

Opiates and Opioids

Analysis and Prosecution





Katy Schell

Forensic Scientist Manager
Drug Chemistry Section
North Carolina State Crime Laboratory
Kschell@ncdoj.gov

North Carolina State Crime Laboratory

- ▶ Accredited under ISO/IEC 17025 standards by ANSI-ASQ National Accreditation Board (ANAB)
 - ▶ Laboratory practices and methods:
 - ▶ Nationally and Internationally accepted
 - ▶ Validated prior to implementation
 - ▶ Standards and controls present to ensure repeatability and reliability of test methods
- ▶ Locations: Raleigh, Greensboro, Edneyville/Hendersonville

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Drug Chemistry Section

- ▶ Purpose: Analysis for presence or absence of controlled substances
 - ▶ Preliminary Testing
 - ▶ Confirmatory Testing
 - ▶ Weigh using calibrated balances with applicable measurement assurance



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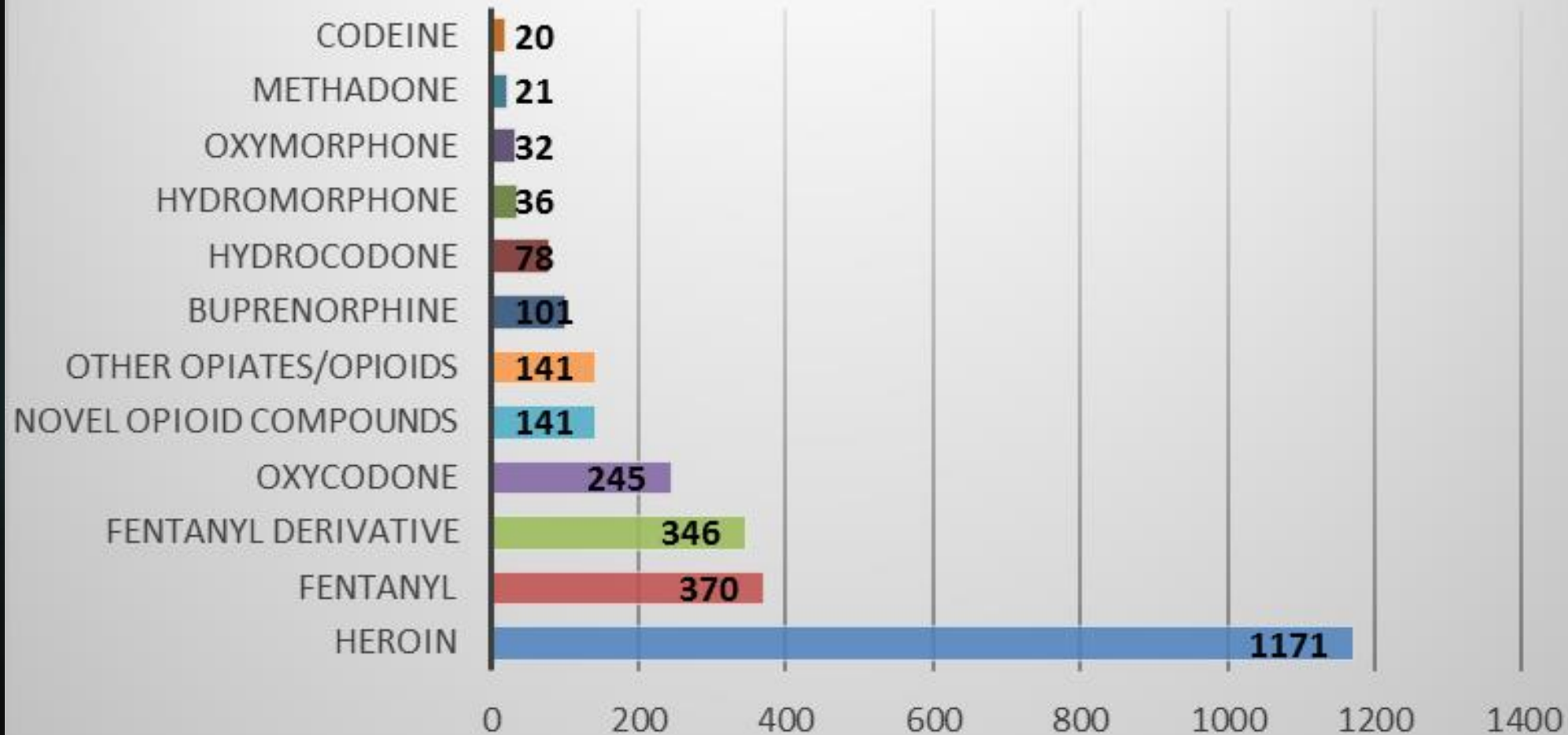
Drug Chemistry Section

