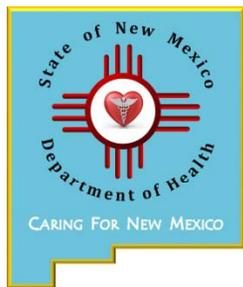
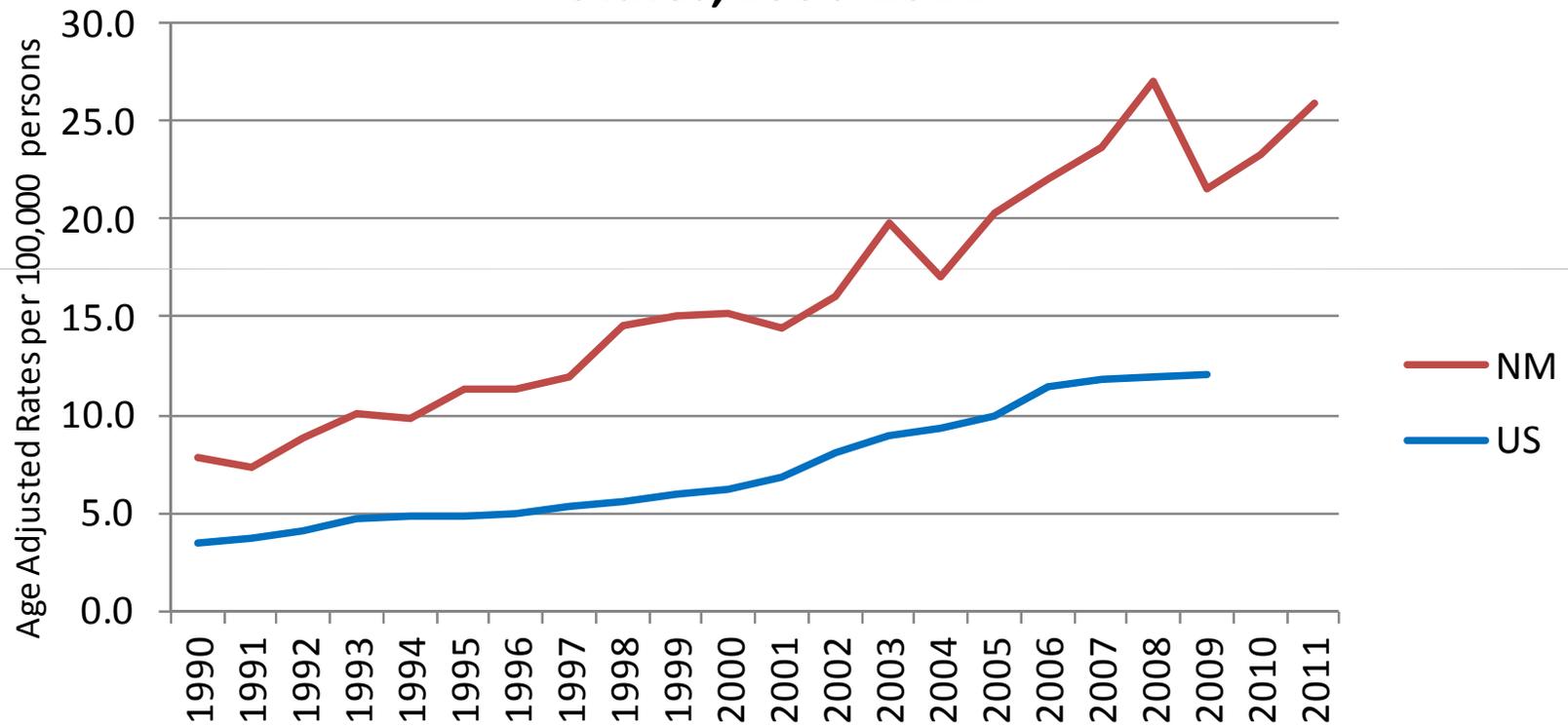


Prescription Drug Overdose Deaths in New Mexico

Michael Landen, MD, MPH
State Epidemiologist
New Mexico Department of Health



Drug Overdose Death Rates, New Mexico and United States, 1990-2011



Source: 1990-2008: CDC Wonder; 2009 US: NCHS; 2009-2011 NM: BVRHS.

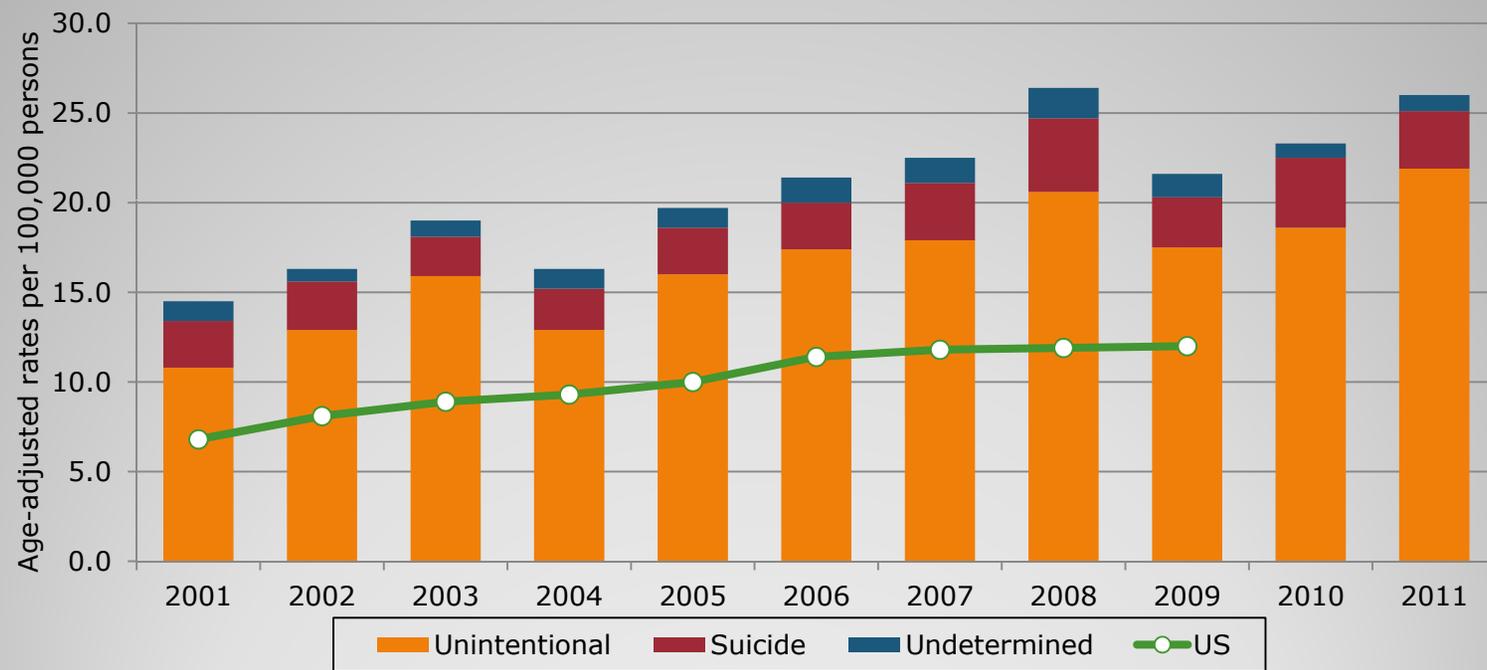
Drug Overdose Death Rates Leading States, U.S., 2009

Rank	State	Deaths per 100,000
1	New Mexico	22.4
2	Oklahoma	20.9
3	Nevada	20.6
4	Utah	18.7
5	Alaska	18.1
<hr/>		
	US	12.0

Sources: CDC Vital Signs

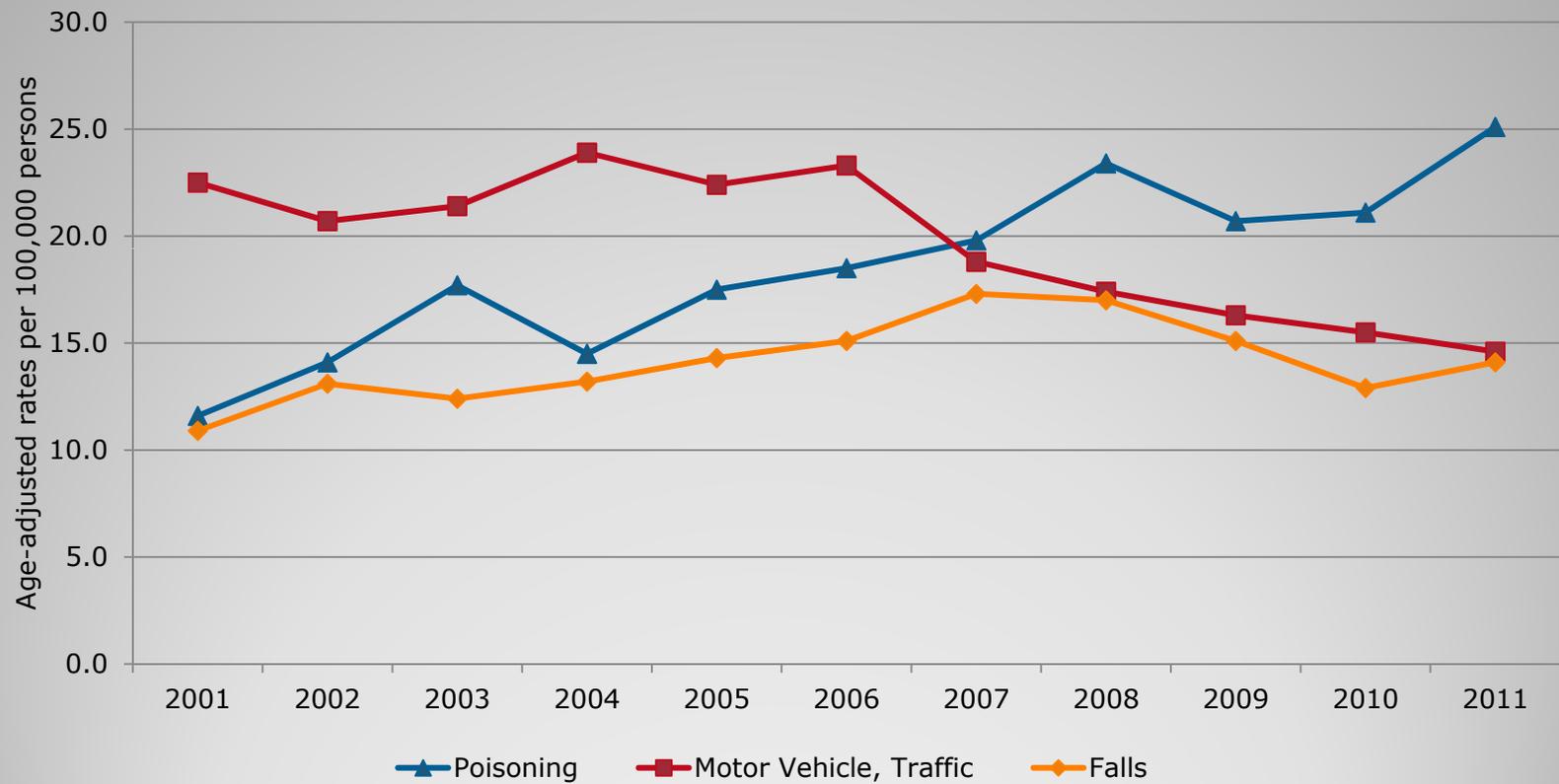
Rates are age-adjusted to the 2000 US Standard Population.

