Prescription Drug Abuse: Developing Evidence-Based State Level Interventions
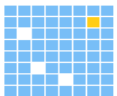
Signe Shackelford, MPH
Policy Analyst
APHA Annual Meeting
November 5, 2013

CENTER FOR MISSISSIPPI
C4MHP
HEALTH POLICY

Presenter Disclosure

- The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months: No relationships to disclose.

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Learning Objectives

- Discuss PMP in MS and US
- Describe Data Match
- Evaluate "Lessons Learned"

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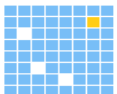
Center for Mississippi Health Policy

- Independent, non-profit organization
- Mission is to inform health policy decisions by providing sound research and analysis
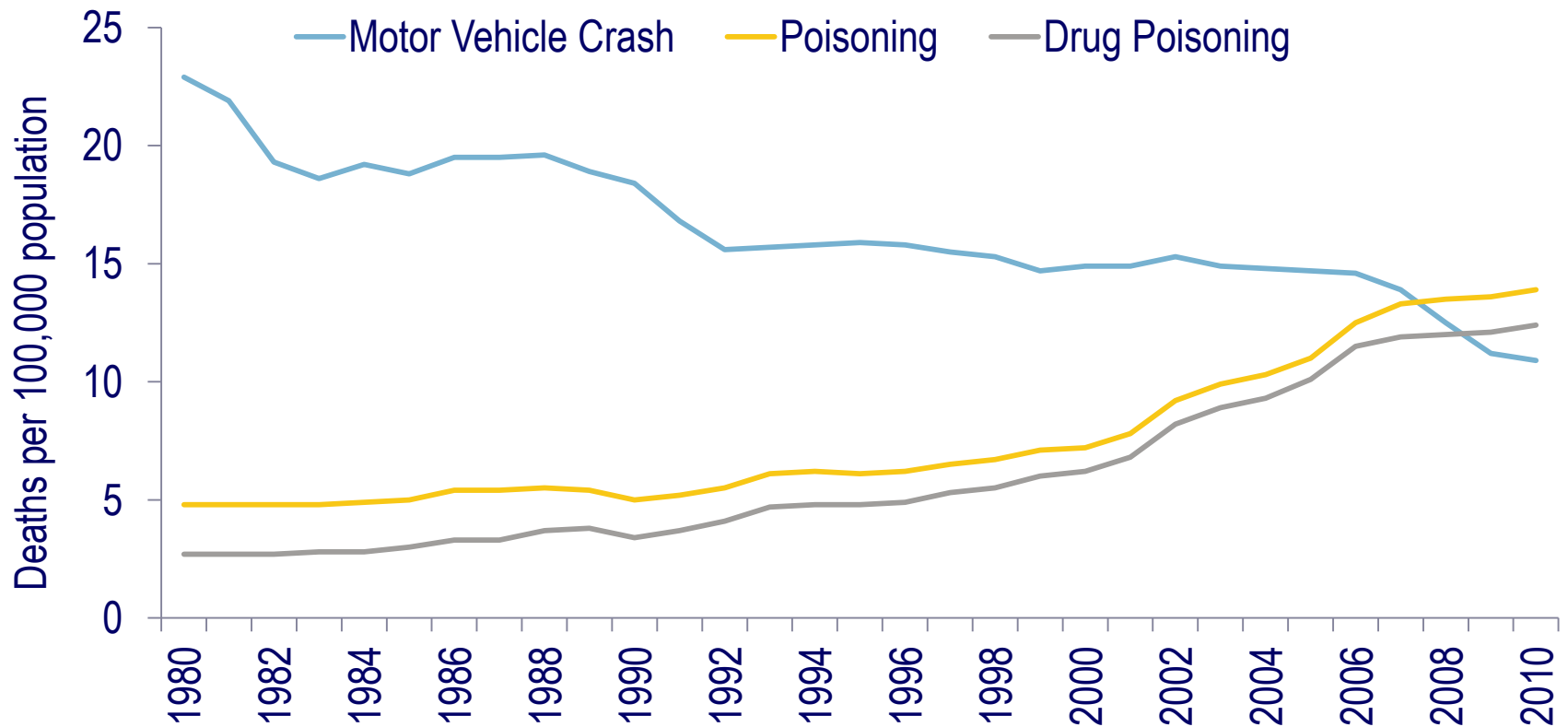- Do not advocate or lobby for particular solutions

Center for Mississippi
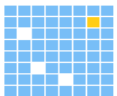Health Policy
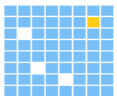
Project Partners

