,299	Suicide Suffocation 1,535	Unintentional Poisoning 2,198	Suicide Suffocation 11,855
7	Homicide Suffocation 24	Homicide Other Spec., Classifiable 73	Unintentional Natural/Environment 24	Unintentional Fire/Burn 41	Suicide Poisoning 409	Undetermined Poisoning 624	Undetermined Poisoning 699	Unintentional Fall 1,298	Unintentional Suffocation 777	Adverse Effects 1,721	Unintentional Unspecified 6,930
8	Unintentional Fire/Burn 22	Homicide Firearm 50	Unintentional Pedestrian, Other 20	Unintentional Poisoning 36	Homicide Cut/Pierce 312	Unintentional Drowning 445	Unintentional Fall 492	Undetermined Poisoning 828	Unintentional Unspecified 696	Unintentional Fire/Burn 1,171	Unintentional Suffocation 6,914
9	Undetermined Unspecified 21	Homicide Suffocation 31	Unintentional Poisoning 17	Unintentional Suffocation 26	Undetermined Poisoning 234	Homicide Cut/Pierce 399	Unintentional Drowning 374	Unintentional Suffocation 469	Homicide Firearm 681	Suicide Poisoning 1,005	Suicide Poisoning 6,816
10	Four Tied 12	Unintentional Fall 30	Unintentional Struck by or Against 17	Suicide Poisoning 23	Unintentional Fall 217	Unintentional Fall 324	Homicide Cut/Pierce 291	Unintentional Drowning 450	Two Tied: Undet. Poisoning, Unint. Fire/Burn 565	Suicide Suffocation 908	Unintentional Drowning 3,602

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System.

Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.



Centers for Disease Control and Prevention
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Drug Safety vs. Auto Safety

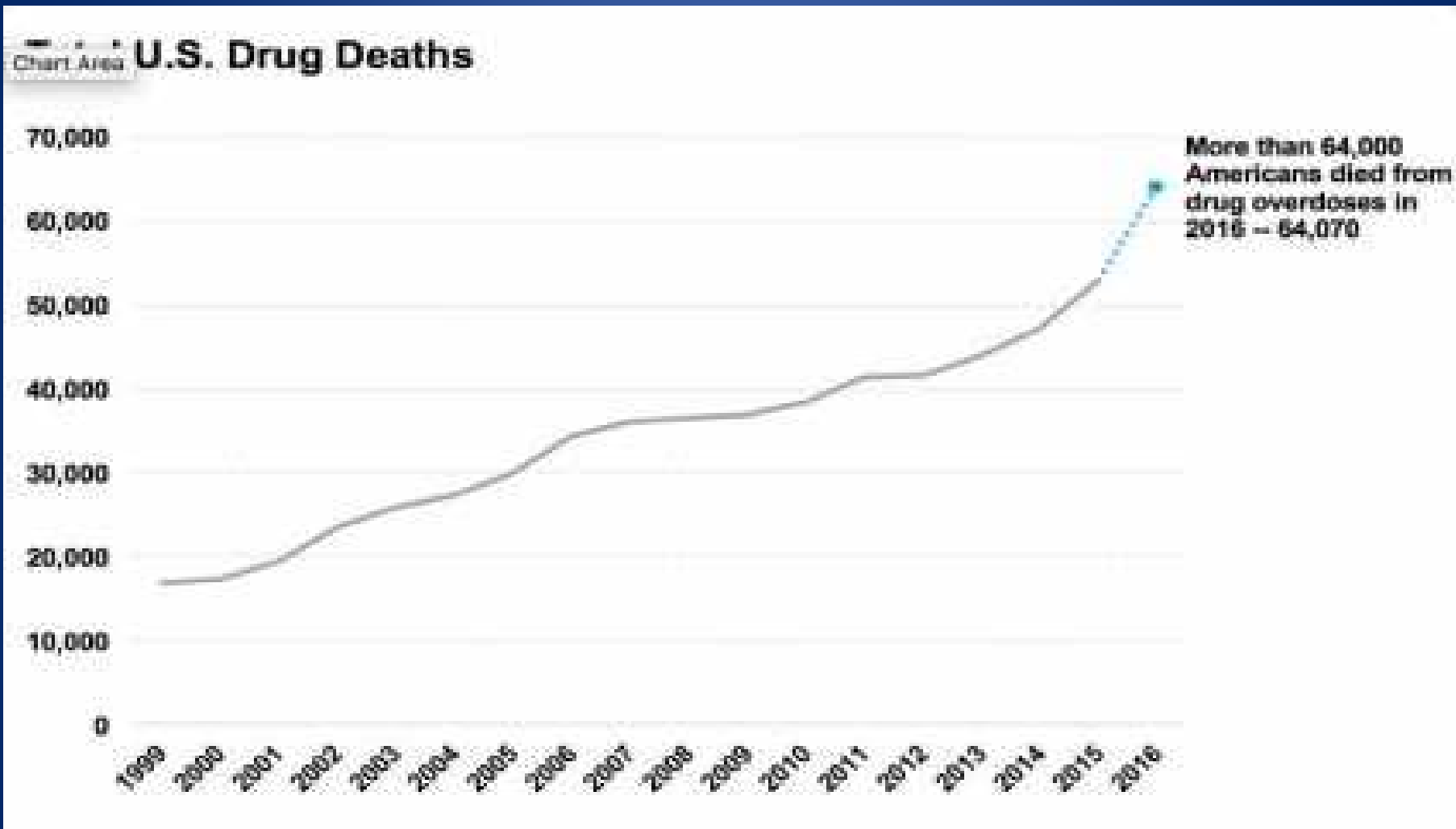


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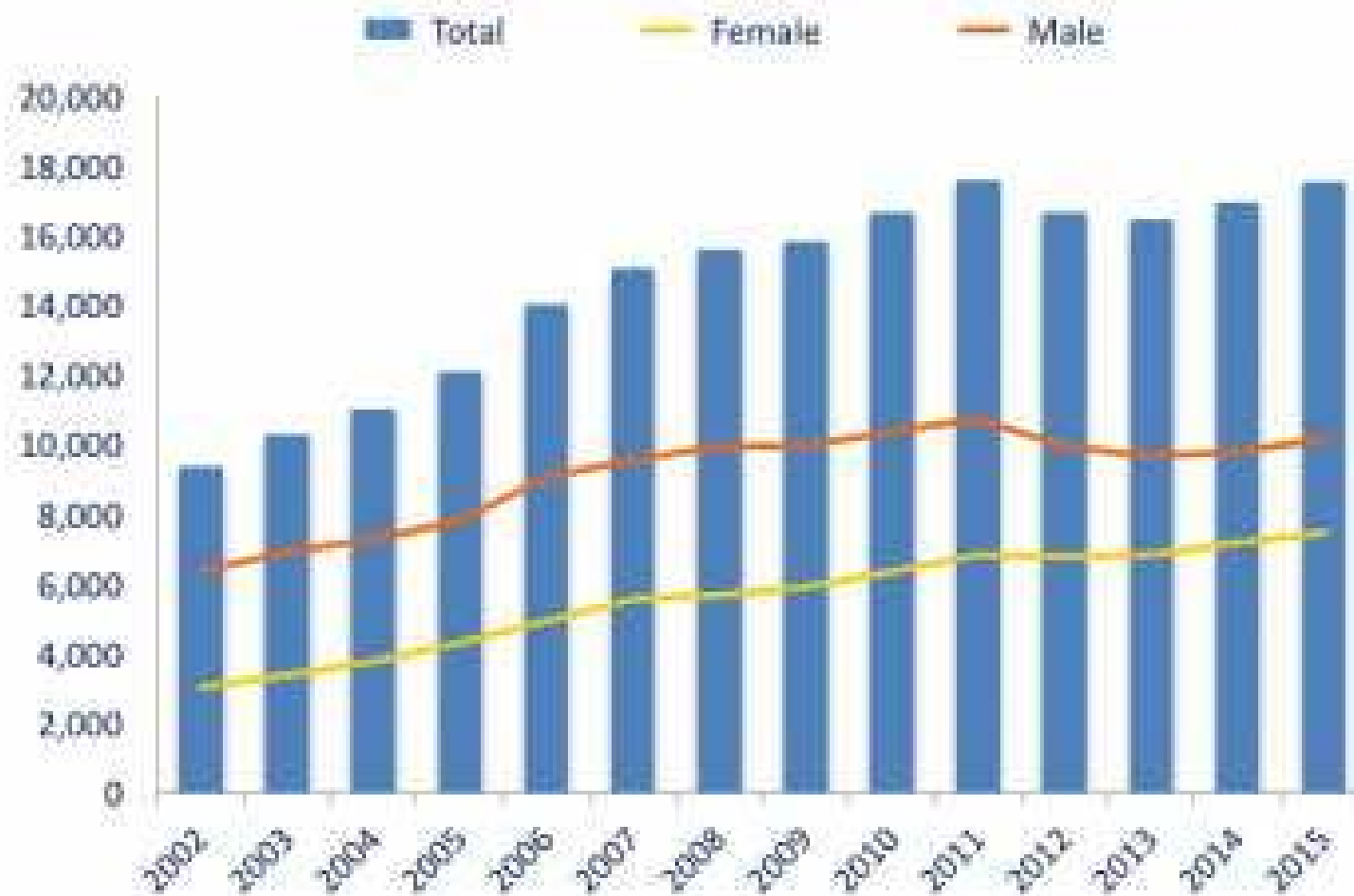
Total U.S. Drug Deaths





