



Heroin-related Morbidity and Mortality

Orange County, Florida
2015 Update

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Outline

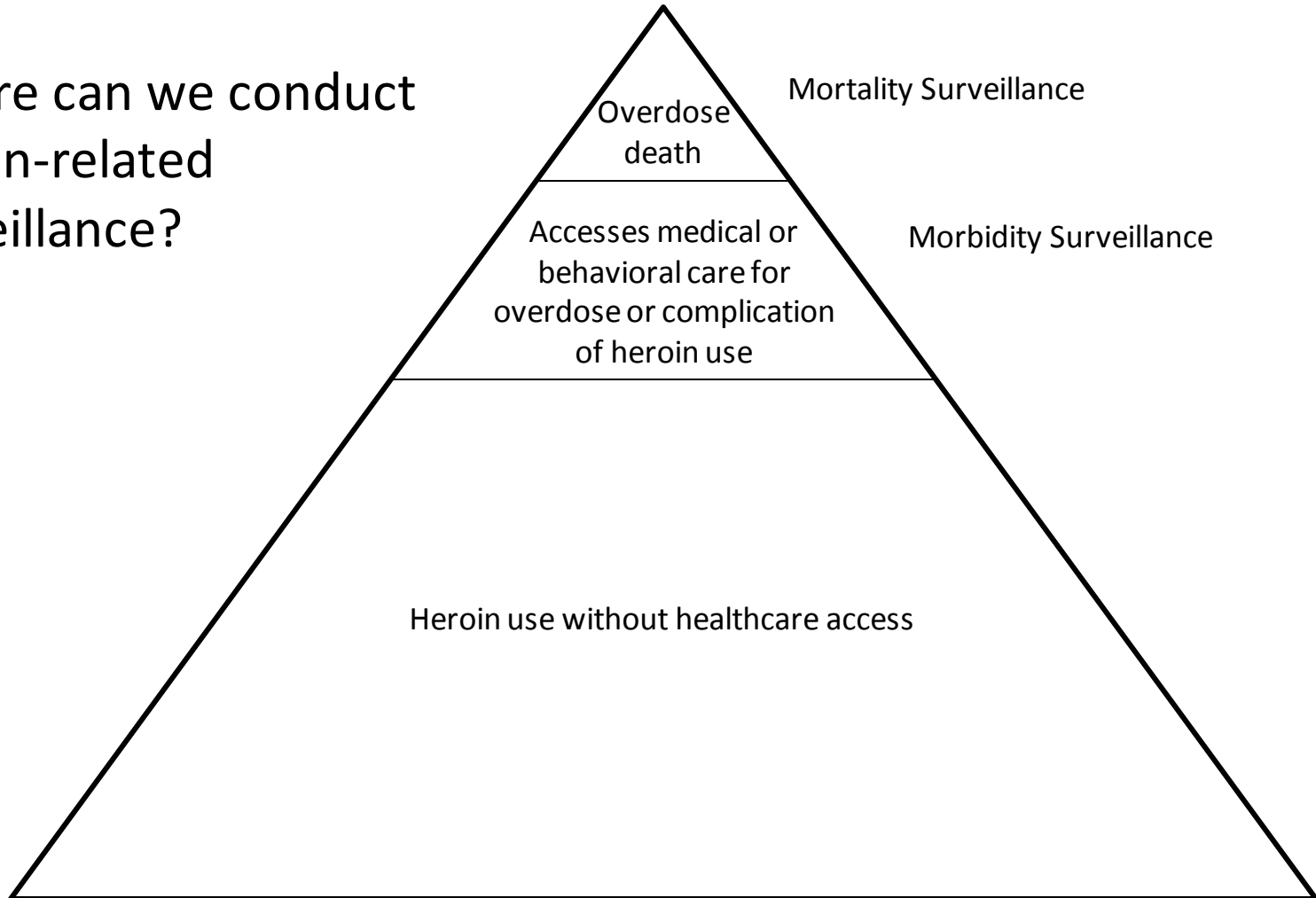
1. Surveillance system overview
2. Heroin-related mortality surveillance
 - DOH Bureau of Emergency Medical Oversight data
3. Heroin-related morbidity surveillance
 - Agency for Health Care Administration (AHCA) data
 - ESSENCE-FL data
4. Summary



Surveillance System Overview

Total Population that Use Heroin

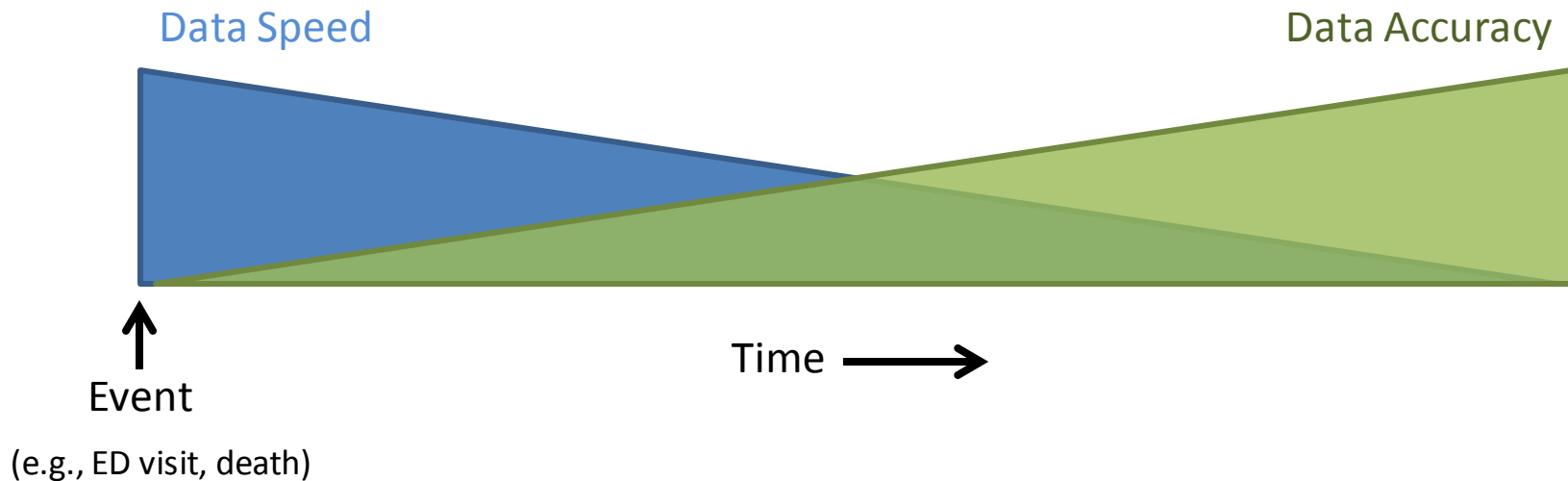
Where can we conduct heroin-related surveillance?