- Mississippi State Department of Health
  - □ Office of Vital Records
  - □ Pharmacy
- MS Board of Pharmacy
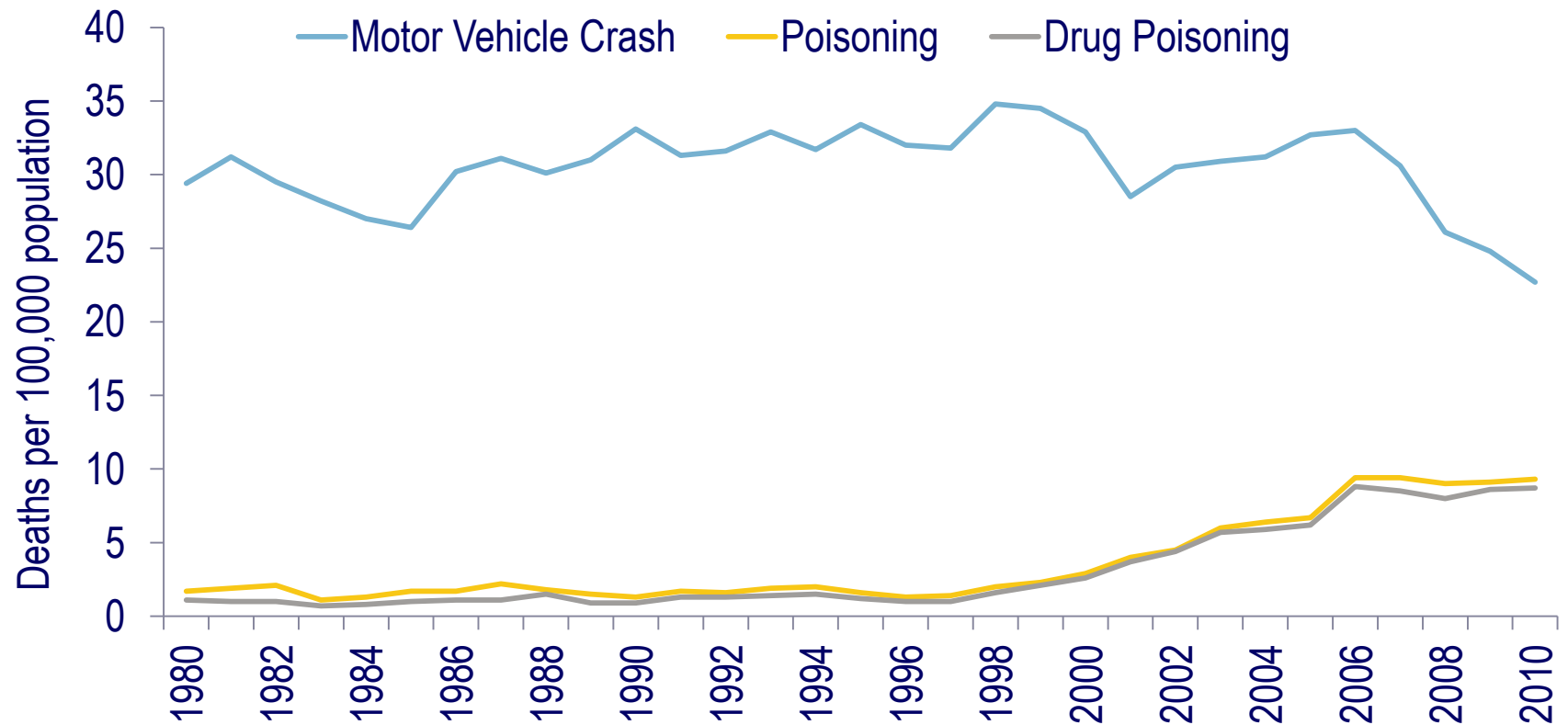- MS Prescription Monitoring Program
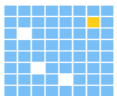
Poisoning and Motor Vehicle Deaths Trends in United States (1980-2010)

Source: Warner, M., Chen, L.H., Makuc, D.M., Anderson, R.N., & Miniño, A.M. (December 2011). Drug poisoning deaths in the United States, 1980-2008. NCHS Data Brief. 81: p. 3. Updated with 2009 and 2010 mortality data.
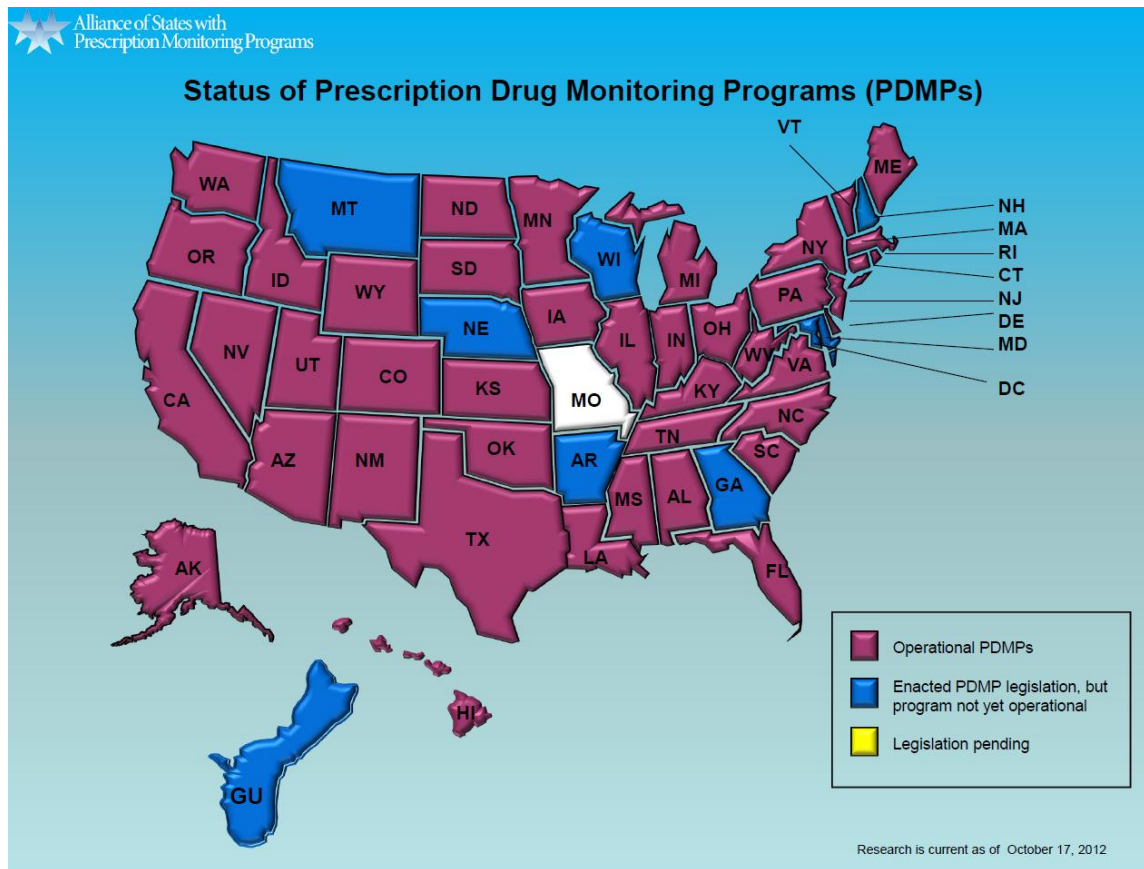
Poisoning and Motor Vehicle Deaths Trends in Mississippi (1980-2010)

Source: Mississippi State Department of Health, Public Health Statistics. Underlying cause of death from the MSTAHRS online query system compiled from information on death certificates received from doctors, coroners, and funeral home directors by Mississippi Vital Records. Accessed at http://mstahrs.msdh.ms.gov.