Drug Overdose Death Rates by Manner New Mexico and U.S., 2001-2011



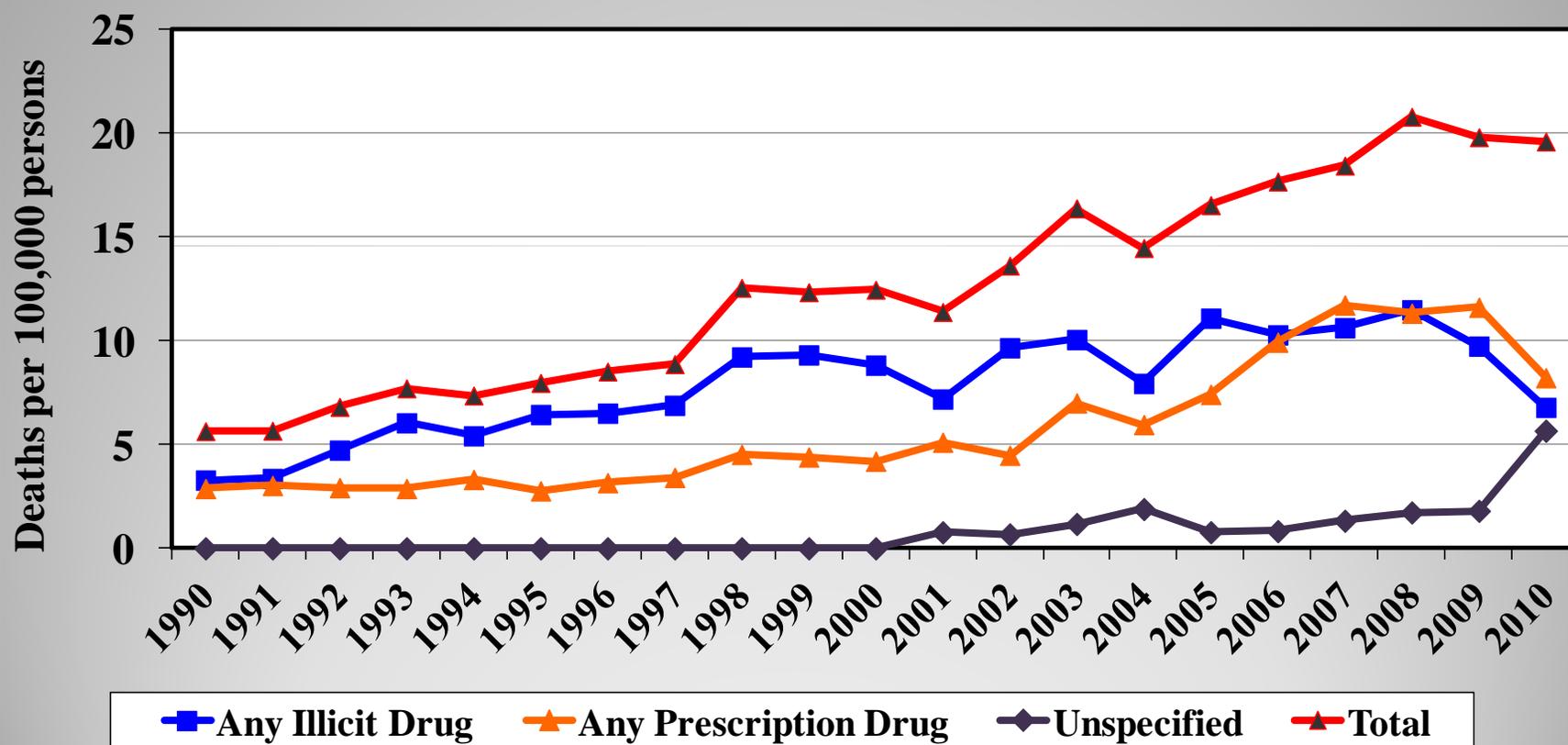
Source: New Mexico Vital Records and Health Statistics; CDC Wonder.

Leading Causes of Unintentional Injury Death, New Mexico, 2001-2011



Source: New Mexico Vital Records and Health Statistics.

Unintentional Overdose Death Rates by Type of Drug, New Mexico, 1990-2010



Note: Groups are not mutually exclusive

Data Source: The New Mexico Office of the Medical Investigator

Rates are age-adjusted to the 2000 US Standard Population.

Most Common Drugs Causing Unintentional Drug Overdose Death, New Mexico, 2008-2010

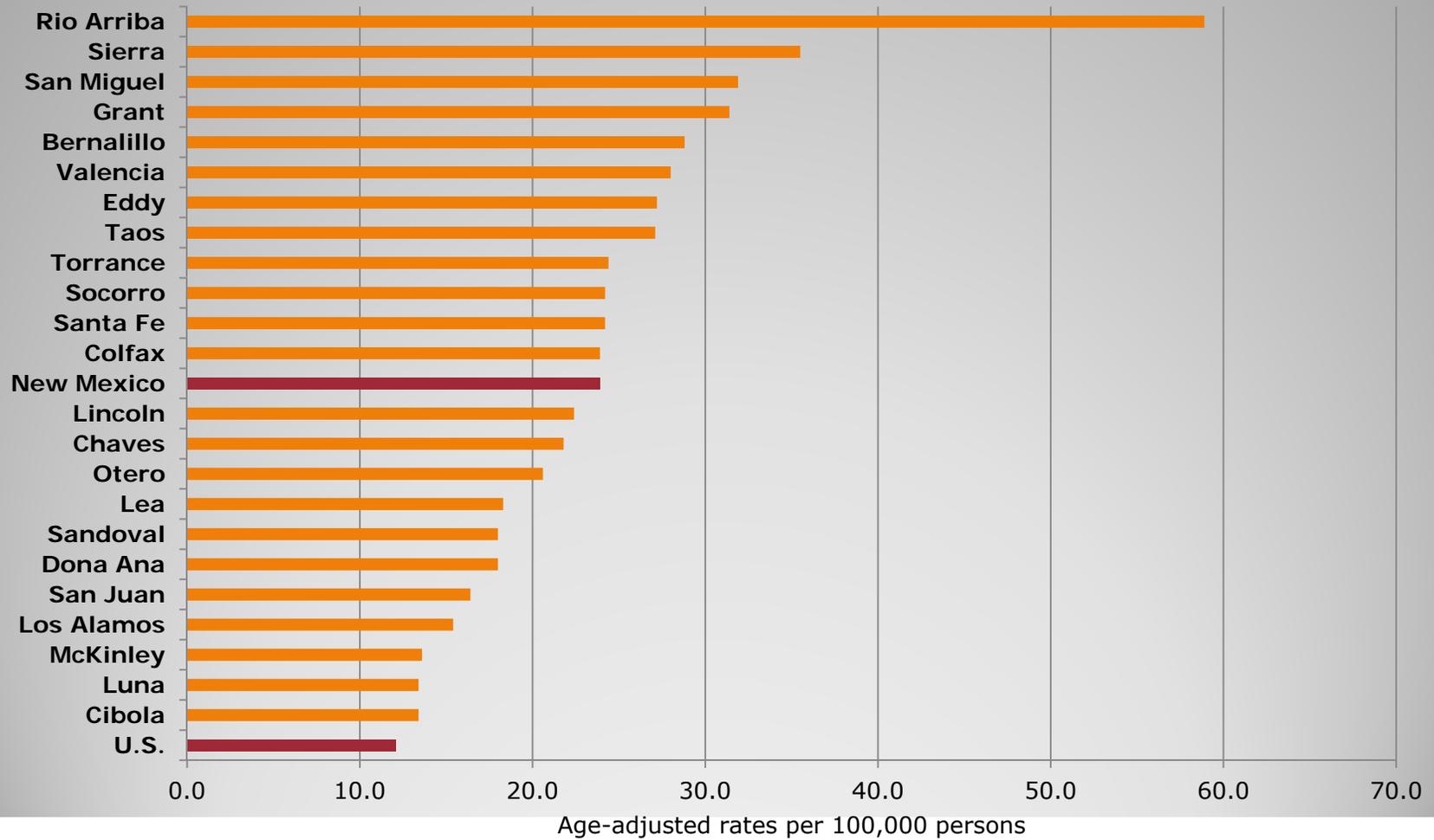
2008	AA Rate	2009	AA Rate	2010*	AA Rate
Heroin	7.8	Heroin	6.1	Unspecified	5.7
Cocaine	5.3	Cocaine	4.6	Heroin	3.8
Oxycodone	3.1	Oxycodone	3.9	Cocaine	2.8
Methadone	2.8	Alprazolam	2.9	Oxycodone	2.7
Alprazolam	2.2	Diazepam	2.3	Morphine	1.6
Diazepam	2.2	Morphine	2.1	Methadone	1.5
Hydrocodone	2.2	MA	1.8	Alprazolam	1.5
Unspecified	1.7	Unspecified	1.8	MA	1.5

* 2010 rate declines by drug type are partly a function of decreases in specificity of drug type coding

