OPIOID PROBLEM DUTCHESS COUNTY, NY

AND MEDICATION ASSISITED TREATMENT (MAT)

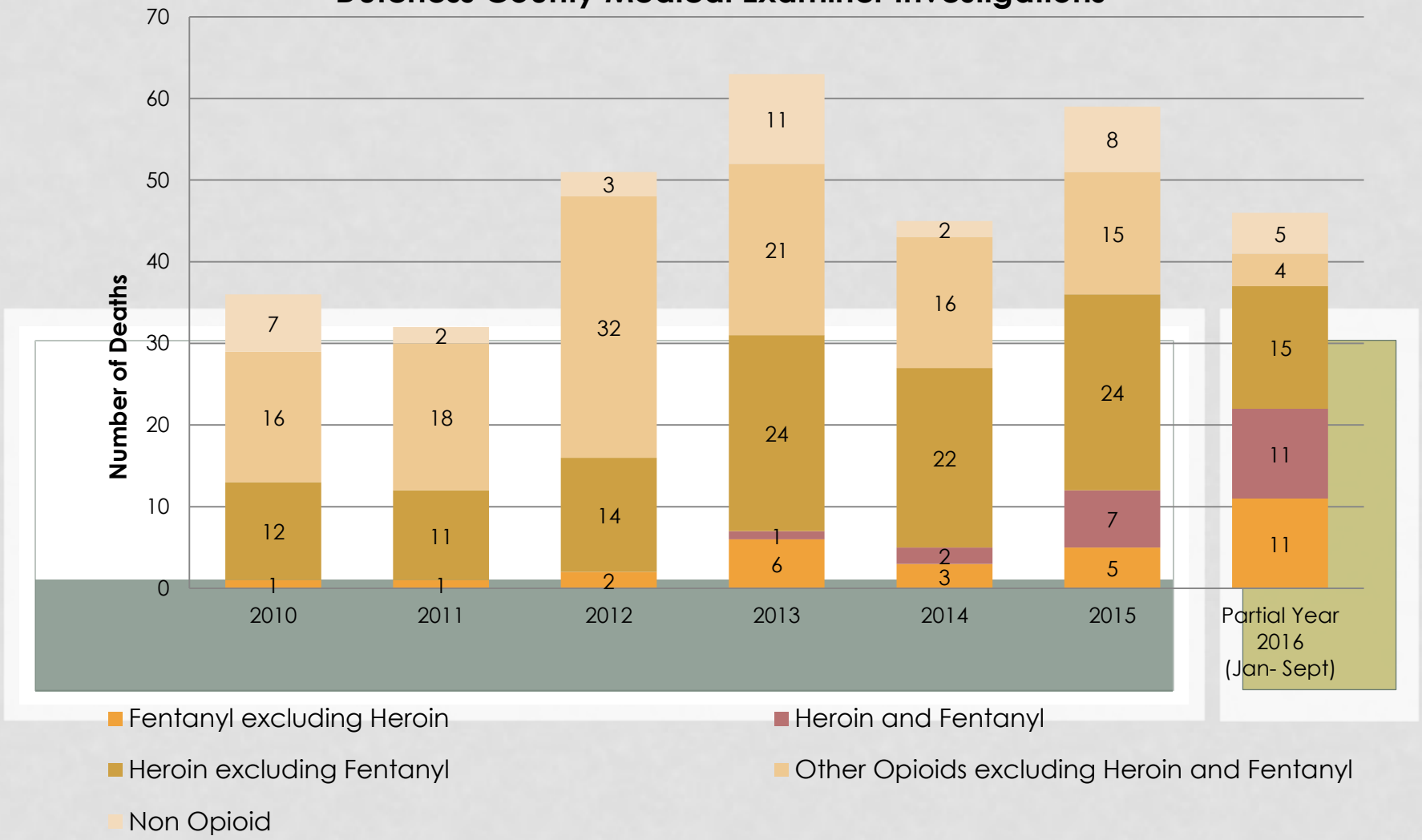
SCOPE OF PROBLEM

- The number of accidental drug overdose deaths in DC increased 31% from 2014 to 2015
- There were 59 accidental drug overdose deaths in DC in 2015, 14 more than in 2014
- The number of opioid deaths rose 47% across NYS between 2010 and 2014
- The number of emergency department visits for non-fatal heroin overdoses in DC tripled between 2010 – 2014
- The rate of emergency department visits in DC for non-fatal heroin overdoses was nearly 2X the regional average 2010-2014

SCOPE OF PROBLEM

- Most DC overdose deaths involve a mixture heroin or other opioids, with prescription or street drugs
- Rates of opioid abuse and dependence, including heroin, are highest amongst 20-29 year olds
- Individuals released to the community after abstinence based treatment or incarceration are at high risk
- Ex-inmates are at 129 times greater risk of overdose in the first two weeks after release, compared to general population (Binswanger, 2007)
- Decreased tolerance – highest risk factor for fatal overdose
- Fentanyl – 50 to 100 x more potent than morphine; present in 44% of DC OD deaths 2016, compared to 20% in 2015

Annual Number of Accidental Overdose Deaths by Substance Type, Dutchess County Medical Examiner Investigations



SOME MAT CATEGORIES

- **Agonist**
  Binds to a receptor and activates a biological response. Full – produces complete efficacy at receptor site (morphine/mimics endorphins). Partial – produces only partial efficacy at receptor site (buprenorphine)

- **Antagonist**
  Dampens response at receptor (blocker) rather than stimulating a response

- **Drug Replacement Therapy**
  Heroin maintenance; may also include above treatments

