



South Carolina Department of Health and Environmental Control

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# Opioid Deaths in South Carolina

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Division of Biostatistics  
Vital Statistics

# Death Certificates

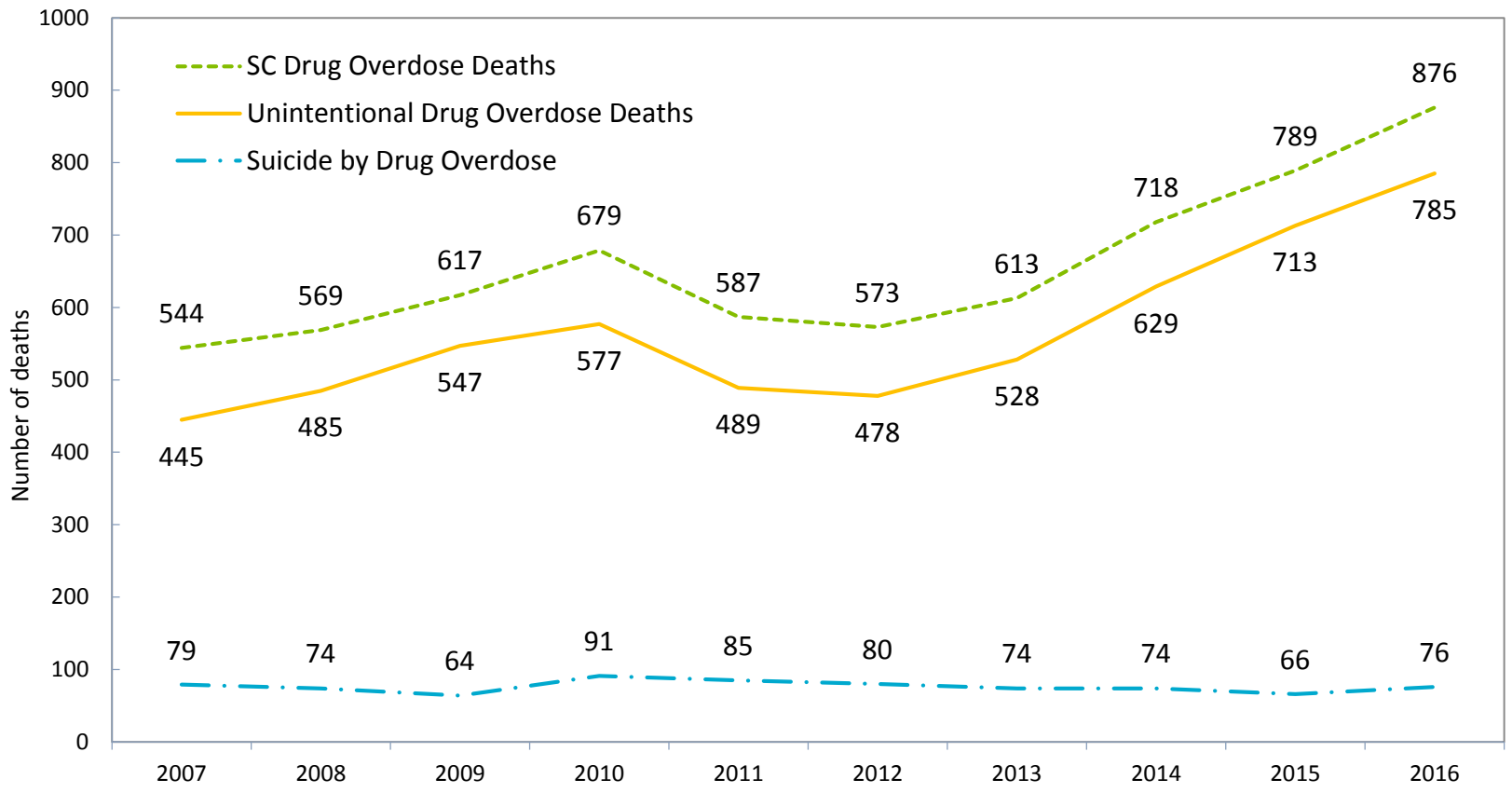
Items 24-49 To Be Completed By: MEDICAL CERTIFIER	CAUSE OF DEATH (See instructions and examples)			EXAMINER CONTACTED: <input type="checkbox"/> YES <input type="checkbox"/> NO
	<p>32. PART I. Enter the <u>chain of events</u>-diseases, injuries, or complications-that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.</p> <p>IMMEDIATE CAUSE (Final disease or condition →) a. _____ Due to (or as a consequence of): _____</p> <p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST b. _____ Due to (or as a consequence of): _____</p> <p>c. _____ Due to (or as a consequence of): _____</p> <p>d. _____</p>			<p>Approximate interval: Onset to death</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
	PART II. Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in PART I.			<p>33. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>
	<p>35. DID TOBACCO USE CONTRIBUTE TO DEATH?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> Probably</p> <p><input type="checkbox"/> No <input type="checkbox"/> Unknown</p>	<p>36. IF FEMALE:</p> <p><input type="checkbox"/> Not pregnant within past year</p> <p><input type="checkbox"/> Pregnant at time of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant within 42 days of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant 43 days to one year before death</p> <p><input type="checkbox"/> Unknown if pregnant within the past year</p>	<p>37. MANNER OF DEATH</p> <p><input type="checkbox"/> Natural <input type="checkbox"/> Homicide</p> <p><input type="checkbox"/> Accident <input type="checkbox"/> Pending investigation</p> <p><input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined</p>	
	38. DATE OF INJURY (Spell Month)	39. TIME OF INJURY	40. PLACE OF INJURY (e.g., Decedent's home, construction site, restaurant, wooded area)	
	41. INJURY AT WORK? <input type="checkbox"/> Yes <input type="checkbox"/> No			
	42. LOCATION OF INJURY: State: _____		City or Town: _____	County: _____
	Street & Number: _____		Apartment Number: _____	Zip Code: _____
	43. DESCRIBE HOW INJURY OCCURRED:			<p>44. IF TRANSPORTATION INJURY, SPECIFY:</p> <p><input type="checkbox"/> Driver/Operator <input type="checkbox"/> Pedestrian</p> <p><input type="checkbox"/> Passenger <input type="checkbox"/> Other (Specify) _____</p>