National Overdose Deaths

Number of Deaths from Prescription Opioid Pain Relievers
(excluding non-methadone synthetics)

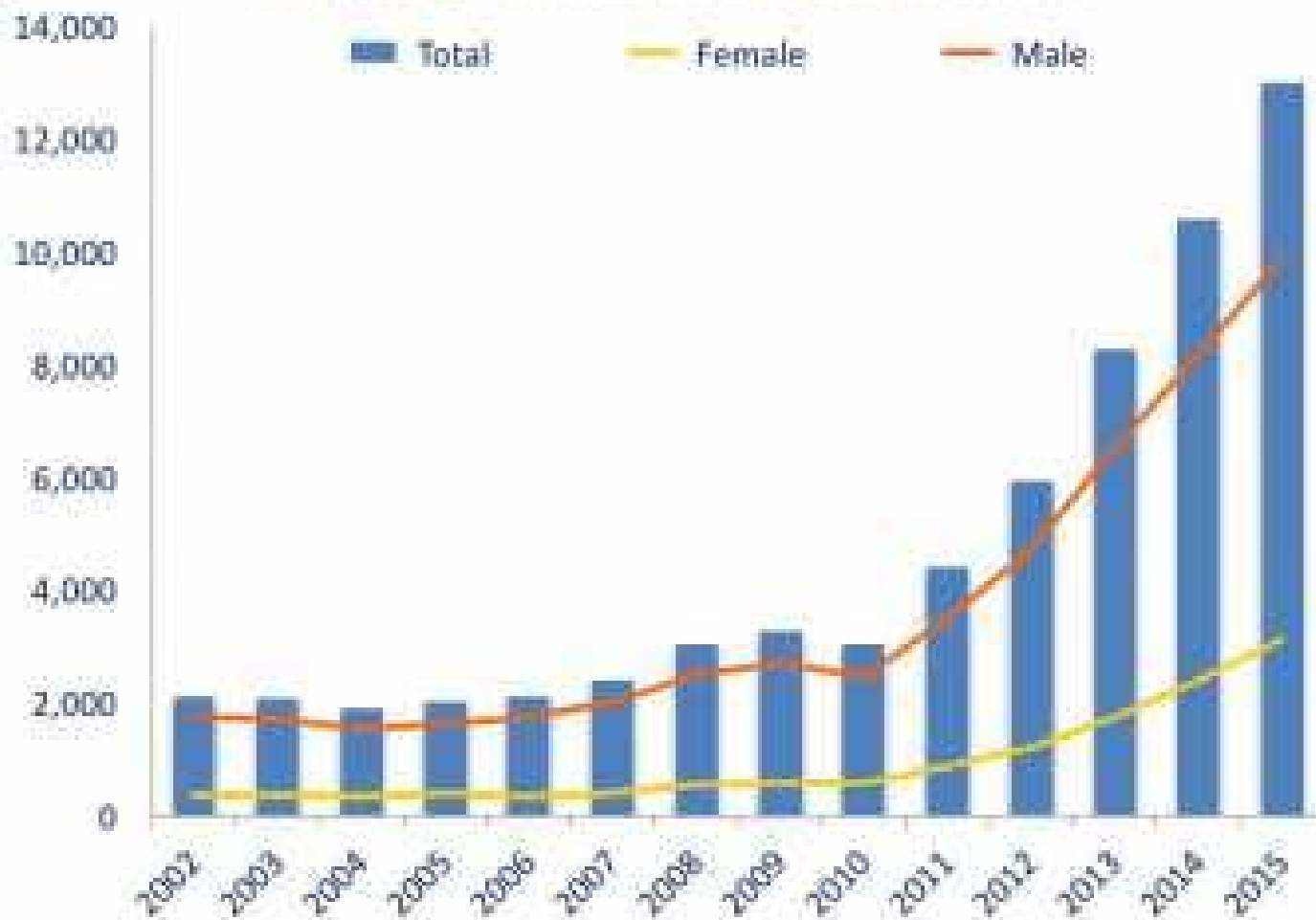


Source: National Center for Health Statistics, CDC Wonder



National Overdose Deaths

Number of Deaths from Heroin

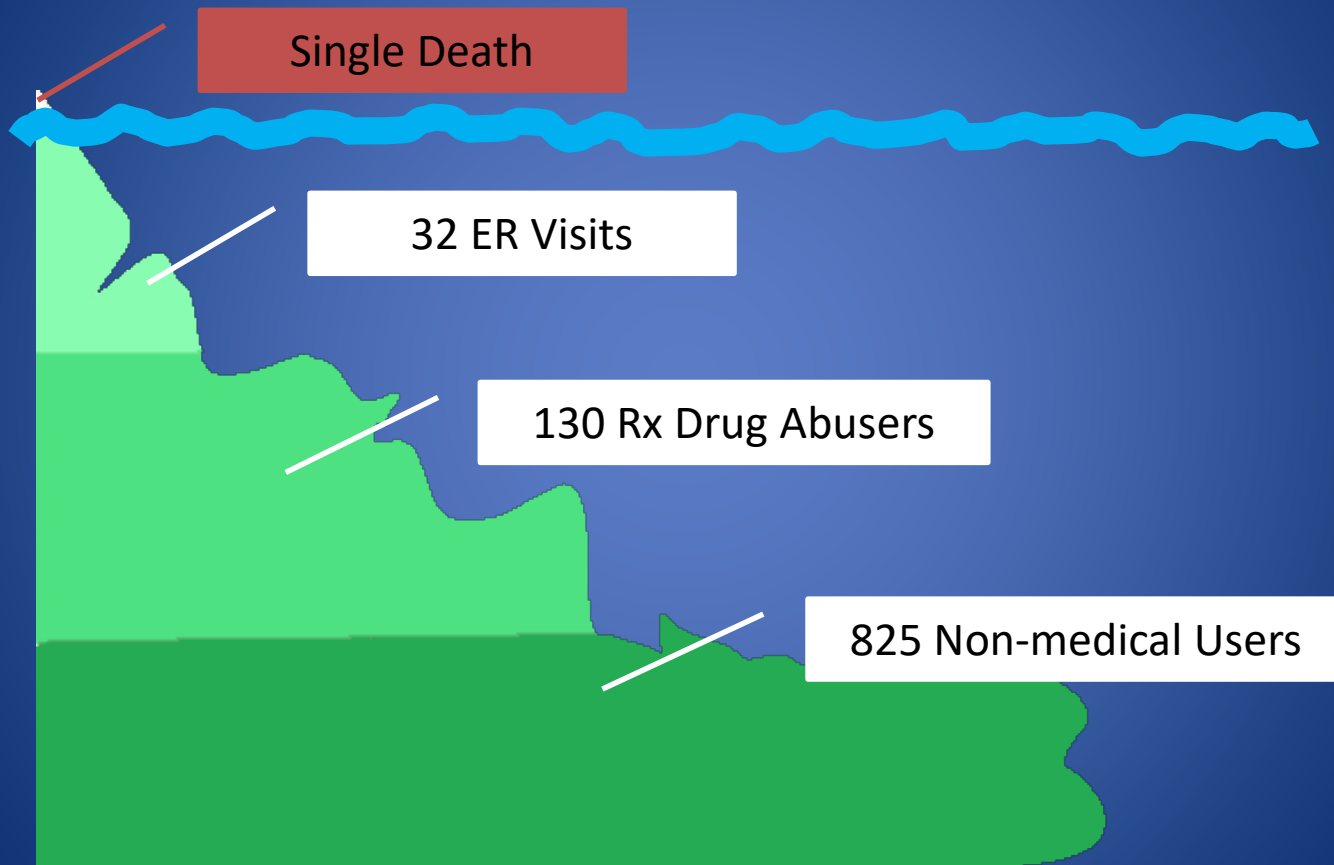


Source: National Center for Health Statistics, CDC Wonder

And of course...



