The Role of State Medical Examiner Data in the Prescription Drug Problem: Affecting Policy

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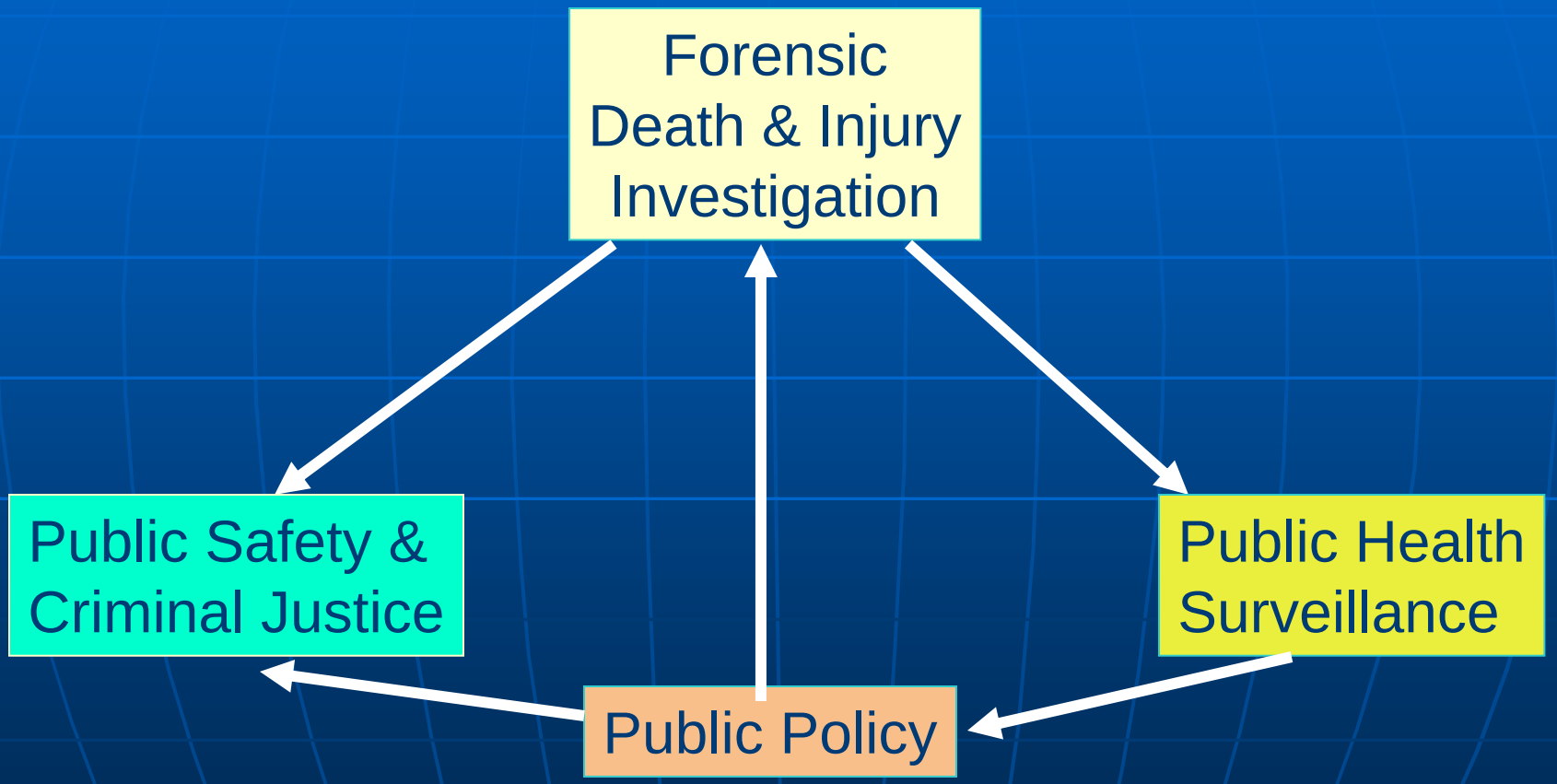
Background