Surveillance System Overview

- Data Sources
- Reporting Timeframe
- Data Speed vs Data Accuracy





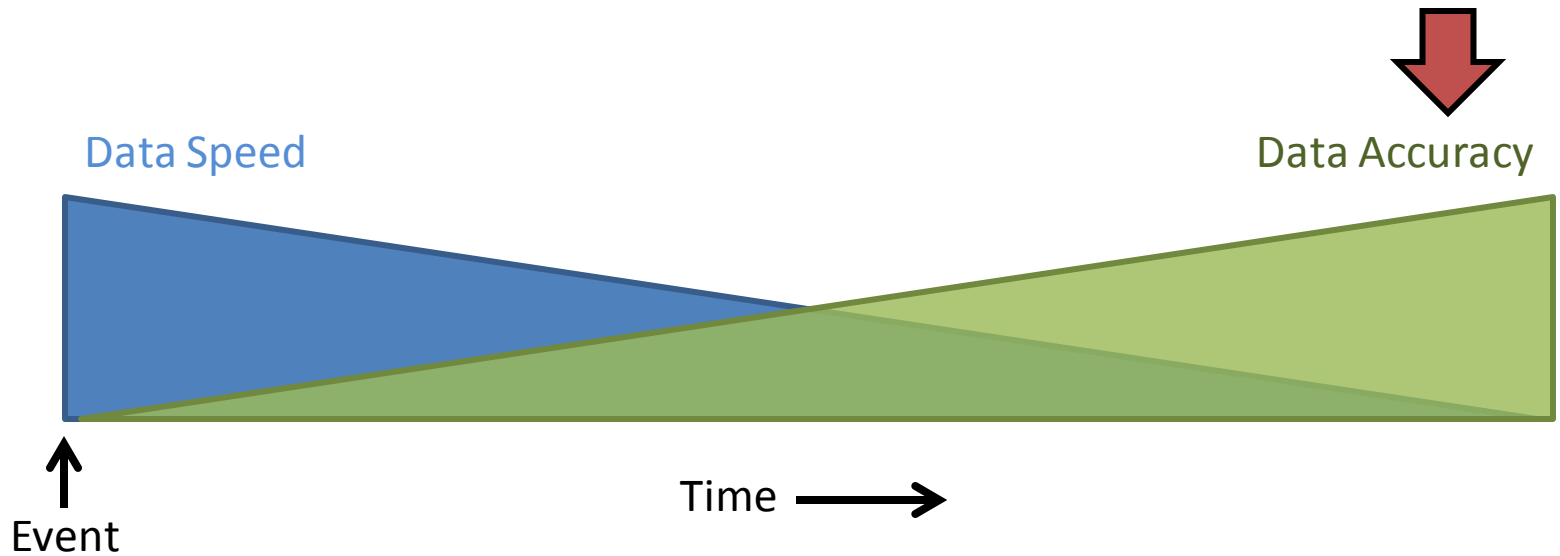
Heroin-related Mortality Surveillance

Pros

High Accuracy

Cons

Increased time to data availability



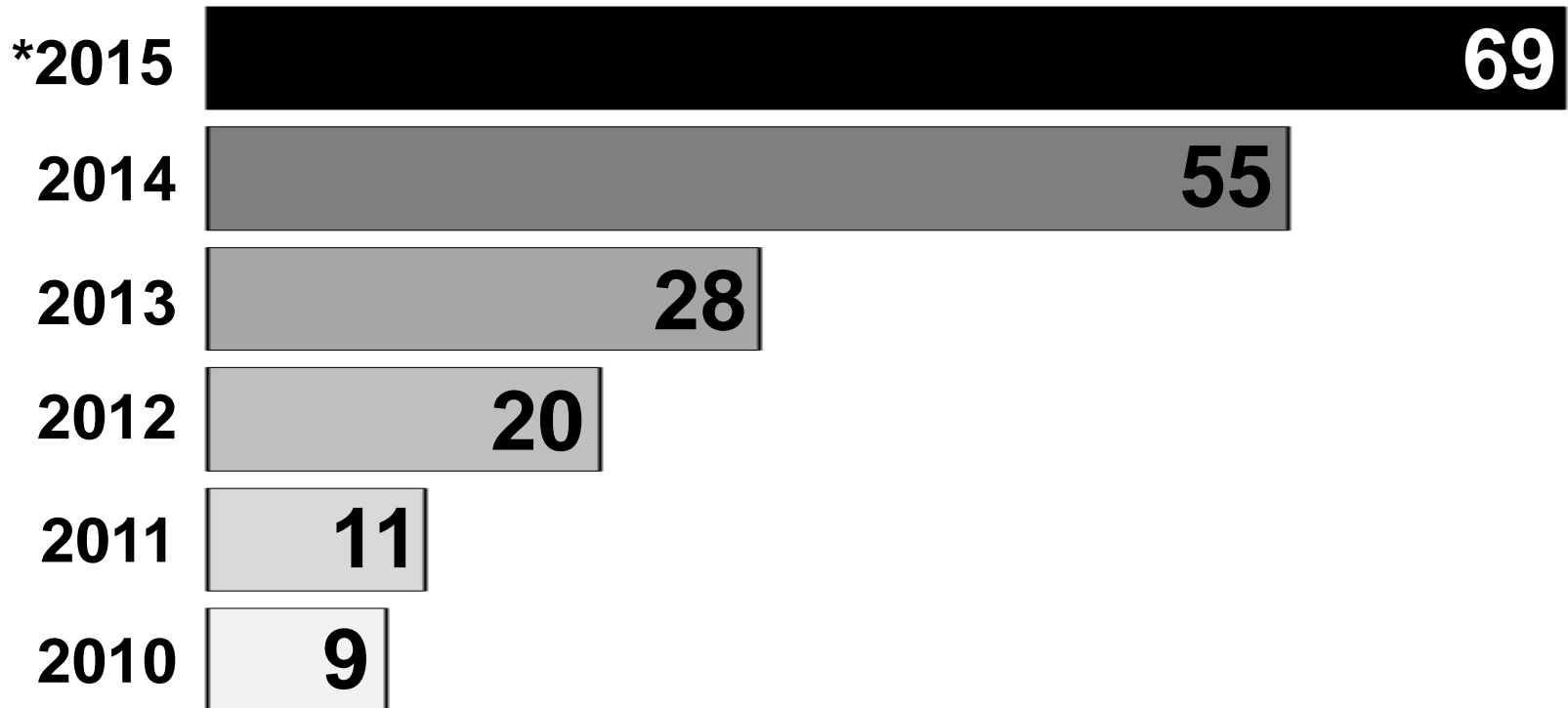


Heroin-related Mortality Surveillance

How many heroin-related deaths has there been
in Orange County?



Heroin-related Mortality, Orange County, Florida 2010-2015

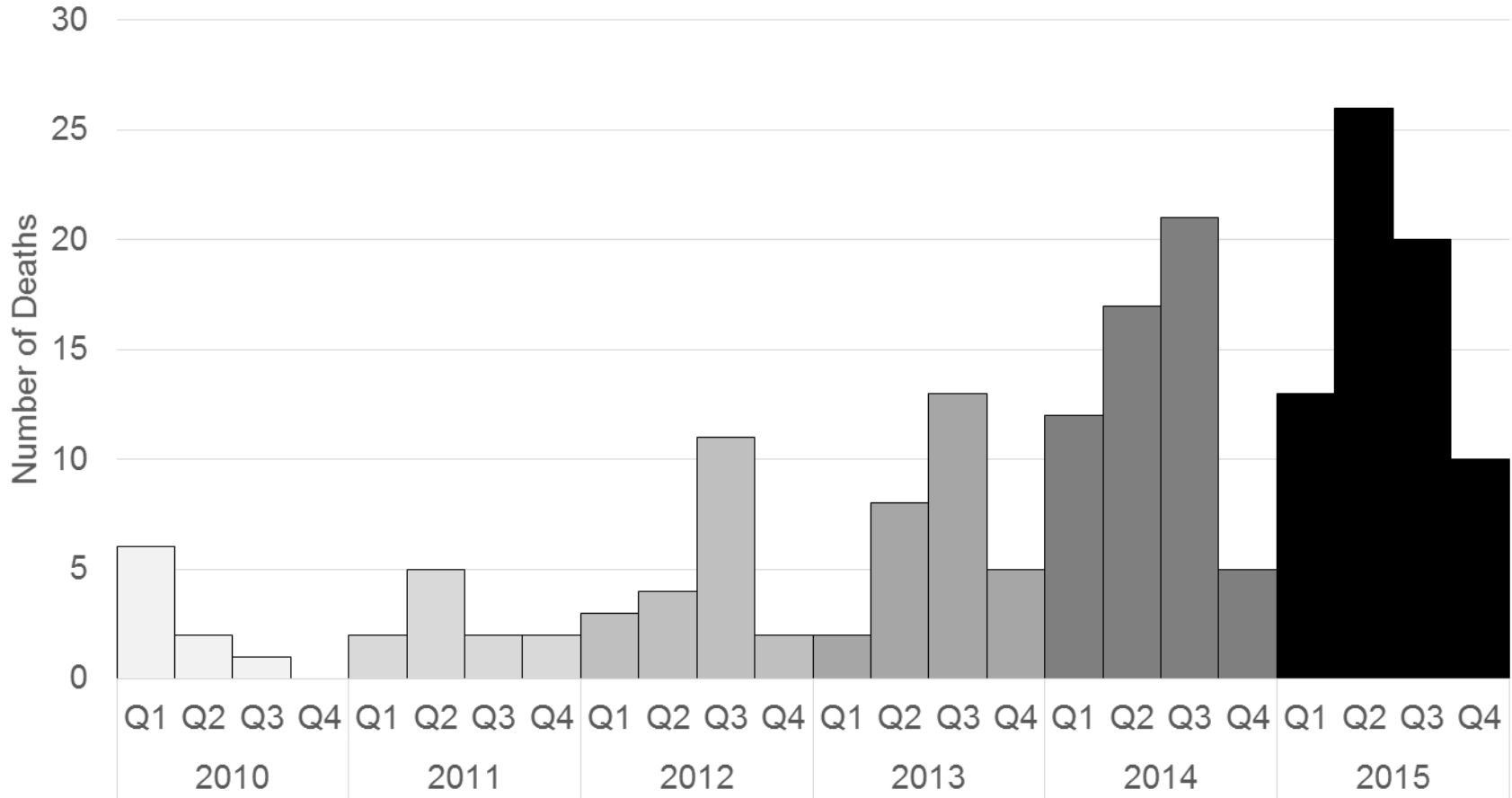


* Mid-year change from ICD-9 to ICD-10 codes

For 2015, all Deaths with ICD 10 code of T40.1 : Poisoning by and adverse effect of heroin



Heroin-related Mortality, Orange County, Florida 2010-2015



* All Deaths with ICD 10 code of T40.1 : Poisoning by and adverse effect of heroin



Heroin-related Mortality Surveillance

What are the demographics of individuals that had a heroin-related death?