Prescription Monitoring Programs (PMP) – U.S.

Source:
http://www.pmpalliance.org/pdf/pmp_status_map_2012.pdf

Prescription Monitoring Program (PMP) - Mississippi

- Began in 2004
- All prescriptions for controlled substances dispensed in or into MS must be entered in the PMP system
- Administered by MS Board of Pharmacy
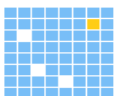
Project Overview-Timeline

June 2012	August-December 2012	January-May 2013

o Approached MS PMP/MSDH
o Introductory meetings
oBackground research

oFacilitated agreement between stakeholders
o Set up data match
oIdentified and obtained PMP reports

o PDF – Excel transfer (manual data entry)
o Descriptive statistics on total population

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Project Overview-Timeline

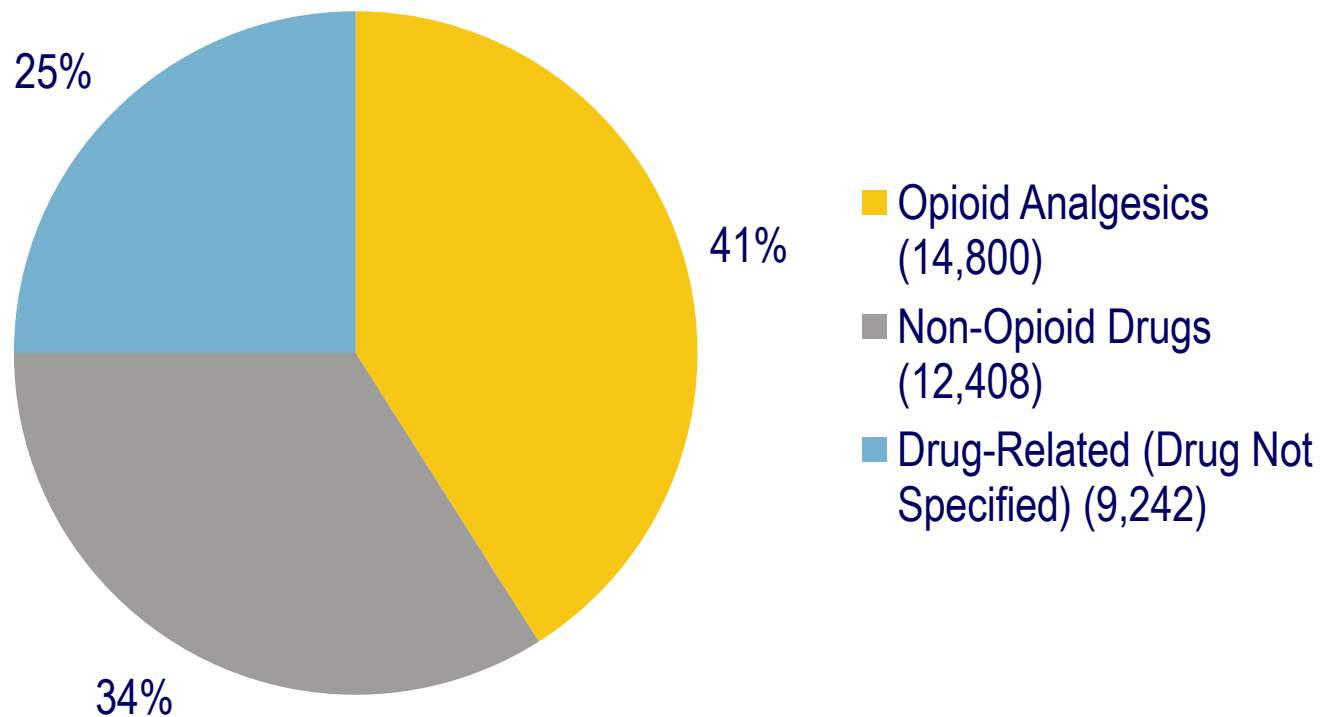| June 2013	July-September 2013	Ongoing
o Data analysis (SAS) o Updated lit review for Issue Brief	o Finalized and published Issue Brief o Began dissemination	o Encourage the use of data to drive policy-makers and stakeholder groups

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Drug Poisoning Deaths
Drug Type, United States (2008)

25%

41%

34%

■ Opioid Analgesics (14,800)

■ Non-Opioid Drugs (12,408)

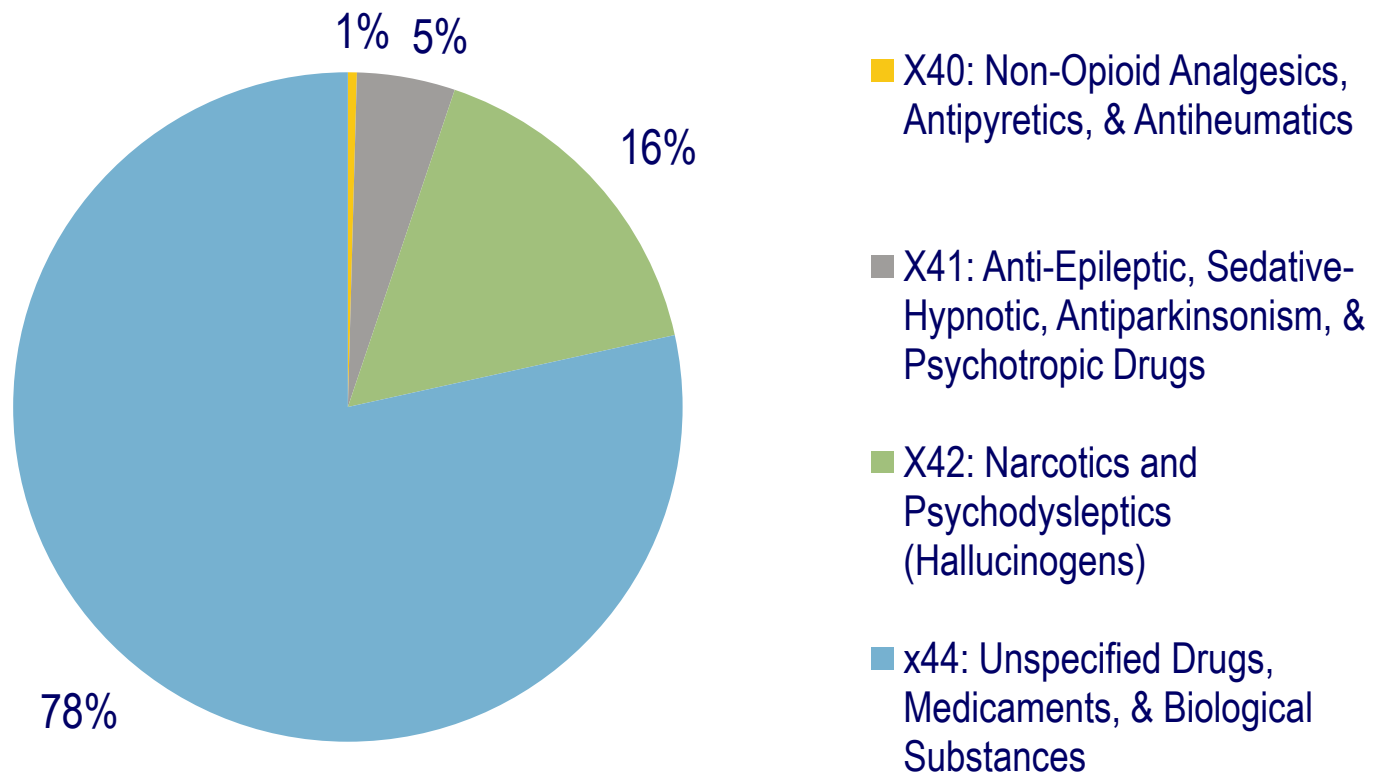■ Drug-Related (Drug Not Specified) (9,242)