# ICD-10 Codes

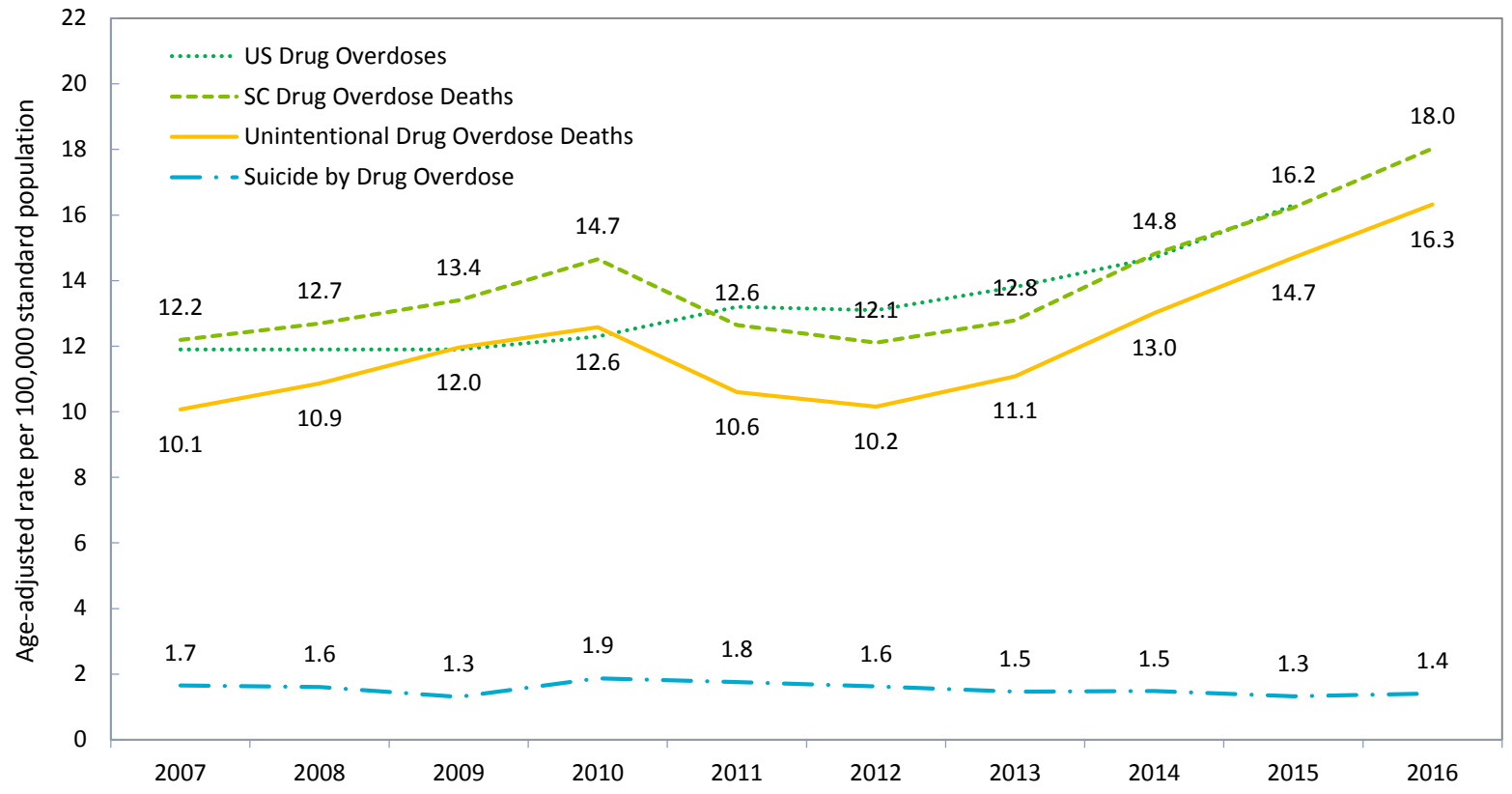
- Literal text for cause of death is sent to the National Center for Health Statistics (NCHS)
- NCHS codes cause of death according to ICD-10 rules
- NCHS returns codes to the state
- ICD-10 codes are used to calculate statistics

# Drug Overdose Deaths by Intent, SC, 2007-2016

## Occurrence Data



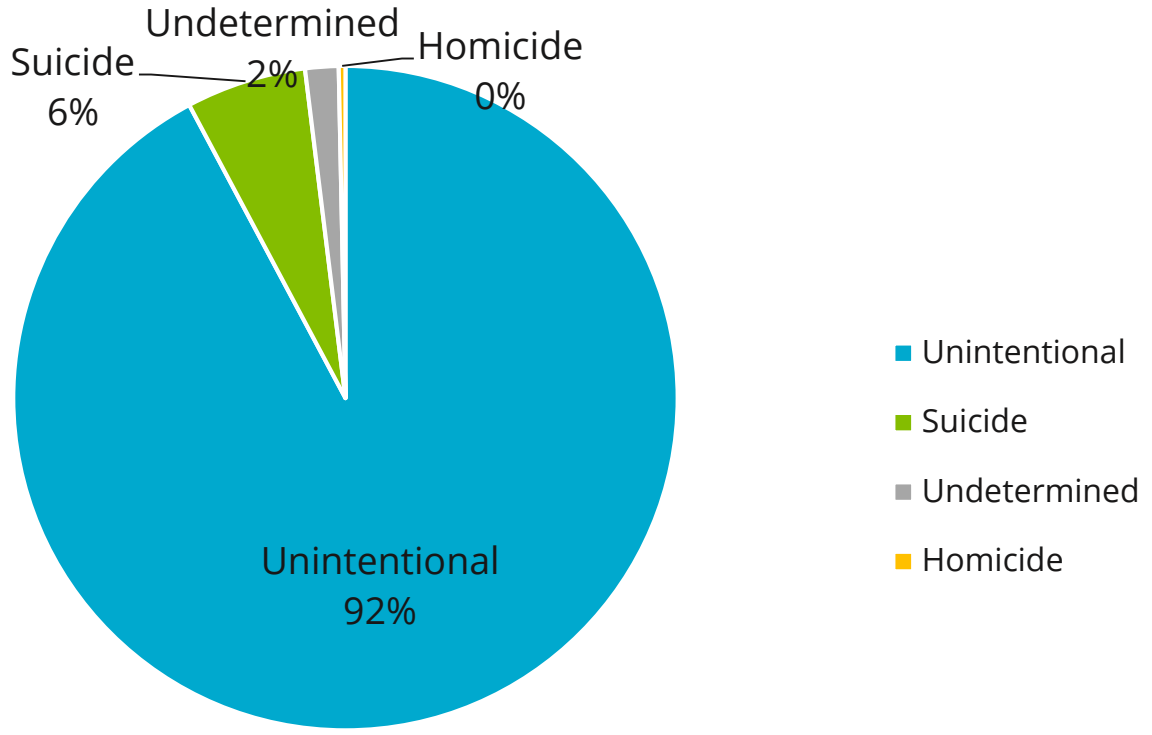
# Drug Overdose Deaths by Intent, SC, 2007-2016 Occurrence Data



# Opioid Deaths, 2016

- 876 drug overdose deaths occurred in SC, up from 789 deaths in 2015 (11% increase)
- 616 deaths involved opioids, up from 565 in 2015 (9% increase)
- 70.3% of all drug overdose deaths involved opioids

# Opioid Deaths by Intent, 2016



# Multiple drugs

- Often deaths involve more than one drug; such deaths are included in more than one category.
- Therefore, categories of drugs are not mutually exclusive and the numbers do not add up to the total.