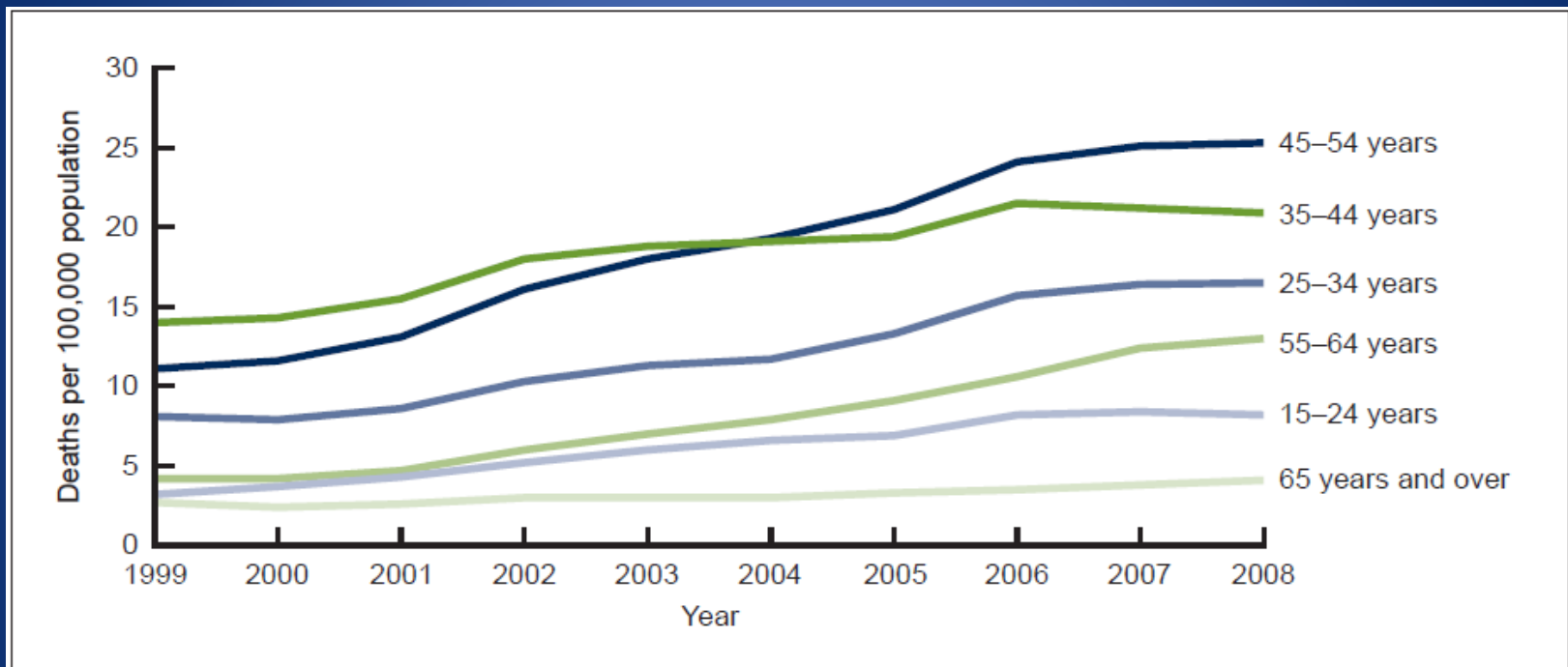
For Every ONE Death...



Over One Million Served



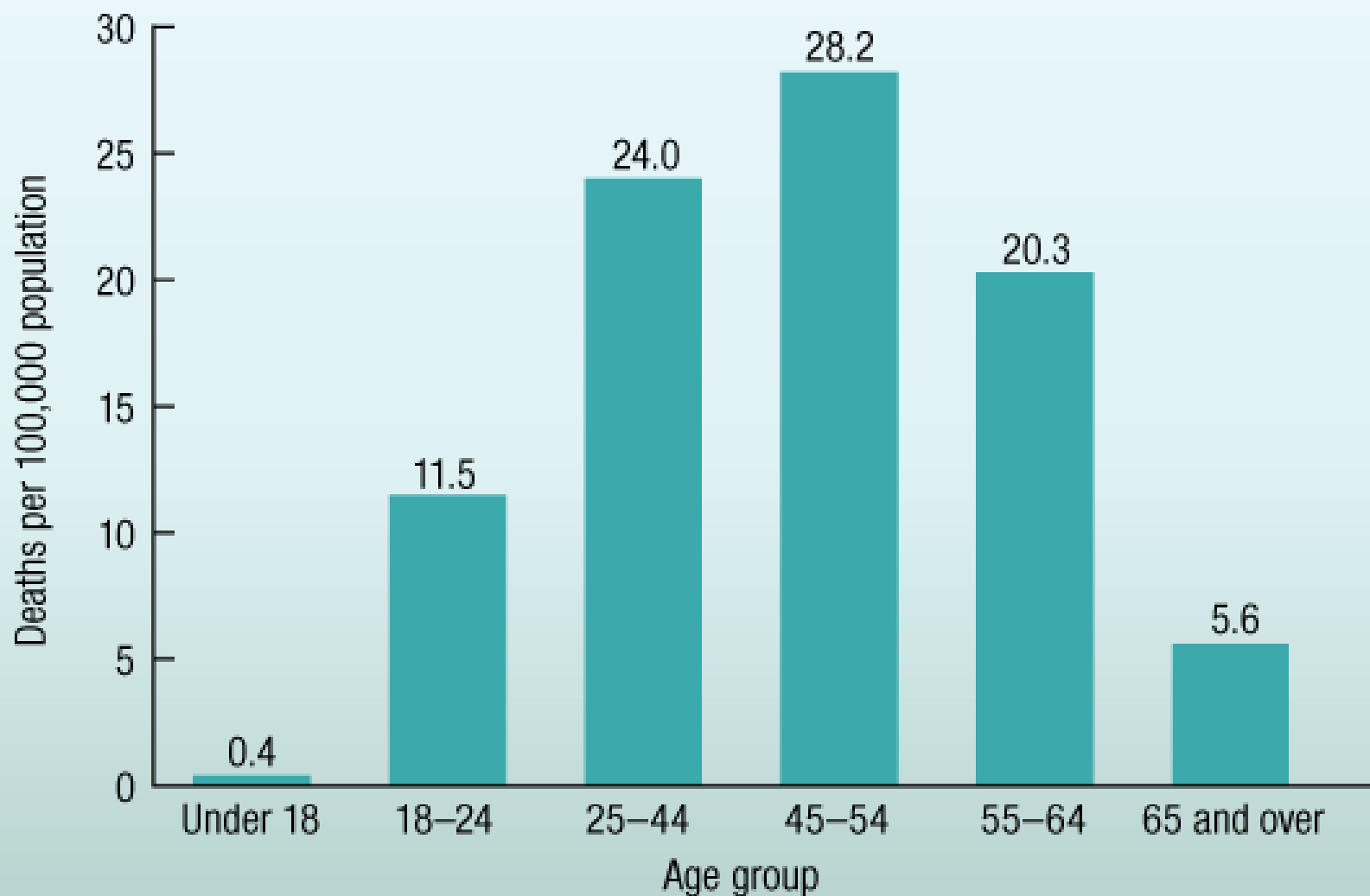
Drug Poisoning Deaths: By Age



NOTE: Access data table for Figure 5 at http://www.cdc.gov/nchs/data/databriefs/db81_tables.pdf#5.

SOURCE: CDC/NCHS, National Vital Statistics System.