- ▶ Total drug cases submitted between January 1- June 30, 2018: 10,692
 - ▶ Average submitted per month: 1,782 cases
- ▶ Total cases worked 7693 (partially due to complexity of case samples)
 - ▶ Average worked per month: 1,282 cases
 - ▶ 35% of the total cases worked were opiate/opioid related

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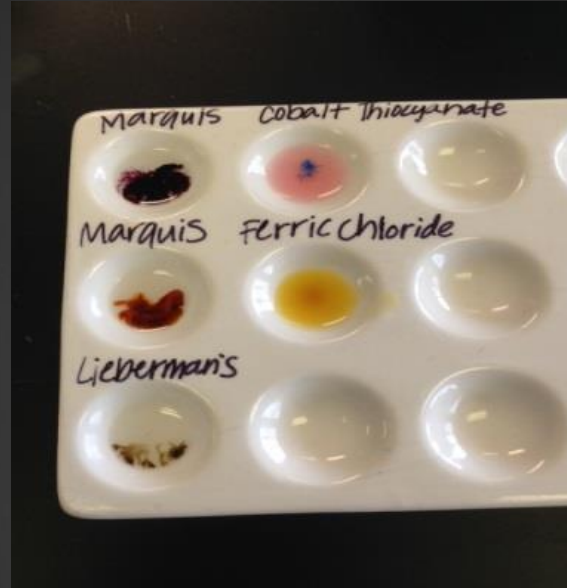
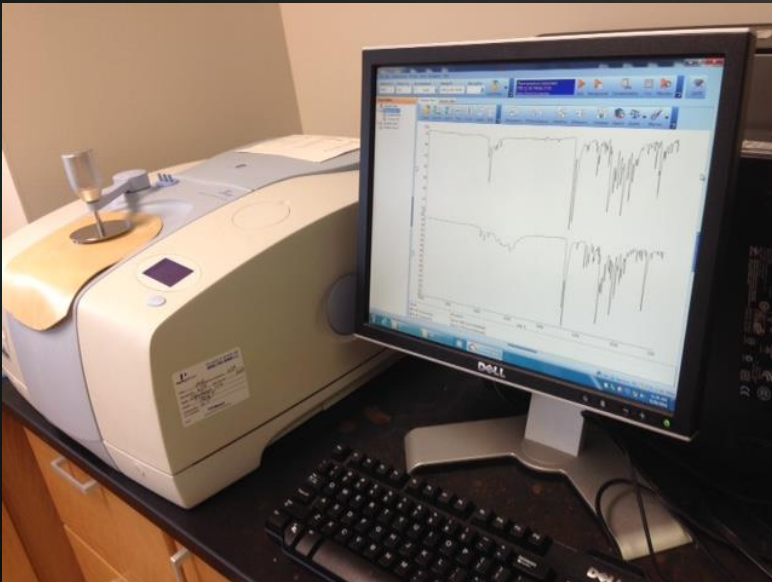
Reported Opiates/Opioids

(January 1-June 30, 2018)