Source: Warner, M., Chen, L.H., Makuc, D.M., Anderson, R.N., & Miniño, A.M. (2011). Drug poisoning deaths in the United States, 1980-2008. NCHS Data Brief. 81: p. 2.

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Unintentional Drug Poisoning Deaths Drug Type, Mississippi (2011)

- **X40**: Non-Opioid Analgesics, Antipyretics, & Antiheumatics
- **X41**: Anti-Epileptic, Sedative-Hypnotic, Antiparkinsonism, & Psychotropic Drugs
- **X42**: Narcotics and Psychodysleptics (Hallucinogens)
- **x44**: Unspecified Drugs, Medicaments, & Biological Substances

1% 5% 16% 78%

Source: Mississippi State Department of Health, Public Health Statistics. 2013.

Unintentional Drug Poisoning Deaths Drug Type, Mississippi (2011)

Top "T-Codes" Mentioned on Death Certificates (2011)

1. Other and unspecified (T509): 194
2. Other opioids (Codeine and Morphine) (T402): 42
3. Benzodiazepines (T424): 36
4. Cocaine (T405): 14
5. Tricyclic and tetracyclic antidepressants (T430): 13
6. Other synthetic narcotics (Pethidine/Demerol) (T404): 12
7. Methadone (T403): 11 (tied)
8. Other unspecified antidepressants (T432): 11 (tied)
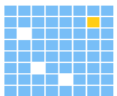
Source: Mississippi State Department of Health, Public Health Statistics. 2013.

Overview-Mississippi (2011) Unintentional Poisoning by Drug Deaths

- 232 deaths

- Demographic breakdown:
  - 16-86 years of age
  - 50 percent Male/50 percent Female
  - 90 percent White

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Project Overview-Background

- 232 Unintentional
Drug Overdose Deaths (2011)

- 52 records not admissible for study:
  o No PMP record (12)
 o In PMP, no Rx for study period (40)

- 180 decedents included in study

232

12 40

180

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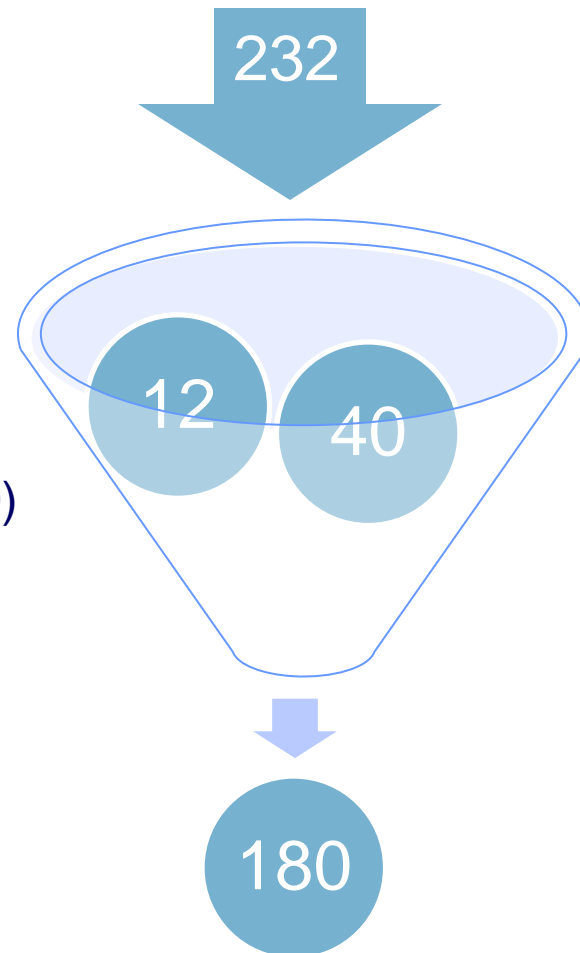
Project Findings:
Total Prescriptions and Quantity

	Total Number of Prescriptions per Person	Total Number of Doses per Person
Minimum	1	15
Maximum	196	16,072
Median	33.5	1,957.5
Mean	43.1	2,780.5

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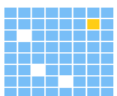
Project Findings: Descriptive Statistics-Males

