Overdose Prevention and Management in Opioid Treatment Programs

AATOD 2010

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Disclosures

- Melinda Campopiano is a Treatment Advocate for Reckitt Benckiser
- We have no additional commercial relationships to disclose
- Naloxone is FDA approved as an opioid antagonist
- Naloxone delivered as an intranasal spray with a mucosal atomizer device has not been FDA approved and is off label use

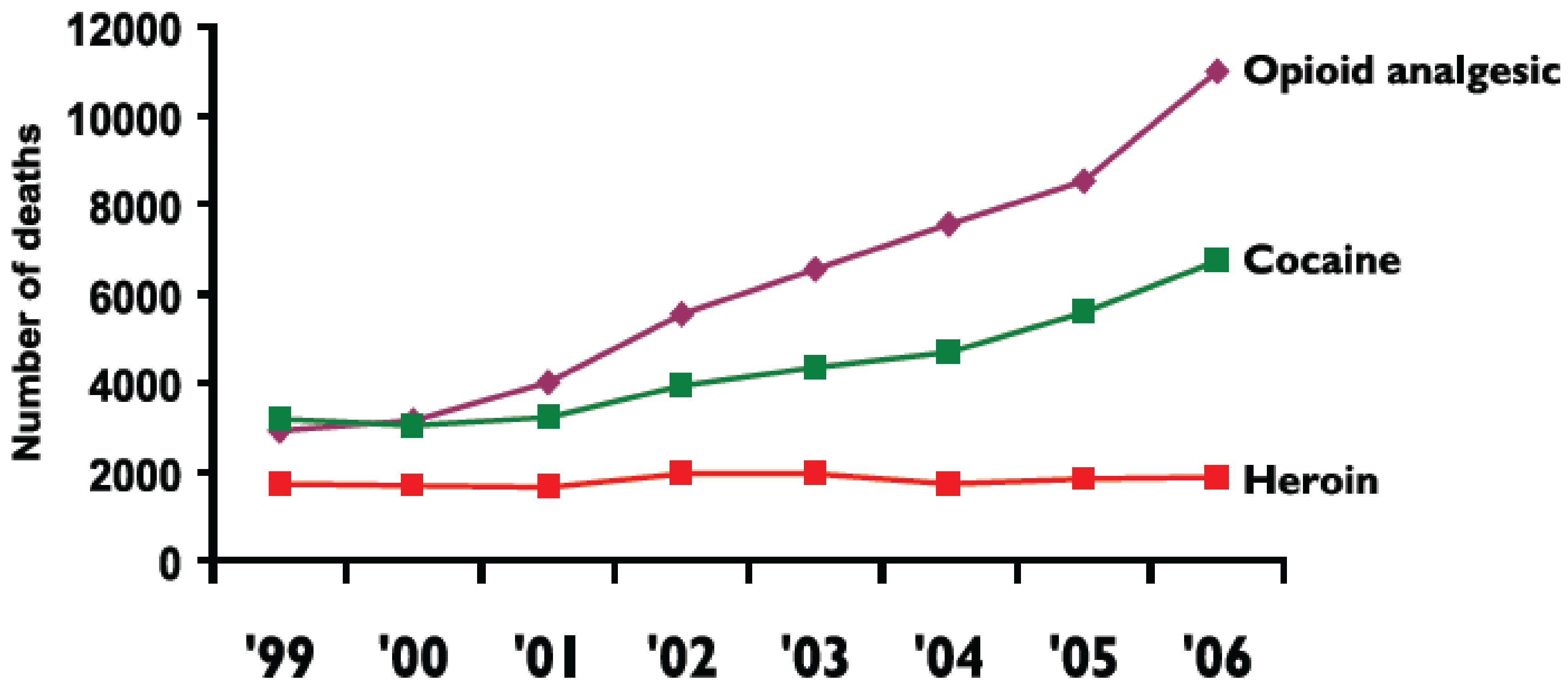
Session Agenda

- Overdose Epidemiology- Opioid & Methadone
- Overdose Physiology & Naloxone Pharmacology
- Overdose Prevention Education and Training in an OTP
- Standing Order Model
- Summary of Key Findings & Expansion

Overdose Epidemiology- Opioid

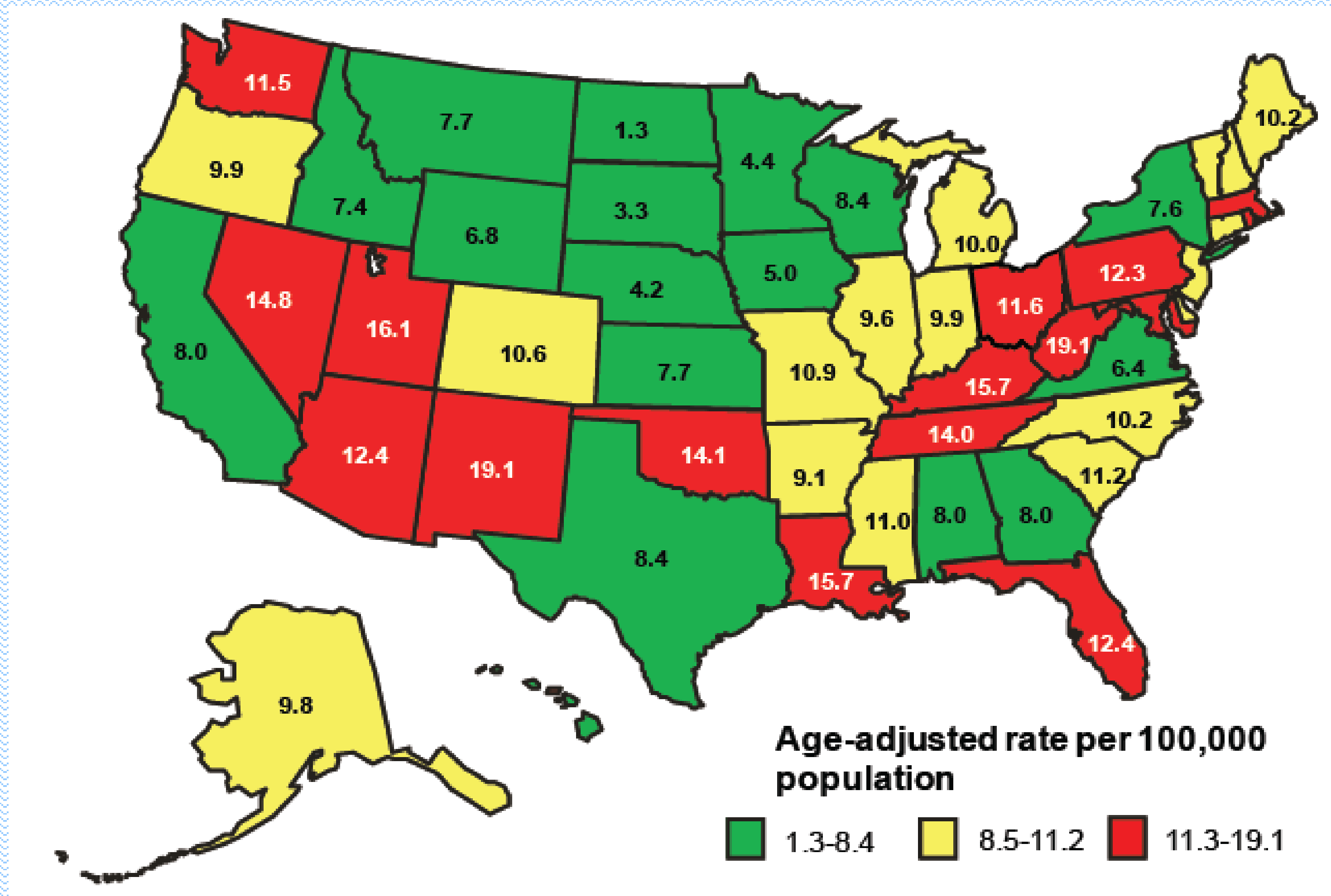
- Overdose deaths are up 5-fold since 1990
  - 26,400 deaths in 2006
  - For ages 35-54, exceed MVA death rates
- Emergency department visits in 2008
  - 306,000 involved pharmaceutical opioids
  - 201,000 involved heroin