Preliminary and Confirmatory Testing

Fourier Transform Infrared
Spectrophotometer with Universal
Attenuated Total Reflectance (FTIR-ATR)
Sampling Accessory



Color Tests

Gas Chromatograph Mass
Spectrometer (GCMS)



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Drug Chemistry Section

- ▶ Multi-unit Population Analysis
 - ▶ Administrative Sample Selection
 - ▶ Threshold Sample Selection
 - ▶ Hypergeometric Sampling



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Drug Chemistry Section

- ▶ Administrative Sample Selection
 - ▶ All pharmaceutical preparations
 - ▶ No statutory weight threshold
- ▶ Threshold Sample Selection
 - ▶ Statutory weight threshold applies
 - ▶ Individual analysis is practicable



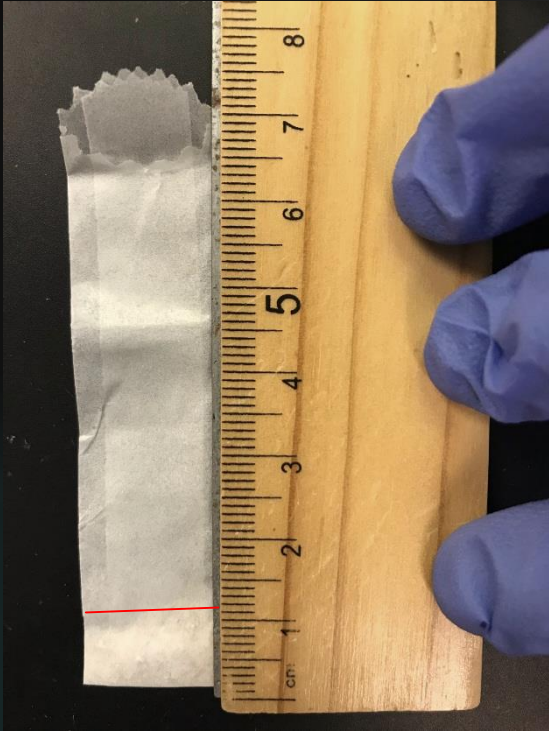
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Drug Chemistry Section

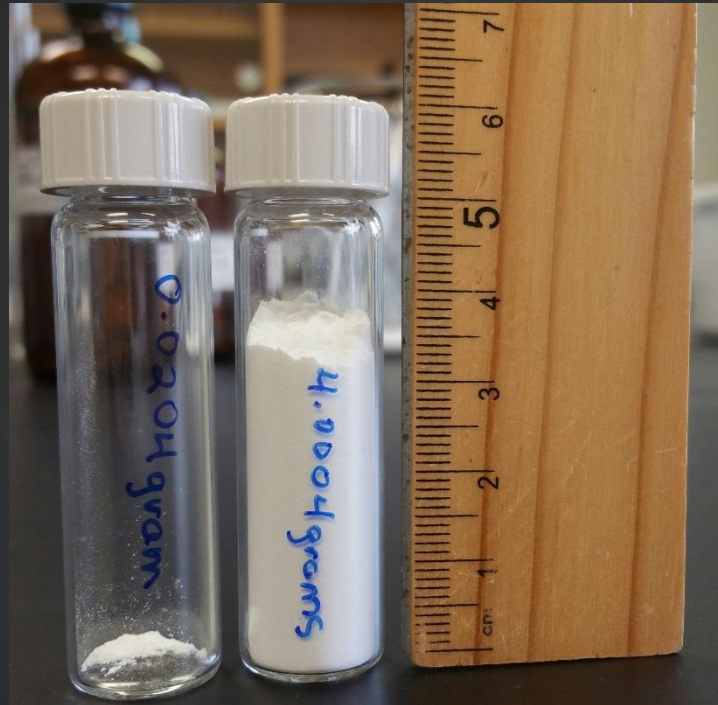
- ▶ Hypergeometric Sampling
 - ▶ Statistical analysis of a representative portion of the population
 - ▶ Demonstrates with 95% confidence that at least 90% of the material contains the identified substance
 - ▶ Statutory threshold
 - ▶ Must have 10 or more units in population
 - ▶ Analysis of individual units not practicable



