Iredell County Opioid Epidemic: Guidelines for Healthcare Providers

February 25, 2017
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NC Division of Public Health, Injury and Violence Prevention
OVERDOSE CAN AFFECT ANYONE.

31 AUGUST

INTERNATIONAL OVERDOSE AWARENESS DAY
Medication or Drug Overdose Deaths by Intent
North Carolina Residents, 1999-2015

Analysis by Injury Epidemiology and Surveillance Unit
Medication or drug overdose: X40-X44, X60-X64, Y10-Y14, X85
Medication or Drug Overdose Deaths by Intent
Iredell County Residents, 1999-2015

Analysis by Injury Epidemiology and Surveillance Unit
Medication or drug overdose: X40-X44, X60-X64, Y10-Y14, X85
Rate of Medication or Drug Overdose Deaths by County
per 100,000 residents, 2013-2015

Rate of Medication or Drug Overdose Deaths per 100,000 Population

| Rate of Overdose Deaths, Iredell County Residents, 2013-2015 | 14.4 |
| Rate of Overdose Deaths, Local Health Director Region 4 Residents, 2013-2015 | 13.1 |

Analysis by Injury Epidemiology and Surveillance Unit
Medication or drug overdose: X40-X44, X60-X64, Y10-Y14, X85
Substances Contributing to Unintentional Medication or Drug Overdose Deaths
North Carolina Residents, 1999-2015

- Prescription Opioid
- Cocaine
- Heroin
- Methadone
- Synthetics

- **350% increase in deaths**
- **Heroin deaths increase 800%+ since 2010**

*2015 Provisional Data (August 2016)*
Analysis by Injury Epidemiology and Surveillance Unit
Substances Contributing to Unintentional Medication or Drug Overdose Deaths
Iredell County Residents, 1999-2015

Analysis by Injury Epidemiology and Surveillance Unit. Codes Used: cdeath1-cdeath21 and Rx Opioids: T40.2 (Other Opioids), T40.3 (Methadone) and/or T40.4 (Other synthetic opioid) / Heroin: T40.1/ Cocaine: T40.4 (Other Synthetic Opioid) / Methadone: T40.3 / Synthetics: any mention of T40.4 (Other Synthetic Opioids)
Rate of Unintentional/Undetermined Prescription Opioid Overdose Deaths and Rate of Outpatient Prescriptions Dispensed for Opioids

Outpatient Dispensing per 100 persons in Iredell County, 2011-2015 93.9
Outpatient Dispensing per 100 persons in Local Health Director Region 4, 2011-2015 14.8
Outpatient Dispensing per 100 persons in North Carolina, 2011-2015 82.9

Drug Overdose Deaths & Emergency Department Visits, NC 2015

Overdose E.D. visits dwarf overdose deaths

- 20,371 Emergency Department visits
- 1,215 deaths

The average NC county has about one overdose death per month but just under one overdose ED visit per day

Emergency Department Opioid Visits & EMS Naloxone Administration 2011-2016*

EMS administered Naloxone more than $13,000$ times in 2016

Data Sources: NC DETECT (statewide ED data), N.C. Division of Public Health and UNC Carolina Center for Health Informatics (CCHI); EMSpic- UNC Emergency Medicine Department, N.C.Office of Emergency Medical Services (OEMS)

**ICD9 to ICD10 coding changed in October 2015. Impact on surveillance is unclear. Some ED visits are coded as substance abuse rather than overdose and these counts are likely undercounted from the above. Naloxone administration alone by EMS does not necessarily equate to an opioid overdose.
Recently Detected Drugs from Toxicology Screenings for Unique Cases
All OCME Investigated Deaths, 2014-2016*

Synthetic Opioids: more potent than Heroin; involved in more death investigations by the Office of Chief Medical Examiner

Data Source: N.C. Office of the Chief Medical Examiner (OCME), Toxicology Laboratory Data