Unintentional drug overdose deaths by major type of drug, United States: 1999-2006



CDC Issue Brief. March 2010

Drug Overdoses by State, 2006

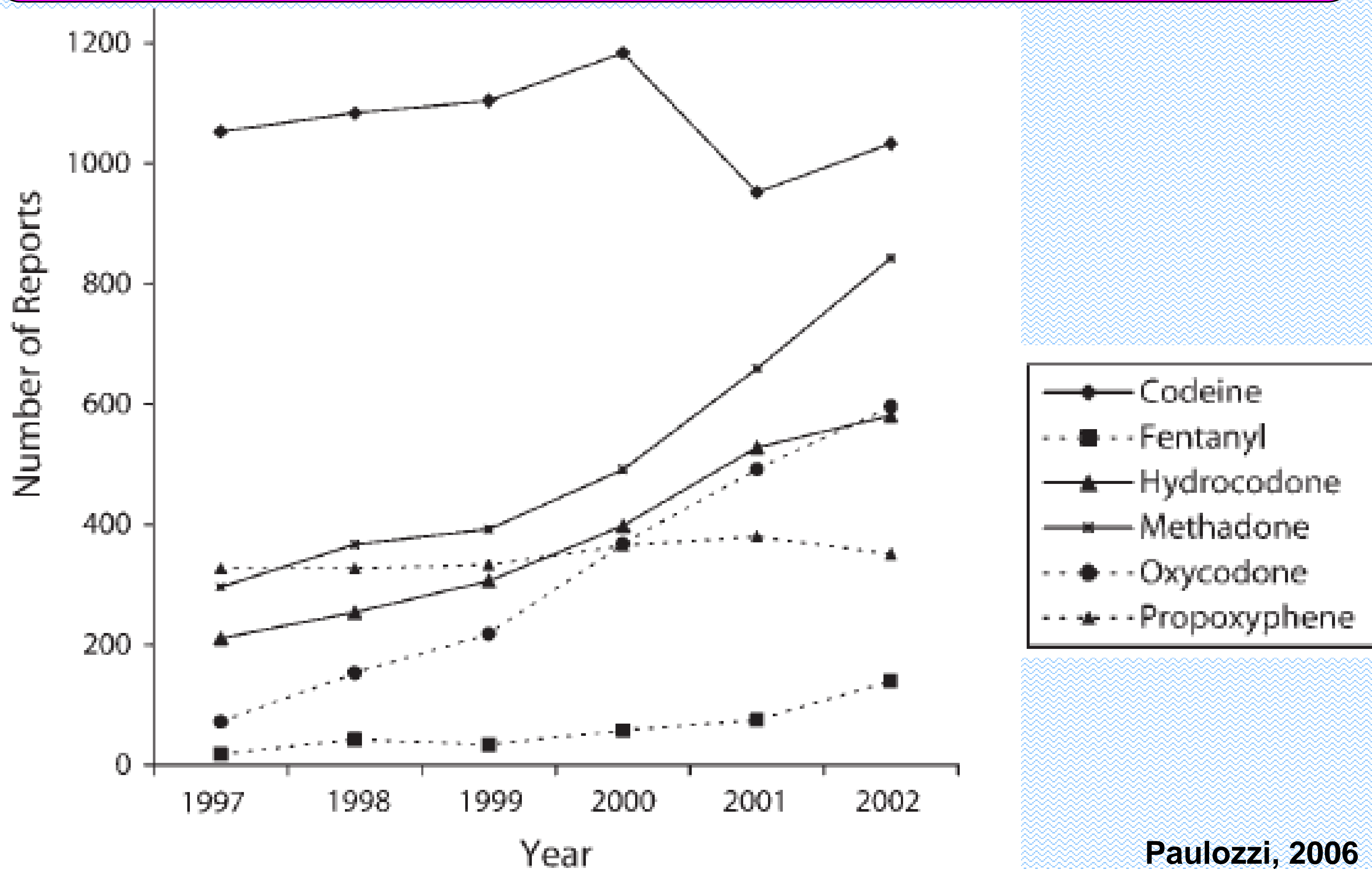


CDC Issue Brief. March 2010

Overdose Epidemiology- Methadone Associated Mortality On the Rise

- 1999 to 2002= 213% increase in fatalities
- Opioid Treatment Program (OTP) patients not likely to be the source of increased opioid overdoses, compared to methadone prescribed for pain (though they are a group worthy of focus)

Reports of opioid analgesics from selected DAWN Medical Examiners 1997-2002



Paulozzi, 2006

Reducing Overdose Has Many Interested Parties

- ONDCP
  - 2010 National Drug Control Strategy reduce OD deaths by 15%
  - Equip public safety w/ naloxone
- DEA, DOJ & EPA
  - Rx Drug Take Back