- Total: 82 deaths
- Mean Age: 40 years
- Mean # Prescriptions: 38
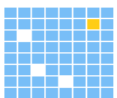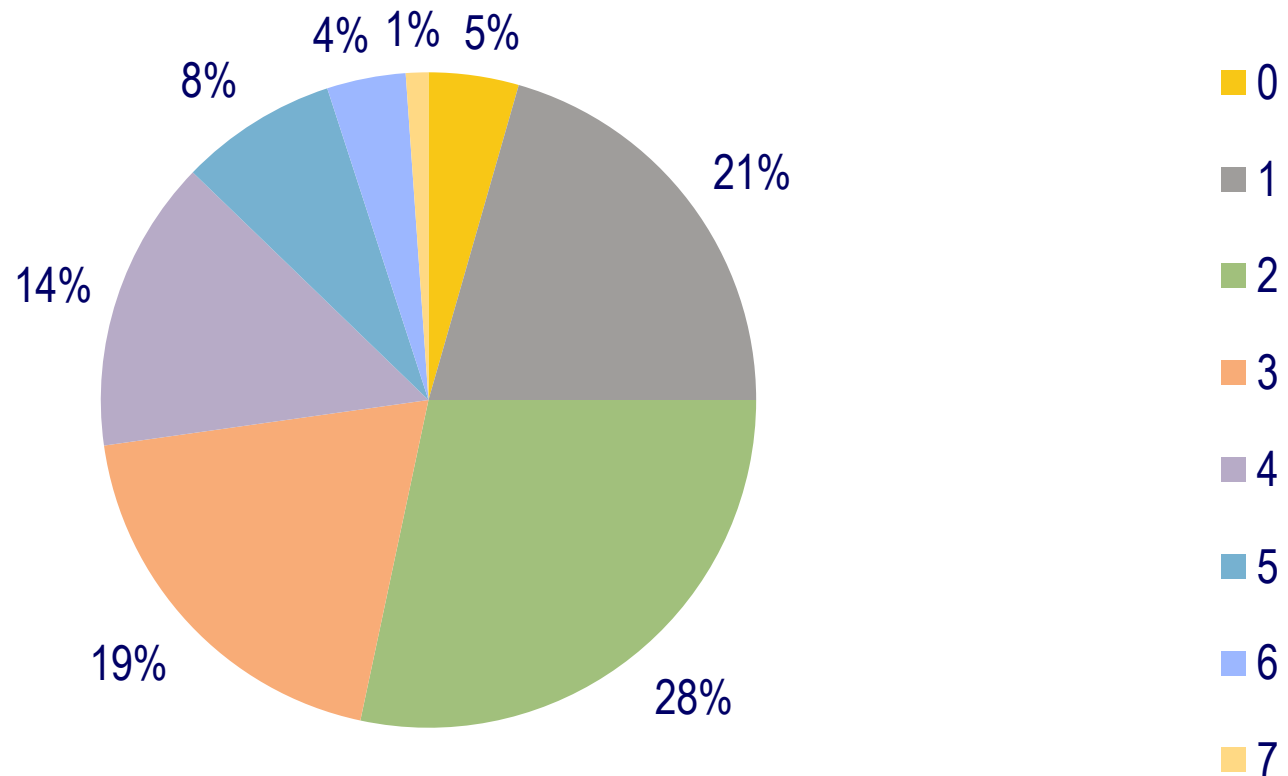- Mean # Prescribers: 6.5
- Mean # Dispensers: 4

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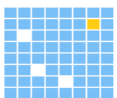
Project Findings: Descriptive Statistics-Females

- Total: 98 deaths
- Mean Age: 45 years
- Mean # Prescriptions: 47
- Mean # Prescribers: 7
- Mean # Dispensers: 4.5

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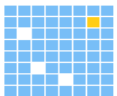
Project Findings:
Distribution by Drug Schedule

3% 4%

19%

43%

31%

Legend:
- I
- II
- III
- IV
- V
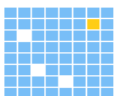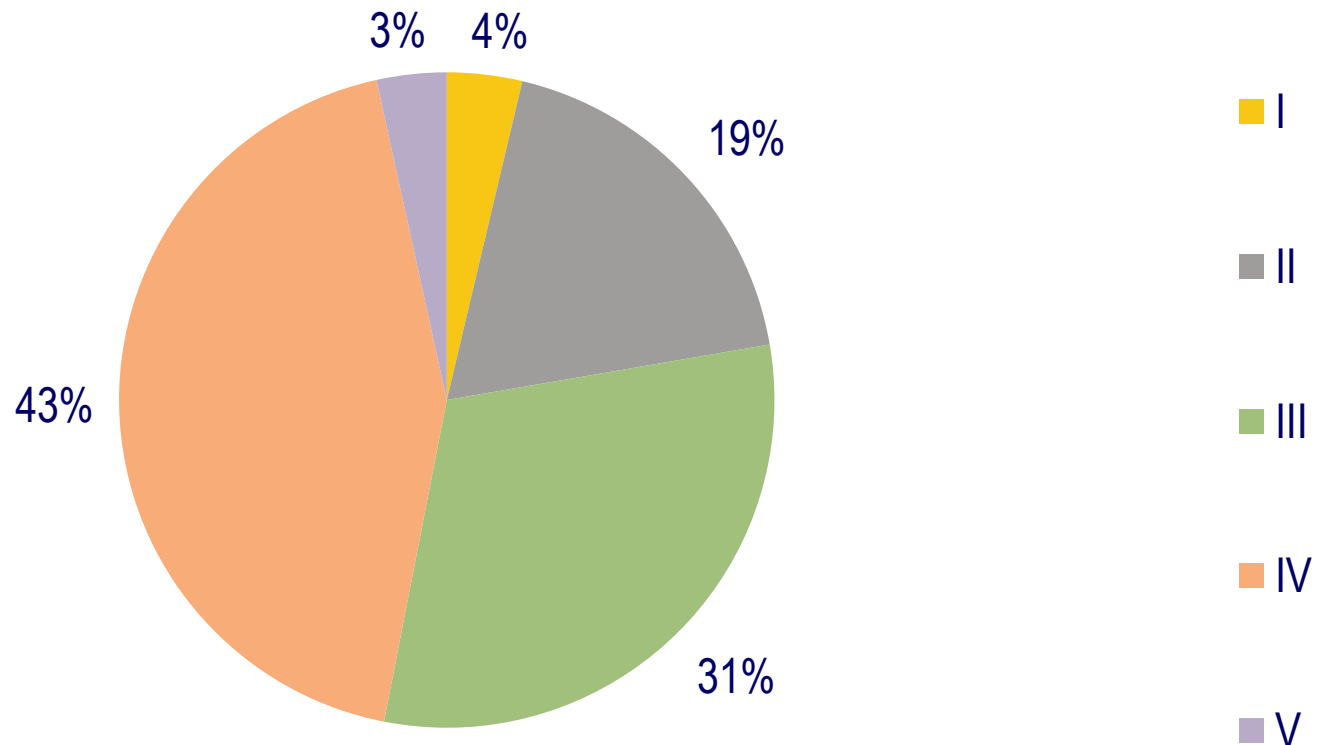
Project Findings:
Prescriptions by Drug Category