SMOKING CESSATION AIDS

- **Chantix (Vareniciline)**
  - Available (Rx) since 2006
  - Partial agonist
- **Zyban (Bupropion)**
  - Available (Rx) as an antidepressant (Wellbutrin) since 1985
  - Approved as smoking cessation aid in1997
  - Nicotine antagonist
- **Nicoderm (Niquitin)**
  - Available (OTC) since 1991
  - Oral, patch, gum
  - Nicotine replacement treatment

ALCOHOL CESSATION AIDS

- **Antabuse (Disulfiram)**
  - Blocks enzyme needed to metabolize alcohol, in use for over 50 years
  - Does not reduce craving ("forgetting" dose)

- **Campral (Acamprosate)**
  - Mitigates milder alcohol withdrawal symptoms and discomfort related to long term abstinence
  - Mechanism of action is poorly understood
  - Best results obtained when combined with counseling

ALCOHOL CESSATION AIDS

- **Librium (Chlordiazepoxide)**
  Acts as an agonist, used to alleviate medical complications of alcohol withdrawal

- **Revia, Vivitrol (Naltrexone)**
  - Reduces alcohol cravings
  - Mechanism of action is not fully understood
  - Efficacy of treatment may be related to genetic predisposition

EARLY HEROIN TREATMENT EFFORTS

- **Federal Medical Center, Lexington Kentucky (FMC Lexington)**
  U.S. federal prison/hospital (narcotic farm), opened in 1935 specifically to treat morphine and heroin addiction, first of it's kind in U.S., mostly experimental treatments with emphasis on physical, agricultural labor. Patients were encouraged to cultivate hobbies and talents (Red Rodney, Sonny Rollins)
  Relatively humane approach but largely ineffective; 90% relapse rate.
- **Synanon (TC model)**
  Opened in 1958, long term residential treatment, required rigid adherence to program rules and allegiance to what would become the addict's substitute family. Routine Synanon disciplinary practices are now considered abusive. Founder Chuck Dederich: "AA is based on love, we are based on hate, hate works better"

METHADONE

- Synthetic opioid developed in Germany; marketed in U.S as analgesic by Eli Lilly in 1947
- First federal Methadone maintenance program started in 1971 under Richard Nixon
- Full Agonist
  - Longer "1/2 life" than heroin
  - Pure pharmaceutical
  - Oral dosing
  - Stable/predictable milligrams
- Medically supervised – Dosing observed, UDS monitored
- Prevents withdrawal, reduces cravings, criminal activity
- One of first "scientific" treatments for heroin addiction, consistent with harm reduction

SOME PROBLEMS RELATED TO METHADONE TREATMENT

- Diversion – Drug of abuse
- Cross Addiction (discuss – 2 cases)
- Attempt to "boost" effect with benzodiazepines
- Requires daily clinic visit
- Abstinence syndrome if treatment is discontinued ("worse than heroin")
- Difficult to treat, if emergency medical analgesic needed
- Inconsistent with 12-step and abstinence only treatment culture (zero tolerance)

SUBOXONE (BUPRENORPHINE)

- Acts as partial agonist – Less potential for life threatening respiratory suppression in case of abuse
- Also contains Naloxone – An antagonist (uncertain efficacy)
- Oral tablet form (or film)
- Can be prescribed by M.D.
- Buprenorphine utilized in both detox and maintenance
- Drug of abuse - treatment "downside" similar to Methadone

NALTREXONE/VIVITROL

- Full Antagonist – As Narcan (Naloxone), used to reverse effects of opioid overdose
- Vivitrol – Approved in 1984 as treatment for opioid addiction (also treatment for alcoholism) injectable, time release
- Once monthly injection avoids pitfalls of daily oral dosing
- Not an opioid or drug of abuse, patient does not handle the medication
- 7-10 days abstinence from opioids required prior to starting treatment
- No abstinence syndrome when treatment discontinued

NALTREXONE

- Vivitrol marketed as an adjunct to psychoeducational treatment, not as a "stand alone"
- Contraindicated for patients with liver damage ("3x upper limit of normal")
- Acts as a blocker to opioid effects but overdose is possible!!!
- Does not block effects of cocaine or many other drugs (discuss – 2 cases)
- In case of medical emergency:
  - Standard opioid treatments are ineffective
  - Will require alternative analgesics
- Some resistance to program implementation comes from prescribers

WHAT WE ARE DOING NOW?

- **Methadone Maintenance Treatment Program**
  Lexington Center for Recovery Methadone Clinic, North Road
  - 263 patients in treatment (over capacity)
  - Waitlist---LCR has applied for capacity increase
  - Newburgh, Kingston Methadone Treatment Programs – at capacity

- **Narcan**
  DBCH Overdose Prevention Program 2015 - 2016
  - 185 Law Enforcement Officers trained
  - 1,402 community members trained
  - 63 Intramuscular kits distributed
  - 2,032 intranasal distributed

- DBCH is aware of 61 Narcan administrations using DBCH-provided kits (incomplete #'s)

WHAT WE ARE DOING NOW?

- **Vivitrol**
  DC Jail Pilot Program
  - Patients receive first injection while incarcerated
  - Follow-up treatment provided by DBCH (now approx. 13%ITAP census)
  - DBCH is working to bring additional providers on board
- **Suboxone**
- Will be made available through LCR outpatient clinic
- **Community Providers**
  - Better standardization of curricula
  - More evidence-based practice (CBT)
  - Continue coordination with criminal justice system
- **MAT**
  Results are promising…
  But only ONE facet of a comprehensive program!