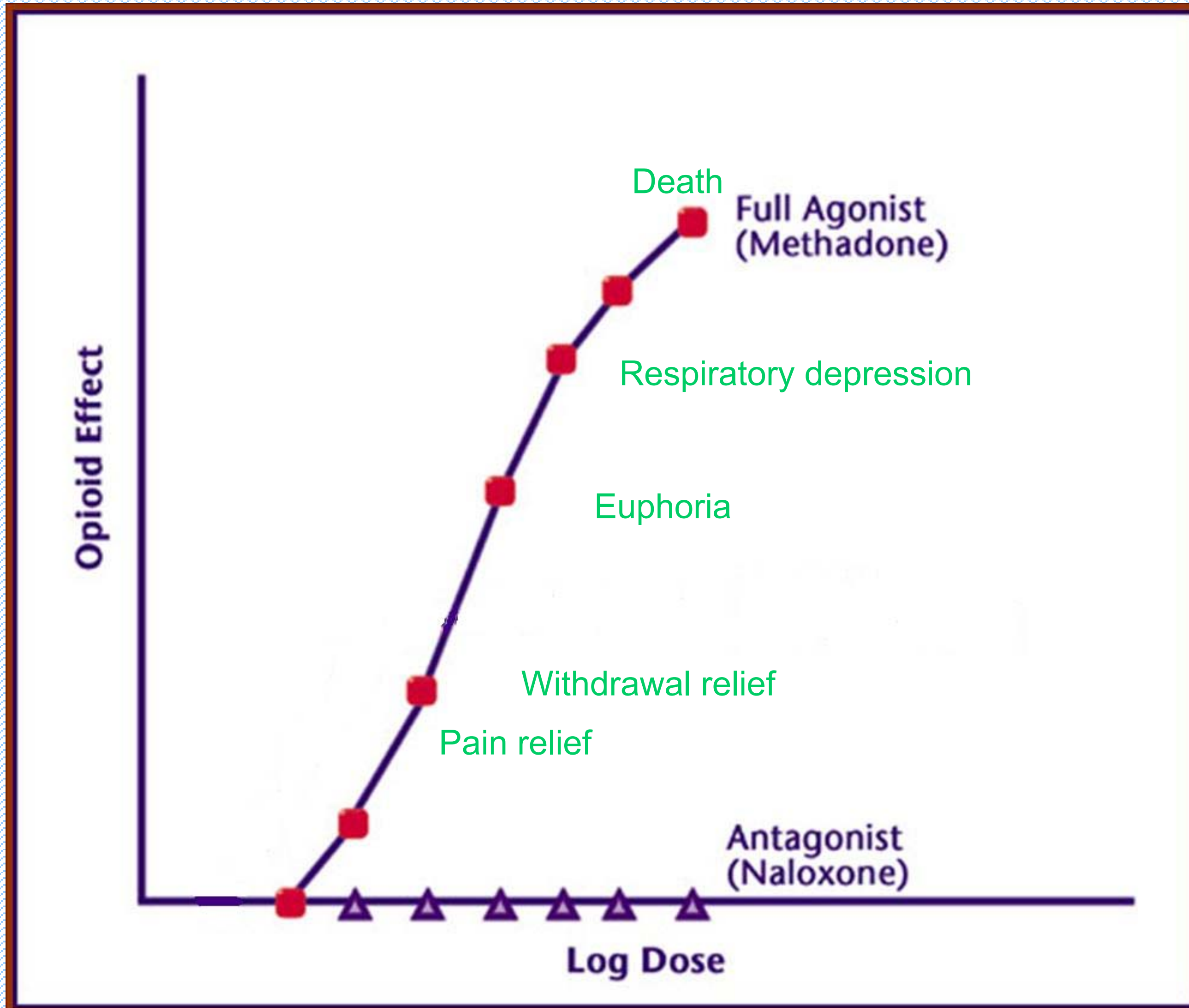
What puts people at risk for ODs?

- Changes in tolerance
- Polysubstance use- benzos, alcohol & cocaine
- Physical health
- Previous experience of non-fatal overdose
- Strength and content of ‘street’ drugs

Overdose Physiology: Signs & Symptoms

- Blue skin tinge
- Body very limp
- Face very pale
- Pulse slow or not there at all
- Passing out
- Choking sounds or a gurgling/snoring noise
- Breathing is very slow, irregular, or has stopped

Progression of an Overdose



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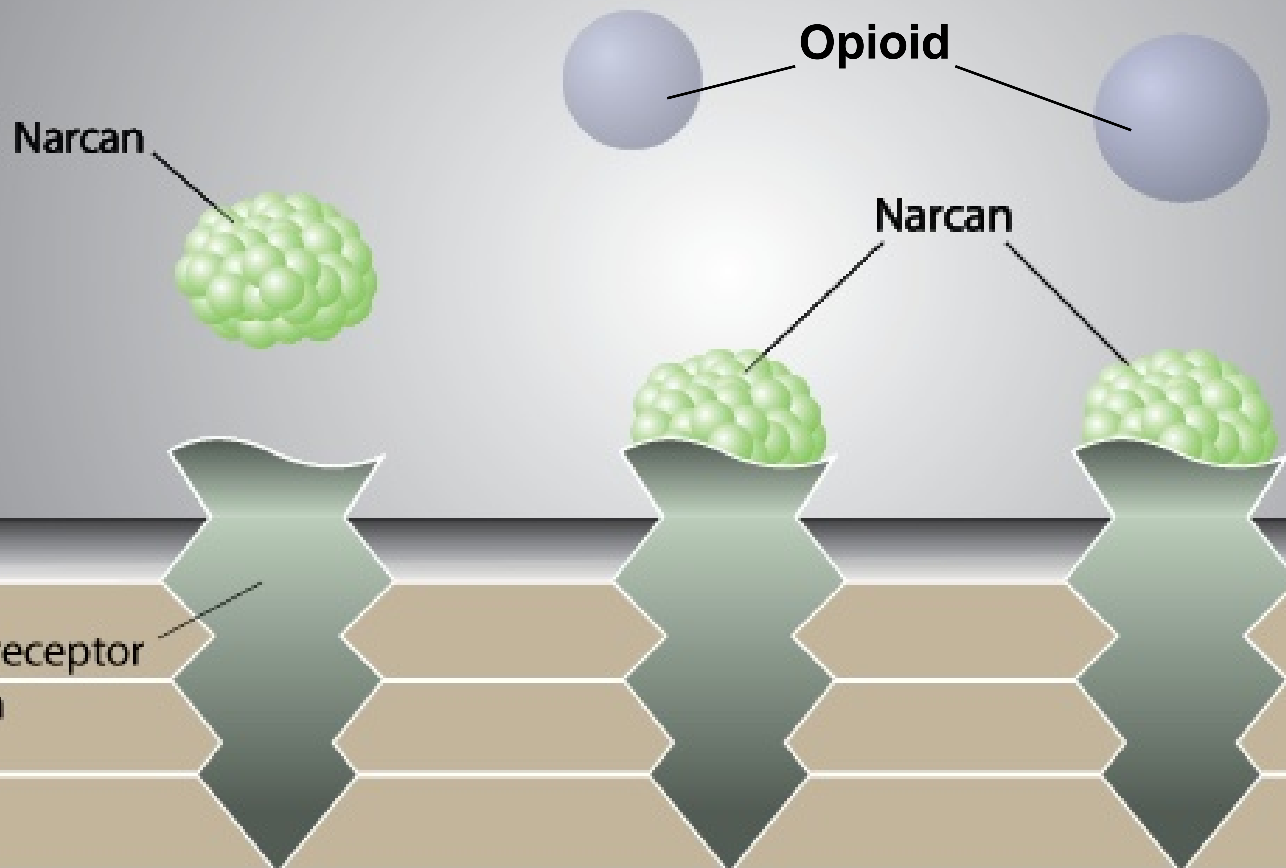
Narcan (naloxone) Reversing an Overdose