*Data for 2016 is incomplete and is current as of Feb. 2017. Presence of drug does not necessarily result in final cause of death. Single person can test positive for multiple drugs. Fentanyl Analogues include: Acetyl fentanyl (42); Butrylfentanyl (1); Furanylfentanyl (153); Acrylfentanyl (3); Fluoroisobutyrylfentanyl (15); Beta-Hydroxythiofentanyl (2)
Hospitalizations Rates Associated with Drug Withdrawal in Newborns
North Carolina Residents, 2004-2015*

893% NAS increase - 2004 to 2015*
N = 1,252 in 2015

*2014 data structure changed to include up to 95 diagnosis codes. It is unclear the overall impact of this change.
**2015 ICD 9 CM coding system transitioned to ICD10 CM. Impact unclear.

NOTE: 2014 Hospital Discharge datafile structure significantly changed. Impact on surveillance unknown
Increase in Acute Hepatitis C Cases
North Carolina, 2000-2015

2009 to 2015, Reported Hep C cases increased more than 400%

* Estimated true number 10–15x higher than number of reported cases
**Medicaid Gross Drug Expenditure for Hep C**

North Carolina, SFY 2011–16

- Medicaid treatment expenditures for Hep C increased from $3.8M in 2011 to $85.6M in 2016.
- Increases are from new medications on the market and increased cases.

*Does not account for drug rebates*
Endocarditis & Sepsis Among Likely Drug Users
North Carolina, 2010–2015

Heart valve infections associated with injection drug use increased **13.5 times**

Sepsis (bloodstream infections) increased **4 times**
## Estimated Total Lifetime Costs

### Medical and Work Loss from Poisoning Fatalities, 2015

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Medical Costs in Iredell County, 2015</td>
<td>$122,554</td>
</tr>
<tr>
<td>Total Work Loss Costs in Iredell County, 2015</td>
<td>$28,068,917</td>
</tr>
<tr>
<td><strong>Combined Cost</strong></td>
<td>$28,191,471</td>
</tr>
<tr>
<td>Cost per capita in Iredell County, 2015</td>
<td>$165.96</td>
</tr>
</tbody>
</table>

Analysis by Injury Epidemiology and Surveillance Unit
Medication or drug overdose: X40-X44, X60-X64, Y10-Y14, X85
Costs Associated with Opioid Related Deaths

Increased Demand on Public Services Across the Spectrum
Healthcare charges, dependence/addiction treatment, employment, education,

Social Services
Family destruction, Foster care

Criminal Justice
Corrections, Law Enforcement

Behavioral Health Services
MH/SA treatment, Suicide

Disease Spread
HIV, HepC, STIs

Emergency Care
EMS, Hospitals

Death
Availability of Substance Abuse Treatment Facilities, SAMHSA

# County Demographics of Unintentional and Undetermined Overdose Deaths

by sex, age: 1999-2015

<table>
<thead>
<tr>
<th>SEX</th>
<th>AGE</th>
<th>M</th>
<th>F</th>
<th>0-17</th>
<th>18-24</th>
<th>25-44</th>
<th>45-64</th>
<th>65+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iredell County, 2010 Census</td>
<td></td>
<td>50%</td>
<td>52%</td>
<td>26%</td>
<td>8%</td>
<td>26%</td>
<td>28%</td>
<td>13%</td>
</tr>
<tr>
<td>Overdose Deaths, Iredell County Residents, 1999-2015</td>
<td></td>
<td>68%</td>
<td>32%</td>
<td>2%</td>
<td>11%</td>
<td>48%</td>
<td>36%</td>
<td>4%</td>
</tr>
<tr>
<td>Overdose Deaths, North Carolina Residents, 1999-2015</td>
<td></td>
<td>63%</td>
<td>37%</td>
<td>1%</td>
<td>9%</td>
<td>47%</td>
<td>38%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Analysis by Injury Epidemiology and Surveillance Unit
Medication or drug overdose: X40-X44, X60-X64, Y10-Y14, X85
## County Demographics of Unintentional and Undetermined Overdose Deaths, by race: 1999-2015

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Am. Indian</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Iredell County, 2010 Census</strong></td>
<td>81%</td>
<td>12%</td>
<td>2%</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Overdose Deaths, Iredell County Residents, 1999-2015</strong></td>
<td>93%</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Overdose Deaths, North Carolina Residents, 1999-2015</strong></td>
<td>87%</td>
<td>11%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Time to Remember. Time to Act.