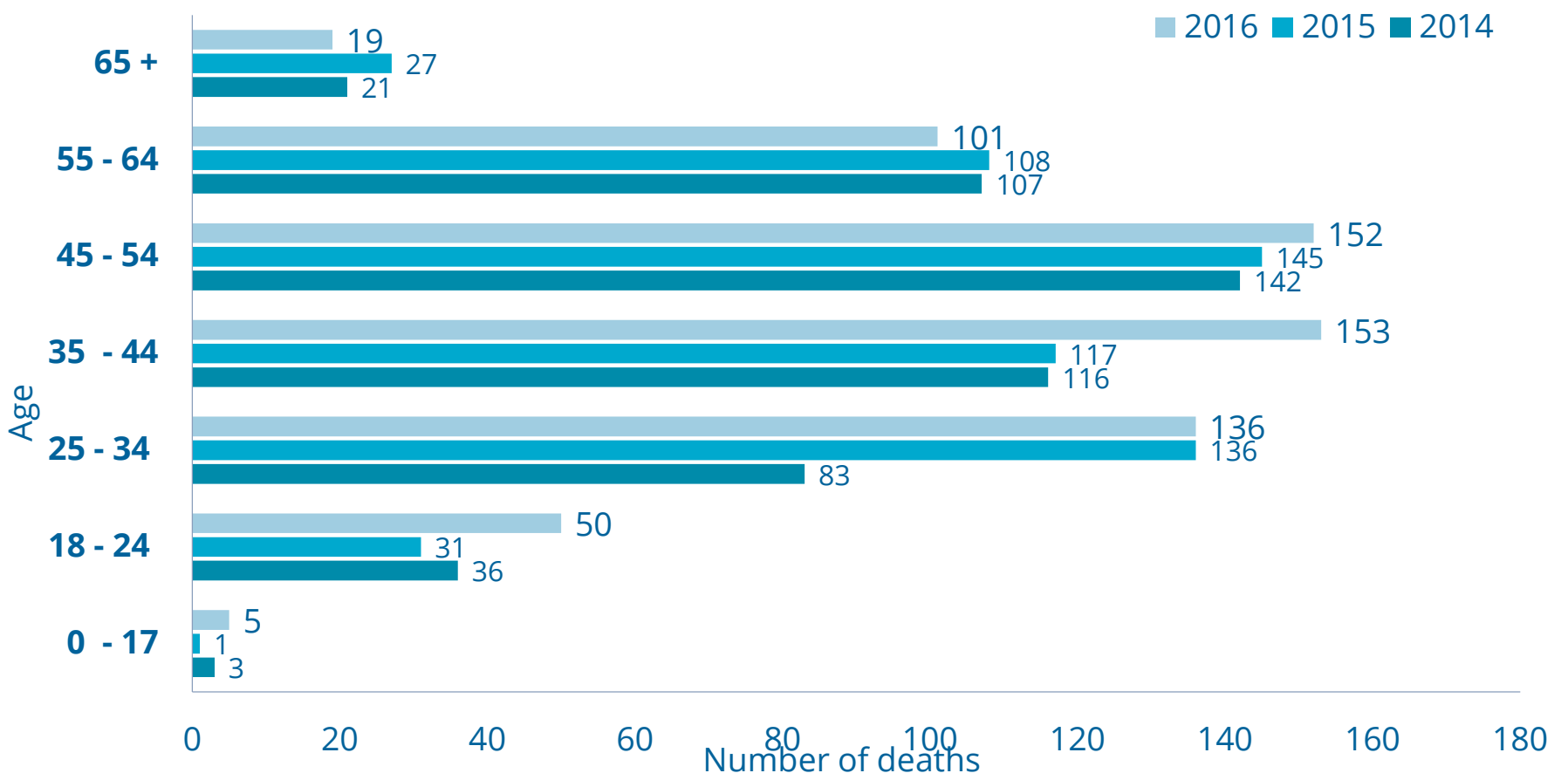


# Opioid Deaths, 2015-2016

Drug/Category	2015	2016	Percent change
Total opioids	565	616	9%
Prescription opioids	512 (90.6%)	550 (89.3%)	7%
Fentanyl	130 (23.0%)	190 (30.8%)	46%
Heroin	95 (16.8%)	108 (17.5%)	17%

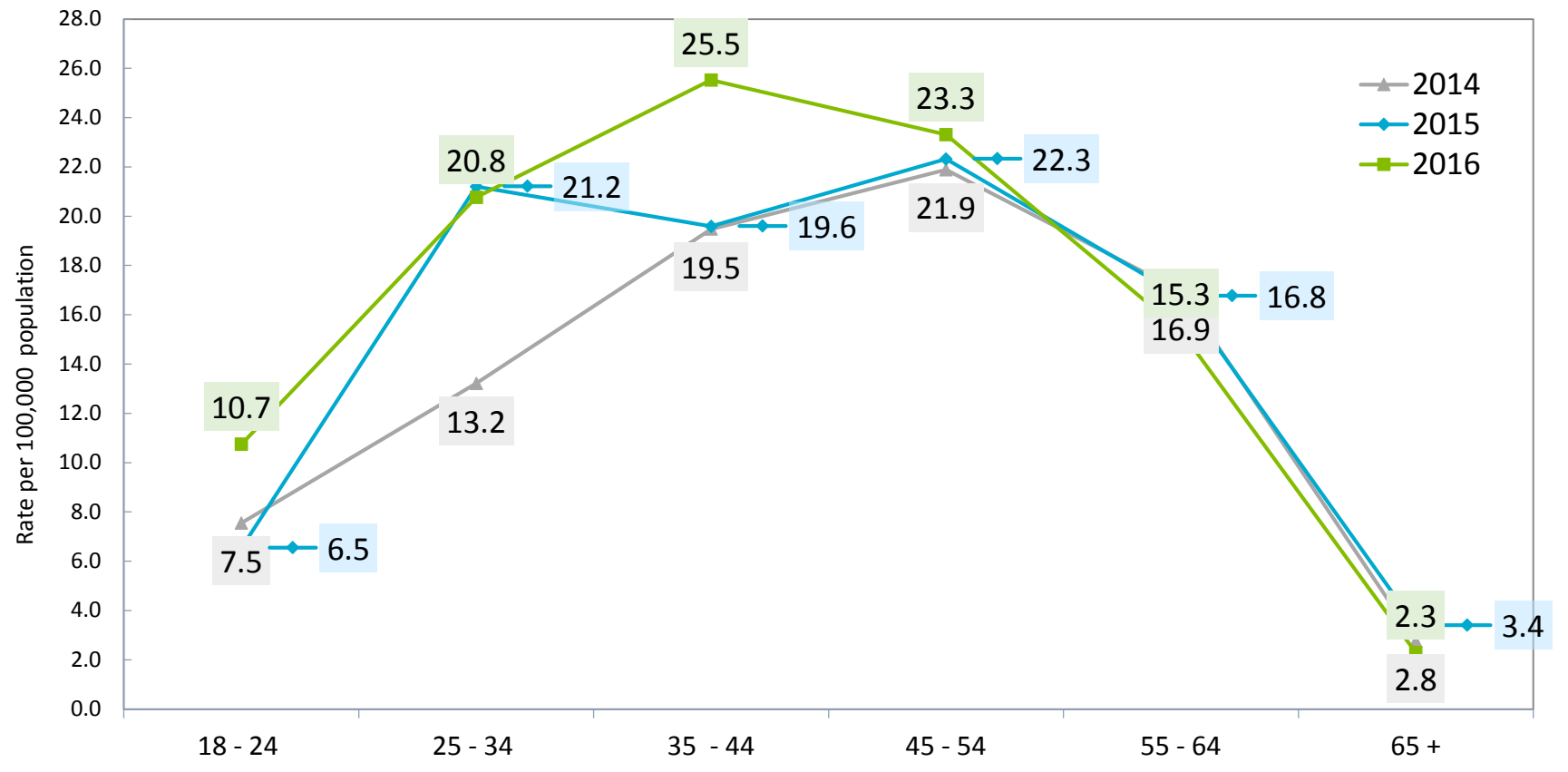
# Opioid Deaths by Age, South Carolina, 2014-2016,