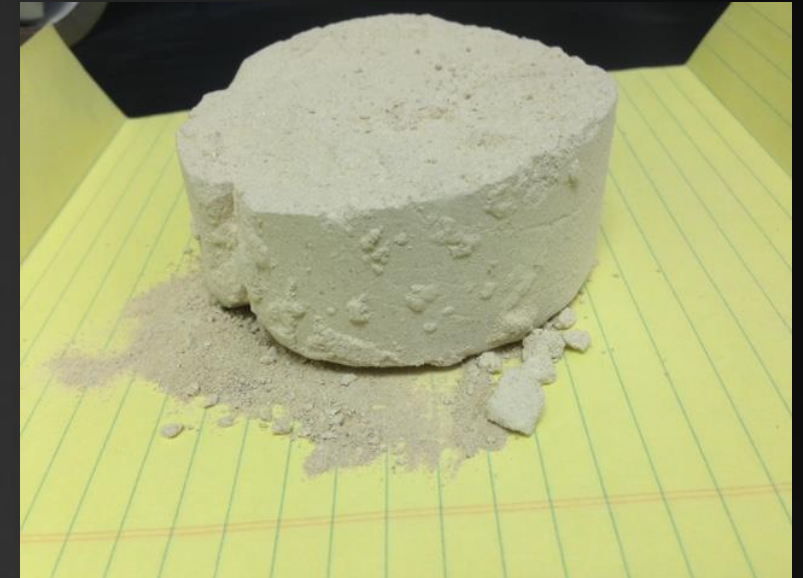
Heroin Trafficking



Heroin bindle



Average amount per bindle, 0.02g
versus 4g trafficking amount



Approximately 250g Heroin
(same weight as about 2 cups of flour)

Based on average weight of 0.02g – 200 bindles (4g), 700 bindles (14g), 1400 bindles (28g) thresholds

Heroin Trafficking



Case Sample

- 3907 bindles total containing Heroin
- Total weight 42g (~0.01g per bindle)
- 12 days of analysis time (case open to close)