- My approach as a forensic & medical anthropologist (producer & consumer of drug-related data)
- Research focus: rural state drug-related mortality, primarily ME, NH, VT –work with Offices of Chief Medical Examiner
- Other related experience: NAME & NVDRS, DAWN, Methadone Mortality, NIDA/CEWG

Forensic Investigation of Death:
Between Public Health & Public Safety



Not all States have ME/C Data

- Differences in how death investigation done across states and even within states
  - Coroner v. medical examiner systems
  - Local laws, culture, practices, and funding
- Often no statute-based obligation to produce data, except for Vital Records

Dual role of Medical Examiner/Coroner: Public Health and Public Safety

- Some in Dept. of Health
- Some in Atty. Gen. or Public Safety
- Others independent

Death Investigation: To Determine Cause & Manner for Violent, Suspicious & "Unattended" Deaths

- State or local role, not federal
- Over 3000 medical examiner or coroner jurisdictions
- Duties regulated by statute, rule-making and custom
- Variation: located in public health or safety
- Variation: resource level

Medical Examiner v. Coroner

- Medical Examiners hired or appointed
  - Variation in requirements, e.g. whether board certified in pathology and forensic pathology
- Coroners are elected, mostly at county or district level
  - Majority are non-physicians

Variation in Resources

- Appropriated as public policy and paid by tax dollars, hence limited and variable
- Funding levels for staffing & for services needed in drug deaths, e.g., transportation, autopsy, toxicology, usually not determined by them
- Toxicology frequently out-sourced
- Non-physician coroners out-source autopsies

Variation in ME/C Systems

LEVEL	TYPE	POP	# STATES
District	Coroner	4686675	2
County	Med. Examiner	15069076	2
District	Med. Examiner	15982378	1
County	Coroner	23758776	9
State	Mixed ME/C	31144888	7
State	Med. Examiner	57470619	18
County	Mixed ME/C	132737435	11

Drug Death Investigation Variation

- Scene investigation (training level varies):
  - Local M.E.
  - Non-physician death investigator
  - Coroner
  - Police
- Who obtains toxicology sample?
- Is there an autopsy?
- Criminal involvement?
- Where: residence, outdoors, hospital?

Forensic Toxicology

- Dose = key to toxicity, but dose usually unknown
- Toxicology interpretation depends on
  - Persistence in body (postmortem changes, esp. with decomposition)
    - Heroin/morphine, “opiate”
  - Drug combinations
  - Chemical detection
    - Was it screened for? (Labs differ !!)
    - Drug v. metabolite
    - Had it been distributed in the body?

Forensic Toxicology (2)

- Just presumptive (even if 90%)
- Usually requires two tests (screening, quantitative)
- Peripheral blood is best (other sources also used)
- Issue of individual tolerances (especially critical for opiate/opioid deaths)
- Medical data (heart/liver/lung disease)

Wish List –More Difficult

- Where did decedent obtain drugs?
- Were they prescribed?
- What form was ingested?

- Scenes are “cleaned”
- Requesting medical & prescription records consumes resources
- Prescription Monitoring Programs - access to M.E.?, methadone clinics included?

Cause of Death

- Part I. The mechanism (medical reason the person is dead)
  - Up to four “links” in causal chain
- Part II. May note “other significant conditions contributing to death”

Manner of death—5 Choices

- Homicide
- Suicide (standards vary across districts)
- Accident –most opiate/opioid induced deaths
- Undetermined
- Natural (e.g., therapeutic drug at therapeutic levels)

How do medical examiners view prescription drug deaths?

- Complicated cases that take more time than others (but interesting)
- Often frustrating due to interpretive issues with multi-drug toxicity (levels may be low)
- Source of large increase in work load (often w/ no increase in resources)

How do epidemiologists view prescription drug deaths?