Pie chart legend:
- Pain Killers — 53%
- Sedatives — 37%
- Muscle Relaxants — 5%
- Stimulants — 2%
- Other — 3%

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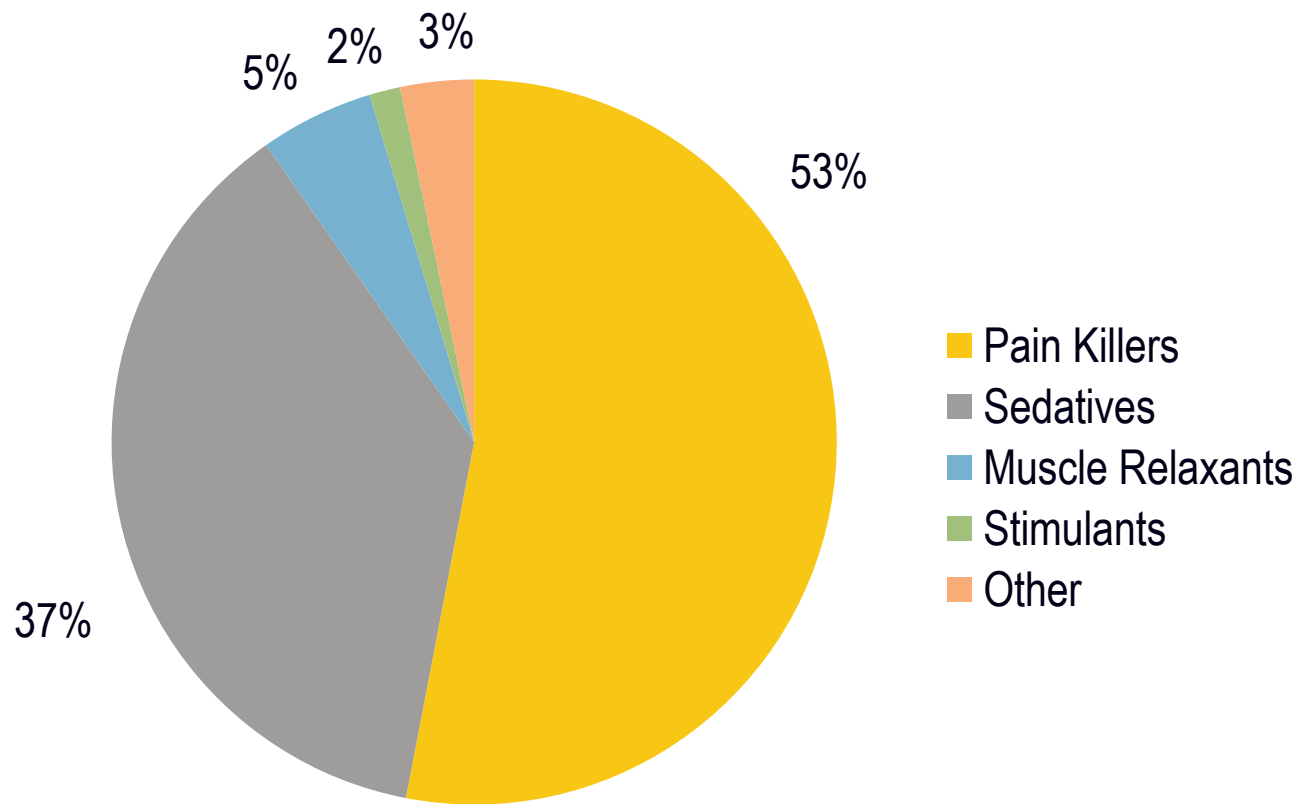
Project Findings:
Number of Unique Opioid Rxs