Heroin-related Mortality, Orange County, Florida 2015

Male

Female

Age

>59

55-59

50-54

45-49

40-44

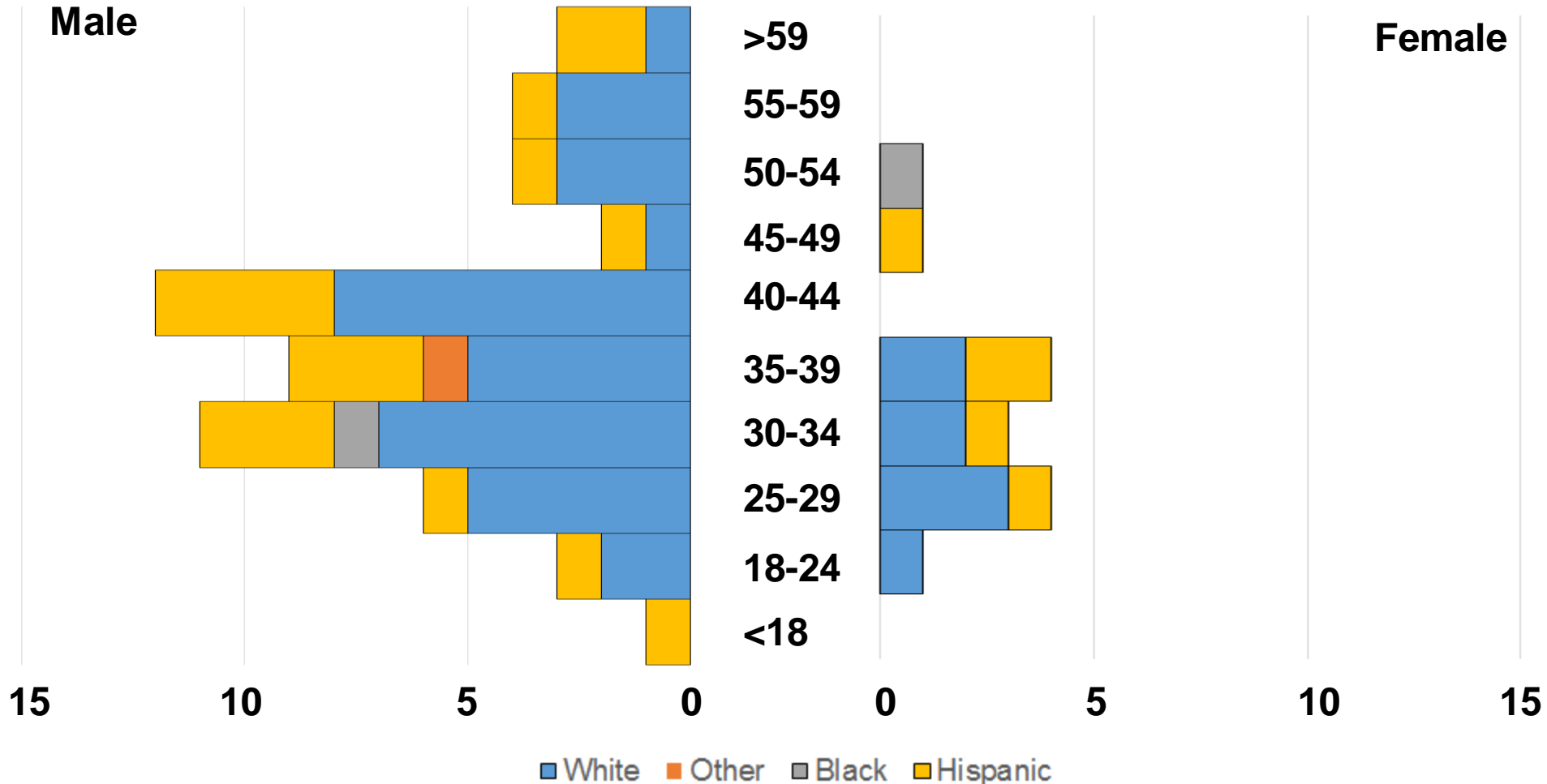
35-39

30-34

25-29

18-24

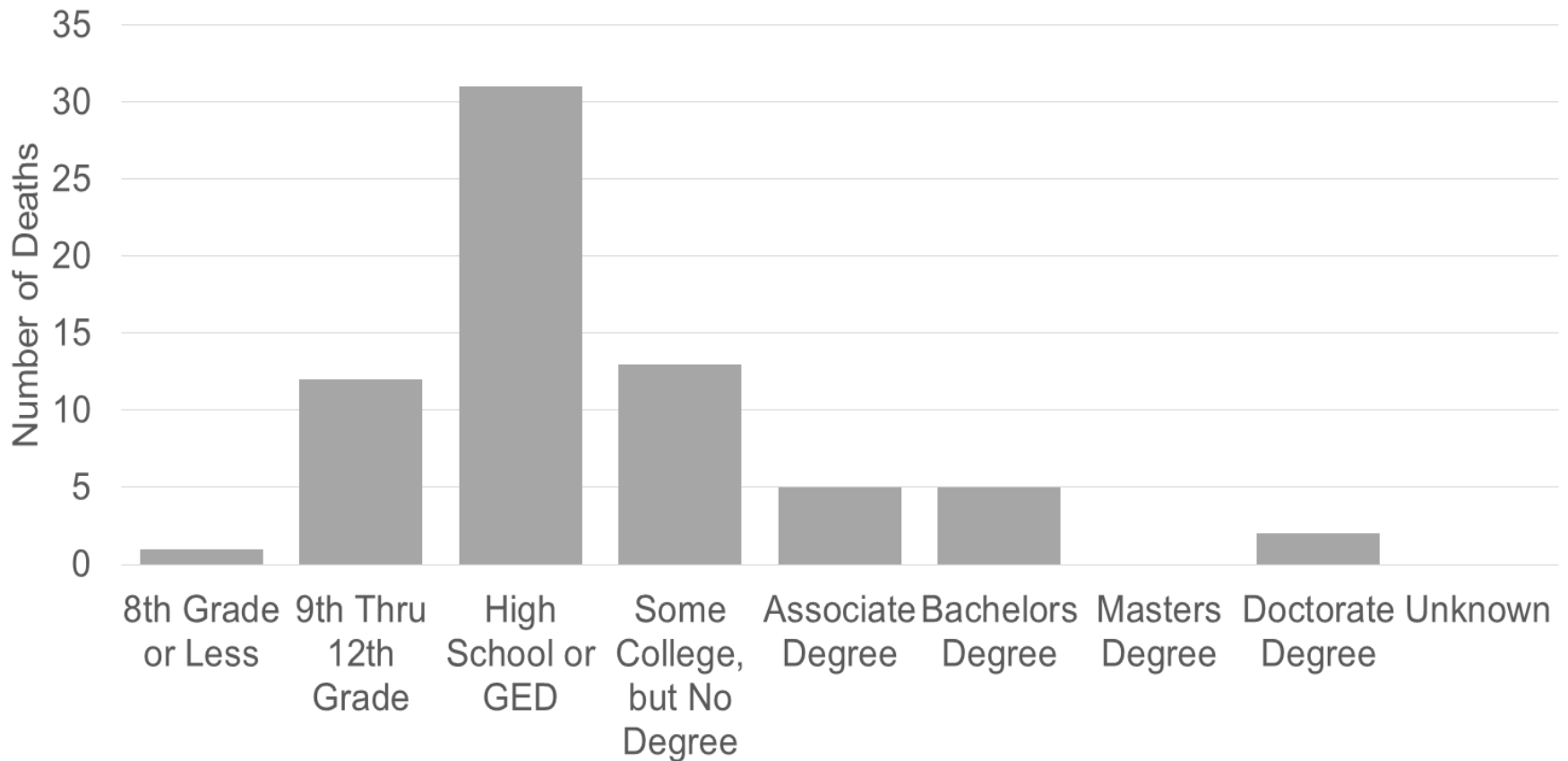
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Data Source: Florida Department of Health Bureau of Emergency Medical Oversight



Heroin-related Mortality, Orange County, Florida 2015



* All Deaths with ICD 10 code of T40.1 : Poisoning by and adverse effect of heroin



Heroin-related Mortality Surveillance

Where are heroin deaths occurring in
Orange County?



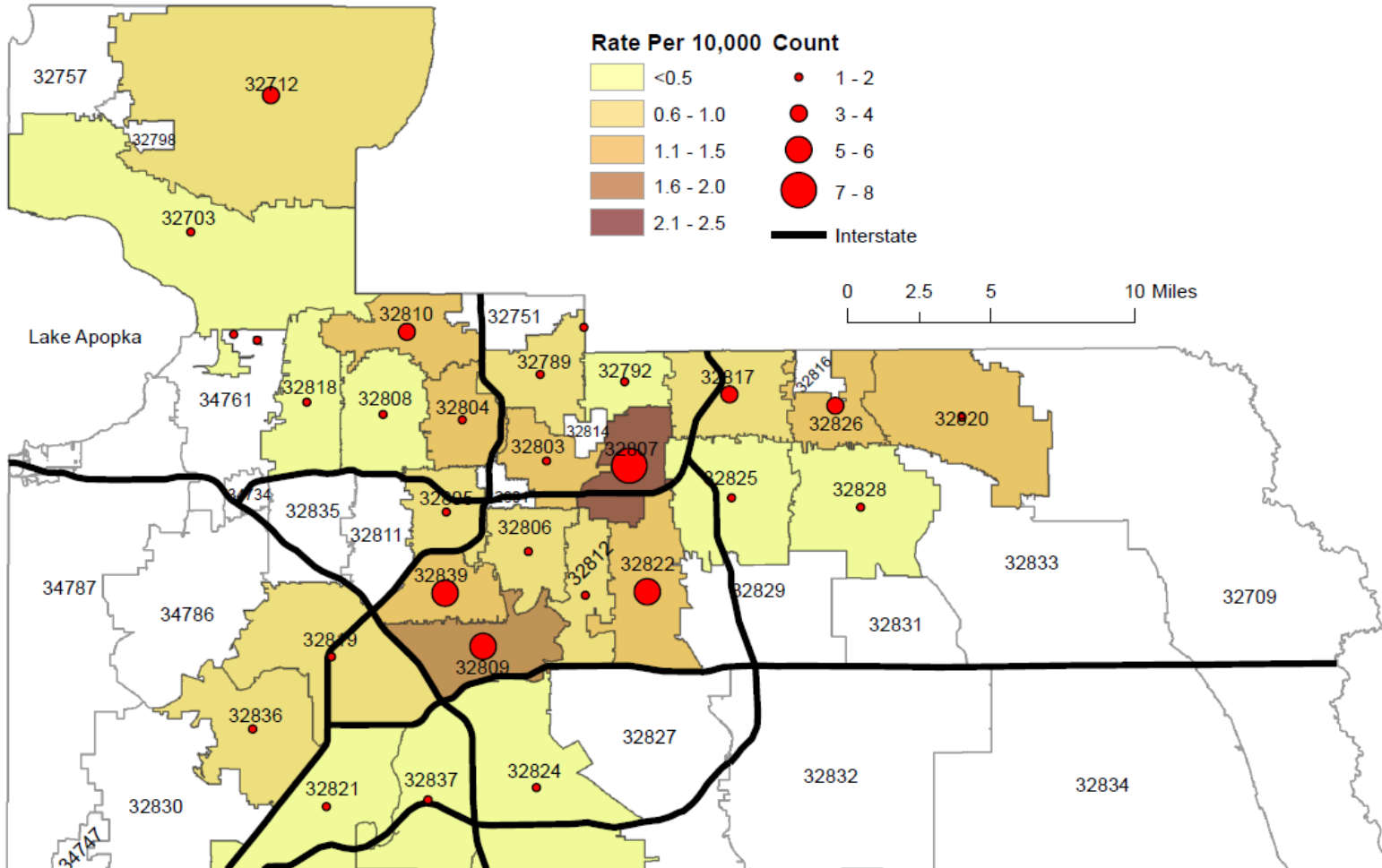
Total Number of Heroin-related Deaths by Zip Code among Orange County Residents, Orange County, Florida 2015