- Part I versus Part II mentions
- What to do with “polydrug” mention

Wysowski (2007) Drug Safety 30(6):533

- *"Surveillance of drug-related deaths would be aided if physician certifiers included specific drug names on death certificates when drugs have caused or contributed to death." (p. 539)*

Pressure on Medical Examiners and Coroners

- To provide timely statistical data
  - Policy maker decisions: (a) drug treatment methods & funding; (b) law enforcement focus and funding; (c) how prescribers prescribe
- To provide data that may or may not exist
  - Where did decedent obtain drugs?
  - Were they prescribed?
  - What form was ingested (e.g., methadone liquid versus tablets)

Statewide ME/C Data Varies

- Fewer than half of states have drug death data
- Data not comparable state to state
- Data may not include focus on prescription drug problem

Maine

- 1.3 million
- Only 1 SMSA
- Most of state very low pop. density
- Since 1968 a Chief Medical Examiner system with single office

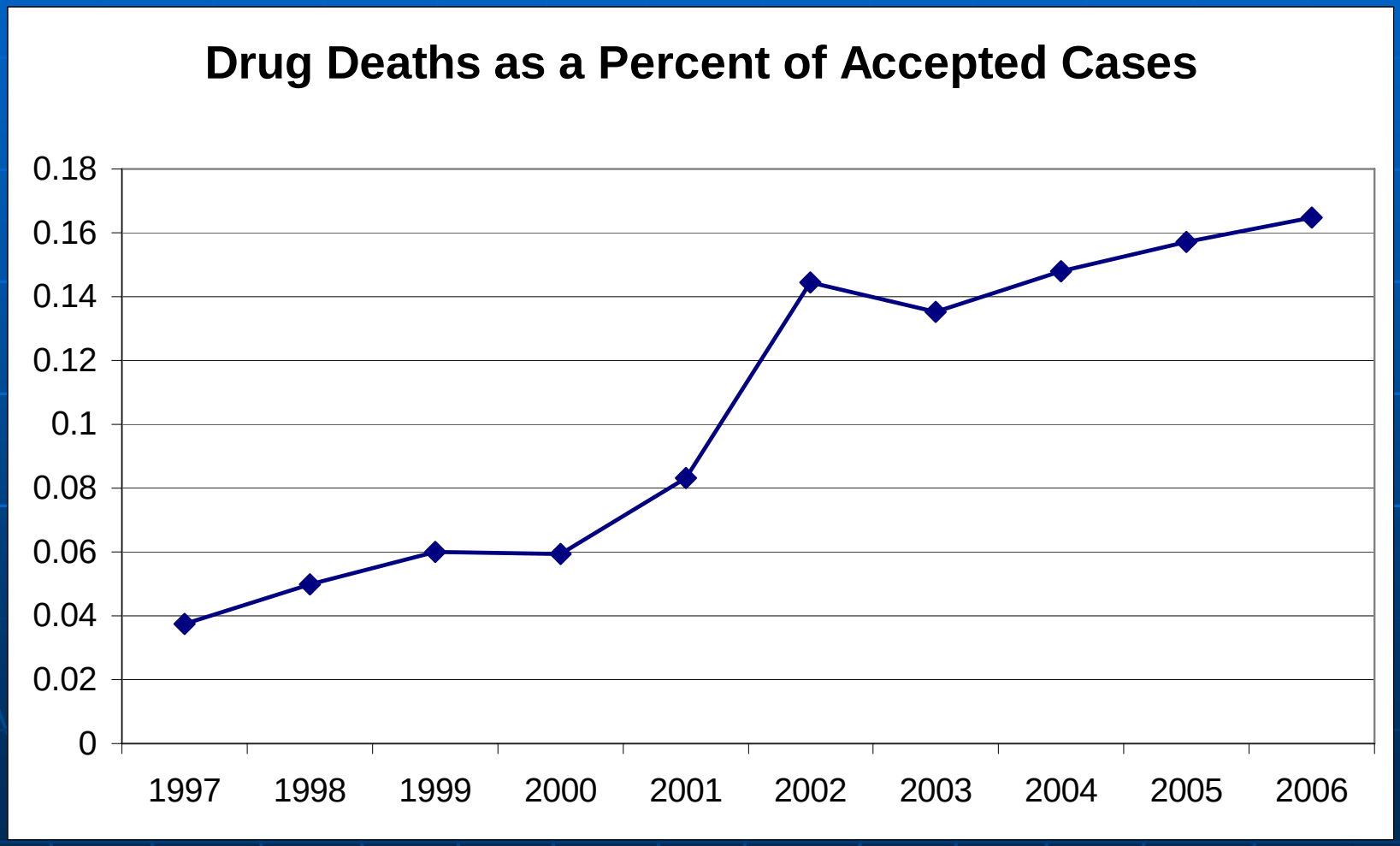
Office of Chief Medical Examiner Protocol - Maine