31 August

International Overdose Awareness Day
Convergence – Prescription Drug Abuse Advisory Committee (PDAAC)

Resource website https://sites.google.com/view/ncpdaac
Prescription Drug Abuse Advisory Committee

2015 Session Law 241 Mandates: State Strategic Plan • DHHS PDAAC • Annual report to General Assembly

• Meets quarterly – next meeting March 10
• 5 work groups & action plans
• 150+ participate
• State agencies, partner organizations; anyone working on the opioid epidemic – WELCOME!
• Resource website:  https://sites.google.com/view/ncpdaac
Provider Education and Training

- Safer and proper prescribing and dispensing of opioids
  - CDC: http://www.cdc.gov/drugoverdose/prescribing/guideline.html

- NC Training: Governor’s Institute on Substance Abuse, Medical and Pharmacy Boards, AHECs, LHDs

- New NCMB CME requirement for provider education on controlled substances prescribing
CDC Guidelines for Prescribing Opioids for Chronic Pain

Patients

KNOW THE RISKS

AS MANY AS 1 IN 4 PEOPLE

MANAGE YOUR PAIN, MINIMIZE YOUR RISK.

Chronic pain can be devastating, and effective pain management is essential to get your life back. Talk to your doctor about ways to manage your pain that don’t involve prescription opioids, such as:

- Non-opioid pain relievers, such as acetaminophen (Tylenol®), ibuprofen (Advil®), or naproxen (Aleve®)
- Physical therapy and exercise
- Cognitive behavioral therapy
- Certain antidepressants and anticonvulsants

Prescribers

REDUCE OVERDOSE. PRESCRIBE RESPONSIBLY.

OVERREVIEWING LEADS TO MORE ABUSE AND MORE OVERDOSE DEATHS.

REFERRER TO THE CDC GUIDELINE FOR PRESCRIBING OPIOIDS FOR CHRONIC PAIN FOR RESPONSIBLE PRESCRIBING OF THESE DRUGS.

LEARN MORE | www.cdc.gov/drugoverdose/prescribing guideline.html

LEARN MORE | www.cdc.gov/drugoverdose/prescribing guideline.html
Addiction/Medication Assisted Treatment

• Prescribers who are certified to prescribe buprenorphine for opioid use disorder treatment
  – Information on buprenorphine waivers and training for physicians
    • [http://www.samhsa.gov/medication-assisted-treatment/buprenorphine-waiver-management](http://www.samhsa.gov/medication-assisted-treatment/buprenorphine-waiver-management)

• Increased limit to 275 patients/physician

• Recovery is possible!
Diversion Control

• Law enforcement, State Bureau of Investigation, DEA

• Physician and patients
  – Use of NC Controlled Substances Reporting System, NC’s prescription drug monitoring program
    • http://www.ncdhhs.gov/document/nc-controlled-substances-reporting-system-application-information
  – Registration and Use
    • Delegate accounts
  – Proactive reports

• Drug Take Back, Operation Medicine Drop
Do you know what an overdose looks like?