Zip Code	Crude Rate / 10,000 Population	Count
Orange County	0.48	69
Top Ten Zip Codes		
32807	2.22	7
32809	1.87	5
32810	1.24	4
32839	1.19	6
32804	1.16	2
32822	1.13	6
32803	1.05	2
32826	1.02	3
32712	0.96	4
32805	0.92	2

Data Source: Florida Department of Health, Bureau of Emergency Medical Oversight



Heroin as Cause of Death: Crude Mortality Rate per 10,000 Population and Total Number of Deaths by Zip Code, Orange County, Florida 2015



Prepared by: Florida Department of Health in Orange County, Epidemiology Program
 Data Sources: Florida Department of Health, Bureau of Emergency Medical Oversight, Health Information and Policy Analysis Section
 US Census Bureau, 2010 Demographic Profile Data

Prepared on: 11/18/2016

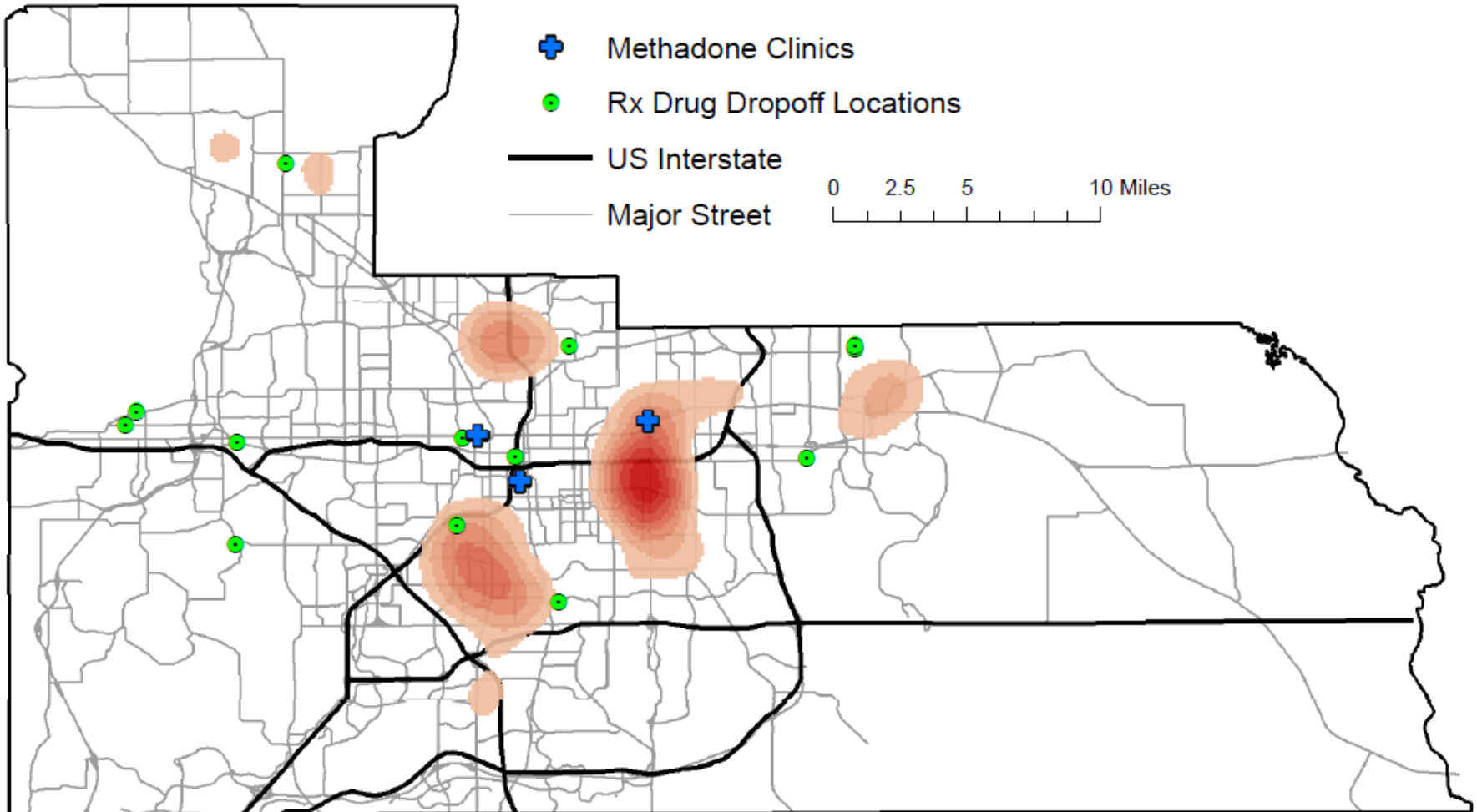


Heroin-related Mortality Surveillance

Are there clusters of heroin deaths in
Orange County?



Density Analysis of Heroin as Cause of Death, Orange County, Florida 2015



Data Source: Florida Department of Health, Bureau of Emergency Medical Oversight, Health Information and Policy Analysis Section
Orange County Drug Free Living
Orlando Methadone Treatment Centers

Prepared by: Florida Department of Health in Orange County, Epidemiology Program
Prepared on: 11/16/2016