Drug-poisoning death rates, by age: United States, 2014



10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States – 2014

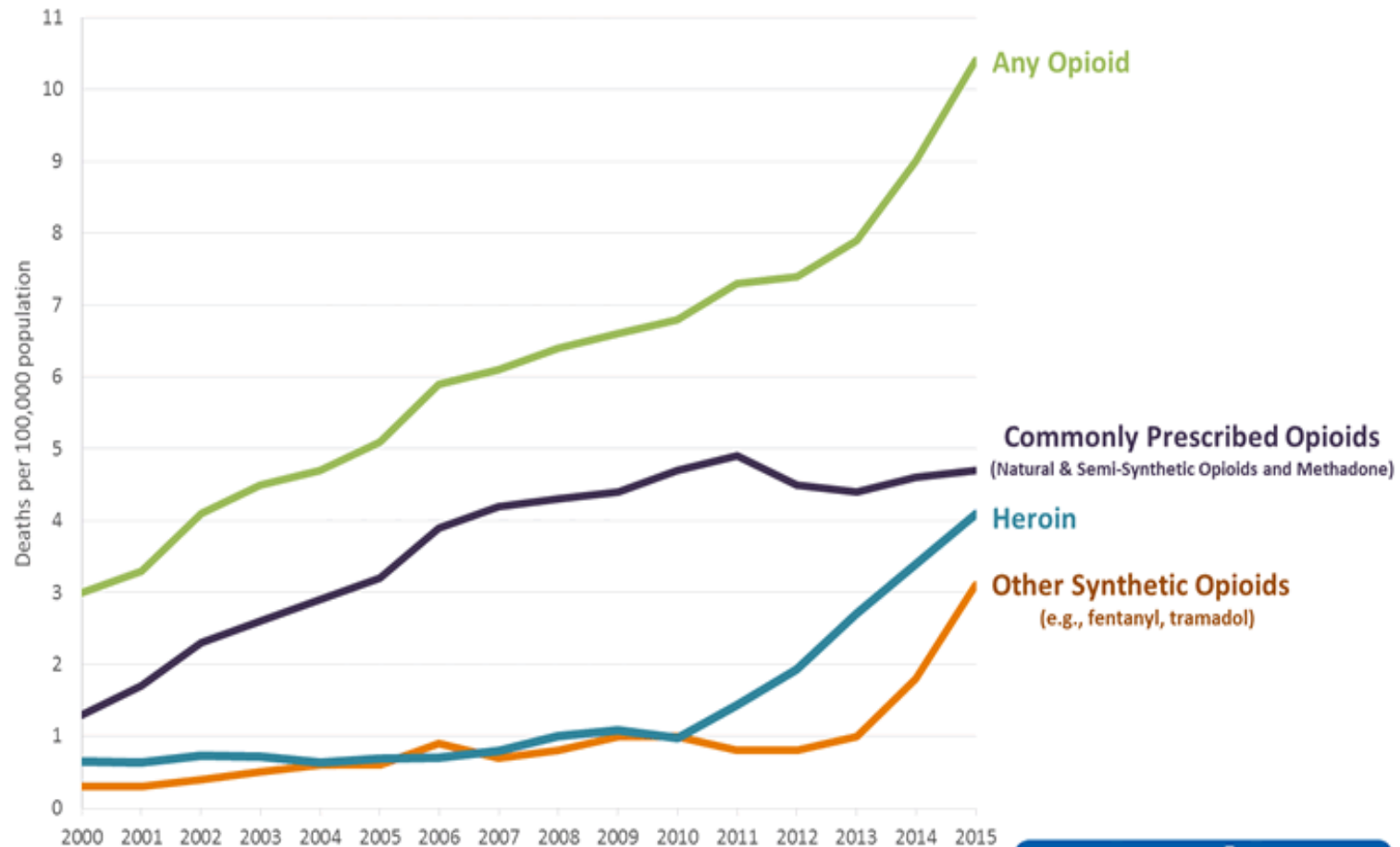
Rank	Age Groups										Total
	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	
1	Unintentional Suffocation 991	Unintentional Drowning 388	Unintentional MV Traffic 345	Unintentional MV Traffic 384	Unintentional MV Traffic 6,531	Unintentional Poisoning 9,334	Unintentional Poisoning 9,116	Unintentional Poisoning 11,009	Unintentional Poisoning 7,013	Unintentional Fall 27,044	Unintentional Poisoning 42,032
2	Homicide Unspecified 119	Unintentional MV Traffic 293	Unintentional Drowning 125	Suicide Suffocation 225	Homicide Firearm 3,587	Unintentional MV Traffic 5,856	Unintentional MV Traffic 4,308	Unintentional MV Traffic 5,024	Unintentional MV Traffic 4,554	Unintentional MV Traffic 6,373	Unintentional MV Traffic 33,736
3	Homicide Other Spec., Classifiable 83	Homicide Unspecified 149	Unintentional Fire/Burn 68	Suicide Firearm 174	Unintentional Poisoning 3,492	Homicide Firearm 3,260	Suicide Firearm 2,830	Suicide Firearm 3,953	Suicide Firearm 3,910	Suicide Firearm 5,367	Unintentional Fall 31,959
4	Unintentional MV Traffic 61	Unintentional Suffocation 120	Homicide Firearm 58	Homicide Firearm 115	Suicide Firearm 2,270	Suicide Firearm 2,829	Suicide Suffocation 2,057	Suicide Suffocation 2,321	Unintentional Fall 2,558	Unintentional Unspecified 4,590	Suicide Firearm 21,334
5	Undetermined Suffocation 40	Unintentional Fire/Burn 117	Unintentional Other Land Transport 36	Unintentional Drowning 105	Suicide Suffocation 2,010	Suicide Suffocation 2,402	Homicide Firearm 1,835	Suicide Poisoning 1,795	Suicide Poisoning 1,529	Unintentional Suffocation 3,692	Suicide Suffocation 11,407
6	Unintentional Drowning 29	Unintentional Pedestrian, Other 107	Unintentional Suffocation 34	Unintentional Fire/Burn 49	Unintentional Drowning 507	Suicide Poisoning 800	Suicide Poisoning 1,274	Unintentional Fall 1,340	Suicide Suffocation 1,509	Unintentional Poisoning 1,993	Homicide Firearm 10,945
7	Homicide Suffocation 26	Homicide Other Spec., Classifiable 73	Unintentional Natural/Environment 22	Unintentional Other Land Transport 49	Suicide Poisoning 363	Undetermined Poisoning 575	Undetermined Poisoning 637	Homicide Firearm 1,132	Unintentional Suffocation 698	Adverse Effects 1,554	Suicide Poisoning 6,808
8	Unintentional Natural/Environment 17	Homicide Firearm 47	Unintentional Pedestrian, Other 18	Unintentional Suffocation 33	Homicide Cut/Pierce 314	Homicide Cut/Pierce 430	Unintentional Fall 504	Undetermined Poisoning 820	Undetermined Poisoning 539	Unintentional Fire/Burn 1,151	Unintentional Suffocation 6,580
9	Undetermined Unspecified 16	Unintentional Struck by or Against 38	Unintentional Struck by or Against 16	Unintentional Poisoning 22	Undetermined Poisoning 229	Unintentional Drowning 399	Unintentional Drowning 363	Unintentional Suffocation 452	Homicide Firearm 538	Suicide Poisoning 1,028	Unintentional Unspecified 5,848
10	Unintentional Fire/Burn 15	Unintentional Natural/Environment 35	Unintentional Firearm (Tied) 14	Homicide Cut/Pierce 19	Unintentional Other Land Transport 177	Unintentional Fall 285	Homicide Cut/Pierce 313	Unintentional Drowning 442	Unintentional Unspecified 530	Suicide Suffocation 880	Unintentional Drowning 3,406

Data Source: National Center for Health Statistics (NCHS), National Vital Statistics System.
Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.