Source: The New Mexico Office of the Medical Investigator

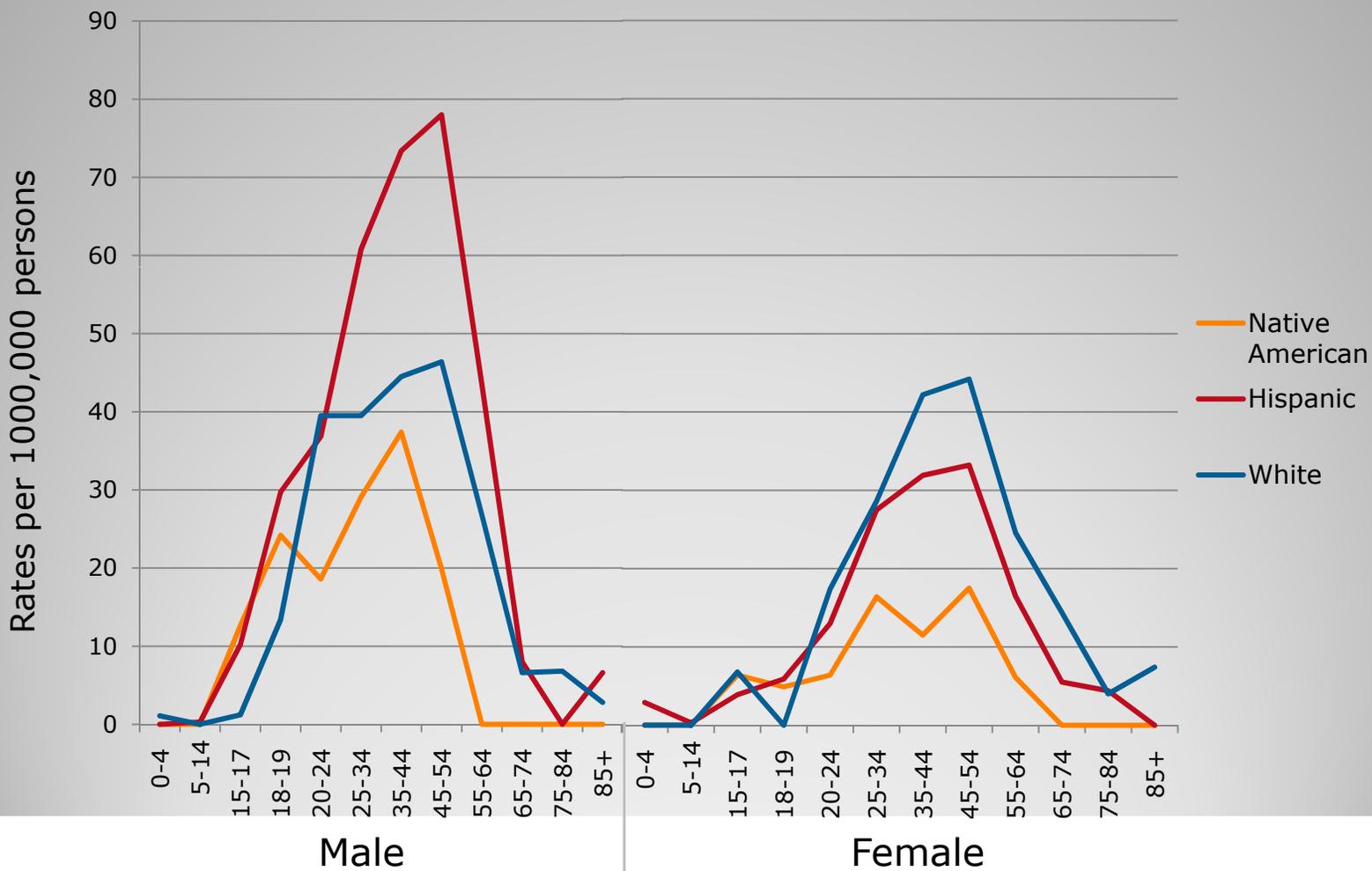
Notes: Rates are not mutually exclusive. Rates are age-adjusted to the 2000 US Standard Population.

Drug Overdose Death Rates by County, New Mexico, 2007-2011 and U.S., 2009



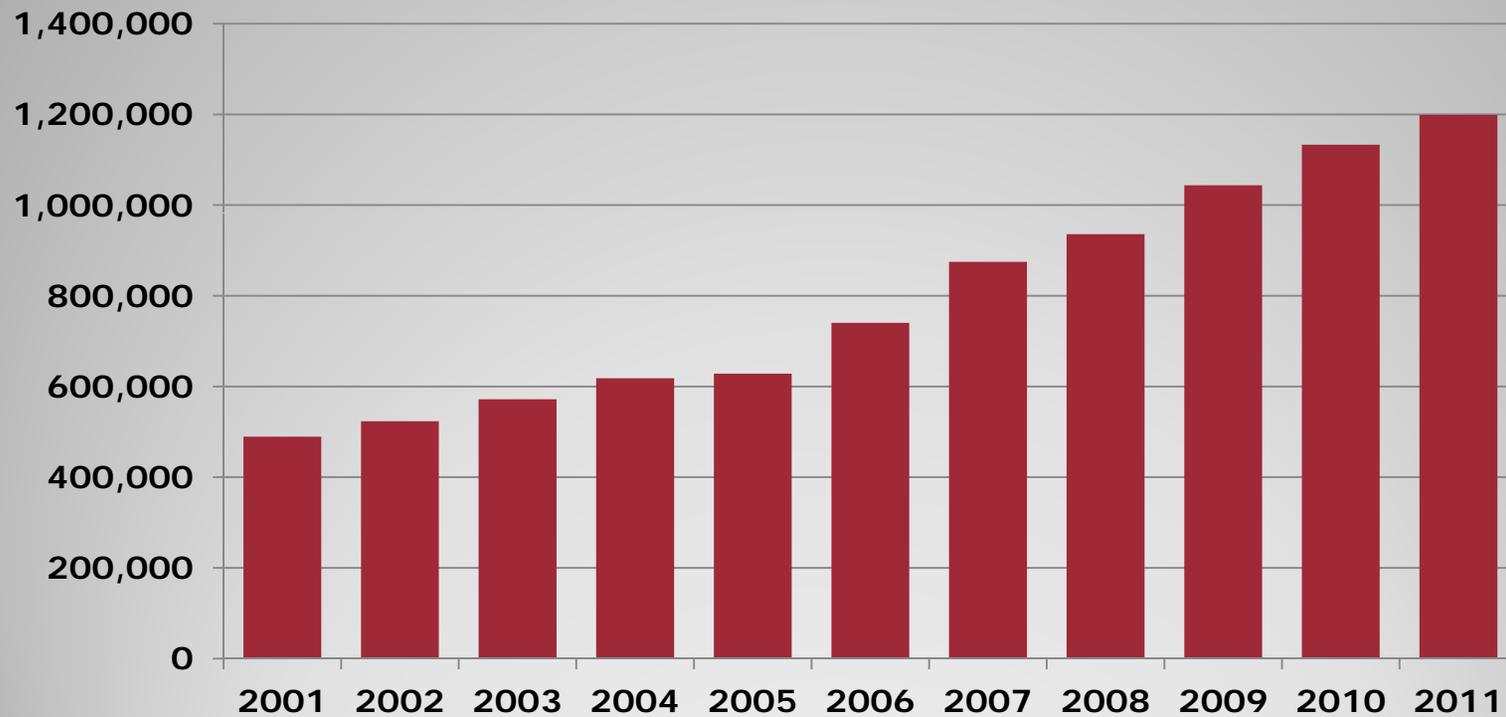
Source: BVRHS; CDC Wonder.

Drug Overdose Death Rates by Age, Sex, and Race, New Mexico, 2007-2011



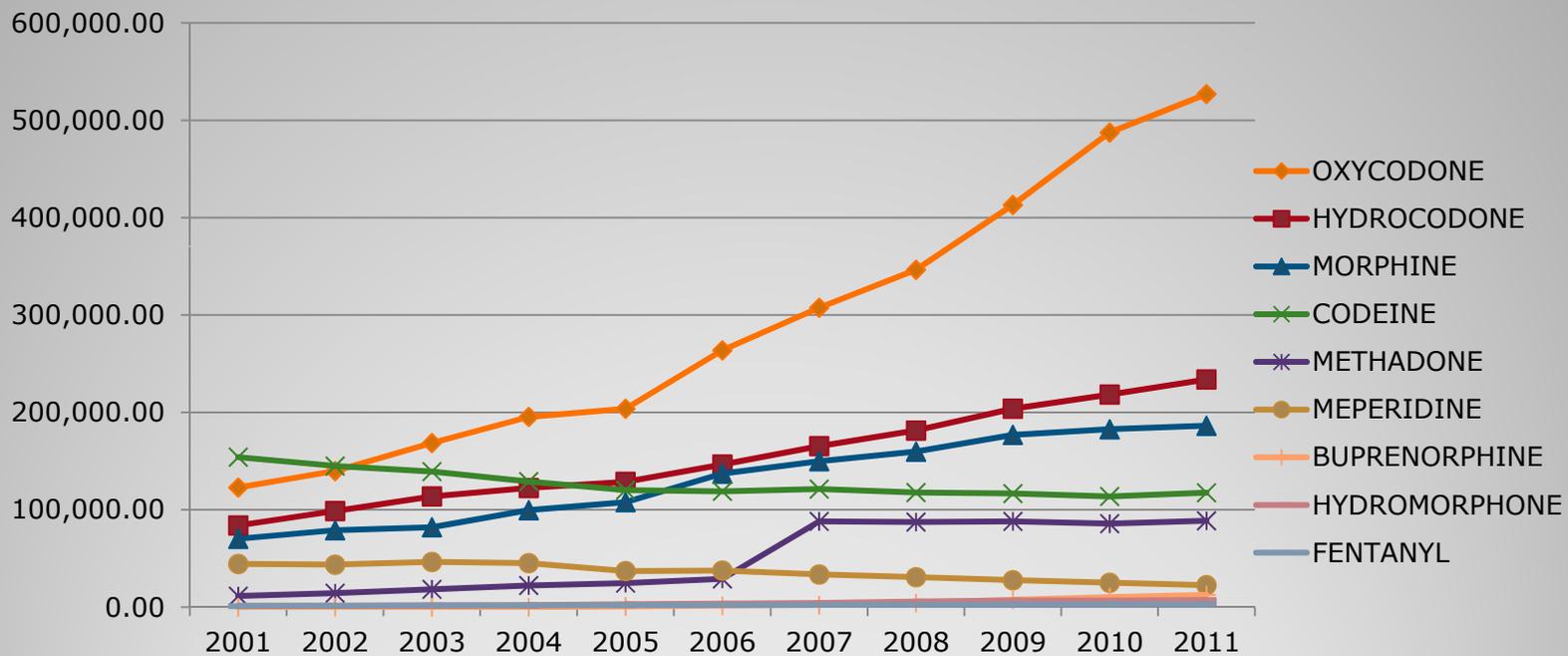
Source: BVRHS.