Intervening in Opioid Overdose

- ODs often witnessed, occur over time
- 911 is called <50% of the time
- Naloxone reverses opioid-related sedation and respiratory depression
  - Not psychoactive, no abuse potential
  - May cause withdrawal symptoms

Administering Naloxone

- Pure opioid antagonist
- May be injected in the muscle, vein or under the skin or sprayed into the nose
- Acts within 2 to 8 minutes
- Lasts 30 to 90 minutes, overdose may return
- May be repeated
- Narcan® = naloxone
- naloxone ≠ Suboxone
  ≠ naltrexone

OD Education and Naloxone Distribution (OEND) Programs

Number (#)	2007*	2010†
States w/ OENDs	9	17
Programs	42	131
People enrolled	20,950	?
Reported OD reversals	2,642	?

Three models: Prescription, Standing Order, Distribution

* Knox, 2008 † Unpublished NOPE data

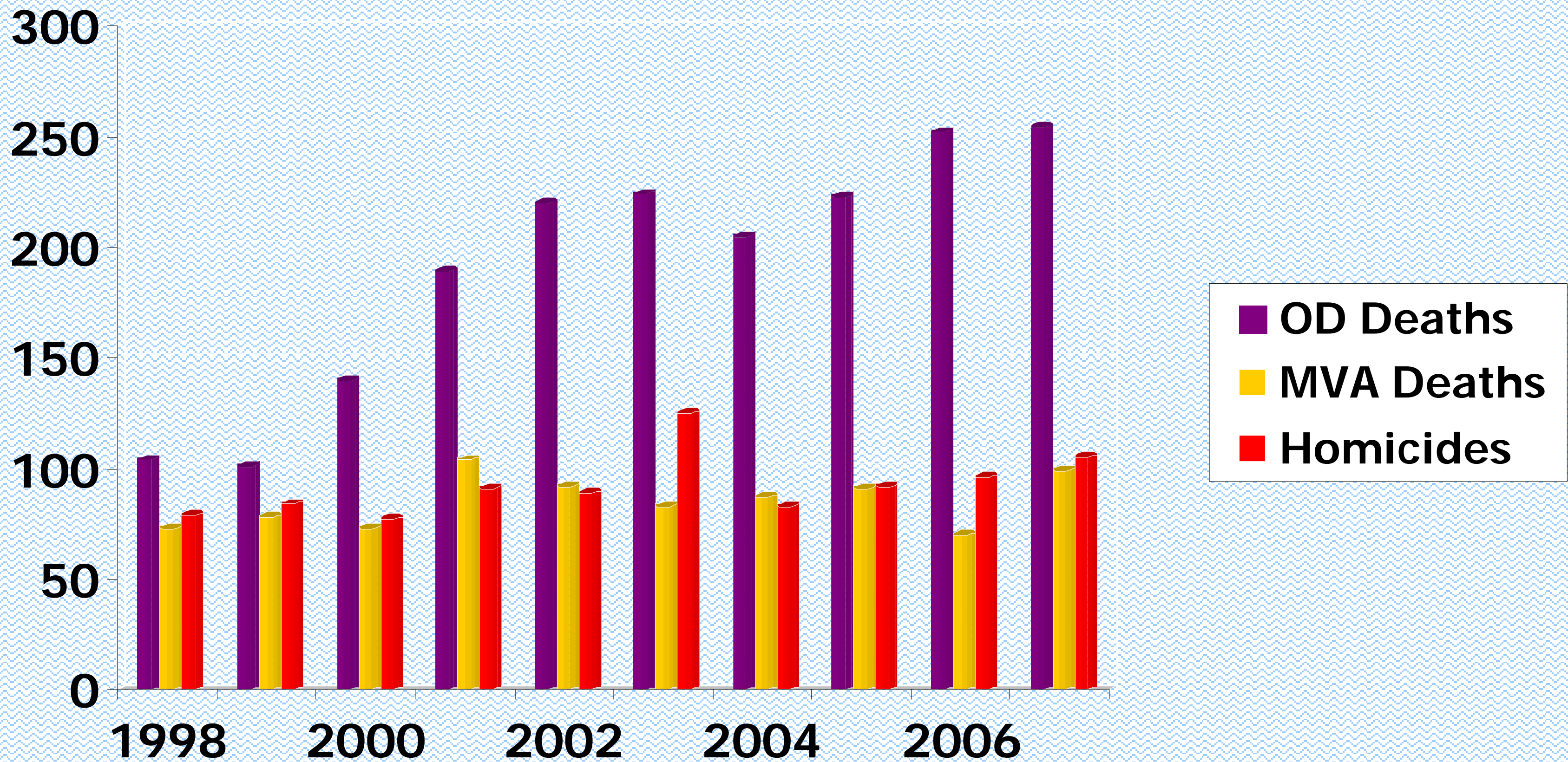
Evaluations of OEND programs

- No increase in drug use
- No major medical side effects
- Possible increase in drug treatment
- Feasibility
  - Drug users & lay responders can recognize overdose and be trained to respond