Centers for Disease
Control and Prevention
National Center for Injury
Prevention and Control

Overdose Deaths Involving Opioids, United States, 2000-2015



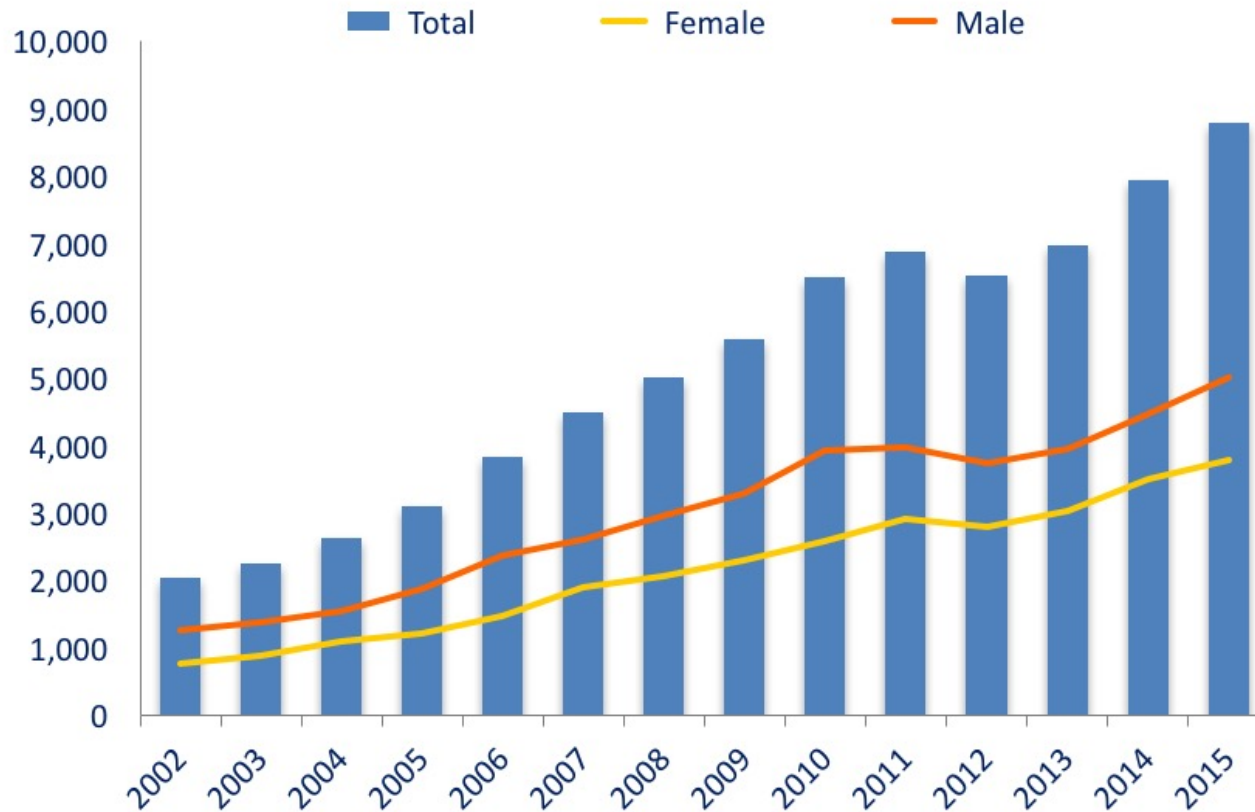
SOURCE: CDC/NCHS, National Vital Statistics System, Mortality. CDC WONDER, Atlanta, GA: US Department of Health and Human Services, CDC; 2016. <https://wonder.cdc.gov/>.

www.cdc.gov
Your Source for Credible Health Information



National Overdose Deaths

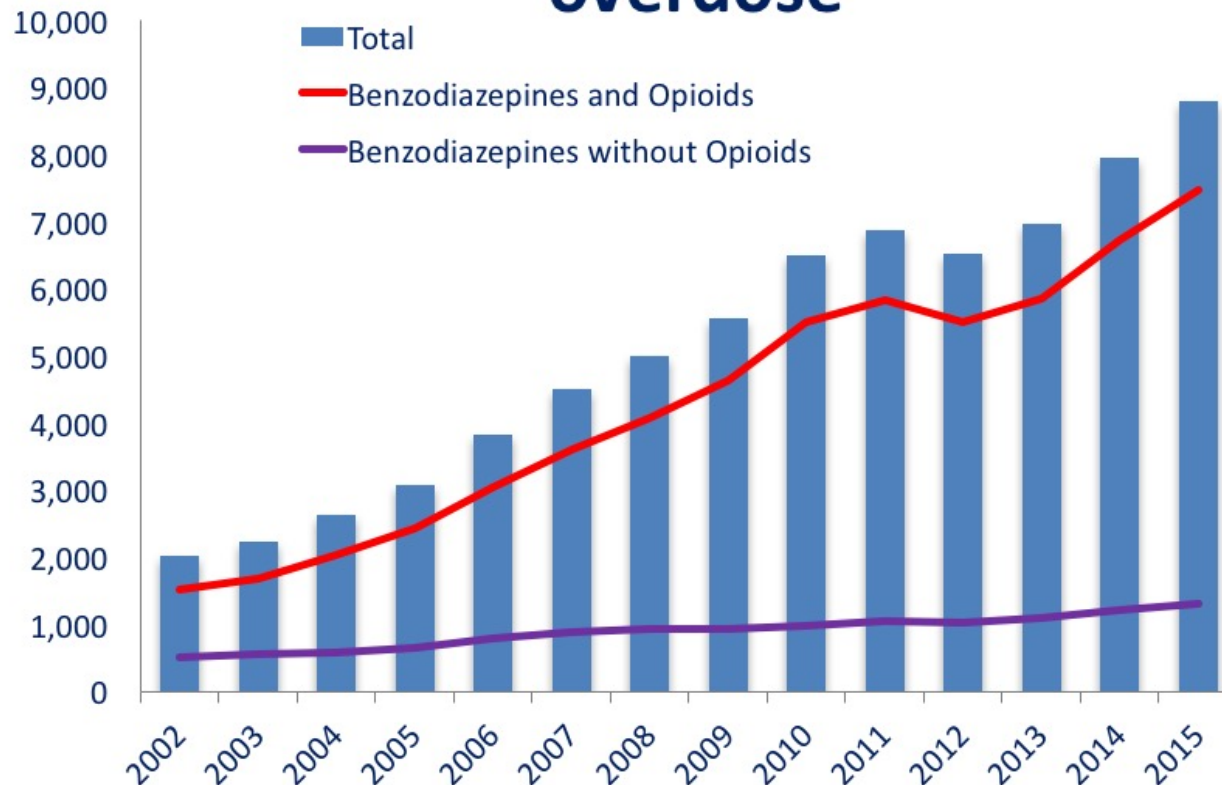
Number of Deaths from Benzodiazepines



Source: National Center for Health Statistics, CDC Wonder



Opioid involvement in benzodiazepine overdose



Source: National Center for Health Statistics, CDC Wonder

STATISTICS VARIABILITY

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1. CDC statistics rely on death certificate codes

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STATISTICS VARIABILITY

1. CDC statistics rely on death certificate codes
2. Only 28 states with “high quality reporting”.
3. M. E. and coroners training and expertise
4. 1 of 5 death certificates do not include ANY drug data
5. Now able to identify specific drugs

STATISTICS VARIABILITY

- New analysis still can't distinguish between RX fentanyl and illegal.
- Some deaths refer to morphine actually are due to heroin.
- Unintentional actually may have been suicides.
- Cannot distinguish between recreational use RX and actual medical use of RX.

PROBLEMS WITH THE CALCULATIONS OF DEATHS FROM OXY/HYDROCODONE

DEATHS FROM OXY/HYDROCODONE

- Greater than three quarters involved other substances.
- Alcohol involved in 15% all drug ODs.
- XANAX involved in 25% of ODs involving oxy, hydro, and methadone.