Prescription Opioid Drug Sales by Weight (Grams) in the DEA* Database, New Mexico, 2002-2011



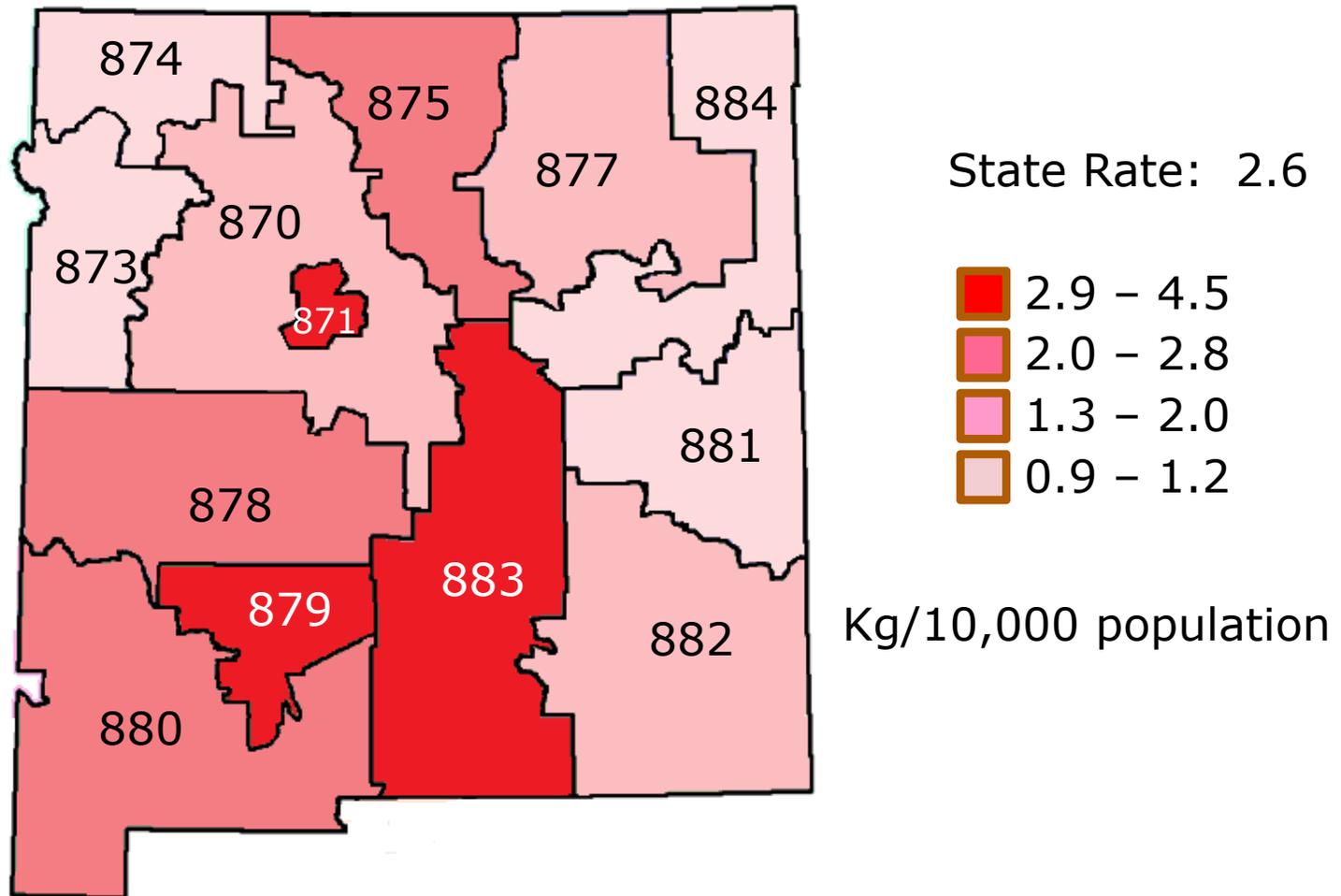
* Drug Enforcement Administration, U.S. Dept. of Justice.

Prescription Opioid Drug Sales by Weight (Grams) in the DEA* Database, New Mexico, 2002-2011



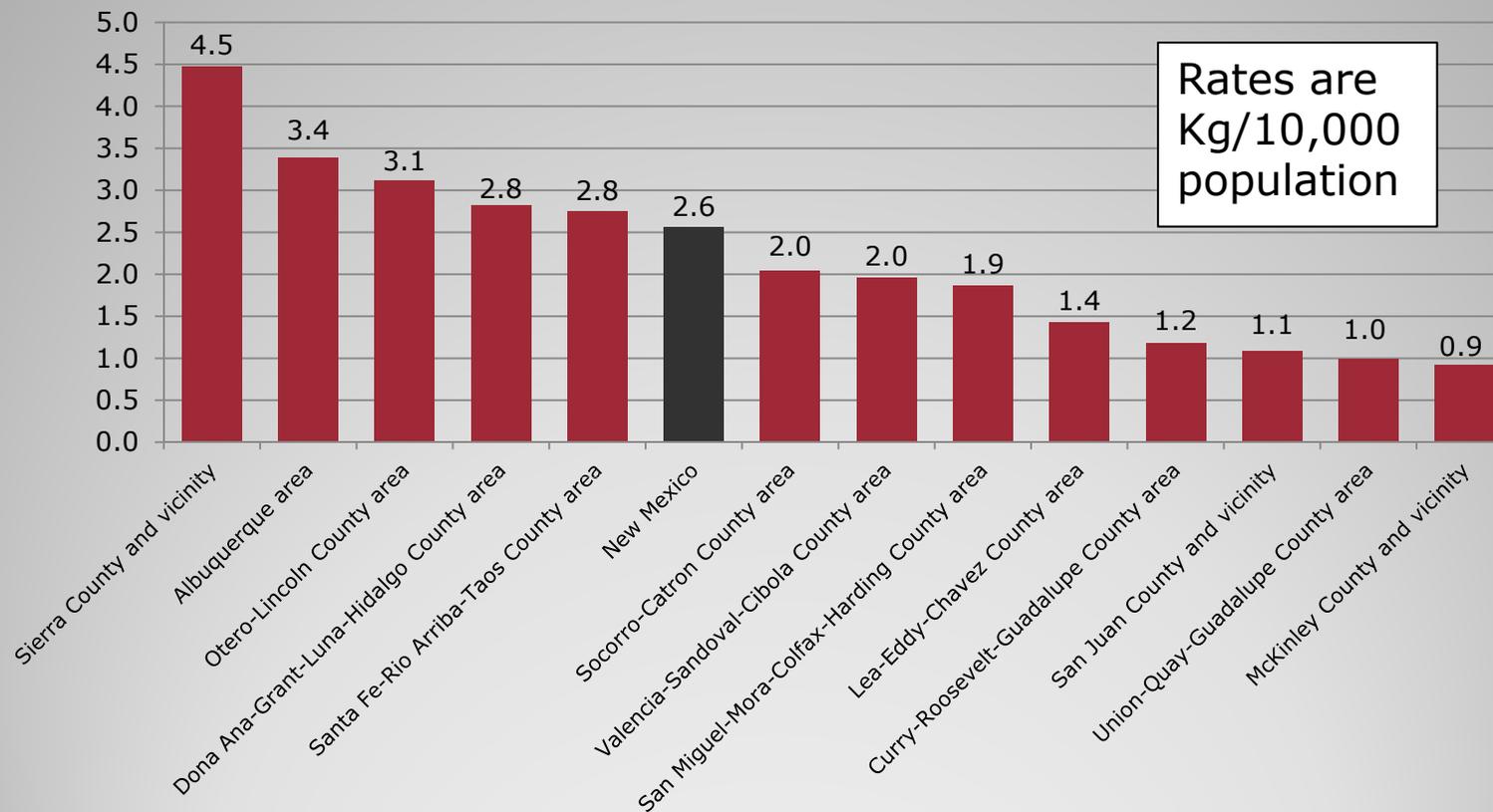
* Drug Enforcement Administration, U.S. Dept. of Justice.

Oxycodone Sales Rate by 3-Digit Zip Codes New Mexico, 2011



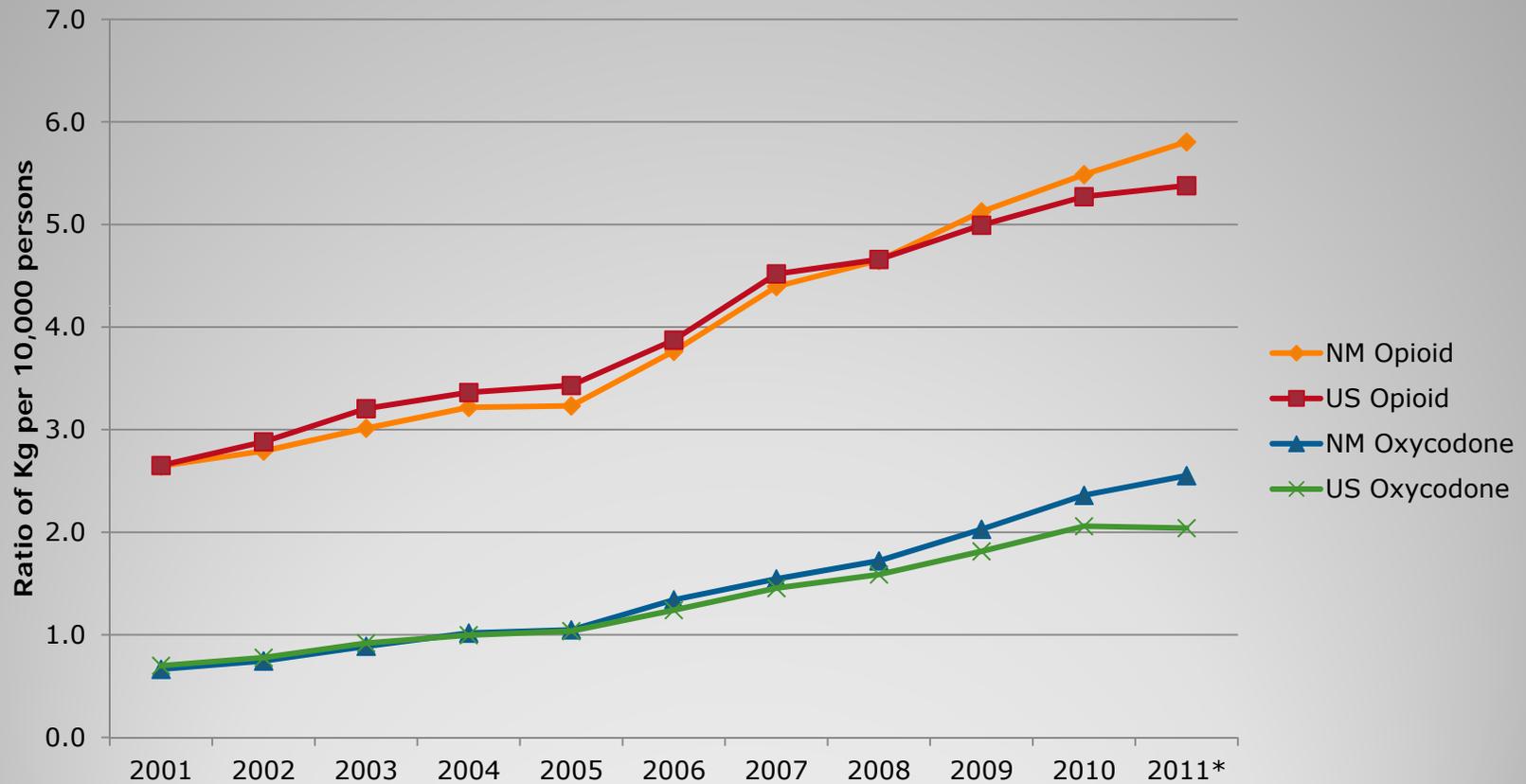
Source: Data-Drug Enforcement Administration, U.S. Dept. of Justice. Pop-U.S. Census Bureau.