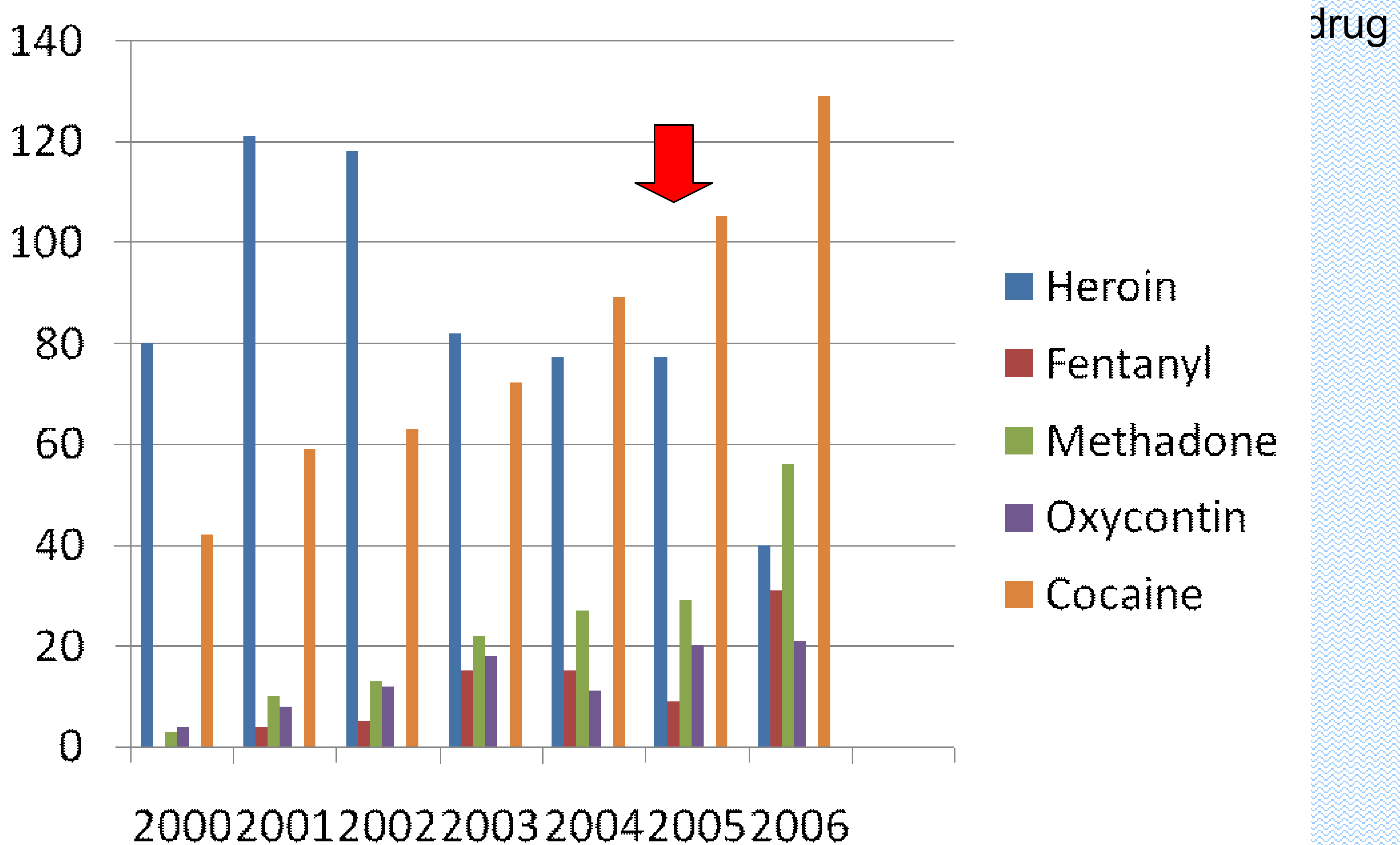
Beginning OD Prevention in an OTP: Develop Awareness & Build Buy-In

- Discuss overdose in your community at staff meetings and provide referral resources
- Invite outside speaker
- Facilitate discussion of any concerns among staff
- Solicit staff input in development of Overdose Prevention Program at OTP
- Involve the patients
- Engage innovative partners/allies- law enforcement/public safety, parent or family groups, religious institutions

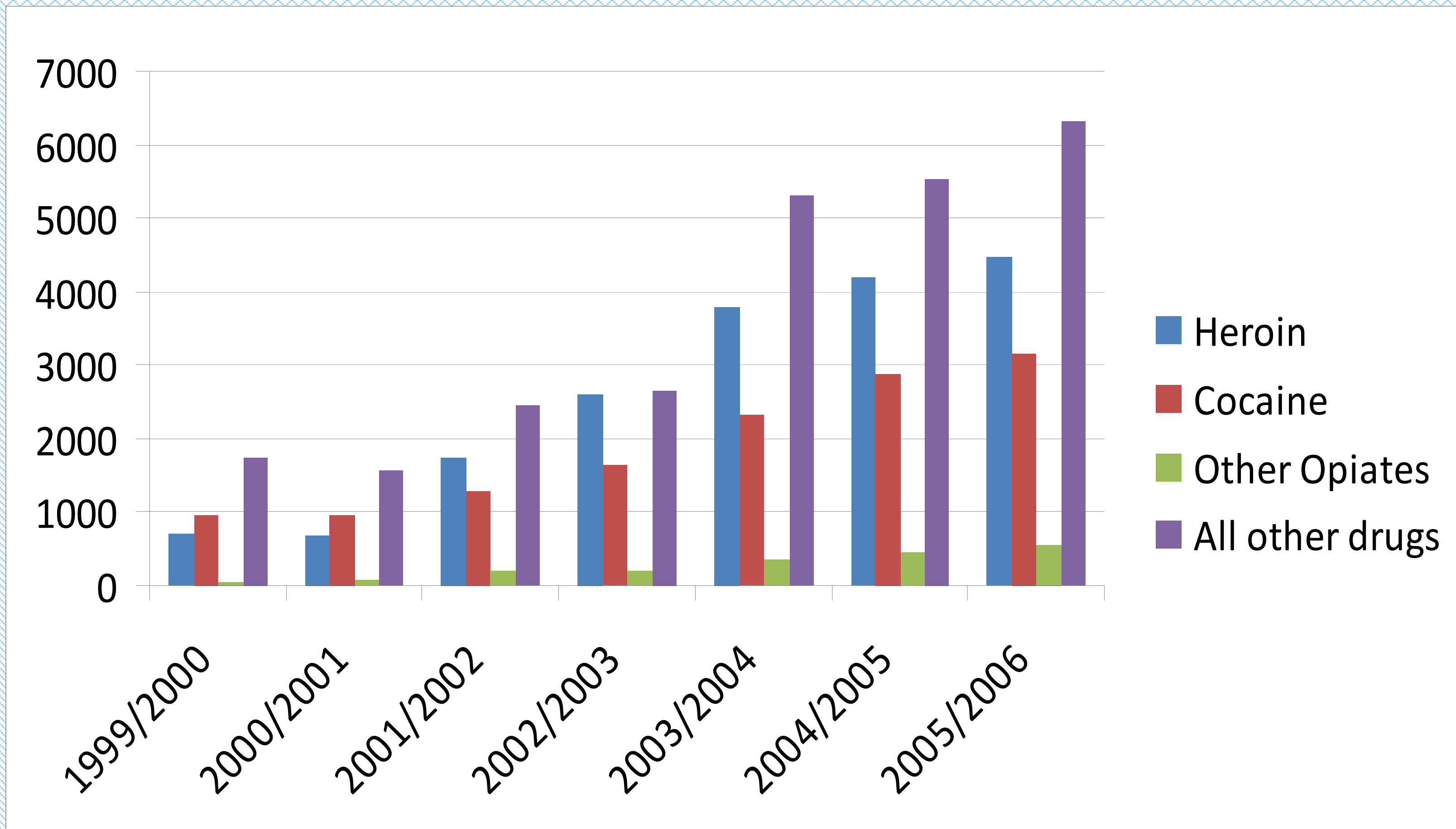
Allegheny Co Overdose Death in Comparison to MVA Fatalities and Homicides 1998-2007