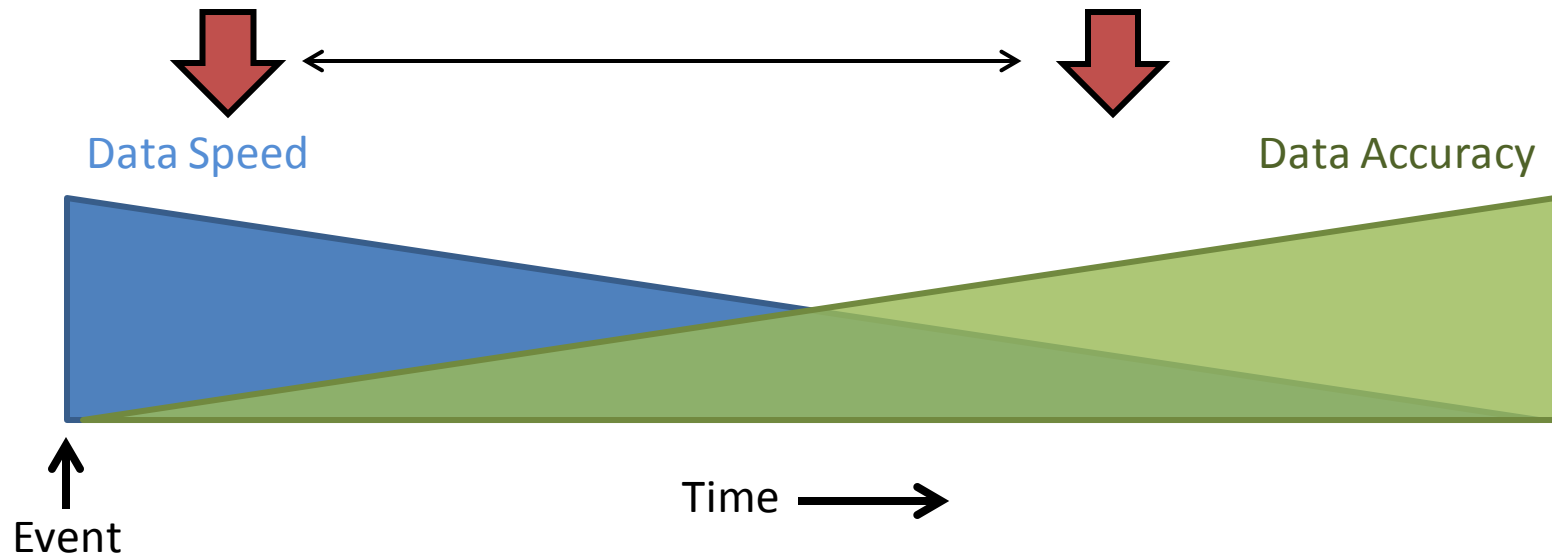
Heroin-related Morbidity Surveillance

Pros

Short to moderate time to data availability

Cons

Moderate accuracy



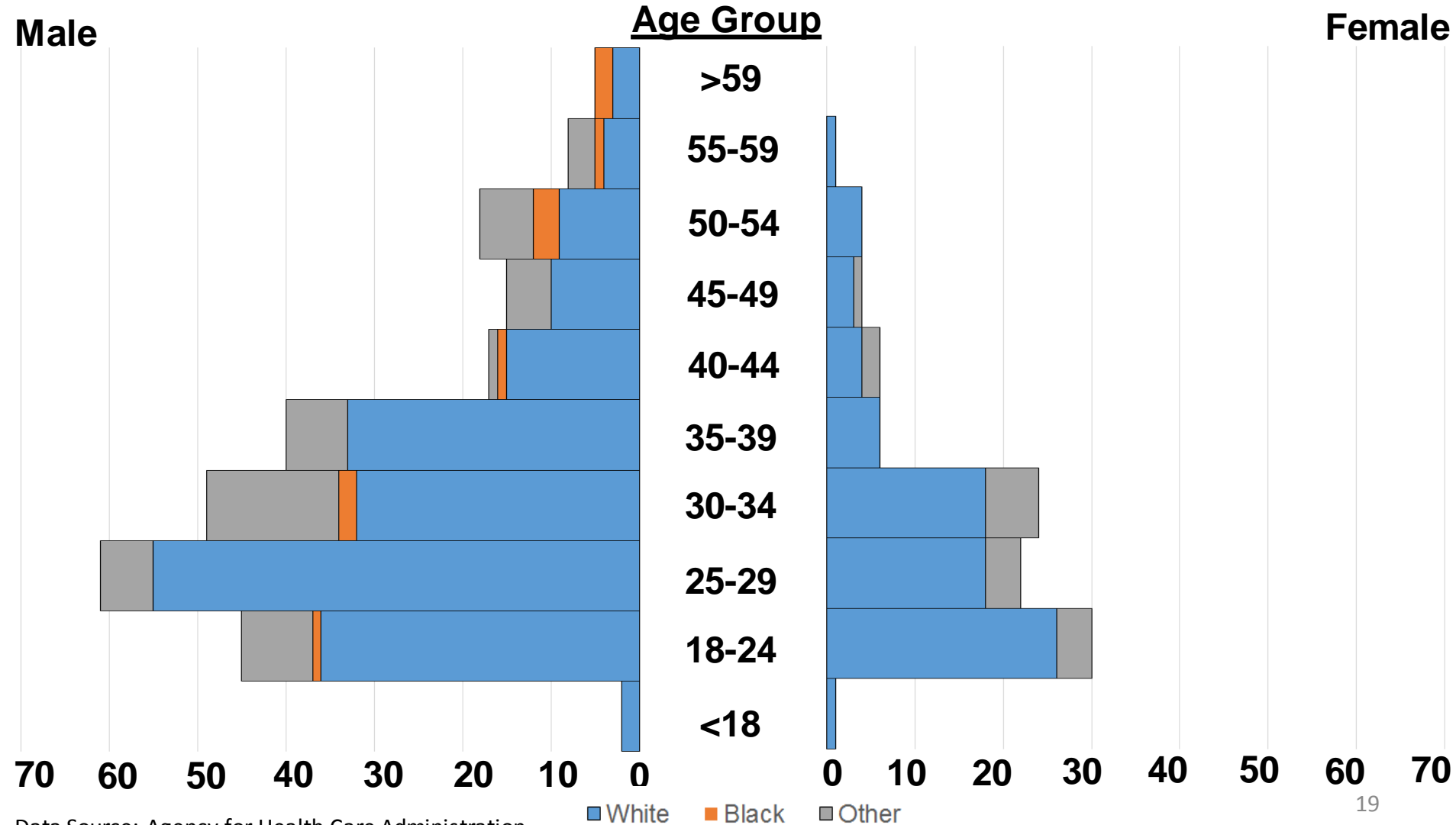


Heroin-related Morbidity Surveillance

Using Agency for Healthcare Administration (AHCA) data, what is the burden of heroin-related morbidity on Orange County residents?



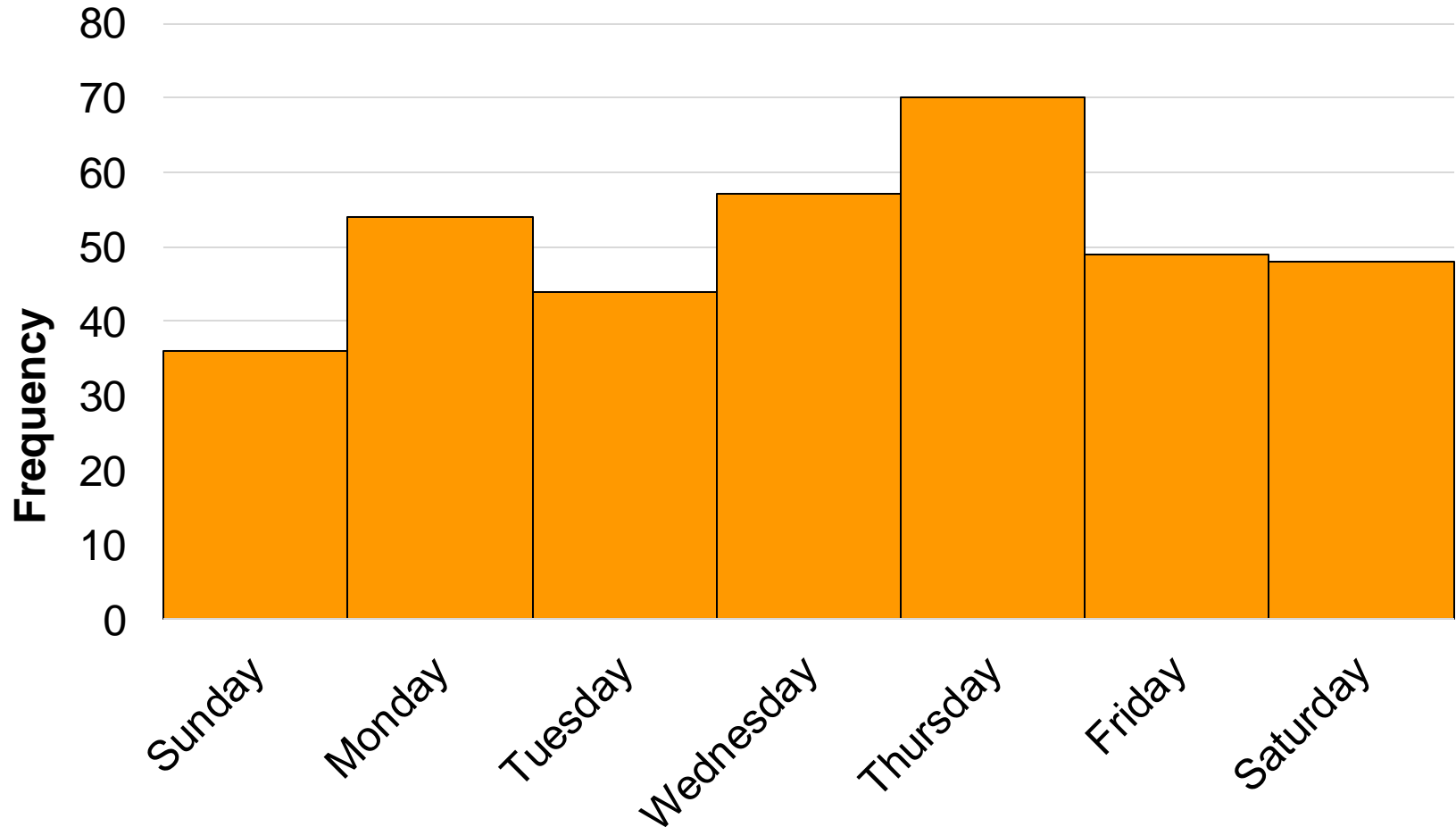
AHCA Heroin-related Emergency Department Visits among Orange County Residents by Sex, Age Group, and Race, Florida 2015



Data Source: Agency for Health Care Administration



AHCA Heroin-related Emergency Department Visits by Day of the Week among Orange County Residents, Florida 2015





AHCA Heroin-related Emergency Department Visits by Insurance Type among Orange County Residents, Florida 2010-2015

PAYER	Total		REPORT YEAR					
	N	%	'10	'11	'12	'13	'14	'15
Total	626	100	13	12	33	56	154	358
Self Pay- Patients with no insurance coverage	401	64	9	7	20	39	91	235
Commercial Health Insurance	94	15	1	2	6	7	28	50
Medicaid	24	4	1	0	4	2	8	9
Medicaid Managed Care	50	8	1	2	1	2	9	35
Other State/Local Government	11	2	0	0	1	1	7	2
Medicare Managed Care	19	3	0	0	0	1	7	11
Non-Payment Charity	12	2	1	0	0	2	1	8
Medicare	6	1	0	0	0	0	2	4
VA	3	1	0	1	0	1	0	1
TriCare or Other Federal Government	1	<1	0	0	0	1	0	0
Kidcare	1	<1	0	0	1	0	0	0
Workers Compensation	1	<1	0	0	0	0	0	1
Commercial Liability Coverage	3	1	0	0	0	0	1	2