Oxycodone Sales Rate by 3-Digit Zip Codes New Mexico, 2011



Source: DEA, U.S. Dept. of Justice; U.S. Census Bureau.

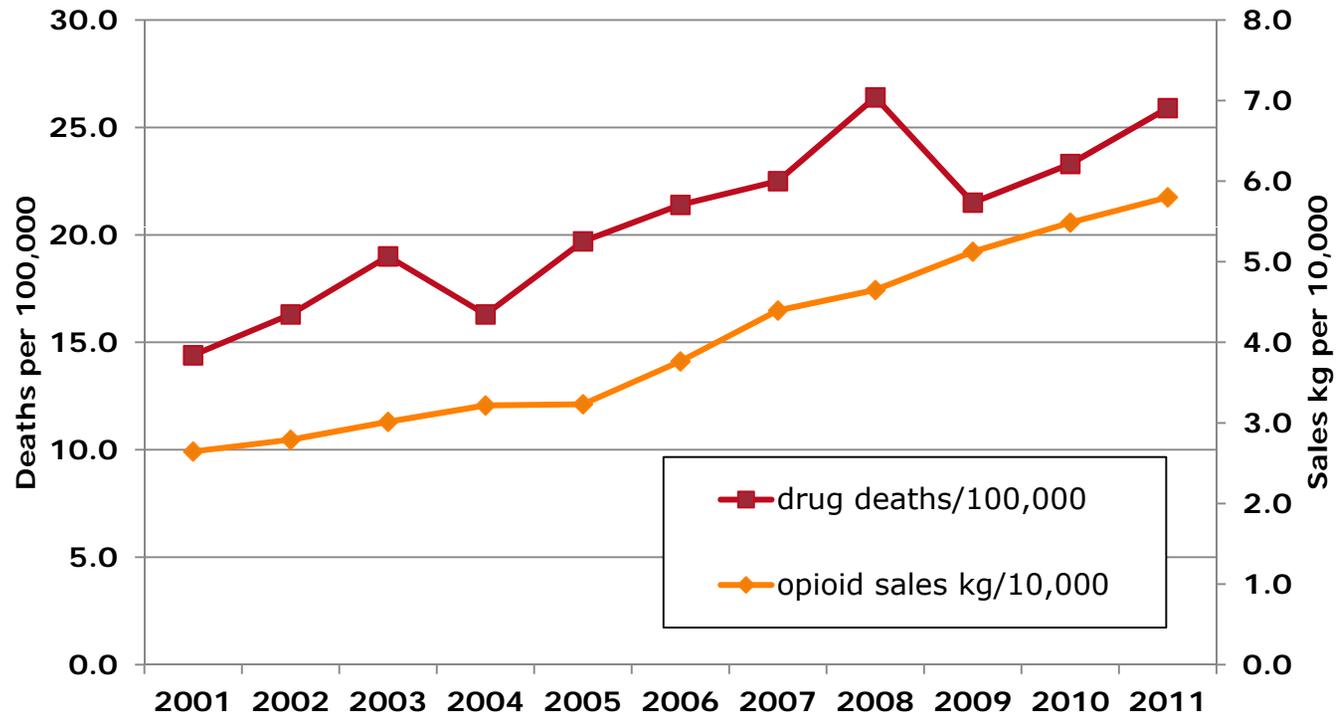
Prescription Total Opioid and Oxycodone Sales Ratios United States and New Mexico, 2001-2011



* 2011 NM ratio based on 2010 population estimate.

SOURCE: Sales data: DEA, U.S. Dept. of Justice; Pop estimates from BBER, UNM and U.S. Census Bureau.

Drug Overdose Death Rate and OPR Sales Rate New Mexico, 2001-2011



Source: BVRHS, NMDOH; ARCOS, DEA.

Drug Overdose Death with Numbers of Prescribers and Pharmacies

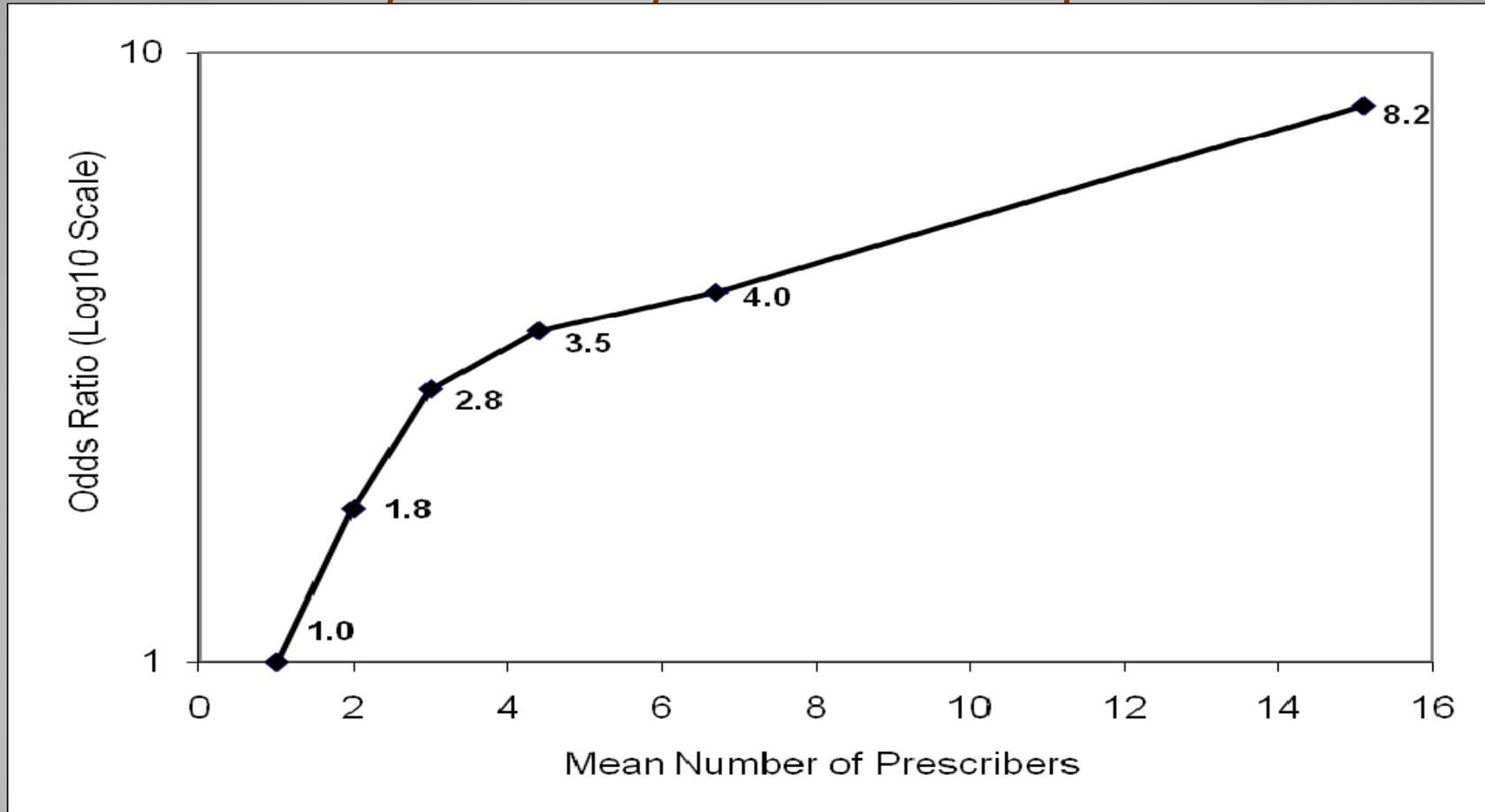
Number of	Case Mean	Control Mean	Odds Ratio for increase of one	95% CL
Prescribers	3.0	1.4	1.7	1.6-1.9
Pharmacies	2.4	1.2	2.3	2.0-2.5

Paulozzi LJ, Kilbourne EM, Shah NG, Nolte KB, Desai HA, Landen MG, Harvey W, Loring LD.

A history of being prescribed controlled substances and risk of drug overdose death.

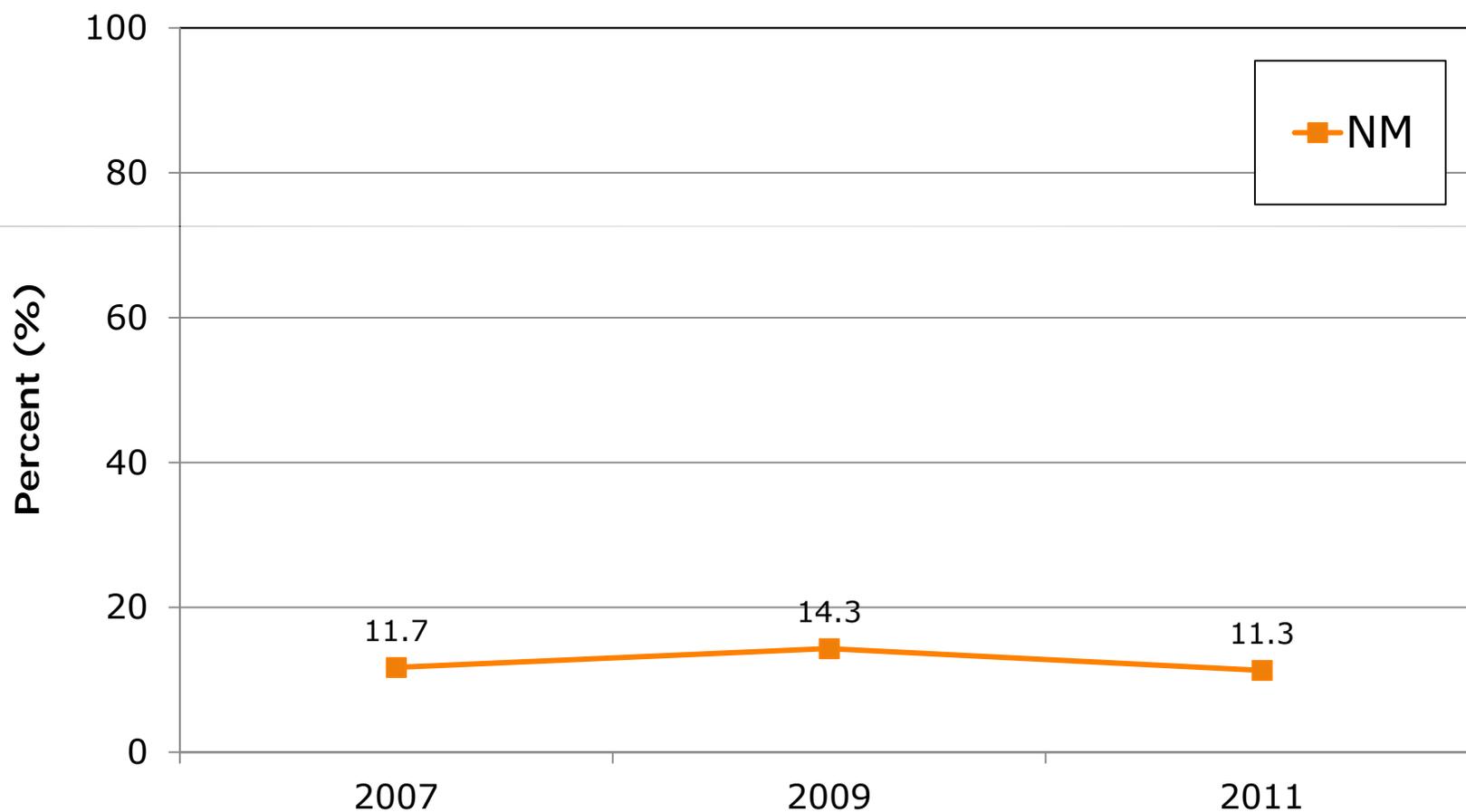
Pain Med. 2012 Jan; **13**(1):87-95.