Pie chart legend:
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7

Chart values: 5%, 21%, 28%, 19%, 14%, 8%, 4%, 1%

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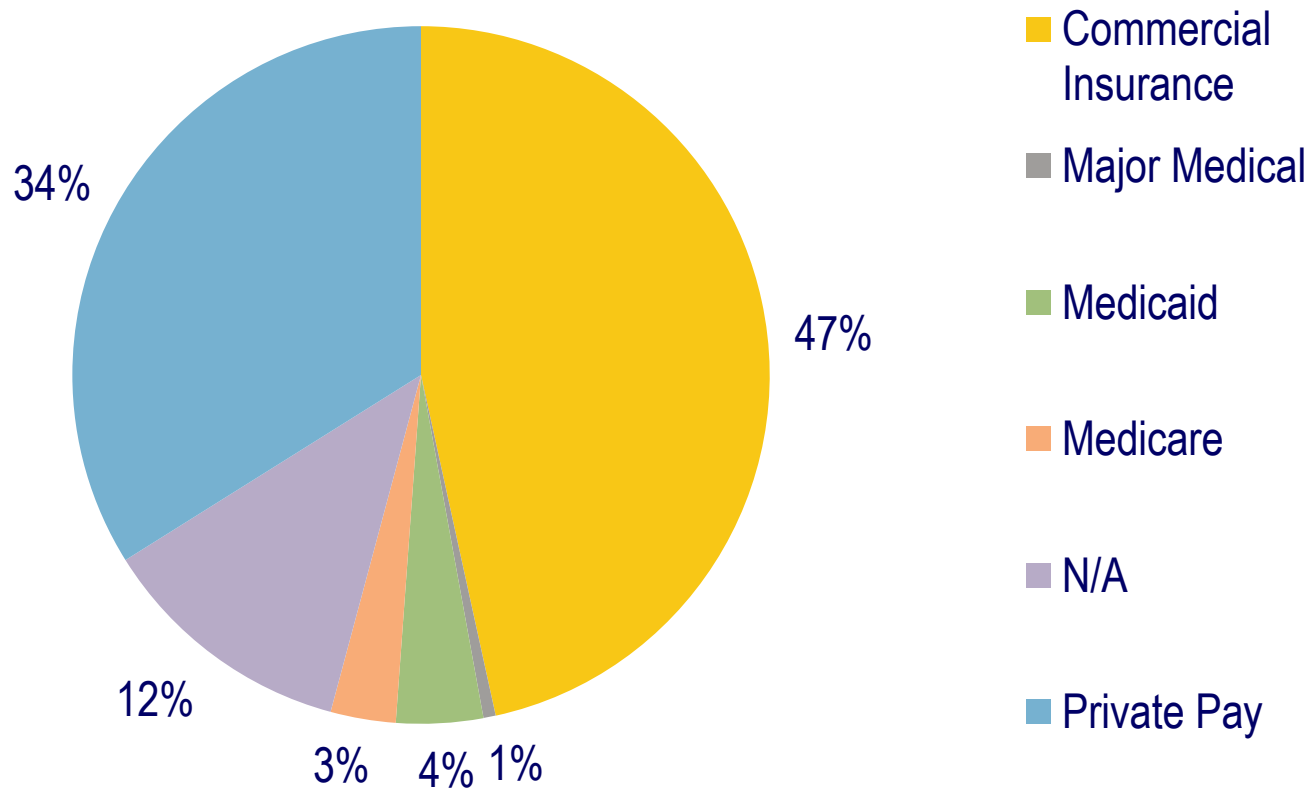
22

Project Findings:
Number of Prescribers per Decedent

Pie chart legend:
- 1-2
- 3-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-29

Chart values: 26%, 27%, 26%, 13%, 4%, 2%, 2%

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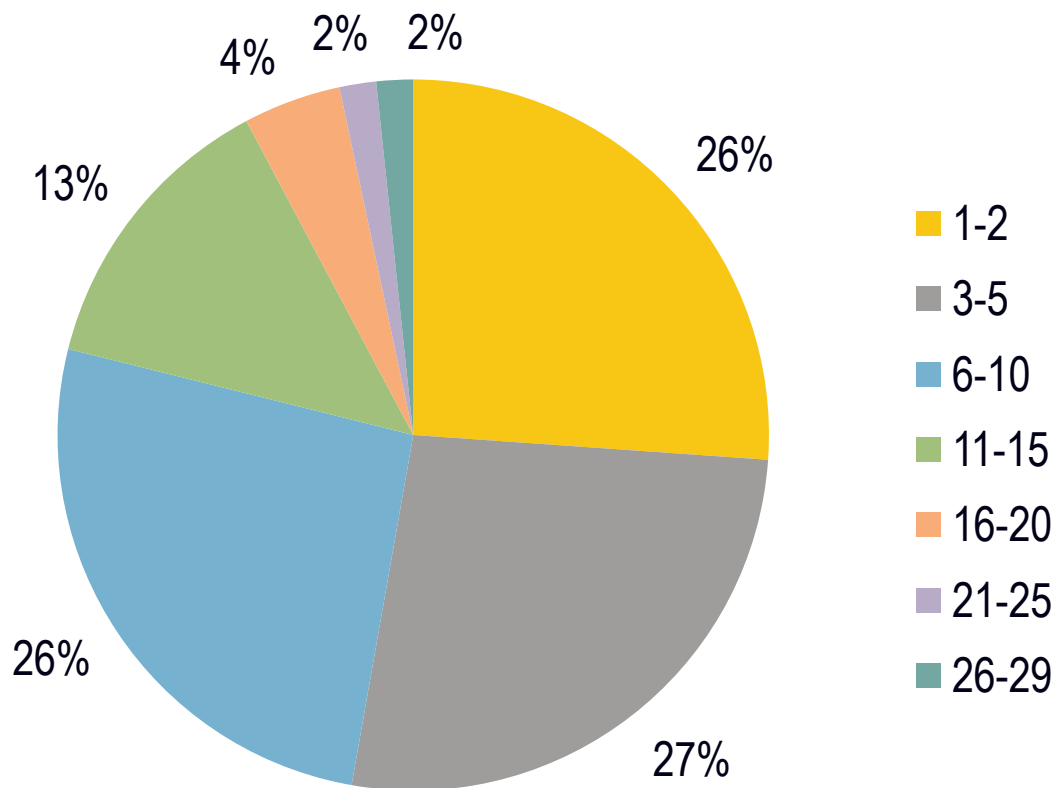
Project Findings:
Prescriptions Written per Prescriber