## Occurrence data



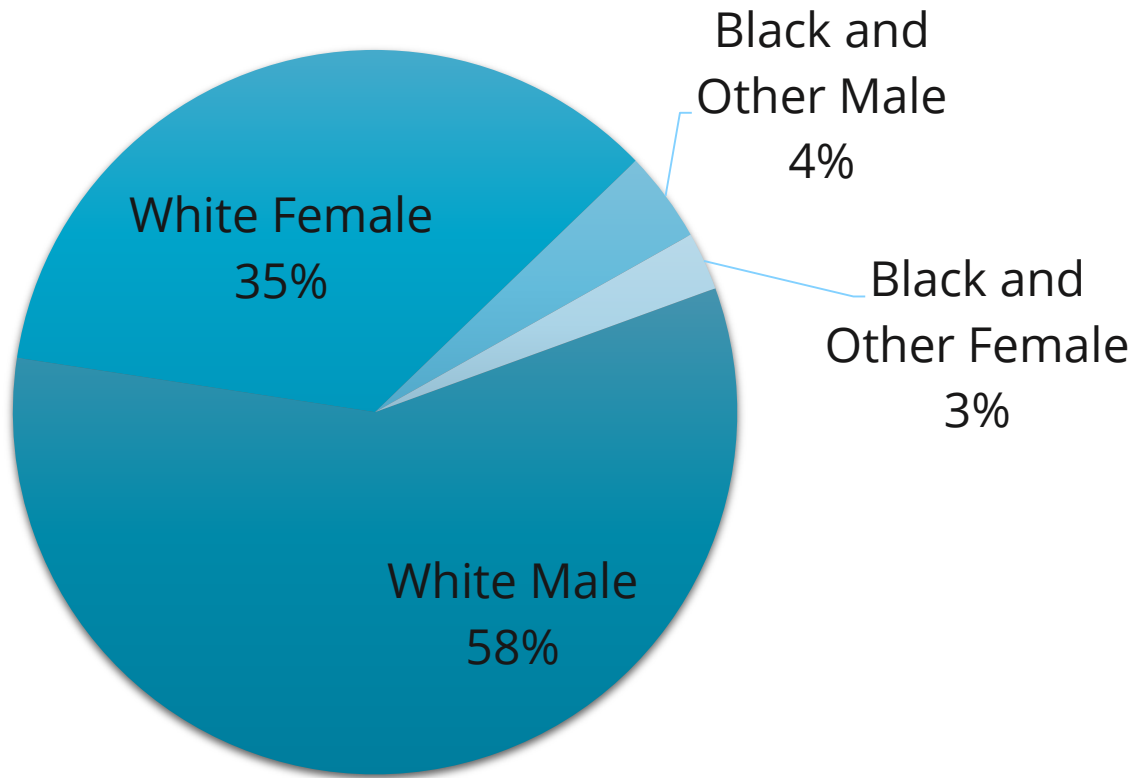
# Opioid Mortality Rate by Age, SC, 2014-2016