Number of Prescribers per Patient with Risk of Unintentional Drug Overdose Death New Mexico, October, 2006—March, 2008



Paulozzi LJ, Kilbourne EM, Shah NG, Nolte KB, Desai HA, Landen MG, Harvey W, Loring LD.
A history of being prescribed controlled substances and risk of drug

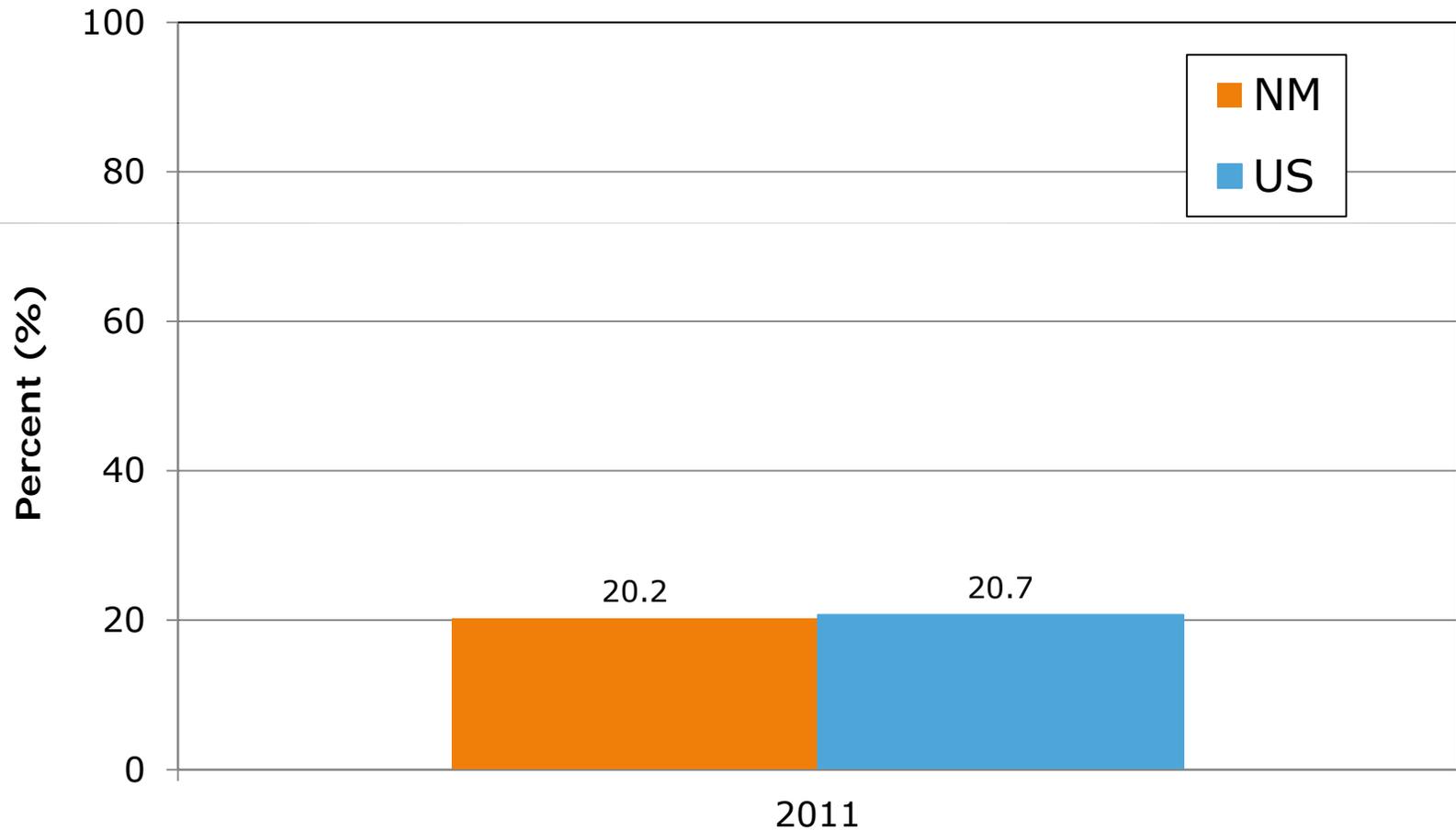
Past 30-day Painkiller Use to Get High Grades 9-12, NM, 2007-2011



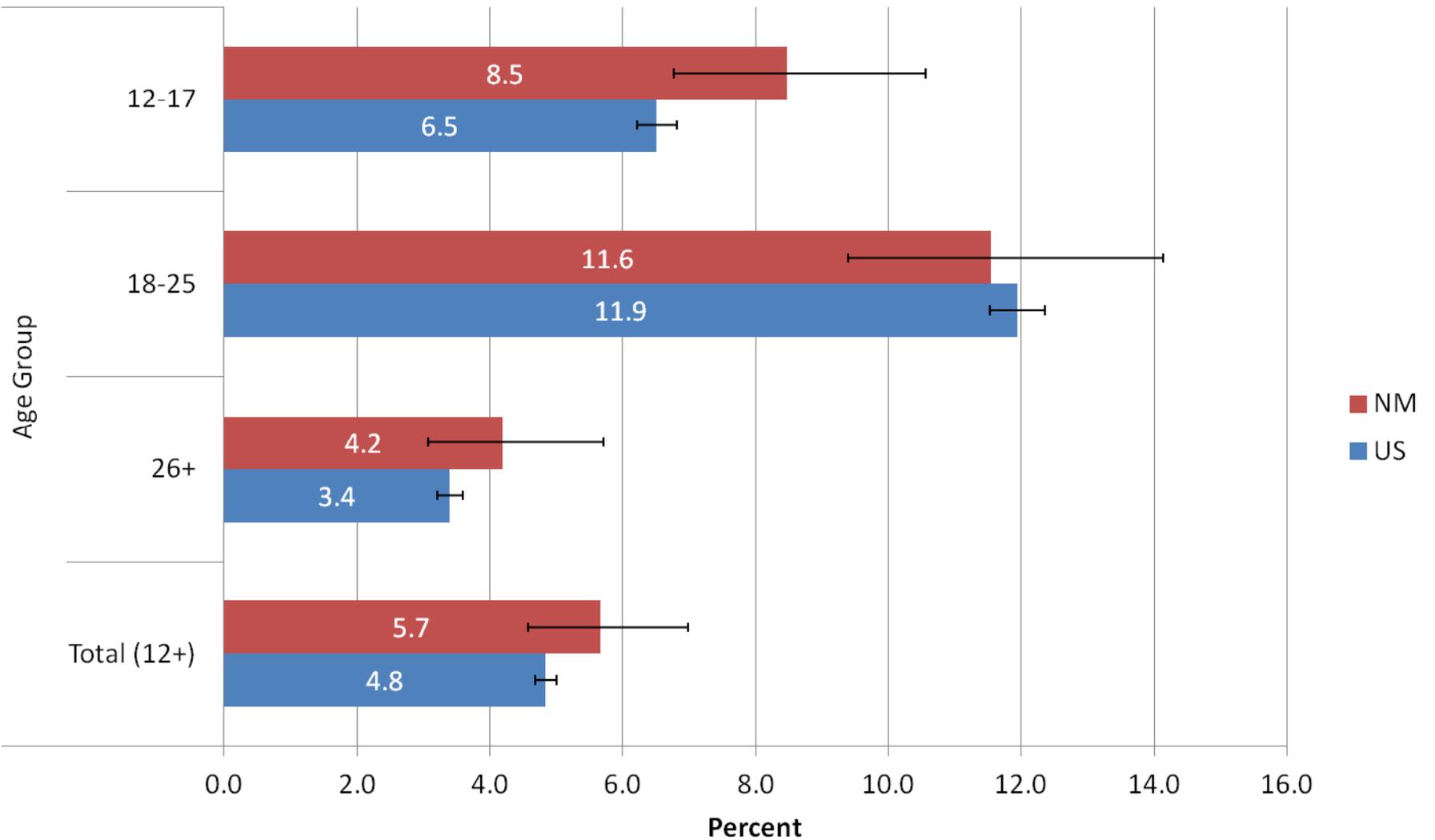
Source: NM Youth Risk and Resiliency Survey (YRRS), NM DOH and PED

NM rate - no trend

Ever Used a Prescription Drug without a Doctor's Prescription Grades 9-12, NM and US, 2011