- Overdose deaths
  - Usually no scene visit by medical examiner
  - About 78% brought for autopsy (only one site)
  - Full drug toxicology screen
  - Histology if indicated

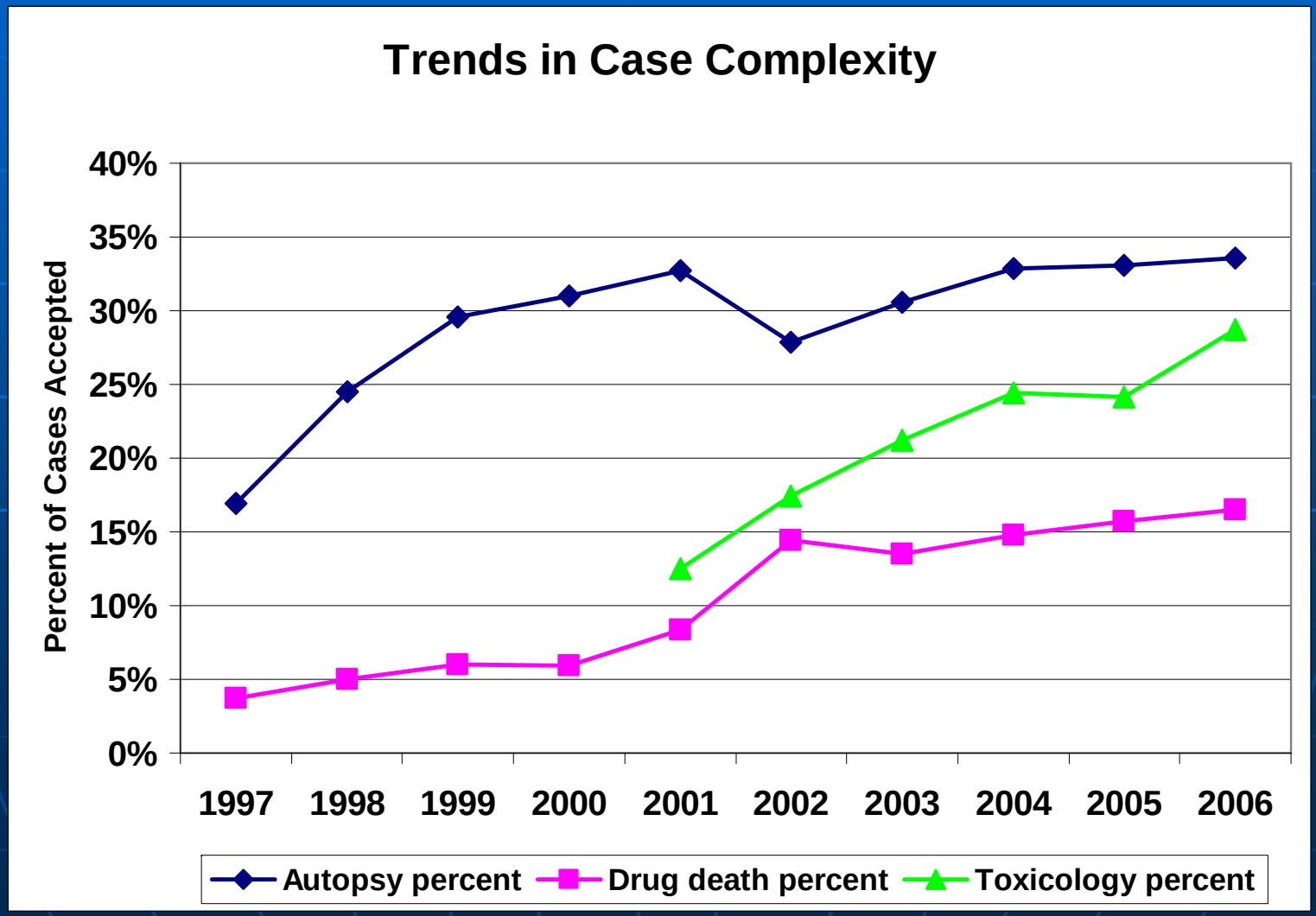
Autopsy Goals

- To find (or rule out) natural disease that may have caused the death
- To find (or rule out) trauma that may have caused the death
- To take samples for toxicology and histology

Maine OCME


Drug Deaths as a Percent of Accepted Cases
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006

Maine OCME


Trends in Case Complexity
Percent of Cases Accepted
40%
35%
30%
25%
20%
15%
10%
5%
0%
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
Autopsy percent
Drug death percent
Toxicology percent

Maine OCME: Drug Death Impact Without Funding Increase

- 429% increase in drug deaths 1997-2006
  - Transportation for autopsy (78% in 2006, down from nearly 100%)
  - More background checks for medical records
  - Frequently requires histology
  - 136% increase in autopsies since 1997
  - 133% increase in cases requiring toxicology since 2001