Accidental Drug Overdose Deaths by Drug 2000-2006



Drug Use in Allegheny County by FY



Data from Pennsylvania Department Of Health

Collaborate with Community Agencies

- Prevention Point Pittsburgh (PPP)
- Overdose prevention since 2005
- 7,541 Overdose Prevention trainings 05-09
  - 5,342 in county jail
  - 1722 community members
  - 477 syringe exchange clients

Personal Communication

Naloxone Prescriptions by PPP

- 477 persons who received prescriptions collectively reported at the time of their training
  - 570 overdoses (self)
  - 1,995 overdoses witnessed
  - 149 deaths
- 310 refills provided
  - 307 successful reversals
  - **173 required rescue breathing**
  - 2 deaths
  - 1 unknown outcome

Personal Communication

Normalize in OTP Milieu

- Literature should be available and visible.
- Overdose risk should be routinely discussed in case consultations
- Past Medical History should document history of overdose
- Provide regular opportunities to process grief, anger, guilt and other strong feelings about overdose

Patient Targeting Strategies

- All patients offered training and naloxone
- All *new* patients offered training and naloxone as part of orientation
- Provide on-demand
- Target those with additional risk factors (co-occurring mental health disorders, positive UAs, previous overdose, etc)

Gain Institutional Approval

- Present to any upper level medical and executive staff persons
- Develop a written policy/guideline
- Discuss with hospital pharmacy
- Present at Pharmacy and Therapeutics Committee meeting
- **Hint:** Don't expect them to know much about overdose or your patients.

The OTP Patient

- Opiate users by definition
- Co-occurring mental health disorders
- Polysubstance use
- Reside in families and communities where substance use is wide spread
- Treatment may end abruptly

Risk Factors

- OTP patients are more likely than the general population to have Axis I or II disorders
- Up to half of OTP patients have a co-occurring disorder in their lifetime.
- OTP patient demographics put them at risk

older age	urban area
homelessness	medical illness
incarceration	low socioeconomic status

OPT Patients with Polysubstance Use and Co-Occurring Disorders

Substance	With disorder	Without disorder
Alcohol	31.5%	18.6%
Benzodiazepines	21.8%	12.5%
Cocaine	48.5%	32.7%

TIP 43

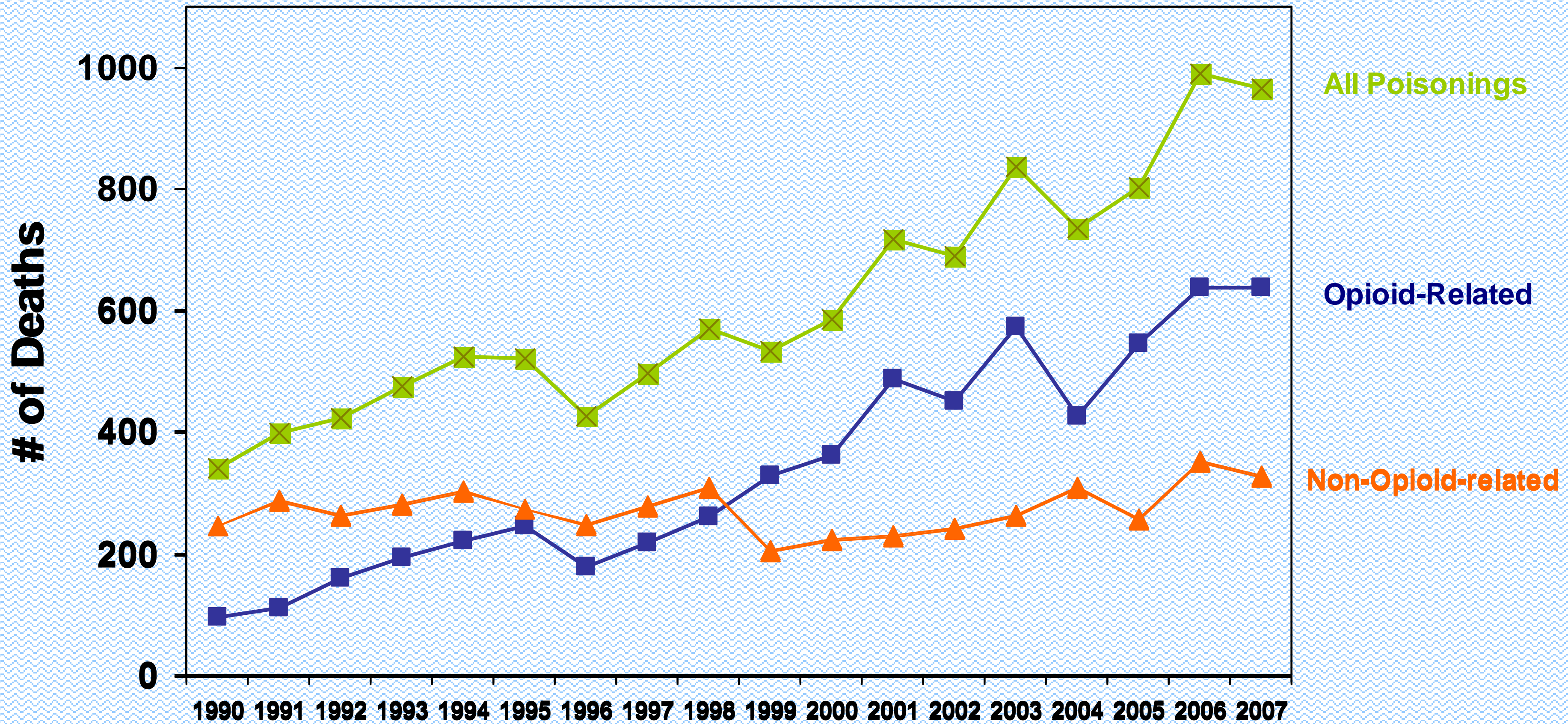
Collect Data on Your Program

- Keep sign in lists
- Track naloxone prescriptions
  - Prescribed
  - Picked-up
  - Used
- Head Count a couple questions
  - How many have overdosed or witnessed one
  - How many have received overdose training before
- Consider a patient satisfaction survey