Top Products by Prescriptions

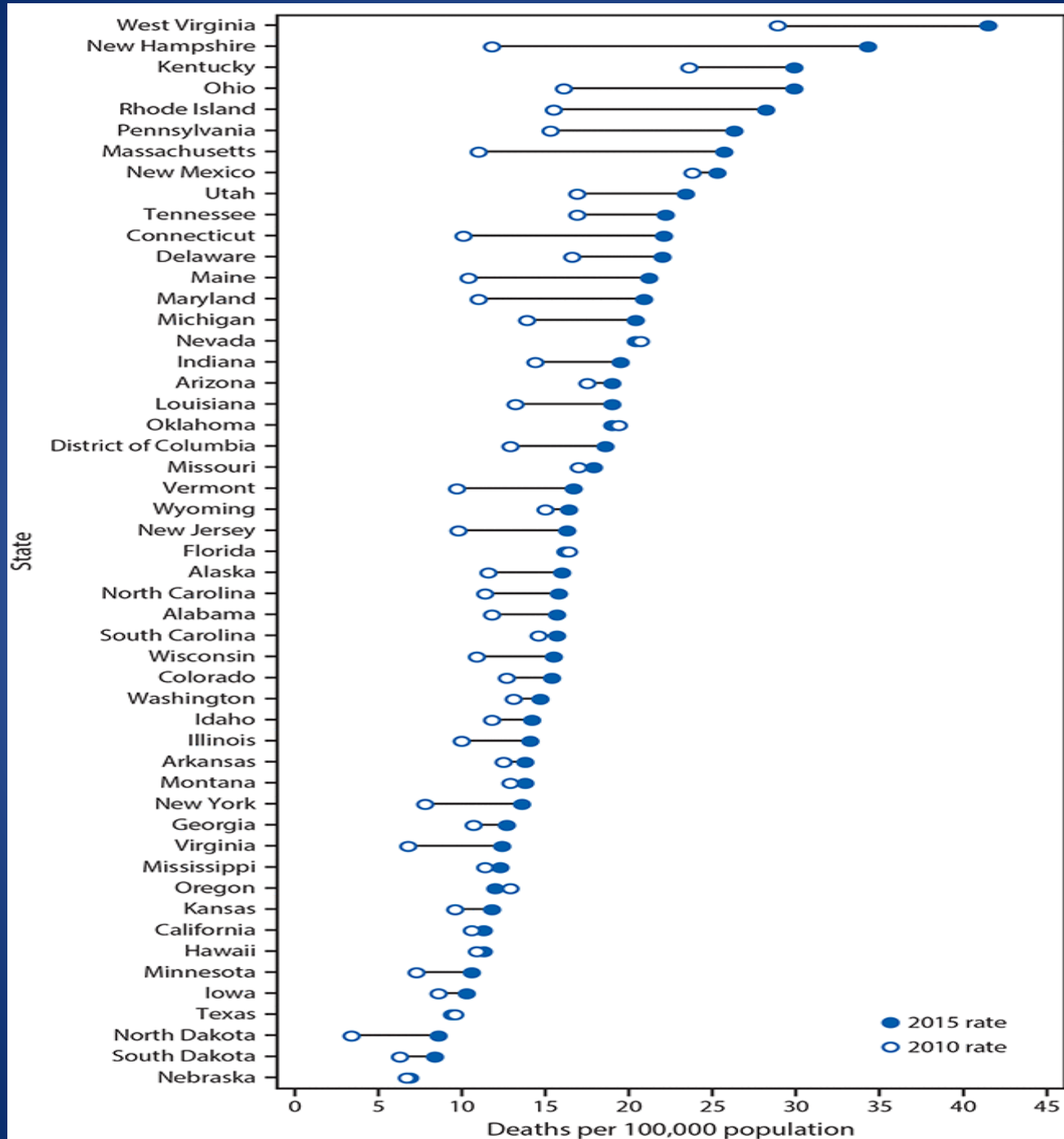
DISPENSED PRESCRIPTIONS MN	2010	2009	2008	2007	2006
Total US Market	3,995.2	3,949.2	3,866.3	3,825.1	3,706.4
1 hydrocodone/acetaminophen	131.2	128.2	124.1	119.2	112.4
2 simvastatin	94.1	83.8	67.5	47.9	14.4
3 lisinopril	87.4	82.8	76.8	71.1	65.2
4 levothyroxine sodium	70.5	66.0	61.2	54.6	49.8
5 amlodipine besylate	57.2	51.3	44.6	27.9	—
6 omeprazole (RX)	53.4	45.4	35.1	26.6	18.0
7 azithromycin	52.6	53.8	51.0	46.3	36.5
8 amoxicillin	52.3	52.4	50.9	53.2	54.7
9 metformin HCL	48.3	44.3	42.3	40.2	38.4
10 hydrochlorothiazide	47.8	47.9	48.5	48.5	48.0
11 alprazolam	46.3	43.9	41.7	39.8	37.6
12 Lipitor®	45.3	51.7	58.5	65.8	74.0
13 furosemide	43.4	43.5	44.1	44.2	44.3
14 metoprolol tartrate	38.9	41.1	32.6	31.6	29.2
15 zolpidem tartrate	38.0	35.1	29.9	16.0	—
16 atenolol	36.3	39.3	41.8	44.7	46.1
17 sertraline HCL	35.7	34.2	32.7	31.6	10.8
18 metoprolol succinate	33.0	26.9	41.5	21.0	0.6
19 citalopram HBR	32.1	27.1	22.4	17.8	14.0
20 warfarin sodium	32.0	31.6	30.2	28.8	26.7
21 oxycodone/acetaminophen	31.9	30.2	28.4	25.9	22.8
22 ibuprofen (RX)	31.1	30.3	28.5	27.7	26.8
23 Plavix®	29.5	29.9	28.9	25.1	18.4
24 gabapentin	29.3	25.4	22.2	20.0	18.5
25 Singulair®	28.7	28.6	29.0	31.0	28.1

Source: IMS Health, National Prescription Audit, Dec 2010

Top Medicines by Prescriptions

Dispensed Prescriptions Mn		2010	2011	2012	2013	2014
Total U.S. Market		3,990	4,017	4,158	4,240	4,327
1	levothyroxine	103.2	104.7	112.2	116.9	119.9
2	acetaminophen/hydrocodone	132.1	136.7	136.4	129.5	119.2
3	lisinopril	87.6	88.8	99.1	101.8	103.7
4	metoprolol	76.6	76.3	82.6	83.7	85.3
5	atorvastatin	45.3	43.3	55.5	68.1	80.7
6	amlodipine	57.8	62.5	69.1	74.8	78.3
7	metformin	57.0	59.1	67.8	73.1	76.9
8	omeprazole	53.5	59.4	66.6	71.7	75.0
9	simvastatin	94.4	96.8	89.3	80.5	72.8
10	albuterol	55.1	56.9	61.2	63.6	67.1
11	amoxicillin	52.4	53.8	52.8	54.3	54.5
12	fluticasone	34.8	38.4	42.1	45.3	50.8
13	gabapentin	29.6	33.4	38.6	43.9	50.7
14	alprazolam	47.7	49.1	49.5	49.7	49.4
15	hydrochlorothiazide	47.8	48.1	51.2	50.0	49.1
16	azithromycin	53.6	56.2	54.6	48.7	47.0
17	furosemide	43.6	42.3	44.1	45.9	46.5
18	sertraline	36.2	37.6	39.7	42.0	44.2
19	tramadol	28.0	33.9	39.3	41.9	44.2
20	losartan	11.2	19.2	27.6	33.8	39.5