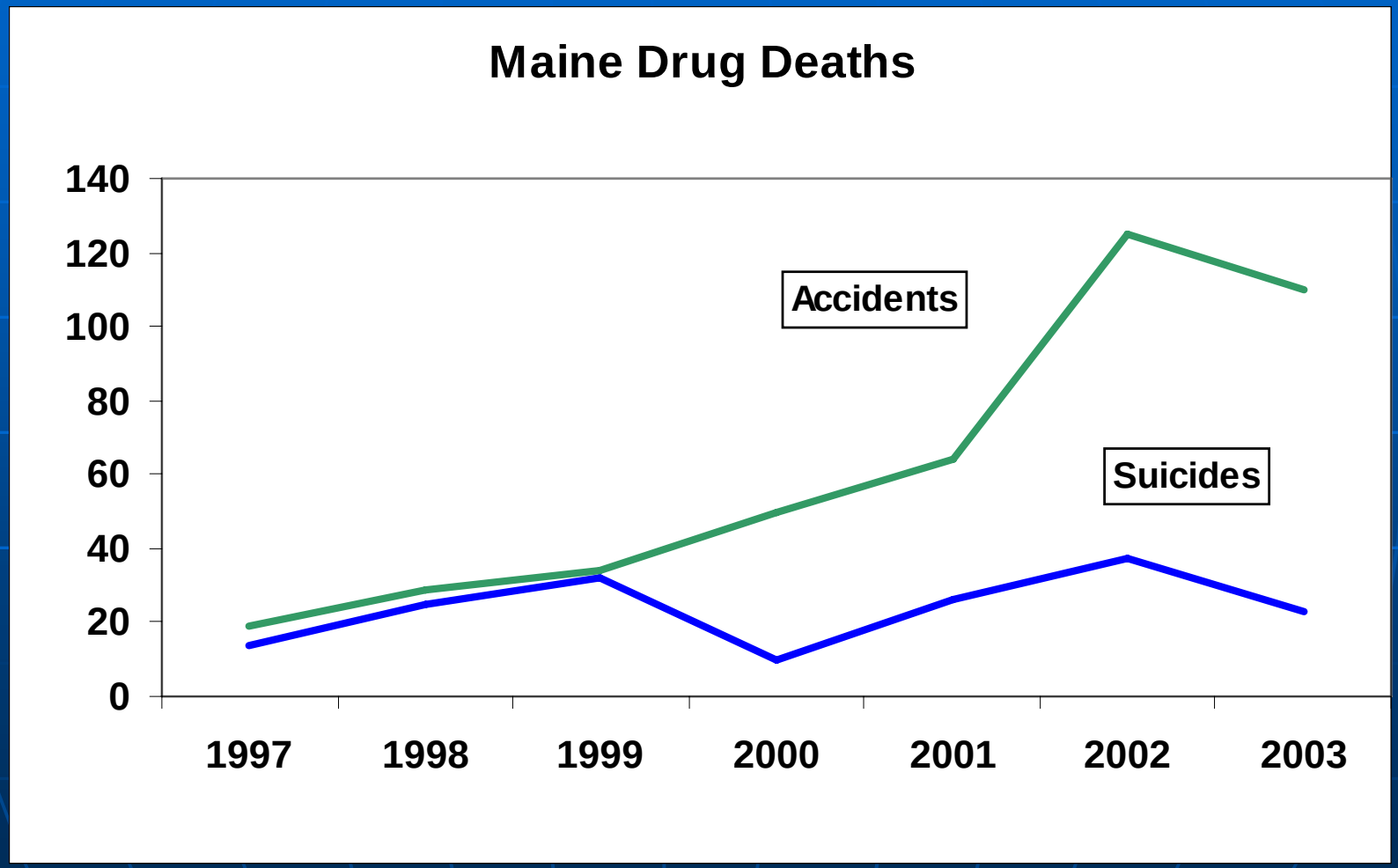
2001: A drug odyssey

- Increase in opiate addiction in Maine
  - Treatment episodes
  - Demand for methadone treatment
  - Perception that deaths had increased
  - Generally blamed on OxyContin

Drug Odyssey cont.

- Office of Substance Abuse formed a task force
- Office of Chief Medical Examiner & Attorney General obtained Byrne Funds (Dept. of Justice) for me to do study
- 2002: Study of drug related deaths 1997-2002

Findings


Maine Drug Deaths
140
120
100
80
60
40
20
0
Accidents
Suicides
1997
1998
1999
2000
2001
2002
2003

Action 2002

- Press Conference (AG, ME, and me)
  - 92% deaths had prescription drug cause
- Methadone take homes
- OxyContin off preferred drug list
- Work began to get a Prescription Monitoring Program passed (failed the first time; started FY 04-05)

Continued Monitoring

- Federal Funding only: Dept. of Justice (i.e., no state funding)
- Community Epidemiology Surveillance Network began to form at state level (I was asked to do first comprehensive annual report). SAMHSA/CSAT funding (i.e., no state funding)

Continuing Requests

- Utilized to justify funding for Maine Drug Enforcement Agency via press conference at which I was asked to contribute
- Many, many media requests to the Office of Chief Medical Examiner for data on methadone in particular

Community Groups

- County groups funded by a statewide prevention grant asked for county-specific data. (not funded by state resources)

Substance Abuse Services Commission