## Occurrence Data

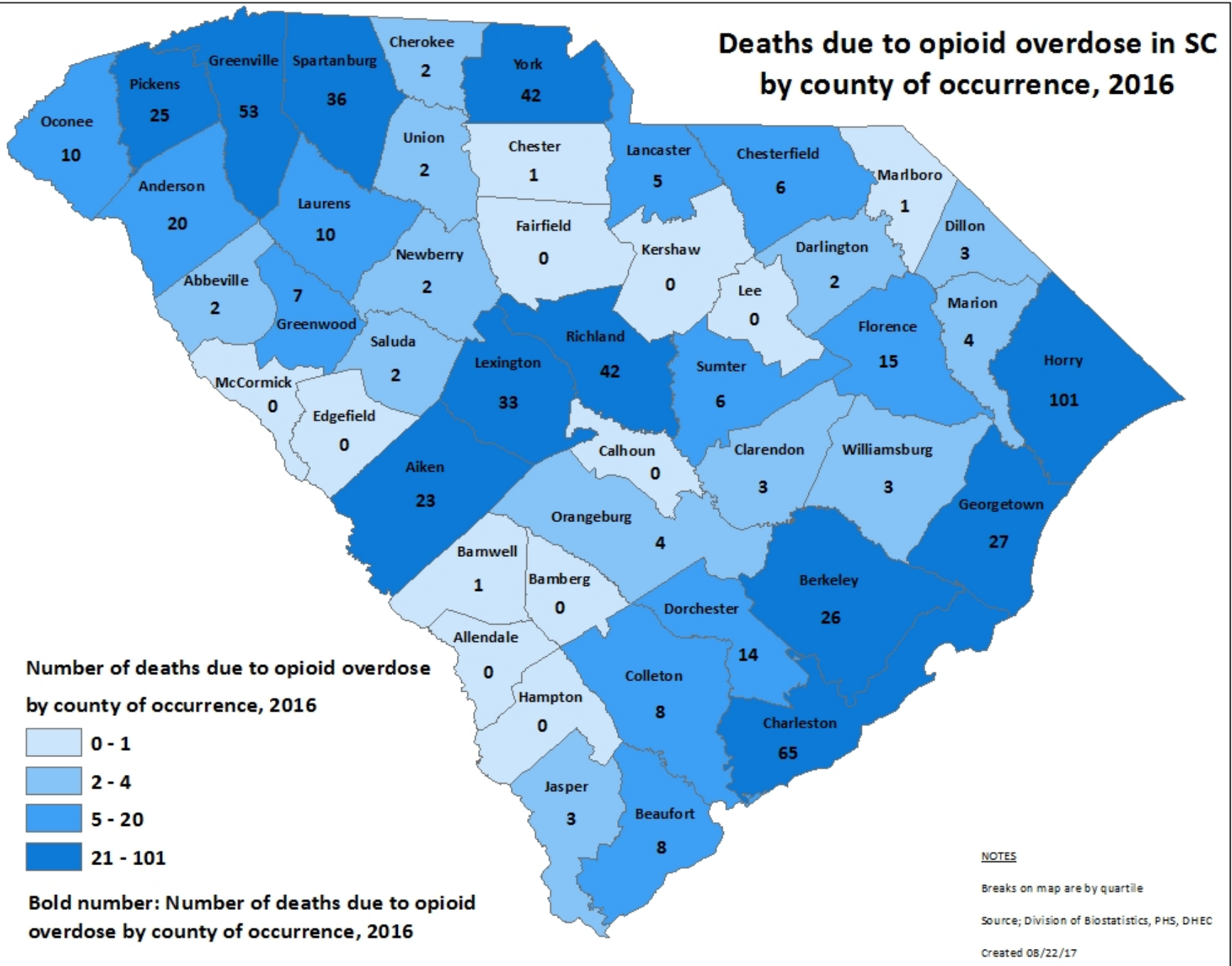


# Opioid Deaths by Race/Sex, South Carolina, 2016,

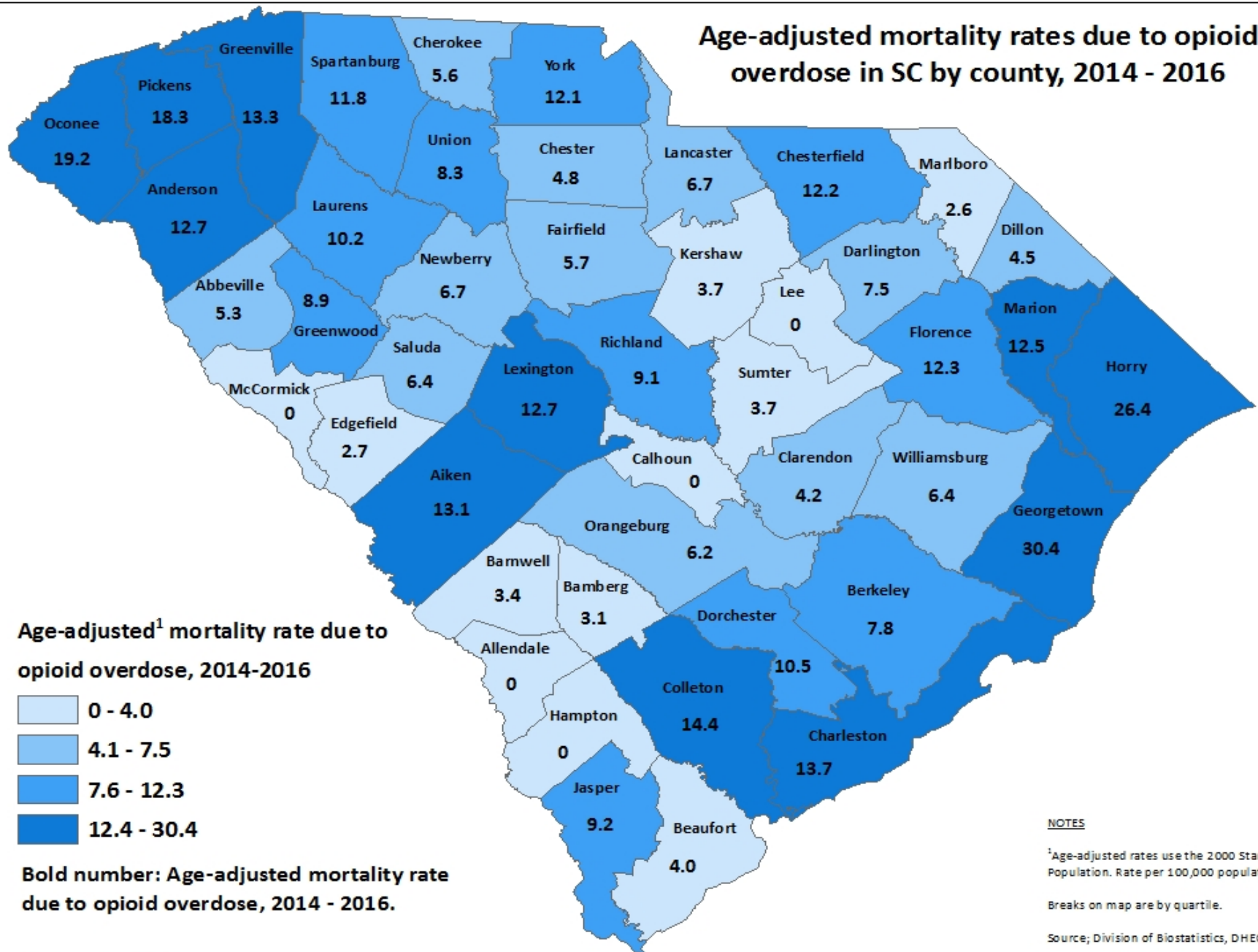
Occurrence data



## Deaths due to opioid overdose in SC by county of occurrence, 2016



## Age-adjusted mortality rates due to opioid overdose in SC by county, 2014 - 2016



**NOTES**

<sup>1</sup>Age-adjusted rates use the 2000 Standard Population. Rate per 100,000 population.

Breaks on map are by quartile.

Source: Division of Biostatistics, DHEC.

Created 09/22/17

# CONTACT US

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## Stay Connected



# SC Overdose Prevention Project: Sharing Data-Saving Lives

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**Linda Brown, MPH**  
**Overdose Prevention Coordinator**



# The SC Overdose Prevention Project

- **Funding amount:**  
\$3,192,772
- **Project Period:** Five years



## Partner Agencies:

- **SC Department of Health and Environmental Control, (SC DHEC):**
  - Bureau of Emergency Medical Services (EMS)
  - Office of Public Health Statistics (PHS)
- **The Fifth Judicial Circuit Solicitor's Office**



# Two Distinct Trainings

## First responder trainings: The Law Enforcement Officers Narcan® Training Program (LEON)

- Conducted by lead SC DHEC staff within the Bureau of Emergency Medical Services, (EMS) and staff from DAODAS (*formerly with the Fifth Circuit Solicitor's Office in Columbia*).
- Once trained, police officers can possess and administer naloxone. They are provided a kit with two doses at end of training course.



# Substance Use Disorder Treatment Center Trainings



## Trainer of trainer (TOT) courses:

- Staff at state-funded 301 substance use disorder treatment sites
- 301 staff in turn provide overdose education and Naloxone distribution training for their at-risk patients and/or their caregivers
- Once trained, patients and/or their caregivers are provided a package of Narcan<sup>®</sup> containing two 4mg nasal spray devices, regardless of ability to pay

# Sources of Local Data Utilized for SC Overdose Prevention Grant

- **State Epidemiological Outcomes Workgroup**
  - Needs assessment (high burden counties)
- **Office of Revenue and Fiscal Affairs (RFA)**
  - Hospital discharge data corresponding to opioid overdose and/or use
- **DHEC:**
  - Office of Public Health Statistics: GIS mapping, lead grant evaluation**
  - Division of Biostatistics: mortality data**
  - Bureau of EMS: Narcan deployment**
  - Drug Control: prescription drug monitoring program data**

# State Epidemiological Outcomes Workgroup (SEOW)

The SEOW is a group of data experts responsible for bringing data on substance misuse and related behavioral health problems to the forefront of the strategic planning process.

## Four core tasks:

- 1) Identifying, analyzing, profiling, and sharing data from existing state and local sources
- 2) Creating data-guided products that inform behavioral health planning and policies
- 3) Training communities in understanding, using, and presenting data in an effective manner
- 4) Building state and local-level monitoring and surveillance systems

# Examples of Data Sharing

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- **GIS maps:**

Created for the Narcan<sup>®</sup> grant to assess counties with highest opioid burden (*includes opioid mortality, naloxone deployment/rescue attempts, and hospital discharge indicators*)