Source: IMS Health, National Prescription Audit, Jan 2015



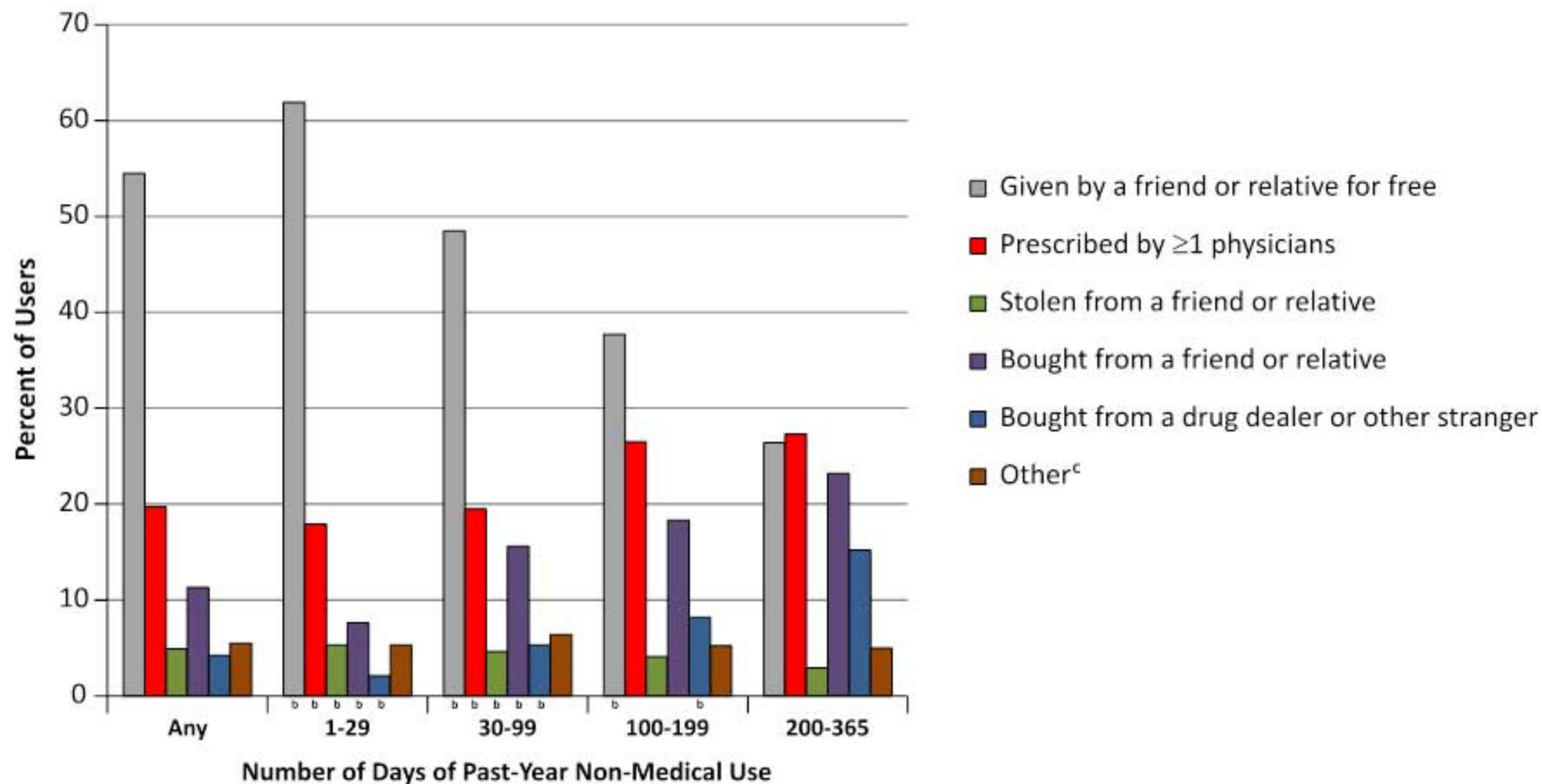
Why People Misuse or Abuse

- My doctor gave it to me – it must be safe!
- I feel sad – this will make me feel happy.
- My friend recommended it.
- I don't feel good about myself and want to escape my problems.

- Prescription drugs are safer than marijuana or alcohol.
- I need help falling asleep, waking up, concentrating.
- I'm bored.
- Why not?

Where Do Prescription Opioid Abusers Get Their Drugs?

Sources of Prescription Opioids Among Past-Year Non-Medical Users^a



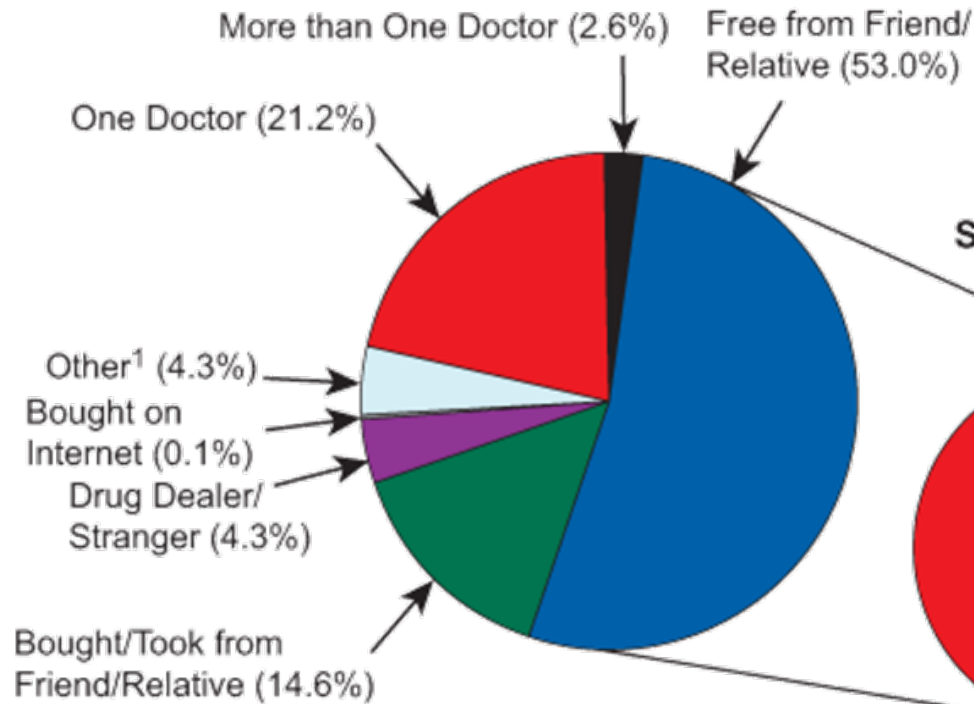
^a Obtained from the US National Survey on Drug Use and Health, 2008 through 2011.⁵

^b Estimate is statistically significantly different from that for highest-frequency users (200-365 days) ($P < .05$).

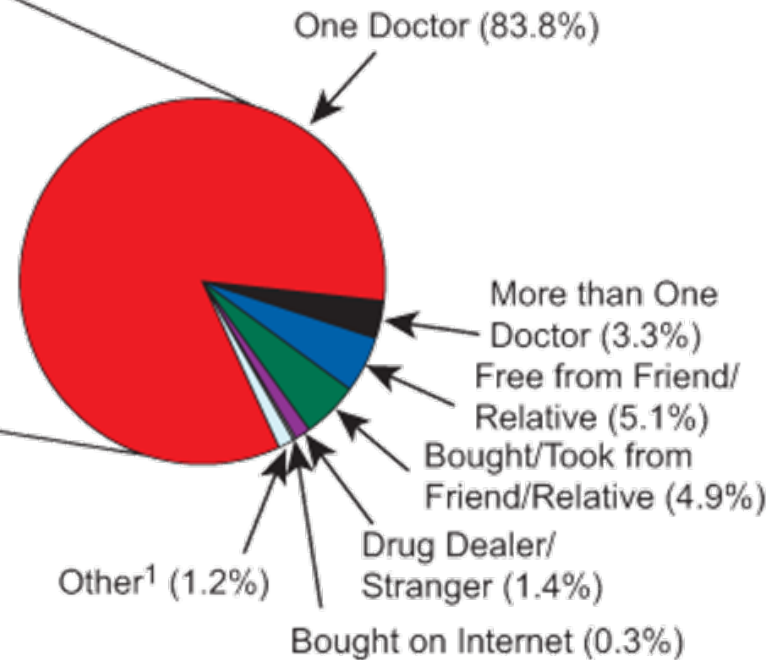
^c Includes written fake prescriptions and those opioids stolen from a physician's office, clinic, hospital, or pharmacy; purchases on the Internet; and obtained some other way.