- Requested drug death data and updates
- I was asked to sit on the Commission

Prescription Monitoring Policy Issues

- Maine: ME/C has no access, but will soon
  - Must still call all methadone clinics
- Study of PMP participation by licensees
- Methadone clinic data not included, so are methadone clinic providers using the PMP?
  - Few methadone clinics do death reviews and use PMP
  - Concept: “medical prescription home” for methadone clinics
- Providers still don’t know how to respond to data about diversion, misuse

Medicaid

- Should Medicaid use the PMP?
- Should decedent list go to Medicaid or the PMP, and if so what responses are needed?

Federal Feedback Loops

- DAWN –Maine became a state contributor to ME data starting 2003
- NIDA-CEWG Maine was asked to be a guest researcher & regular contributor starting in 2004

Conclusions

- Fiscal impact of drug deaths on Medical Examiner & Coroner systems is significant
- Funding for data processing and dissemination is frequently federal and sporadic
- Because methadone is such a significant part of the pattern, more attention is needed to coordinate data from methadone clinics, medicaid databases, and prescription monitoring
- State-specific systems will be needed

Recommendations

- Provide access to PMP data to the ME/C

Cautions

- Avoid requesting duplicative surveillance data collection
- Beware of creating unfunded mandates
- Be aware of problems comparing raw data across variable ME/C jurisdictions