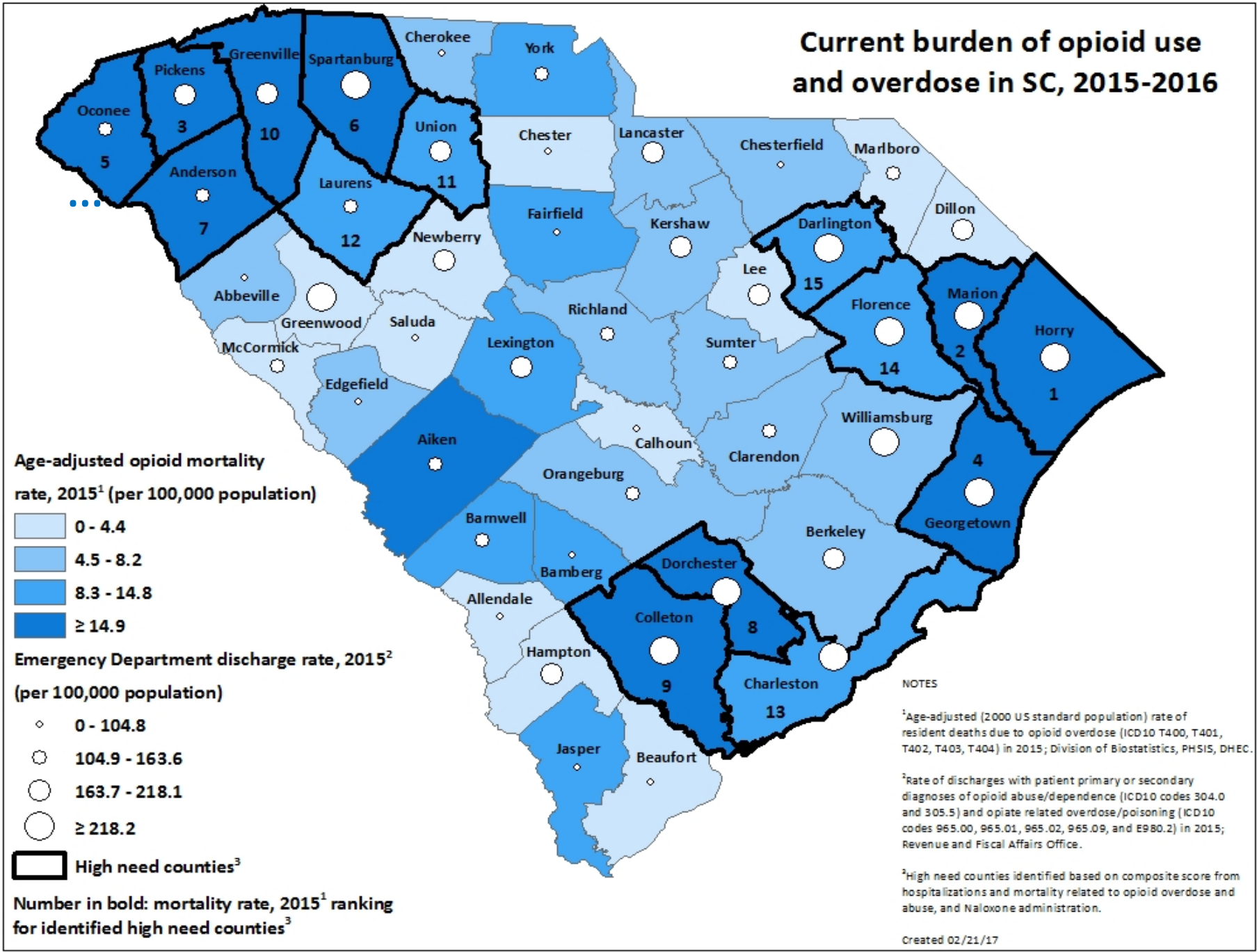
- **Mortality Data by substance type:**

In an effort to better inform ongoing state prevention and treatment efforts, DAODAS attempts to study mortality data and its association to:

- DEA/SLED (*arrest data*), PDMP (prescribing patterns)
- service utilization data of patients within the state-funded 301 provider network
- LEON project (*Narcan rescue attempts*) to better understand drug trends.



# Current burden of opioid use and overdose in SC, 2015-2016



# Examples of Data-Guided Products

- **Naloxone Grant:**

- Needs Assessment, Disparity Impact Statement, Evaluation Plan, portions of the state Strategic Plan, presentations to the Board of Pharmacy to obtain Narcan distribution guidance/approval, education materials (i.e. fact sheets, brochures)

- **Legislative updates:**

- Accountability reports, legislative briefs, presentations at the legislative opioid commission hearings

- **Grant applications:**

- States' Response to the Opioid Epidemic (STR), awarded to DAODAS in May, 2017 for \$6,500 x 2 years.

- **State Plan to Prevent and Treat Prescription Drug Abuse**

- Implementation of recommended action steps



# Future Direction

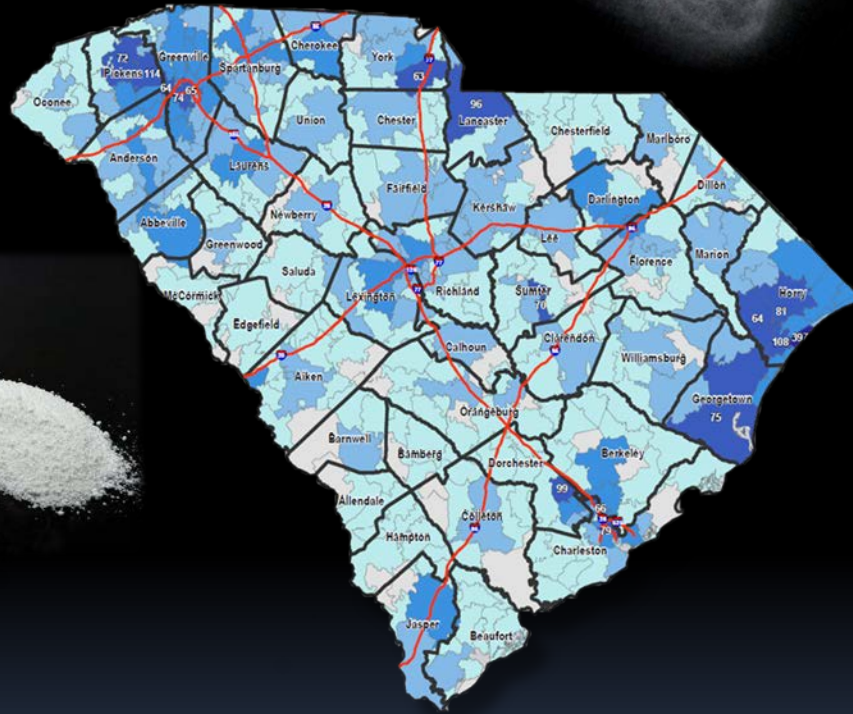
- Move beyond assessments toward monitoring Narcan distribution penetration rates to increase access to naloxone and decrease mortality associated with opioids.

# Contacts for Overdose Prevention Grant

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South Carolina  
DAODAS



# South Carolina Bureau of EMS: *Addressing the Opioid Crisis*

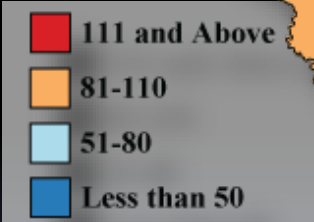
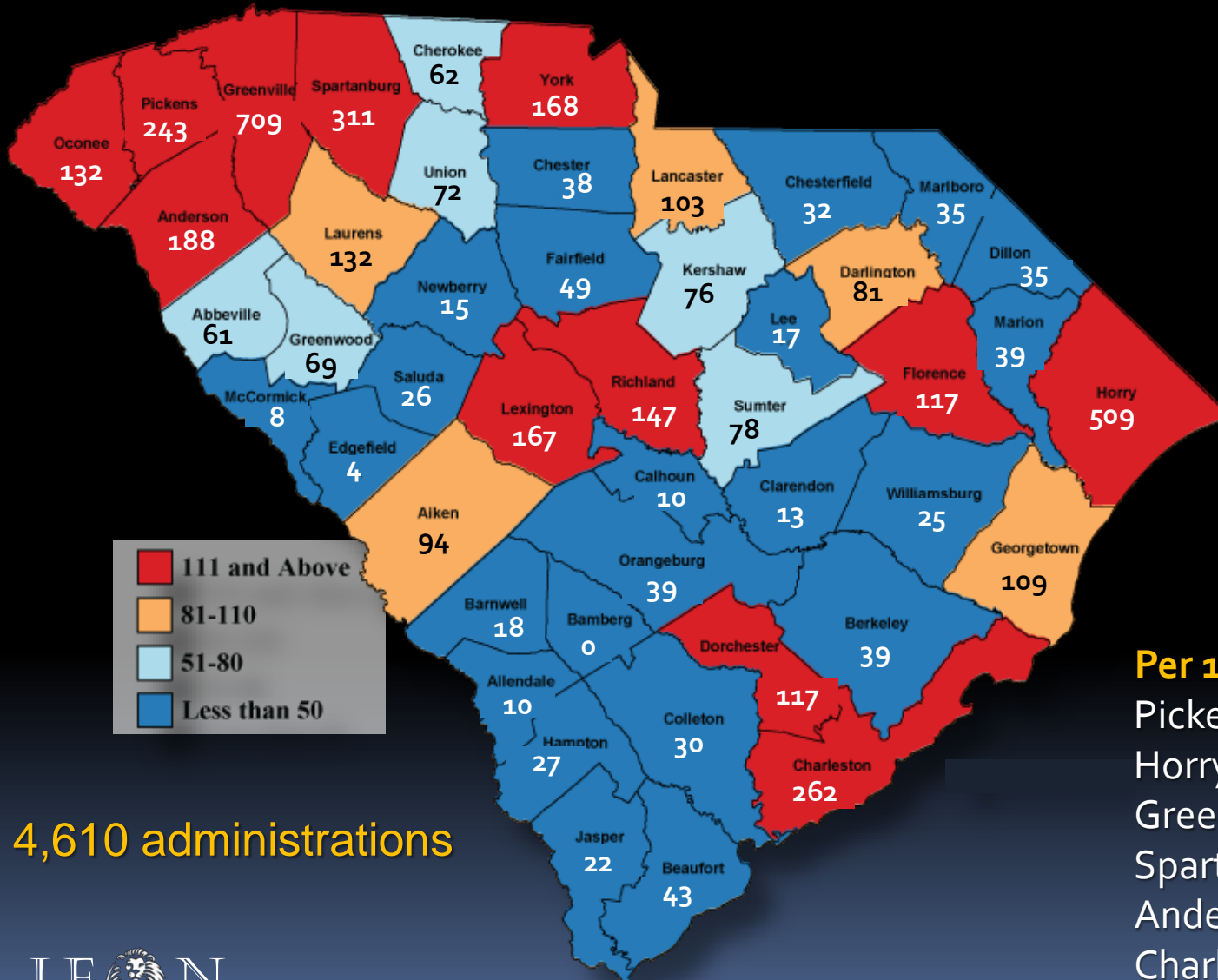