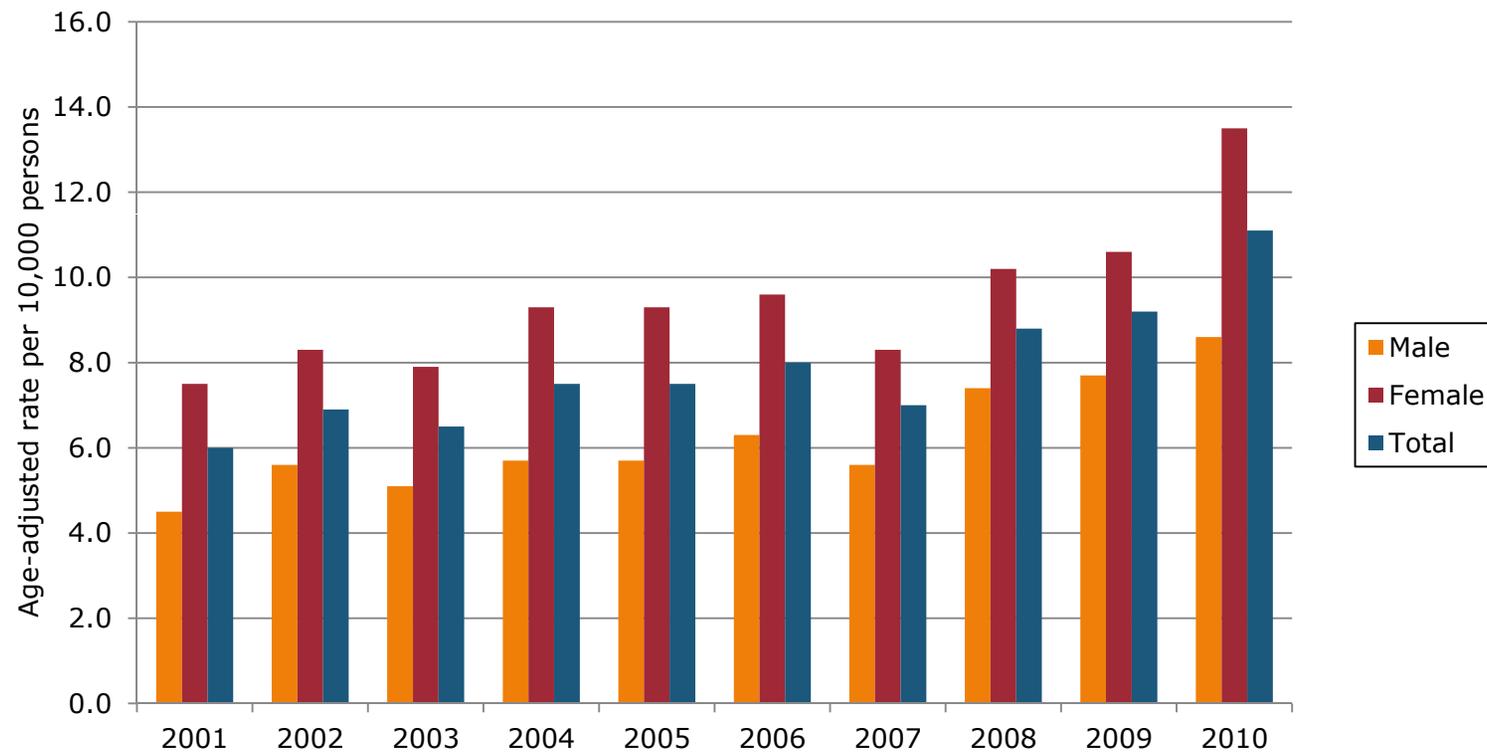


Nonmedical Use of Pain Relievers in Past Year by Age, NM and US, 2008-2009



Source: NSDUH

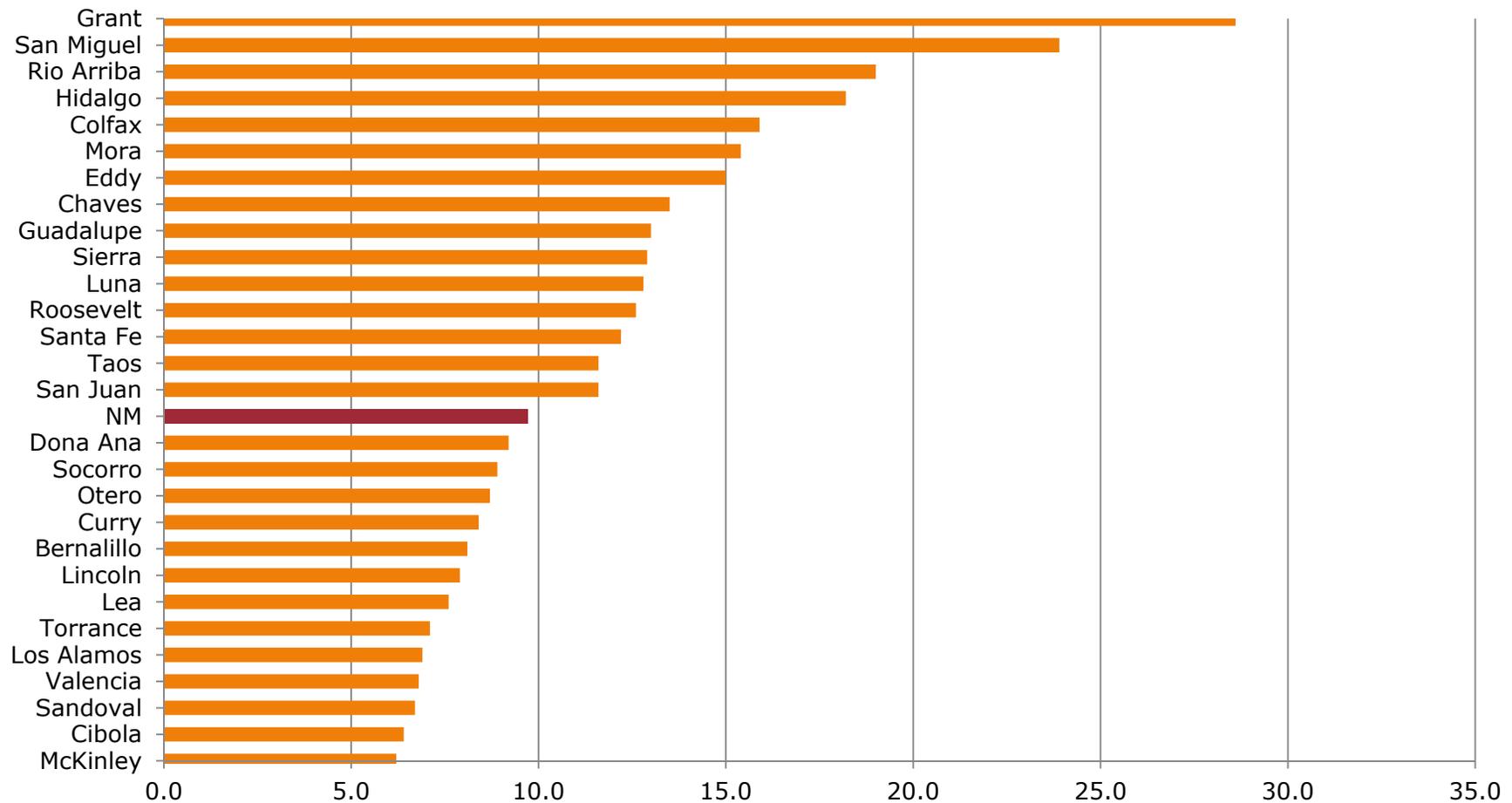
Drug Overdose Hospital Inpatient Discharge Rates by Sex, New Mexico, 2001-2010



NOTE: Drug overdose deaths based of the following external ICD-9 codes: E850-E858; E950.0-E950.5; E962.0; E980.0-E980.5. Data include hospital discharges from in-state, non-federal hospitals (IHS not included).

SOURCE: New Mexico Department of Health, Hospital Inpatient Discharge Data.

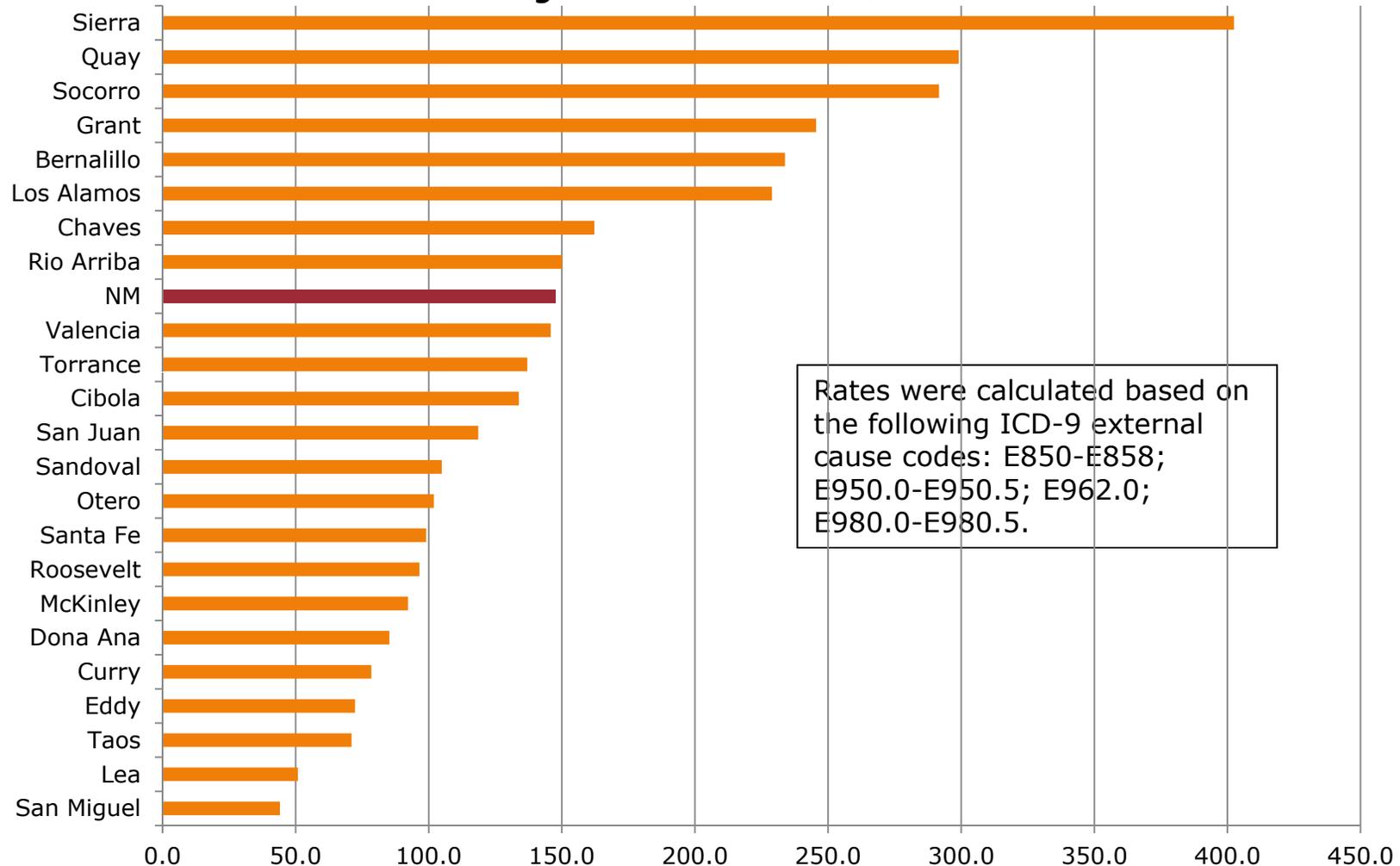
Drug Overdose Hospital Inpatient Discharge Rates by County, New Mexico, 2008-2010 Average



NOTE: Rates are age-adjusted based of the following external ICD-9 codes: E850-E858; E950.0-E950.5; E962.0; E980.0-E980.5. Data include hospital discharges from in-state, non-federal hospitals (IHS not included).