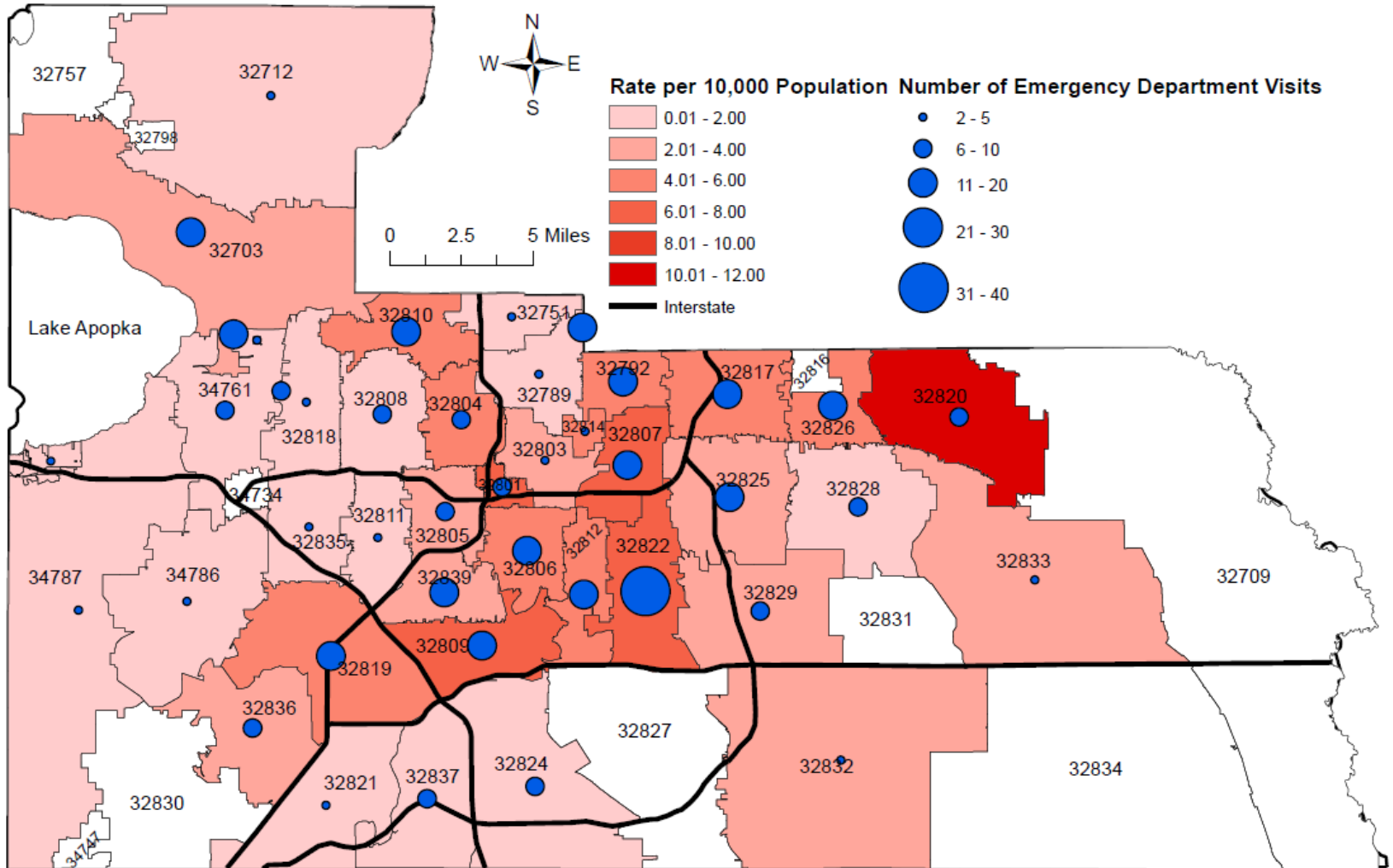


AHCA: Crude Emergency Department Visit Rate per 10,000 Population and Total Number of Emergency Department Visits by Zip Code among Orange County Residents, Florida 2015

Zip Code	Crude Rate / 10,000 Population	Count
Orange County		359
Top Ten Zip Codes		
32822		40
32825		20
32792		19
32807		19
32809		19
32817		17
32826		17
32810		15
32812		15
32703		14



AHCA: Crude Emergency Department Visit Rate per 10,000 Population and Total Number of Emergency Department Visits by Zip Code among Orange County Residents, Florida 2015



Data Sources: Florida Agency for Healthcare Administration
US Census Bureau, 2010 Demographic Profile Data

Prepared by: Florida Department of Health in Orange County, Epidemiology Program
Prepared on: 12/08/2016



Heroin-related Morbidity Surveillance

Using Agency for Health Care Administration data, what is the burden of heroin-related morbidity on Orange County hospitals?

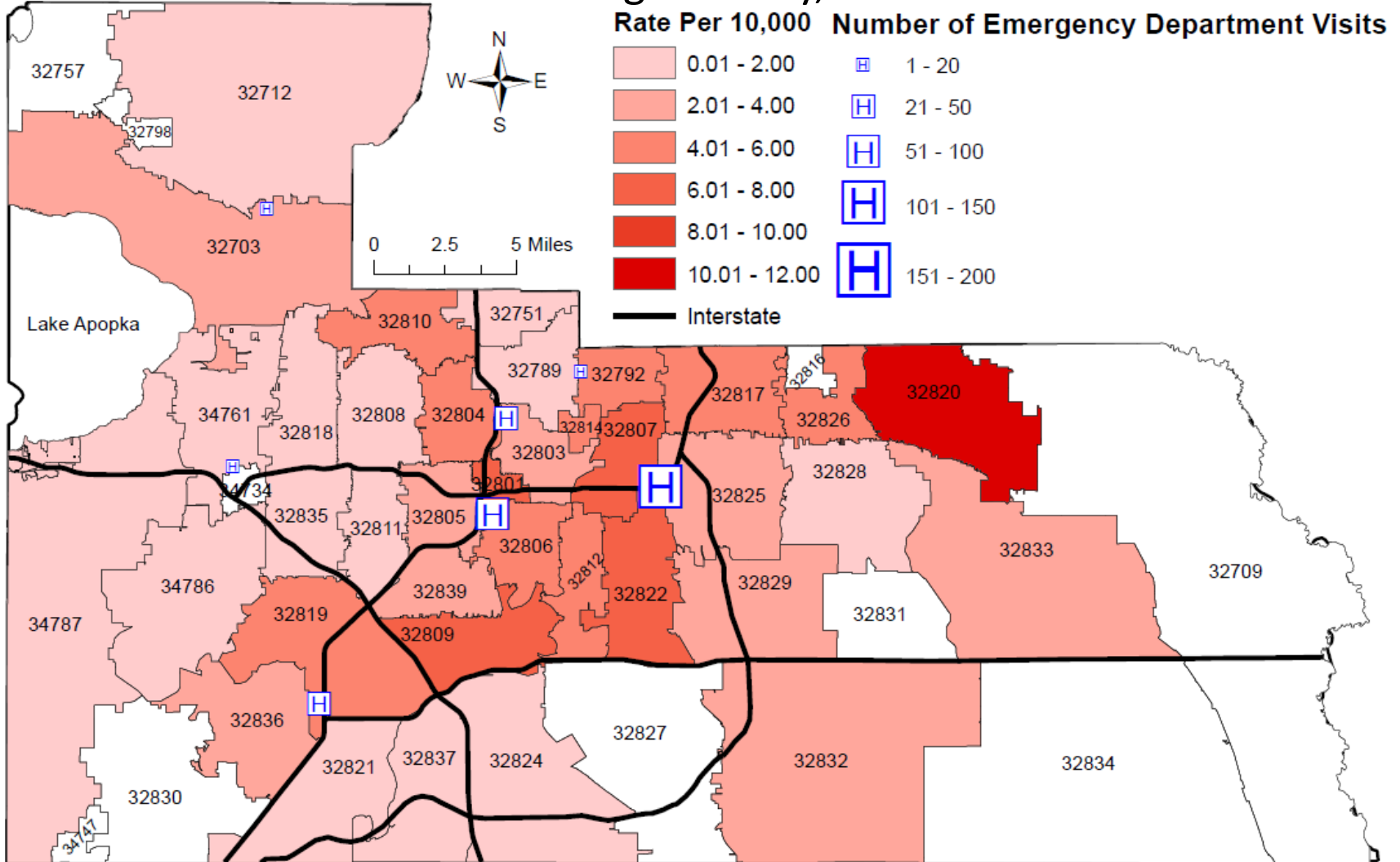


AHCA: Total Number of Heroin-related Emergency Department Visits by Orange County Hospital, Orange County, Florida 2015

Emergency Department Facility	Number of Emergency Department Visits
Florida Hospital East	142
Orlando Regional Medical Center	73
Florida Hospital Orlando	35
Dr. P Phillips Hospital	24
Winter Park Memorial Hospital	16
Health Central Hospital	10
Florida Hospital Apopka	8



AHCA: Crude Emergency Department Visit Rate per 10,000 Population by Zip Code and Total Number of Emergency Department Visits by Orange County Hospital, Orange County, Florida 2015