# EMS and Narcan

- Narcan has been a mainstay for EMS since 1970's
- Narcan is solely used in the reversal of opioids
- EMS in South Carolina began mandatory electronic reporting of patient care reports in 2009 (average of 1.2 million ePCRs a year)
- The rate of EMS Narcan administration began to increase in 2011 but a significant rise since 2016
- Follow the EMS Narcan data to find state's areas of high opioid overdoses and traffic



# 2015 Narcan Usage by EMS in S.C.



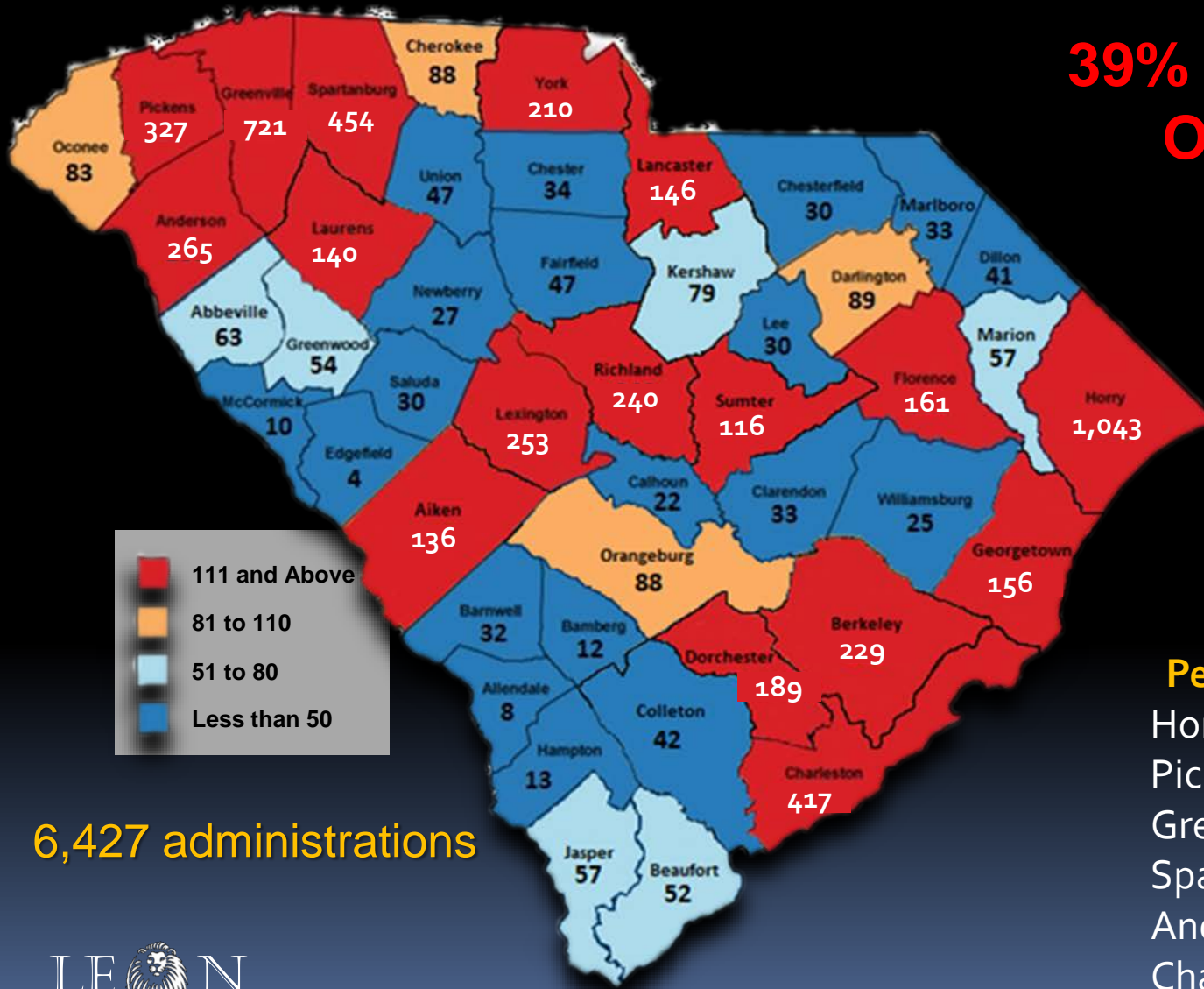
## Per 100,000 people

Pickens	200
Horry	165
Greenville	144
Spartanburg	105
Anderson	97
Charleston	67
Richland	36