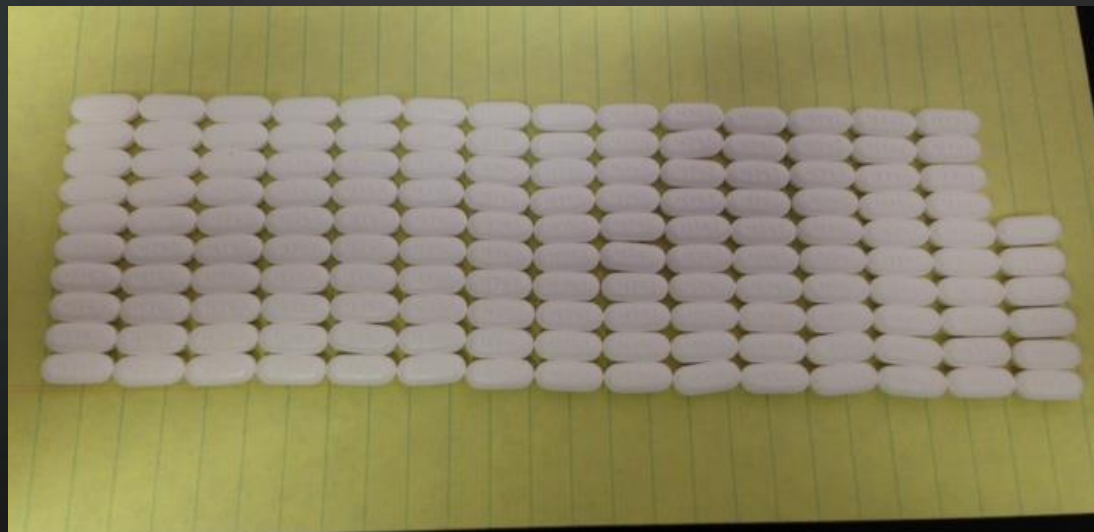
Pharmaceutical Trafficking



4 grams



28 grams



14 grams

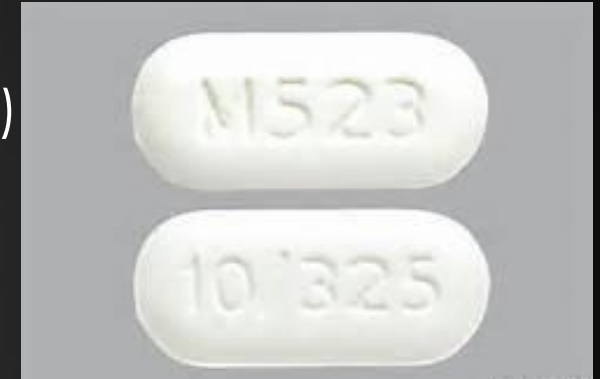
*Number of tablets to reach trafficking thresholds will depend on tablet(s) present

Counterfeit Pharmaceuticals: Can you tell the difference?

- ▶ Pill presses becoming more common in clandestine laboratory operations
- ▶ Quality of counterfeit pharmaceuticals is improving
- ▶ How do you know?
 - ▶ Confirmatory testing by an accredited forensic laboratory

Pharmaceutical Percocet (hydrocodone/acetaminophen)

- Furanyl fentanyl
- Fluoro isobutyryl fentanyl (FIBF)



Pharmaceutical Oxycodone

- Oxycodone**
- Methamphetamine
- Heroin
- MMB-FUBINACA
- Alprazolam
- Furanyl fentanyl
- Tramadol
- U47700



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Drug Chemistry Section

- ▶ Current N.C.G.S. Chapter 90 language
 - ▶ “Any material, compound, mixture, or preparation which contains any quantity of the following...”
 - ▶ “Any salt, compound, derivative, or preparation thereof...”
- ▶ Challenges to consider:
 - ▶ What charges would apply for multiple controlled substances per unit?
 - ▶ How handle counterfeit pharmaceutical tablets which contain the purported substance?
 - ▶ Increasing weight thresholds = More drugs for dealers to sell before heavy penalties apply

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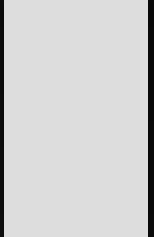
Drug Chemistry Section

- ▶ Cost: What would it take to quantitate percentage of controlled substances in mixtures?
 - ▶ New instrumentation/maintenance(~ \$914,000)
 - ▶ Rigorous revalidation of methods/training (~ 5 months)
 - ▶ Change in Scope of Accreditation and reassessment (~ 1 month and ~ \$15,000)
 - ▶ Increase in number of pending cases and case turn-around time (TAT) → *Additional ~7700 cases added to pending backlog based on data from first 6 months of 2018*



John Keane


Special Agent in Charge
North Carolina State Bureau of Investigation
Diversion and Environmental Crimes Unit
jkeane@ncsbi.gov

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- ▶ Overview of SBI Drug Diversion Operations
 - ▶ Prescription Fraud Conspiracies
 - ▶ Undercover Investigations
 - ▶ Healthcare Diversion
 - ▶ Doctor Shopping



Leslie Cooley Dismukes

Criminal Bureau Chief
North Carolina Department of Justice
ldismukes@ncdoj.gov

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- ▶ State v. McCracken and DEA Lab Practices
 - ▶ Heroin and Fentanyl Investigations and Prosecutions
 - ▶ Sourcing
 - ▶ Street value
 - ▶ Organic vs. synthetic
 - ▶ The difference between users and dealers
 - ▶ The need for mandatory minimums for dealers
 - ▶ Prosecutorial discretion