SOURCE: New Mexico Department of Health, Hospital Inpatient Discharge Data.

Drug Overdose Emergency Department Rates by County, New Mexico, 2010

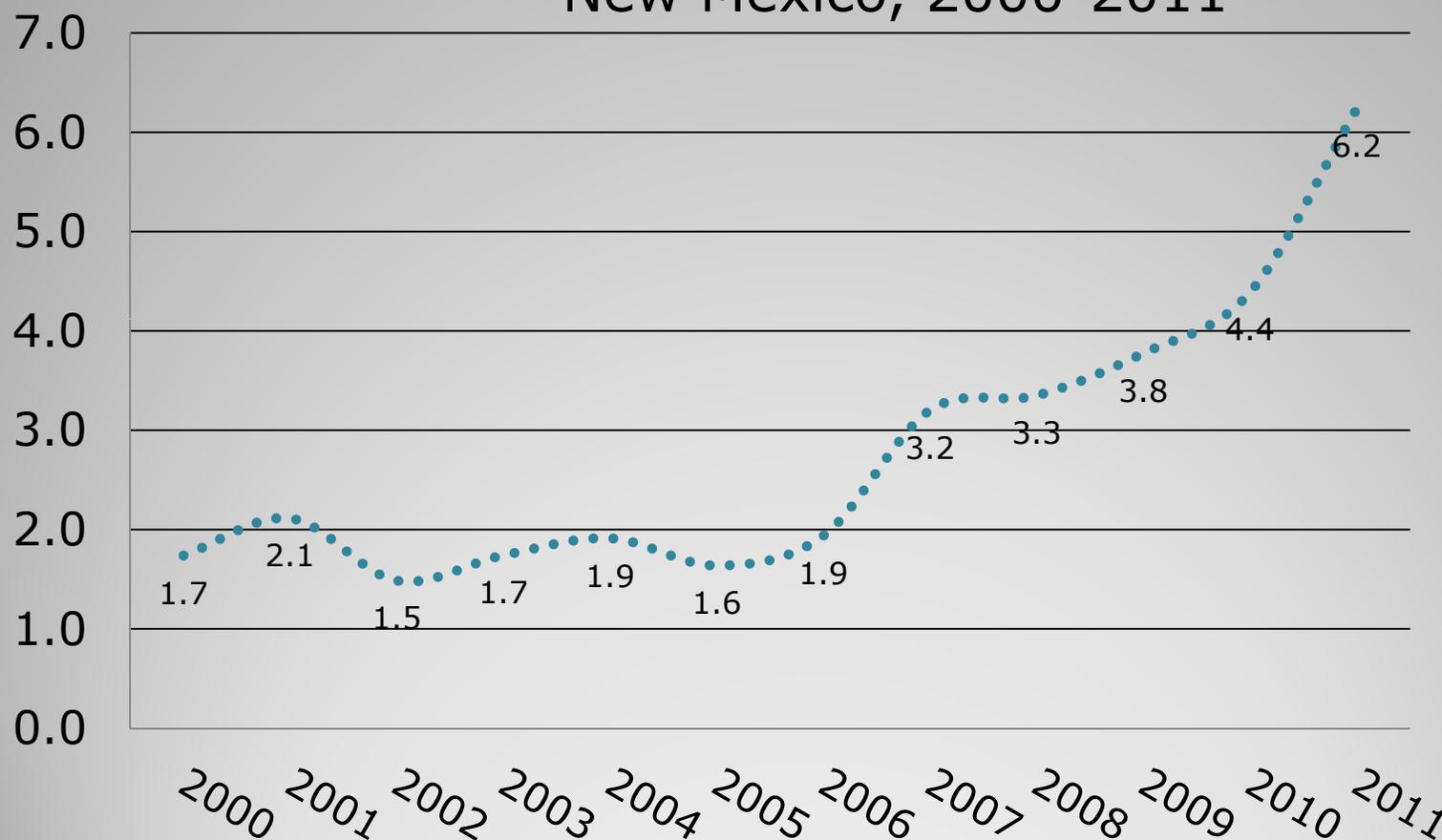


Rates were calculated based on the following ICD-9 external cause codes: E850-E858; E950.0-E950.5; E962.0; E980.0-E980.5.

NOTES: Data are submitted by individual hospital emergency departments which have varied databases, capacities to extract data and file formats that are produced. Coding within the dataset may not be uniform. Currently limited quality control or assurance efforts are in place. Data submitted have been examined for internal consistency and to determine whether they have conformed to the NMDOH request guidelines.

Drug Withdrawal Syndrome in Newborns New Mexico, 2000-2011

Per 1,000 Live Births



NOTE: Data include hospital discharges from in-state, non-federal hospitals (IHS not included) for both primary and secondary diagnoses.

SOURCE: New Mexico Department of Health, Hospital Inpatient Discharge Data.

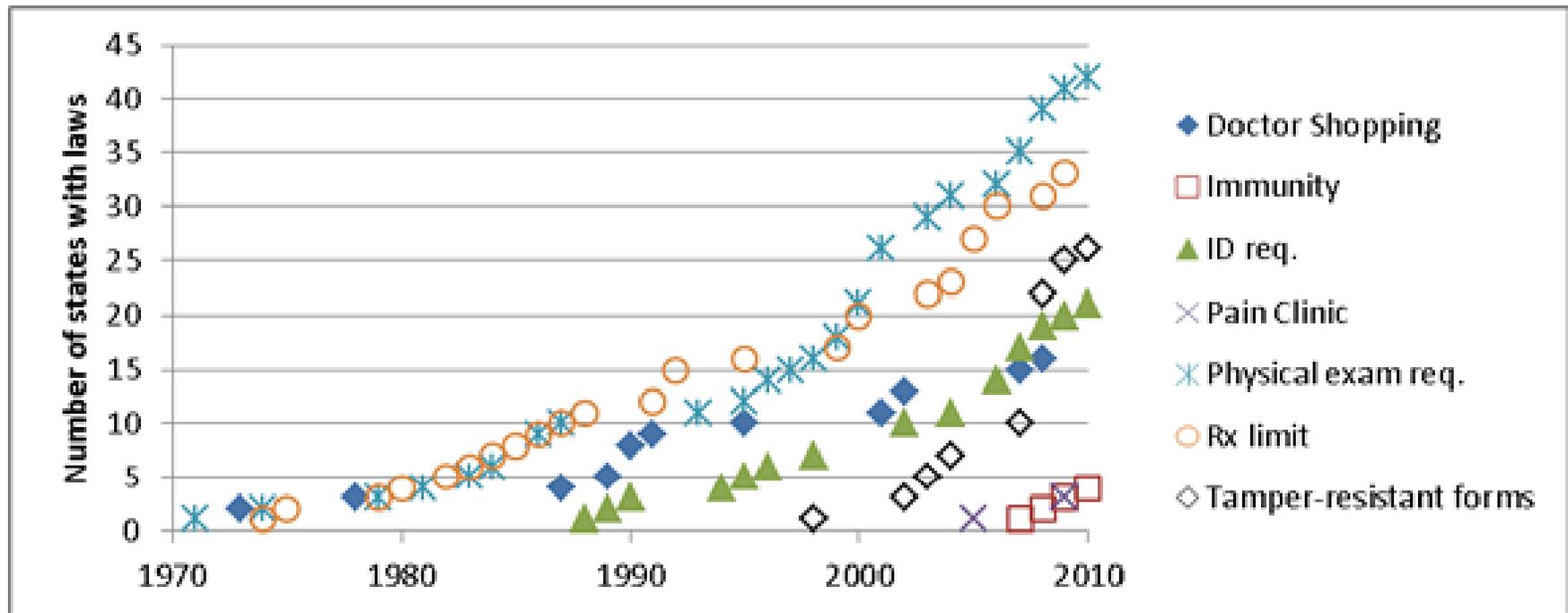
NM DOH Activities

- Advisory Council
- Surveillance
- Community Overdose Prevention
- Buprenorphine
- Inpatient Treatment

Advisory Council

- Established by SB 215
- Chaired by Secretary of Health
- Appointed by Governor
- Includes licensing board, professional association, pain management, and consumer representatives
- Focusing on recommendations to reduce prescription drug overdose and improve pain management

Cumulative Number of States Authorizing Prescription Drug Abuse-related Laws by Type of Law, United States, 1970-2010



Source: CDC.

Surveillance

- Deaths
- Hospitalizations
- Emergency Department Visits
- Neonatal Drug Withdrawal
- Opioid Sales
- Prescriptions
- Special studies
 - Falls
 - Diversion

PROJECT LAZARUS

One evidence-based approach DOH is working with communities to establish modified pilots across the state.

Pain Medicine



*Pain Medicine 2011; 12: S77-S85
Wiley Periodicals, Inc.*

Project Lazarus: Community-Based Overdose Prevention in Rural North Carolina

Su Albert, MD, MPH,^{*††} Fred W. Brason II, Chaplain,^{*‡§} Catherine K. Sanford, MSPH,^{*} Nabarun Dasgupta, MPH,[¶] Jim Graham,[‡] and Beth Lovette, MPH^{††}

^{*}Project Lazarus, Moravian Falls, North Carolina;

Results. Preliminary unadjusted data for Wilkes County revealed that the overdose death rate dropped from 46.6 per 100,000 in 2009 to 29.0 per 100,000 in 2010. There was a decrease in the number of victims who received prescriptions for the substance implicated in their fatal overdose from a

Community Overdose Prevention

DOH is working with groups in these communities to implement Project Lazarus style interventions:

- Albuquerque
- Taos
- Truth or Consequences
- Santa Fe
- Gallup
- Roswell
- Alamogordo

Buprenorphine

- DOH provides \$240,000 to support 3 projects
- Albuquerque – 111 patients
- Santa Fe – 25 patients
- Las Cruces – 293 patients
- Most patients do not complete the 6-month program

Inpatient Treatment

- Turquoise Lodge in Albuquerque
 - Currently 34 adult beds – medically managed withdrawal and 30 days intensive inpatient rehabilitation – 635 patients
 - Planned 20 adolescent beds – tentative start February 2013
- Other
 - Roswell Rehabilitation – 28 beds, 298 patients
 - Fort Bayard (Yucca Lodge) – 18 beds, 110 pts

Conclusions

- NM drug overdose death rate highest in nation
- Prescription drug overdose deaths are now more common than illicit drug overdose deaths
- High rates are now more distributed throughout NM
- Prescription opioid sales in NM now greater than in U.S.

Recommendations

- Use PMP data to track and reduce misuse and inappropriate prescribing
- Licensing boards should strengthen rules
- Increase community overdose prevention by providing naloxone with opioid prescriptions
- Have Council provide overdose prevention recommendations by end of year
- Assess and address treatment need

**Thanks to the following
individuals working in Substance
Abuse Epidemiology at DOH for
their efforts:**

Brad Whorton

Jim Davis

Melissa Heinz

Jim Roeber