Achieving Sustainability

- Teach other staff to provide training to patients
- Hand over coordination of your overdose prevention program to one or more specific staff positions
- Present data on your program to staff, patients and management

Standing Order Model: Massachusetts Opioid-Related Poisoning Deaths in Massachusetts 1990-2007



Source: Registry of Vital Records and Statistics, MA Department of Public Health

Massachusetts Timeline

- Lessons learned from underground OEND in 2004
- Media coverage of fatal ODs in 2005

BOSTON Herald

HEROIN TAKES A LIFE IN THE PUBLIC GARDEN

BOSTON Herald

EDGE:

DEATH IN THE GARDEN

Pal dies after junkies shoot up in plain sight of families

Scourge of deaths by OD

Massachusetts Timeline

- BPHC BOD passes regulation in 8/06, naloxone availability through needle exchange program (NEP) begins 9/06

Massachusetts Timeline

- BPHC also operates OTP- in 2006, it became *the first* additional site beyond NEP

MA Naloxone Distribution Pilot Sites

- Bay State Community Services
- Brockton Area Multi-Service, Inc. (BAMSI)
- Boston Public Health Commission
- CAB Health and Recovery Services
- Cambridge Cares about AIDS
- AIDS Support Group of Cape Cod
- Seven Hills Behavioral Health
- Tapestry

Implementing the Massachusetts Public Health Pilot: Standing Order Model

- Pilot program conducted under DPH/Drug Control Program regulations (M.G.L. c.94C & 105 CMR 700.000)
- Medical Director issues standing order for the distribution
- Naloxone may be distributed by public health workers

Data Collection

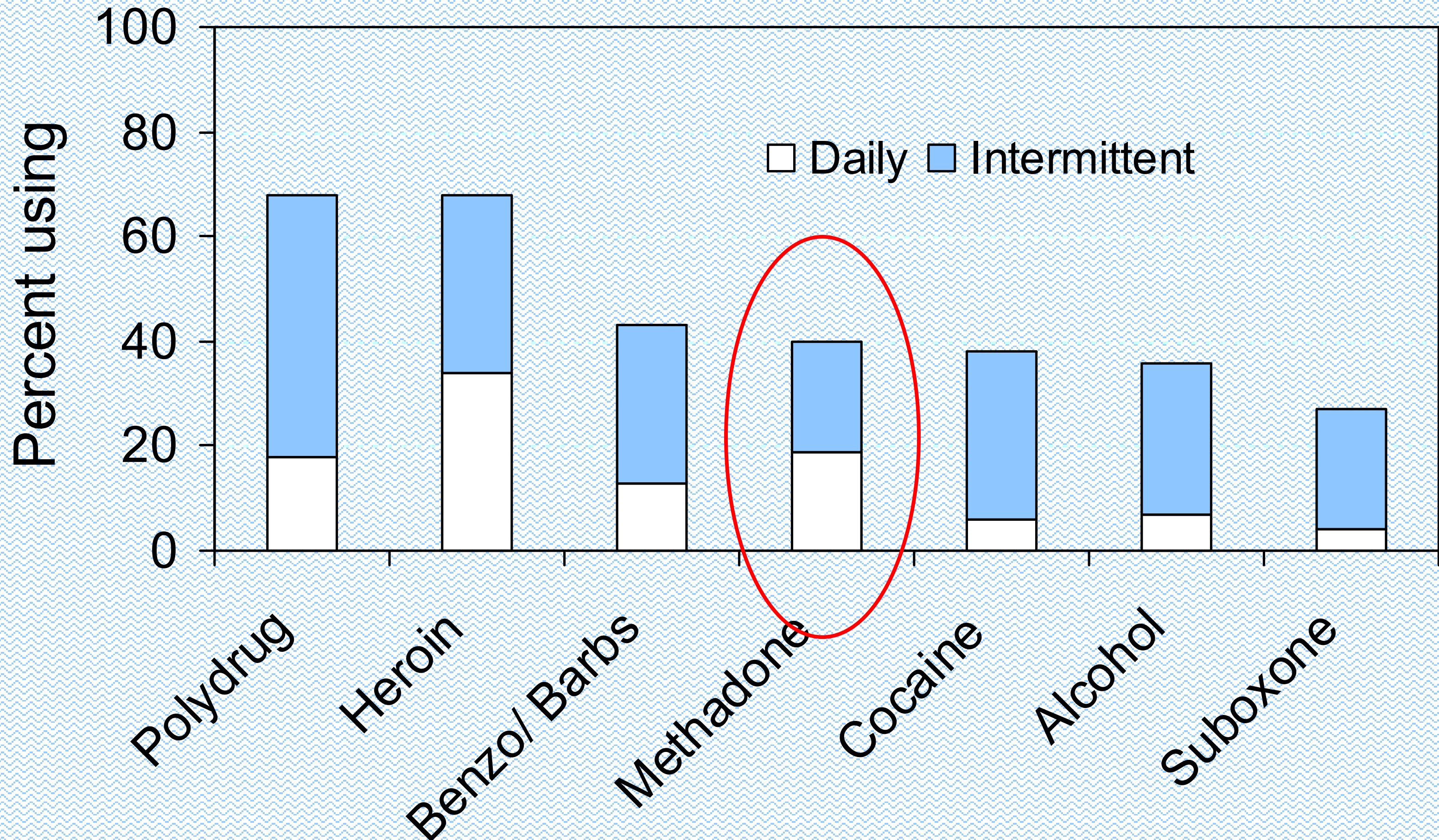
September 2006 to present:

- Enrollment form:
  - At time of training and naloxone distribution, program staff collect potential bystander demographics and OD risk factors
- Refill form:
  - Upon return to program, staff collect data on ODs reversed