31 August

International Overdose Awareness Day
Harm Reduction, Naloxone

Effects of Opioids and Naloxone

- Death
- Respiratory depression
- Diminishing cognition/Motor control
- Nodding, unresponsive
- Euphoria; Relief from dope sickness
- Pain relief
- Pain, withdrawal, craving, dope sickness, boredom
NC’s 911 Good Samaritan/Naloxone Access Law

• Goal
  – Save lives by encouraging both seeking medical care for OD’s and observer use of naloxone

• Promotes community-based prescribing of naloxone
  – To patients at risk of OD
  – To potential observers of an OD
  – Through direct patient contact and standing orders
Harm Reduction, Naloxone

• Naloxone (Narcan®, Evzio®)

• Medical providers
  – Can and always could prescribe
  – Encouraged to co-prescribe

• EMS
  – EMS/EMT already carry it with them
  – Paramedicine, distribution

• Project Lazarus and Community Care of NC
Harm Reduction, Naloxone

• Pharmacies
  – Stock and dispense

• Law Enforcement
  – Carry and administer
  – Distribute upon release from incarceration, reentry programs, probation and parole officers

• Local Health Departments

• N.C. Harm Reduction Coalition
Number of Naloxone Kits Distributed by the North Carolina Harm Reduction Coalition by County
8/1/2013 – 1/31/2017 (40,402 total kits distributed)

2 kits distributed in an unknown location in North Carolina.

Source: North Carolina Harm Reduction Coalition, February 2017
Analysis: Injury Epidemiology and Surveillance Unit
# Opioid Overdose Reversals with Naloxone

**# of Naloxone reversals reported by the North Carolina Harm Reduction Coalition by County:** 8/1/2013 - 1/31/2017 (5,846 total reversals reported)

**# of Naloxone reversals reported by NC Law Enforcement by County:** 1/1/2015 - 1/31/2017 (403 total reversals reported)

Source: North Carolina Harm Reduction Coalition, February 2017
Analysis: Injury Epidemiology and Surveillance Unit
Counties with Law Enforcement Carrying Naloxone
As of January 31, 2017 (60 Counties, 137 Agencies)

Source: North Carolina Harm Reduction Coalition, February 2017
Analysis: Injury Epidemiology and Surveillance Unit
NC Counties with Local Health Department Standing Order/Protocol for Naloxone (21+)

- Alexander, Cabarrus, Chatham, Davie, Duplin, Durham, Granville-Vance, Halifax, Hoke, Hyde, Johnston, Lenoir, Madison, New Hanover, Orange, Pender, Pitt, Union, Wake, Wilkes, Wilson... Others?
NC’s Statewide Standing Order for Naloxone

• June 20, 2016
  – Governor signs legislation authorizing state health director to issue statewide standing order for naloxone

• State Health Director signs a statewide standing order for NC pharmacists
NaloxoneSaves.Org

Providing information to pharmacies and the public about North Carolina’s statewide standing order for naloxone

FOR NALOXONE DISPENSERS
My pharmacy wants to participate in the standing order

NALOXONE USER SURVEY
I recently used naloxone

GENERAL INFORMATION
I am looking for more information about naloxone
### Number of Pharmacies under Standing Order by County

February 2017 (N=1,362)

Source: Division of Public Health and North Carolina Harm Reduction Coalition February 2017
Analysis: Injury Epidemiology and Surveillance Unit

<table>
<thead>
<tr>
<th>Number of Pharmacies Under Standing Order</th>
<th>2017</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50-99</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100+</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pharmacies in Iredell County under Standing Order, as of 2017</th>
<th>23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacies in Local Health Director Region 4 under Standing Order, as of 2017</td>
<td>332</td>
</tr>
</tbody>
</table>
NaloxoneSaves.Org: Directory of Pharmacies

General Information

NaloxoneSaves.org is a website designed to educate pharmacists and the public about the North Carolina State Health Director's statewide standing order for naloxone.

The North Carolina Division of Public Health, Injury and Violence Prevention Branch's Poisoning and Drug Overdose Prevention Program works in collaboration with many partners statewide to address drug overdose in North Carolina including, the UNC Injury Prevention Research Center. Together, we bring you this website.