3%

15%

82%

- <10
- 11 - 49
- 50+

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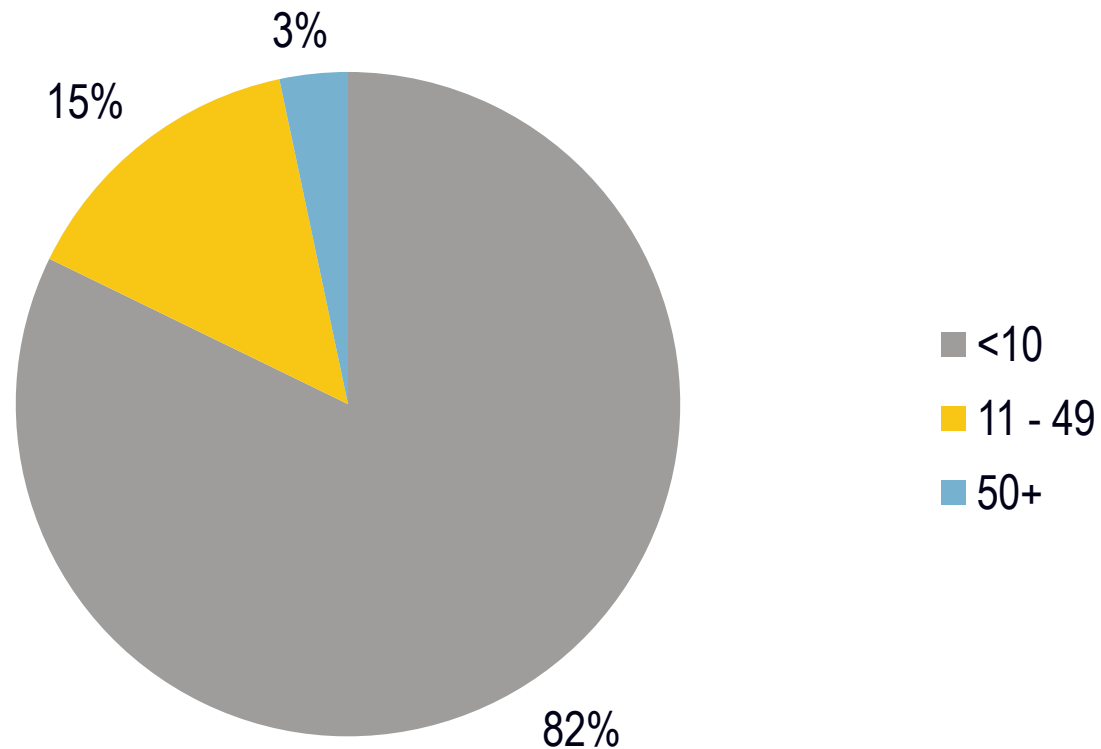
Project Findings:
Number of Dispensers per Decedent

Pie chart legend:
- 1-3 — 48%
- 4-6 — 28%
- 7-9 — 15%
- 10-12 — 6%
- 13+ — 3%
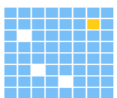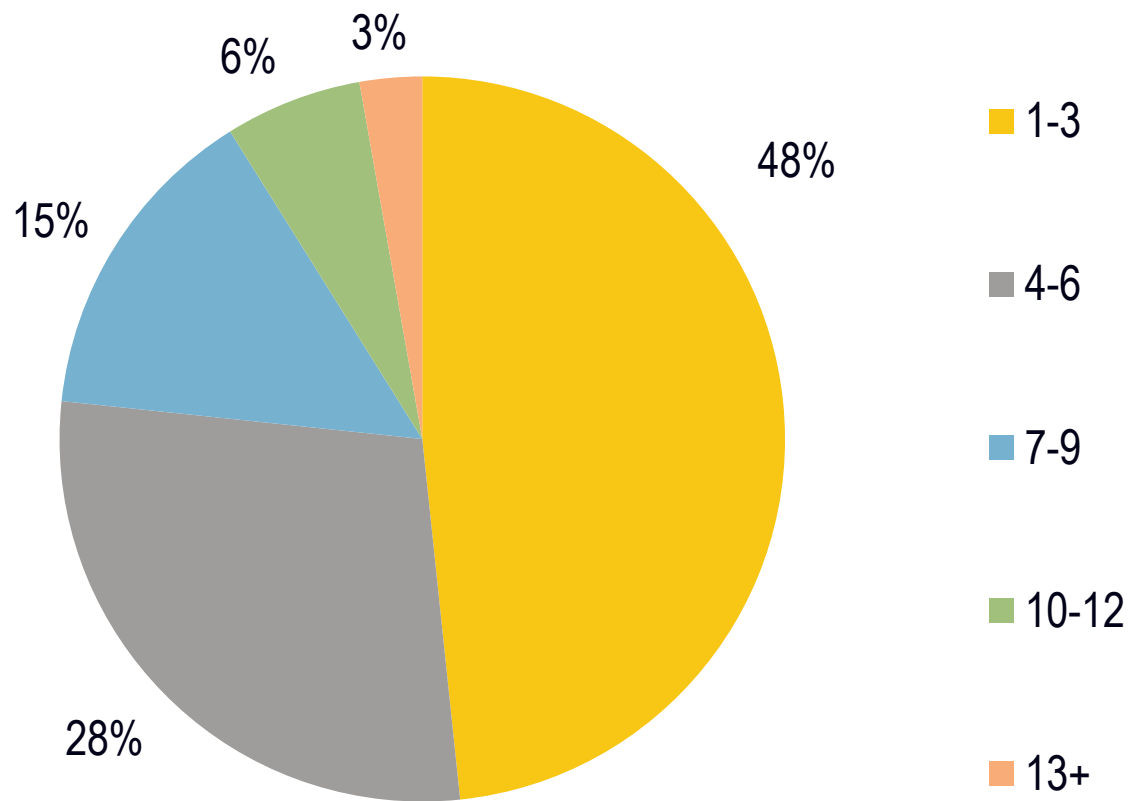
Project Findings: Source of Payment

Pie chart legend:
- Commercial Insurance
- Major Medical
- Medicaid
- Medicare
- N/A
- Private Pay

Chart values: 47%, 34%, 12%, 3%, 4%, 1%

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Next Steps

- Larger data match
- Regular reporting to PMP Advisory Board
- Use of other data sets

Resources for States

State-by-state analysis of current and potential policies to impact Rx abuse and overdose (Oct 2013): http://healthyamericans.org/health-issues/rx-drug-abuse-report-app
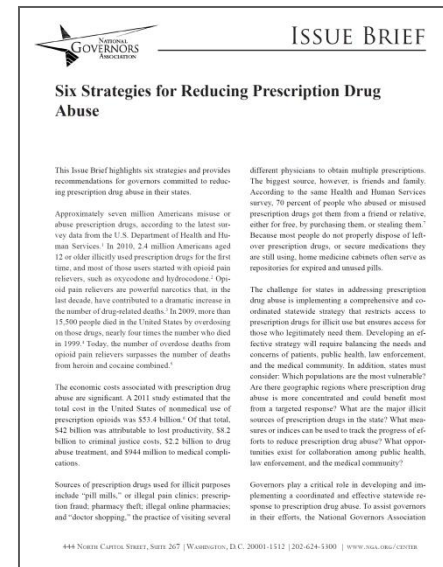
National Governors Association recommendations for reducing Rx abuse (Sept 2013): http://www.nga.org/files/live/sites/NGA/files /pdf/1209ReducingRxDrugsBrief.pdf

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Additional Resources

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