Enrollee characteristics: 2006-2010

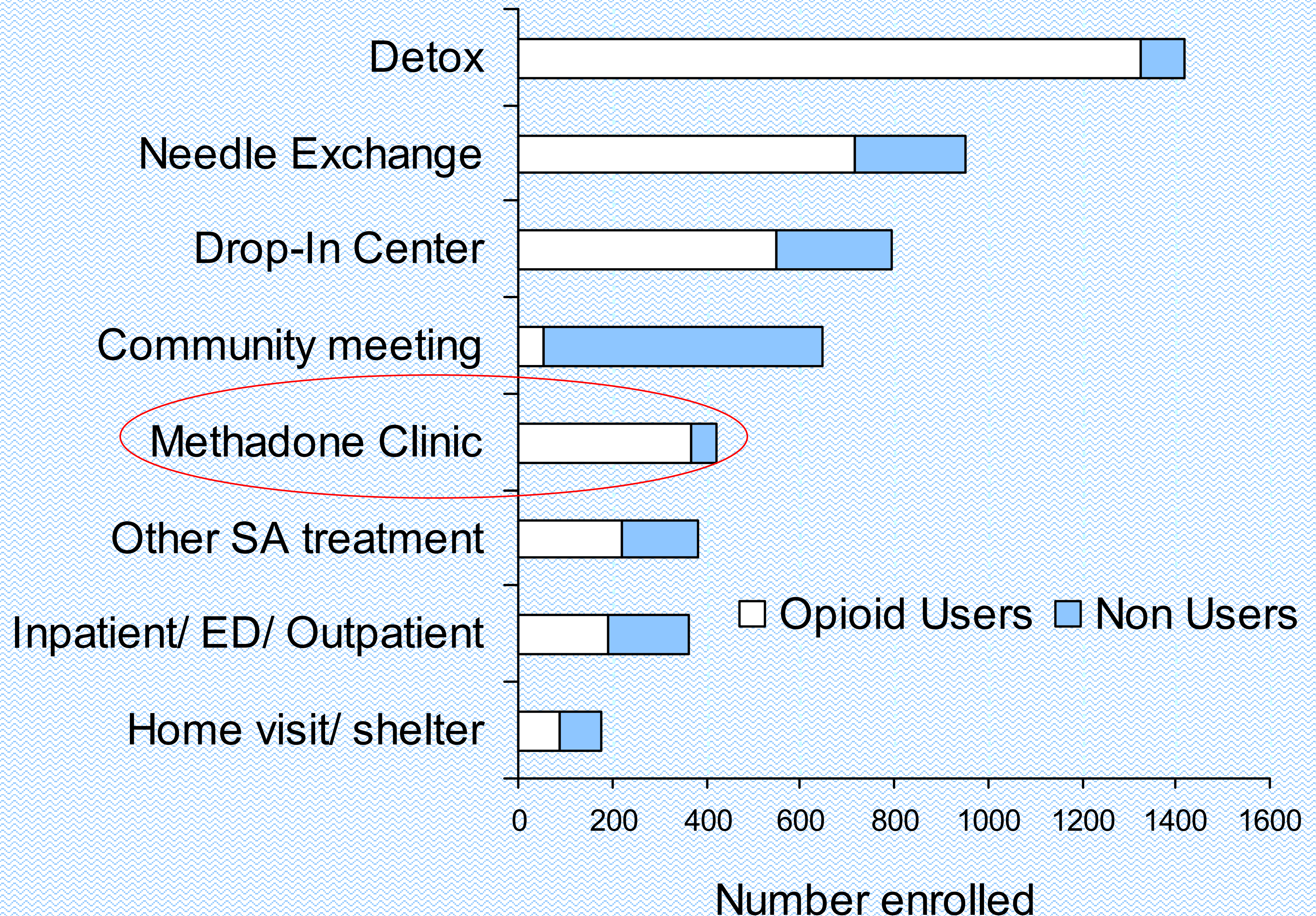
	People in treatment, in recovery, or using	Family and Professionals
Enrollments (N=7490)	5351	2589
Mean age (SD)	34 (11)	43 (13)
Gender: Male	64%	38%
Female	36%	62%
Race: White	81%	77%
Black/ AA	8%	12%
Other race	11%	11%
Ethnicity: Hispanic	17%	13%
Witnessed OD ever?	78%	47%

Enrollee past 30 day opioid use: 2006-2010



Data only from people with current or ever substance use N= 5351

Enrollment Locations: 2008-2010



Overdose Experience of OTP Patients and Staff

	N	Witness OD?	Personal OD? †
Total enrollment	7940	68%	50%
OTP Patients*	887	82%	53%
Non-patients (staff)	54	43%	-

* Patients = people enrolled at a methadone clinic + people enrolled elsewhere who report daily methadone use

†only current or ever substance users N=5351

Overdose Reversals

	N	Reverse OD?	Heroin use?	Benzo use?	Methadone use?
Total enrollment	7940	755	97%	26%	1%
OTP Patients	887	114	94%	25%	3%
Non-Patients	53	1	100%	0	0

Possible that rate of methadone involvement is actually that low

Also, possible under reporting due to:

- OD bystanders may tend to only name “primary” drug
- Methadone’s long half-life = OD bystander might not know

Standing Order Allows Varied Models to Emerge*

Clinic staff train and distribute 1 OTP clinic using this model	Clinic staff train, refer to OEND for distribution 6 OTP clinics
OEND staff regularly come on site to train and distribute 3 OTP clinics	OEND staff recruit from clinic without collaborative agreement 7 OEND programs using this model

*many people are on methadone and choose to separate OEND and methadone svcs= 5th model

OTP Client Interaction With Other Systems

- OTP patients also access:
  - Needle exchanges
  - Other HIV prevention services
  - Homeless services
- Top 3 most common sites for OTP patient naloxone refills:
  1. Needle Exchange Program (40%)
  2. Drop-in Center (30%)
  3. Methadone Clinic (9%)

Summary of Findings - General

- Participants commonly witness ODs
- Participants can recognize ODs and use intranasal naloxone successfully
- OD prevention programs can train and distribute without a medical provider encounter

Summary of Findings – Methadone-related

- Methadone patients commonly have OD history
- OD training and naloxone distribution is feasible at OTPs
  - Several models are available
- Daily methadone users are enrolled at needle exchange, drop-in centers and community sites near methadone clinics
- Heroin and heroin mixed with other drugs are the most common drugs involved in overdose
  - Methadone is unusual (3%)

Expansion

- Advocate for overdose prevention at any local provider meeting.
- Approach local or state chapters of AMA or ASAM to adopt policy in support of overdose prevention.
- Consider coprescription of naloxone with all opioids for pain or addiction.
- Support Good Samaritan & Overdose Reduction legislation.

Acknowledgements

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