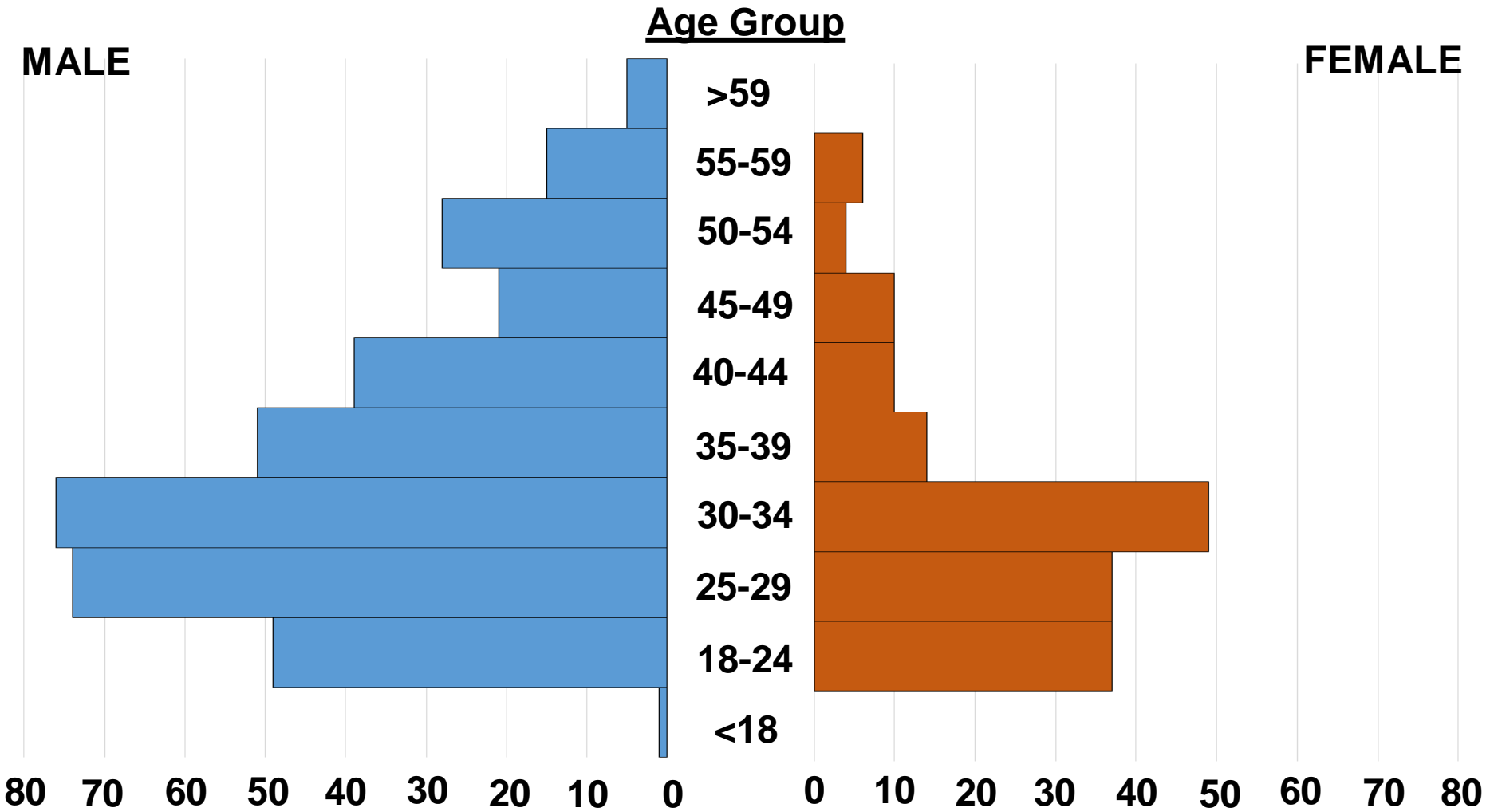


Heroin-related Morbidity Surveillance

Using ESSENCE-FL data, what is the burden of heroin-related morbidity on Orange County residents?



ESSENCE-FL Heroin-related Emergency Department Visits among Orange County Residents by Sex and Age Group, Florida 2015



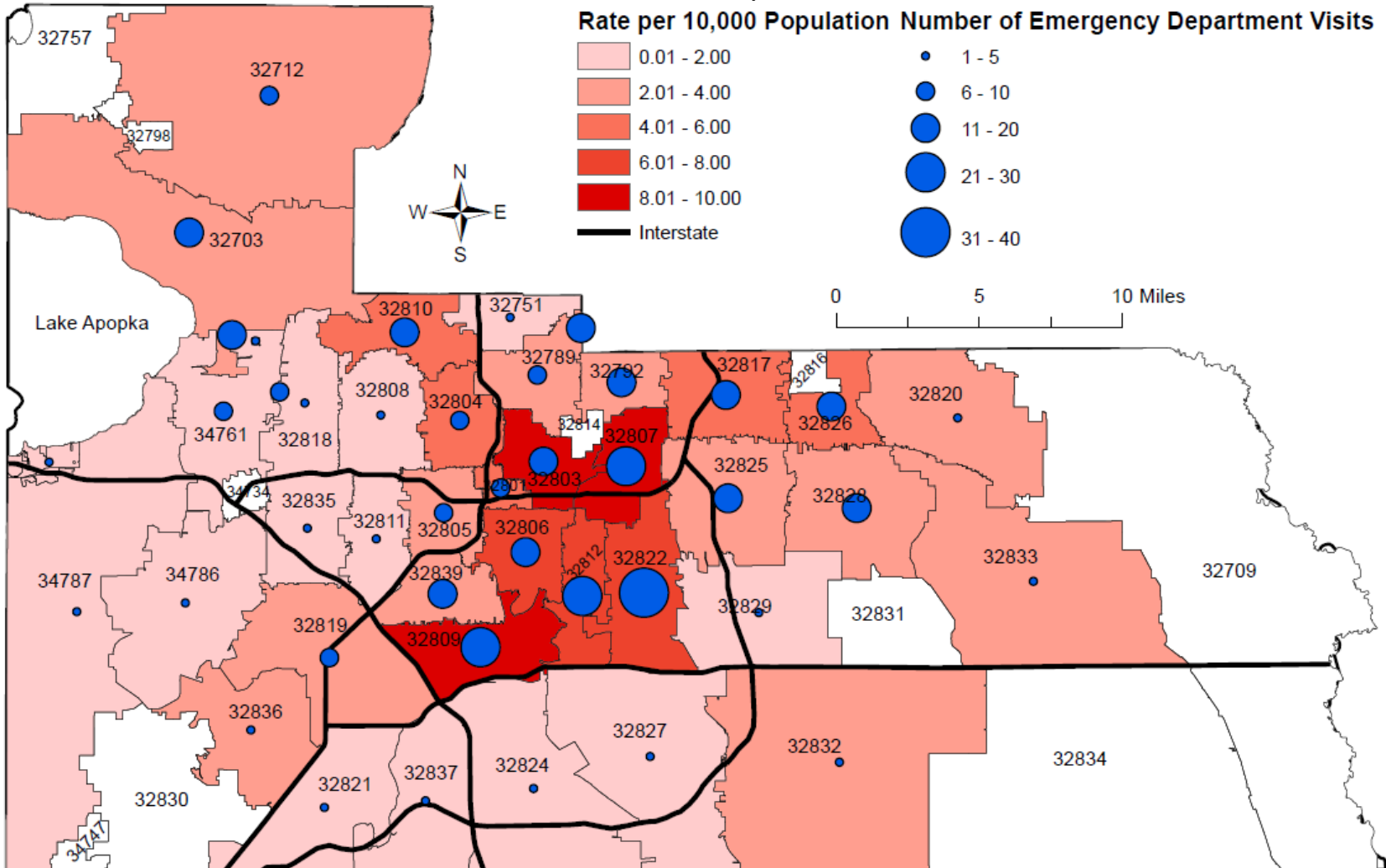


ESSENCE-FL: Crude Emergency Department Visit Rate per 10,000 Population and Total Number of Emergency Department Visits by Zip Code among Orange County Residents, Florida 2015

Zip Code	Rate / 10,000 Population	Count
Orange County	4.08	526
Top Ten Zip Codes		
32822	7.17	38
32807	8.26	26
32809	9.34	25
32812	7.00	23
32817	5.13	18
32825	3.39	18
32803	8.41	16
32826	5.45	16
32806	6.04	15
32703	2.81	13



ESSENCE-FL: Crude Emergency Department Visit Rate per 10,000 Population and Total Number of Emergency Department Visits by Zip Code among Orange County Residents, Florida 2015



Data Sources: ESSENCE-FL
US Census Bureau, 2010 Demographic Profile Data

Prepared by: Florida Department of Health in Orange County, Epidemiology Program
Prepared on: 12/08/2016



Heroin-related Morbidity Surveillance

Using ESSENCE-FL data, what is the burden of heroin-related morbidity on Orange County hospitals?

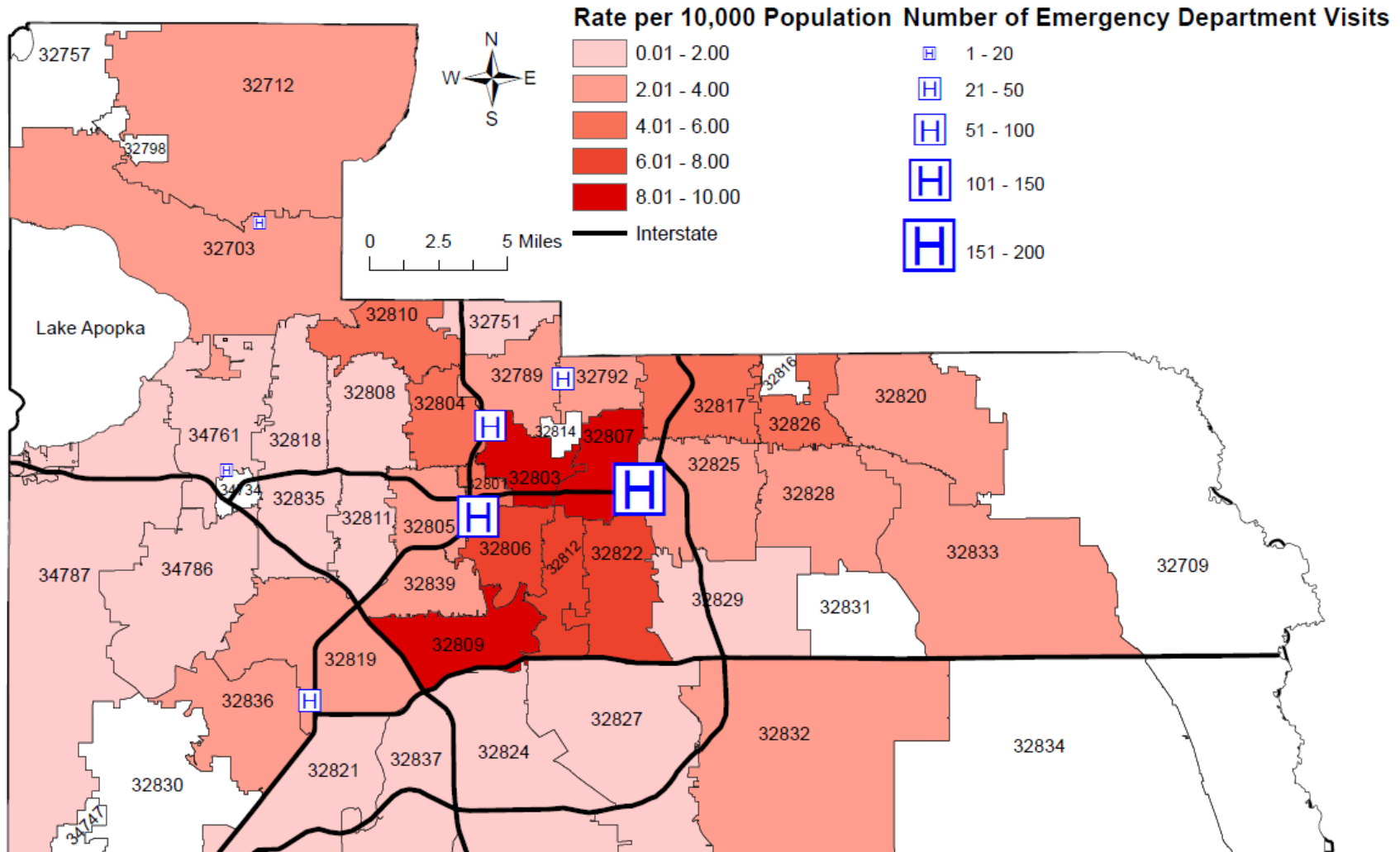


ESSENCE-FL: Total Number of Heroin-related Emergency Department Visits by Orange County Hospital, Orange County, Florida 2015