# 2016 Narcan Usage by EMS in S.C.

**39% Increase  
Over 2015**



**6,427 administrations**

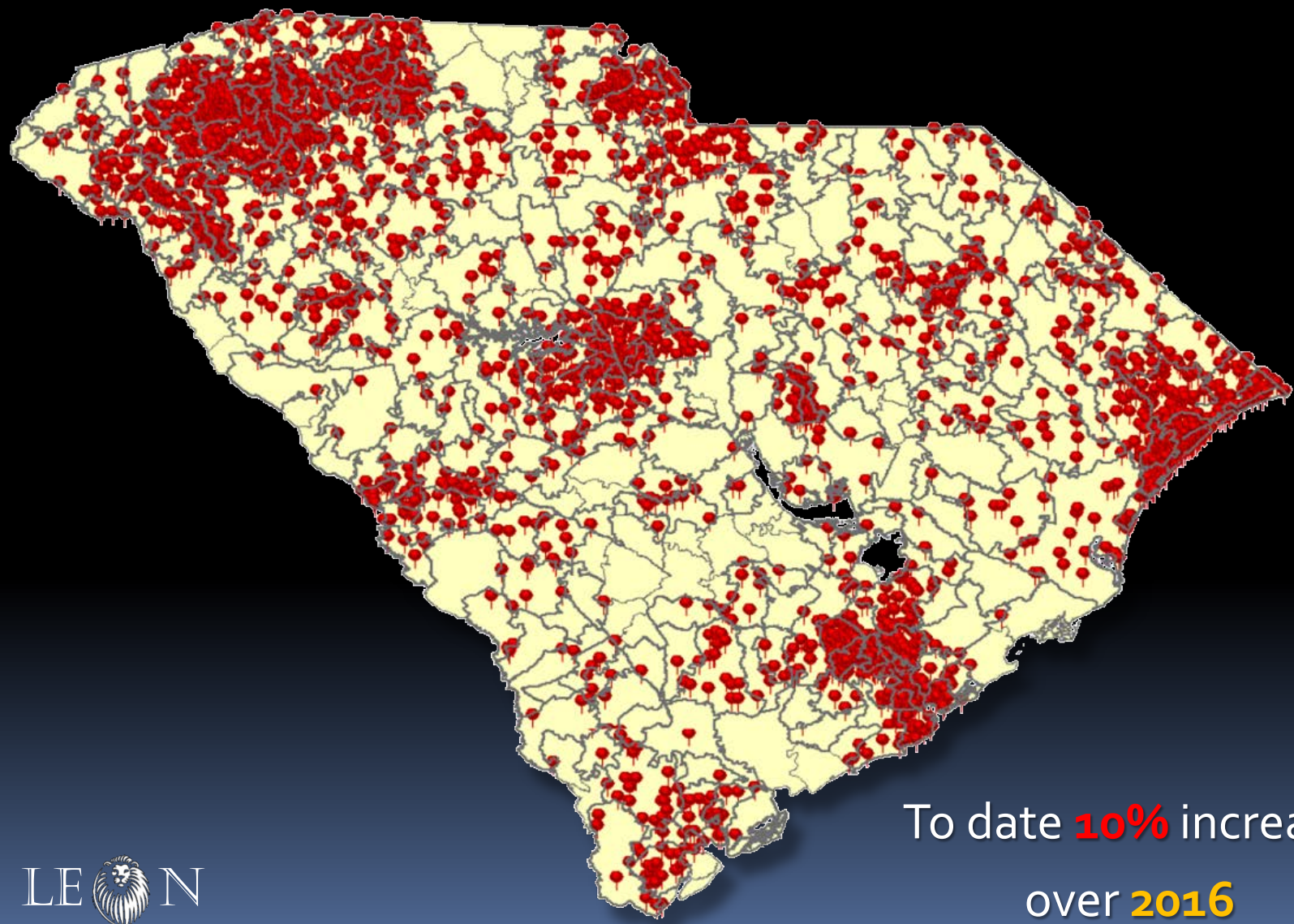
**Per 100,000 people**

Horry	342
Pickens	274
Greenville	160
Spartanburg	160
Anderson	142
Charleston	119
Richland	62





# S.C. EMS Usage of Narcan in **2017**



To date **10%** increase  
over **2016**



# LEON Program

- The program was created pursuant to the 2015 passing of the South Carolina Overdose Prevention Act (S.C. Code Section 44-130-60).
- The Act seeks to grant **immunity** from both civil and criminal prosecution, to doctors, pharmacists, caregivers, and **first responders**, who are engaged in the prescription, dispensation and administration of Naloxone (Narcan) in an opioid-overdose suspected case.



♦ LAW ENFORCEMENT OFFICER ♦

NARCAN

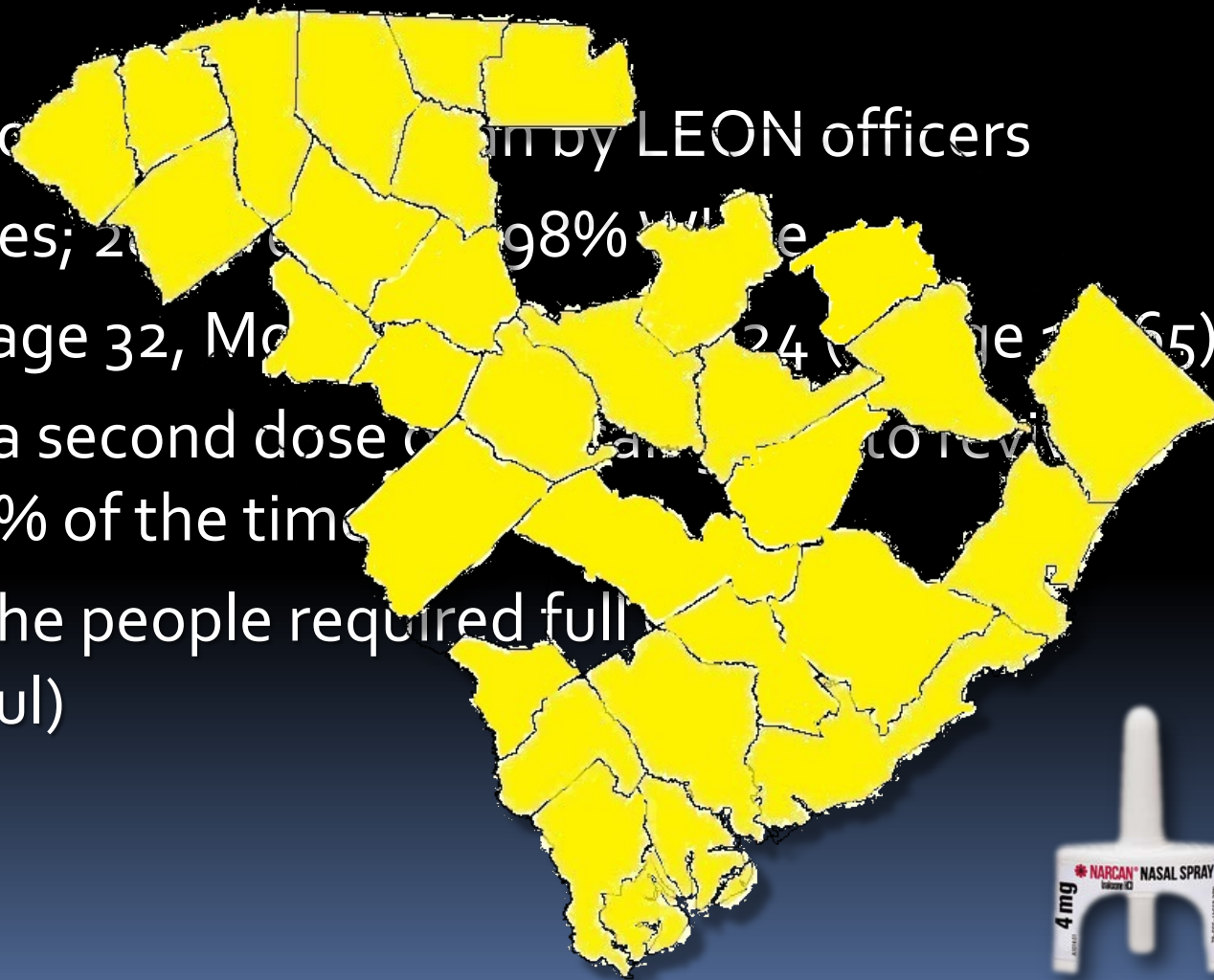


# LEON Program Development

- Pilot program in Columbia-Richland
- Expanded pilot to Greenville & Charleston in June 2016
- Using historical EMS Narcan data we focused on Top 15 counties with most Narcan given by EMS
- Partnership with **DAODAS** secured SAMHSA grant to purchase Narcan directly from Adapt Pharma
- Centralized Narcan distribution – partnership with DHEC Regional Pharmacies
- Expansion of program beyond the pilot and Top 15
- Collected data on officer deployments up to date

# LEON To Date Administrations

- To date 3,364 officers trained in 96 agencies in 33 counties
- 120 deployments by LEON officers
- 72% Males; 28% Female; 98% White
- Median age 32, Mode 24 (Age range 18-65)
- At least a second dose of Narcan required to revive them 45% of the time
- 26% of the people required full (successful)



# Future Opioid Crisis Initiatives

- Development of **ROLL** – Reducing Opioid Loss of Life *for Firefighters*
  - In 2016, SC fire departments responded to 216,504 Medical/Rescue calls (57.92% of all FD calls)\*

- New Bureau of EMS FTE: Narcan Coordinator begins October 17, 2017

## Community Paramedic Out-REACH

- Go out 2 by 2 to visit recent OD discharges
- Regional Resources for Recovery and Rehab
- Bureau of EMS to pay flat fee per visit







→ R.E.A.C.H.

*EMS reaching out to the community ...*

Tel: 803-545-4204



Colerain Township, OH Community Paramedic model: **Recovery Project**

# Questions?



Healthy People. Healthy Communities.