In June of 2016, the State Health Director of North Carolina signed a standing order to authorize any pharmacist practicing in the state and licensed by the North Carolina Board of Pharmacy to dispense naloxone to any person who voluntarily requests naloxone and is:

- At the time experiencing an opioid-related overdose
- A family member or friend of a person at risk of experiencing an opioid-related overdose
- In the position to assist a person at risk of experiencing an opioid-related overdose

The purpose of this website is to:

- Provide information about naloxone use and overdose prevention
- Offer tool to pharmacists to activate their standing order
- Gather information about naloxone use and attempts to reverse overdoses

If you would like to connect with us, please email naloxonesaves@gmail.com or beinjuryfreenc@dbhsc.dhhs.nc.gov
NC Syringe Exchange Programs

• July 11, 2016: Legalized in NC!

• Any governmental or nongovernmental organization “that promotes scientifically proven ways of mitigating health risks associated with drug use and other high risk behaviors” can start a SEP
  – Including hospitals, clinics, and LHDs!

• S.L 2016-88: Legal Protections

https://www.ncdhhs.gov/north-carolina-safer-syringe-initiative
# NC Syringe Exchange Programs

## Fixed

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Shelter from street-based activities/safe space</td>
<td>• Participants have to come to site</td>
</tr>
<tr>
<td>• Room for other services such as medical care, referrals, psychosocial</td>
<td>• Limited hours of operation</td>
</tr>
<tr>
<td>• Out of view of local residents, businesses</td>
<td>• Higher overhead and upkeep</td>
</tr>
</tbody>
</table>

## Mobile

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Flexibility if the drug scene or neighborhood changes</td>
<td>• Harder to deliver ancillary services than with a fixed site.</td>
</tr>
<tr>
<td>• Easier negotiations with larger community if they know you are not a</td>
<td>• Van involves higher overhead because of insurance, upkeep, driver</td>
</tr>
<tr>
<td>permanent fixture</td>
<td></td>
</tr>
<tr>
<td>• Informal and low threshold if actually on the sidewalk or in a park</td>
<td></td>
</tr>
<tr>
<td>• Reaches harder to reach IDUs who may not have transportation or feel</td>
<td></td>
</tr>
<tr>
<td>comfortable walking into a fixed site exchange</td>
<td></td>
</tr>
</tbody>
</table>

## Peer

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Safer for participants</td>
<td>• Can involve a lot of driving, resulting in high overhead</td>
</tr>
<tr>
<td>• Peer knowledge of drugs, drug use, and the local drug scene</td>
<td>• Harder to offer wrap around services such as HIV testing, wound care,</td>
</tr>
<tr>
<td>• Increases access to new syringes for socially isolated injectors who</td>
<td>referrals</td>
</tr>
<tr>
<td>do not access services such as syringe exchange</td>
<td></td>
</tr>
</tbody>
</table>

## Integrated

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pre-existing organizational infrastructure and client base.</td>
<td>• Staff may be resistant to new programs &amp; new ideas, especially if the</td>
</tr>
<tr>
<td>• Multiple ways of getting syringes to participants, depending on the type</td>
<td>agency follows a traditional abstinence approach</td>
</tr>
<tr>
<td>of services provided by the agency.</td>
<td>• Cost of training and supervision of peers</td>
</tr>
<tr>
<td>• May offset operational and human resource costs</td>
<td>• Possible conflicting identities as peer worker and IDU community member</td>
</tr>
</tbody>
</table>
Counties with Syringe Exchange Programs
As of February 6, 2017 (18 active SEPs covering 18 counties)

Source: North Carolina Division of Public Health, February 2017
Analysis: Injury Epidemiology and Surveillance Unit
REGISTER! OpioidPreventionSummit.org

2017 Opioid Misuse and Overdose Prevention Summit, June 27-28, Raleigh, NC
OVERDOSE DEATH IS PREVENTABLE.

31 AUGUST

INTERNATIONAL OVERDOSE AWARENESS DAY
Questions?

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nidhi.sachdeva@dhhs.nc.gov

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