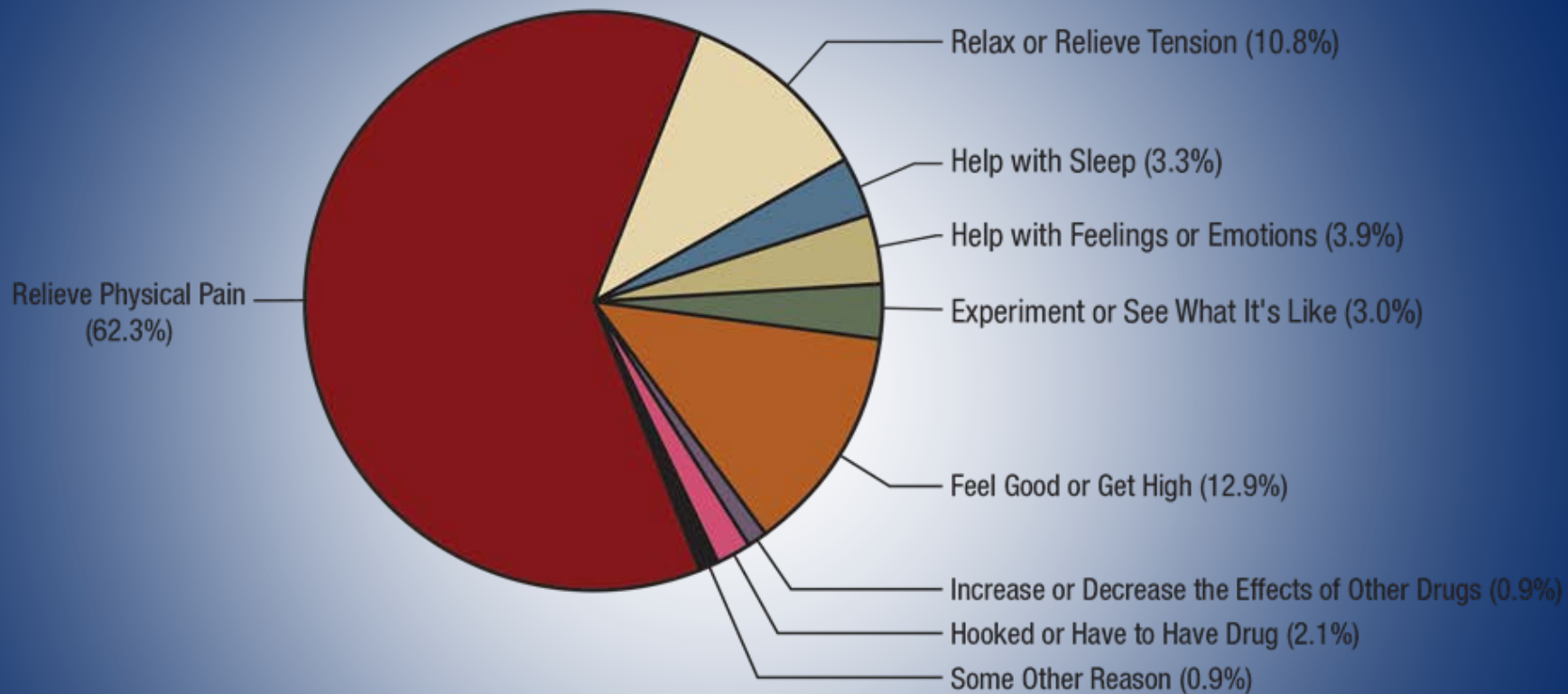
SOURCE: Jones C, Paulozzi L, Mack K. Sources of prescription opioid pain relievers by frequency of past-year nonmedical use: United States, 2008–2011. JAMA Int Med 2014; 174(5):802-803.

Source Where User Obtained



Source Where Friend/Relative Obtained





11.5 Million People Aged 12 or Older Who Misused Prescription Pain Relievers in the Past Year

WHO (WHAT SPECIALTIES) ARE THE
BIGGEST PRESCRIBERS OF
OPIOIDS?

IR OPIOD PRESCRIBERS 2010

• 1.	42.0%
• 2.	7.7%
• 3.	7.4%
• 4.	4.7%
• 5.	4.0%
• 6.	3.5%
• 7.	3.2%
• 8.	2.7%
• 9. All Others	24.7%

IR OPIOD PRESCRIBERS 2010

• 1.		42.0%
• 2.		7.7%
• 3.		7.4%
• 4.	EMERGENCY MEDICINE	4.7%
• 5.		4.0%
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IR OPIOD PRESCRIBERS 2010

- 1. 42.0%
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- 3. ORTHOPEDICS 7.4%
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IR OPIOD PRESCRIBERS 2010

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- 7. 3.2%
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- 9. All Others 24.7%

IR OPIOD PRESCRIBERS 2010

• 1.	IM/FP/GP	42.0%
• 2.	DDS	7.7%
• 3.	ORTHOPEDICS	7.4%
• 4.	EMERGENCY MEDICINE	4.7%
• 5.		4.0%
• 6.		3.5%
• 7.		3.2%
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• 3.	ORTHOPEDICS	7.4%
• 4.	EMERGENCY MEDICINE	4.7%
• 5.	PA	4.0%
• 6.	NP	3.5%
• 7.	ANESTHESIA	3.2%
• 8.	PAIN MANAGEMENT	2.7%
• 9.	All Others	24.7%

ER/LA OPIOD PRESCIBERS

• 1.	33.8%
• 2.	13.8%
• 3.	9.3%
• 4.	5.7%
• 5.	4.3%
• 6.	2.8%
• 7.	1.9%
• 8.	1.7%
• 9.	16.7%

ER/LA OPIOID PRESCRIBERS

- 1. GP/FM/IM 33.8%
- 2. ANESTHESIA 13.8%
- 3. PAIN MANAGEMENT 9.3%
- 4. NP 5.7%
- 5. PA 4.3%
- 6. NEUROLOGY 2.8%
- 7. ORTHOPEDICS 1.9%
- 8. HEM-ONC 1.7%
- 9. OTHERS 16.7%

HOW MANY PRESCRIBERS ARE THE
PROBLEM?

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- 80% prescribers-low dose single RX
20% of OD's

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- 10% prescribers-high dose single RX
40% of OD's

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20% of OD's
- 10% prescribers-high dose single RX
40% of OD's
- 10% prescribers-multiple dose RX
40% of OD's

WHAT YOU CAN DO

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- Use medications other than narcotics.
- Start with low doses of narcotics initially
- Use the Prescription Monitor Program

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- Educate on storage of medications
- Educate on disposable



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- Educate on possible Addiction
- Refer to Addiction counseling

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- Use the Prescription Monitor Program
- Start with low doses of narcotics initially
- Avoid prescribing Benzos with Narcotics
- Educate on storage of medications
- Educate on disposable
- Educate on possible Addiction
- Refer to Addiction counseling
- If treating for chronic pain, contract
- Refer to specialists

BREAKING NEWS FLASH.....

BREAKING NEWS FLASH.....

Fentanyl Overdose **Deaths**
Double in a Single Year

SUMMARY

- How got here
- Who affected
- Trends
- What YOU can do

THANK YOU !

- Bruce Bonanno, MD, FACEP
- brucebmd@optimum.net

References:

- 1 <http://www.cdc.gov/nchs/data/databriefs/db81.htm>
- 2 <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6101a3.htm>
- 3 <http://www.cdc.gov/nchs/data/databriefs/db81.htm>, Figure 3
- 4 <http://www.cdc.gov/nchs/data/databriefs/db81.htm> figure 5.
- 5 <http://www.cdc.gov/nchs/data/databriefs/db42.htm>, figure 1
- 6 <http://www.cdc.gov/nchs/data/databriefs/db42.pdf>, figure 5
- 7 <http://jama.ama-assn.org/content/304/5/514.full>
- 8 <http://jama.ama-assn.org/content/304/5/514.full>
- 9 <http://jama.ama-assn.org/content/304/5/514.full>
- 10 <http://www.cdc.gov/homeandrecreationalafety/rxbrief/>
- 11 http://www.talkaboutrx.org/maximizing_role.jsp
- 12 <http://www.usatoday.com/news/health/story/2012-04-24/prescription-drugs-painkiller-abuse/54514368/1>
- 13 <http://www.drugfree.org/join-together/prescription-drugs/survey-prescription-painkiller-abuse-often-starts-with-free-pills-from-friends-family>
- 14 [http://www.annemergmed.com/article/S0196-0644\(08\)01503-5/abstract](http://www.annemergmed.com/article/S0196-0644(08)01503-5/abstract)
- 15 <http://www.safekids.org/our-work/news-press/press-releases/new-research-reveals.html>
- 16 <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5923a1.htm>
- 17 http://www.talkaboutrx.org/a_user_access.jsp (Maximizing Your Role as Teen Influencer presentation by NCPIE)

- 18 <http://jamanetwork.com/journals/jamainternalmedicine/fullarticle/486669>
- 19 https://www.va.gov/PAINMANAGEMENT/docs/Pain_As_the_5th_Vital_Sign_Toolkit.pdf
- 20 https://www.jointcommission.org/assets/1/6/2001_Pain_Standards.pdf
- 21 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5223701/>
- 22 <https://www.qualitymeasures.ahrq.gov/summaries/summary/49600/emergency-department-ed-median-time-from-ed-arrival-to-time-of-initial-oral-intranasal-or-parenteral-pain-medication-administration-for-ed-patients-with-a-principal-diagnosis-of-long-bone-fracture?q=OP21>
- 23 <http://www.cdc.gov/nchs/data/databriefs/db81.htm>
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- 25 <http://www.pharmacytimes.com/publications/issue/2015/july2015/top-drugs-of-2014>
- 26 <https://www.samhsa.gov/samhsa-data-outcomes-quality/major-data-collections/reports-detailed-tables-2016-NSDUH>

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