Emergency Department Facility	2015
Florida Hospital East	199
Orlando Regional Medical Center	138
Florida Hospital Orlando	89
Dr. P Phillips Hospital	46
Winter Park Memorial Hospital	27
Florida Hospital Apopka	15
Health Central Hospital	12



ESSENCE-FL: Crude Emergency Department Visit Rate per 10,000 Population by Zip Code and Total Number of Emergency Department Visits by Orange County Hospital, Orange County, Florida 2015



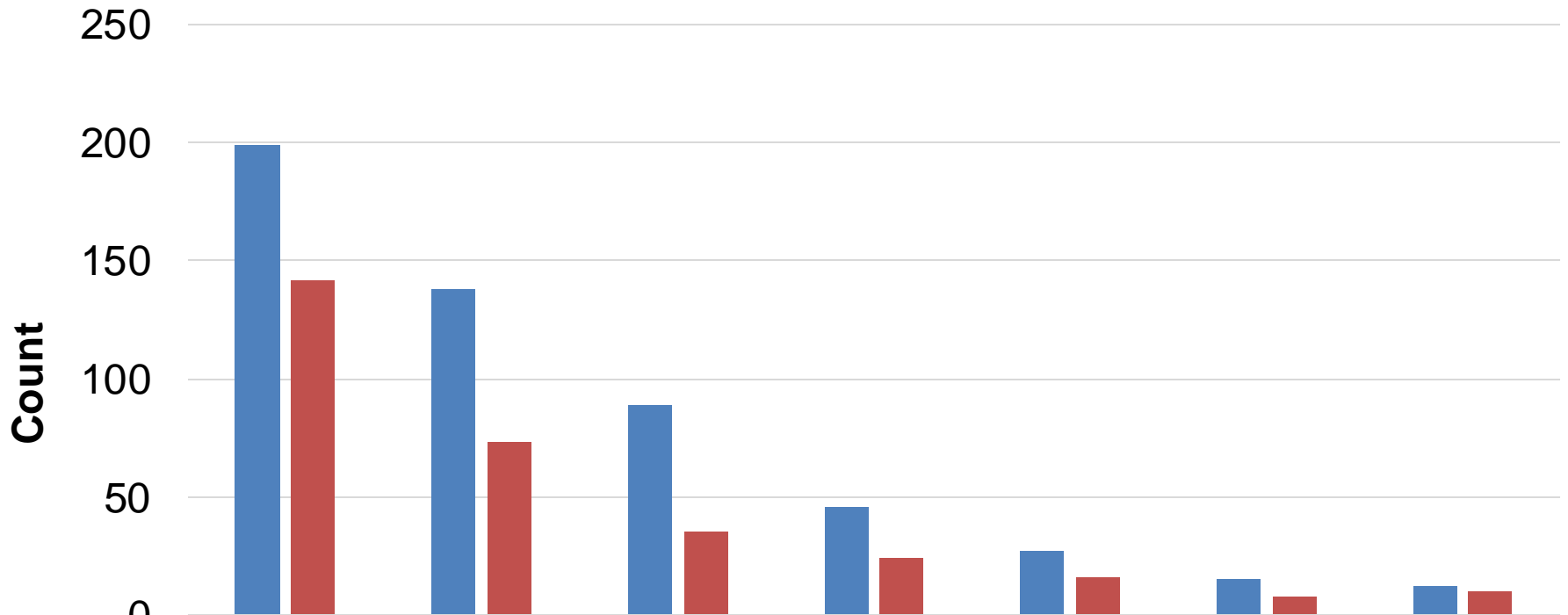


Heroin-related Morbidity Surveillance

How does AHCA compared to ESSENCE-FL data?



AHCA / ESSENCE-FL Heroin-related Emergency Department Visits, Orange County, Florida 2015



	Florida Hospital East	Orlando Regional Medical Center	Florida Hospital Orlando	Dr. P Phillips Hospital	Winter Park Memorial Hospital	Florida Hospital Apopka	Health Central Hospital
■ ESSENCE	199	138	89	46	27	15	12
■ AHCA	142	73	35	24	16	8	10



Heroin-related Surveillance

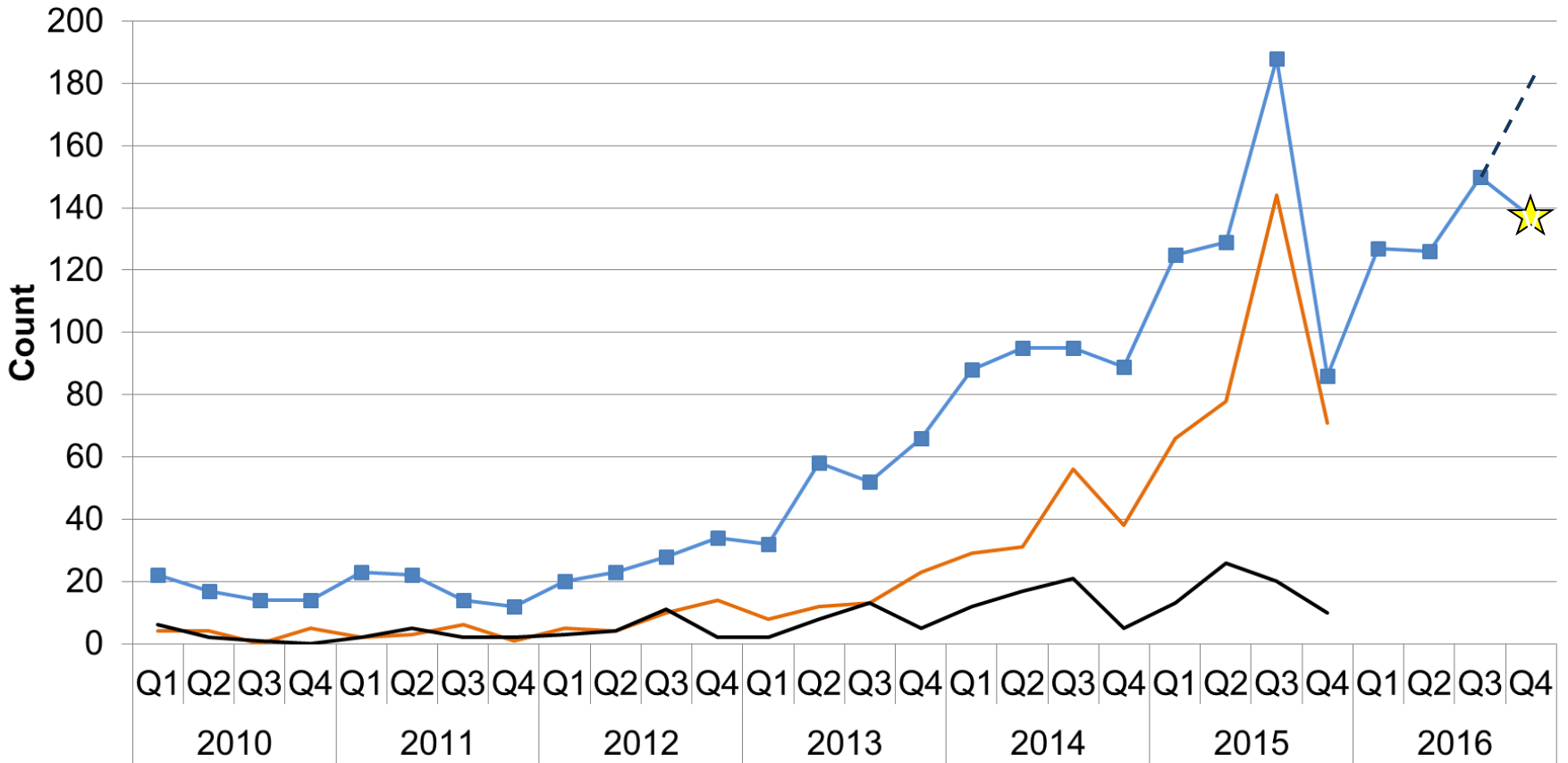
What is the overall trend of heroin-related morbidity and mortality in Orange County from 2010 to present?



Heroin-related Surveillance

Emergency Department Visits

■ ESSENCE-FL — ACHA — Medical Examiner



- - - Projected Quarterly Total

★ Quarterly YTD Total as of December 7, 2016



Summary

- In Orange County during 2015, data shows:
 - Continued increase in Heroin-related Morbidity & Mortality
 - Clustering of Heroin-related Morbidity & Mortality
 - Higher number of heroin-related emergency department visits in hospitals in closer proximity community clusters
- Orange County specific data is available to monitor full spectrum of Heroin-related events
- ESSENCE-FL data continues to provide a timely benchmark for Heroin-related Morbidity and Mortality



Thank you!

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county, & community efforts.

Vision:

To Be The Healthiest State in the Nation!