



Heroin-related Morbidity and Mortality

Orange County, Florida

2010 - 2014

Prepared by

Benjamin G. Klekamp, MSPH, CPH

Toni Hudson, MSPH

Sarah D. Matthews, MPH

Florida Department of Health in Orange County

Epidemiology Program



Outline

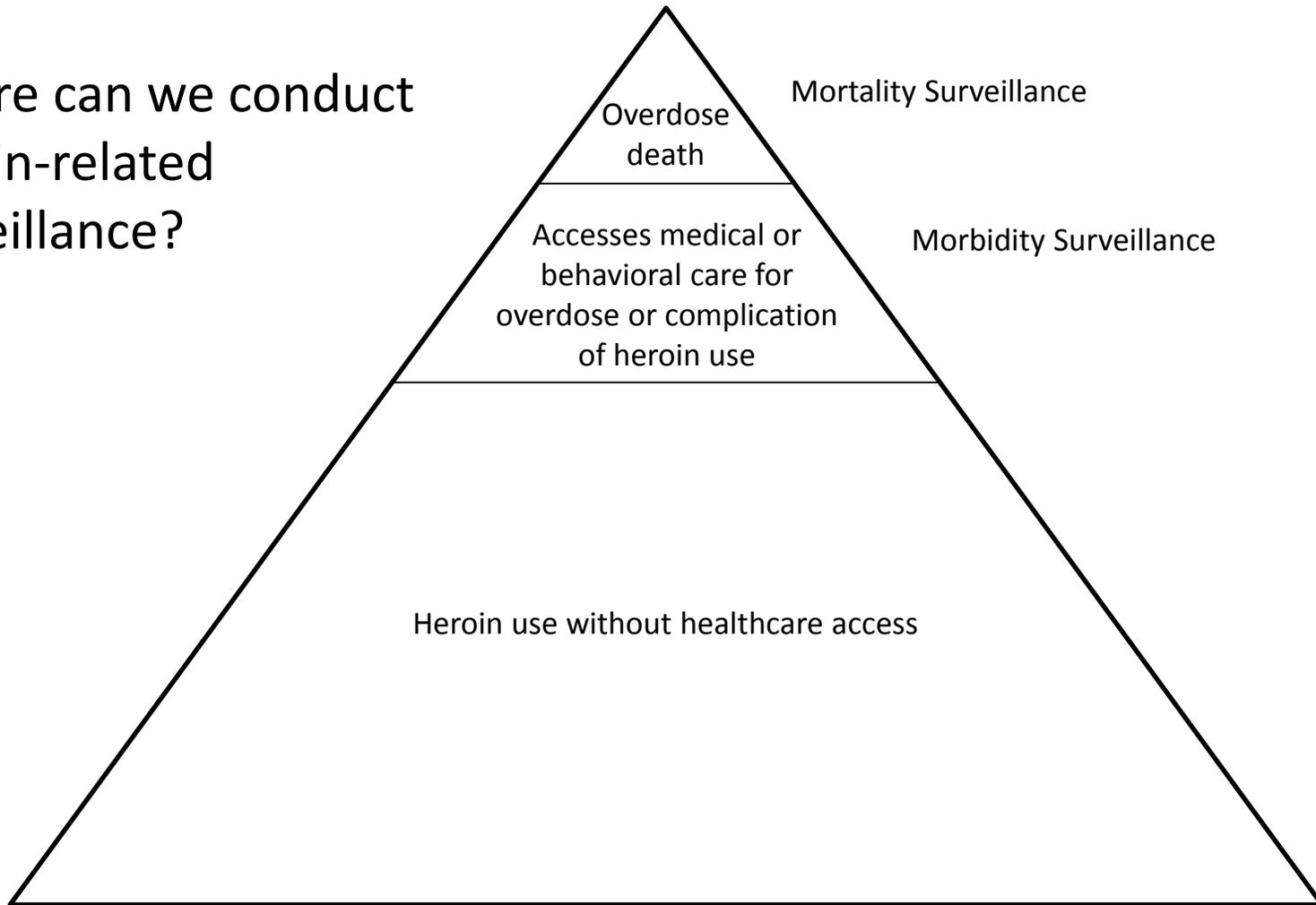
1. Surveillance system overview
2. Heroin-related mortality surveillance
 - District 9 Medical Examiner data
 - DOH Bureau of Emergency Medical Oversight data
3. Heroin-related morbidity surveillance
 - Agency for Health Care Administration (AHCA) data
 - ESSENCE-FL data
4. Summary
5. Taskforce surveillance needs?



Surveillance System Overview

Total Population that Use Heroin

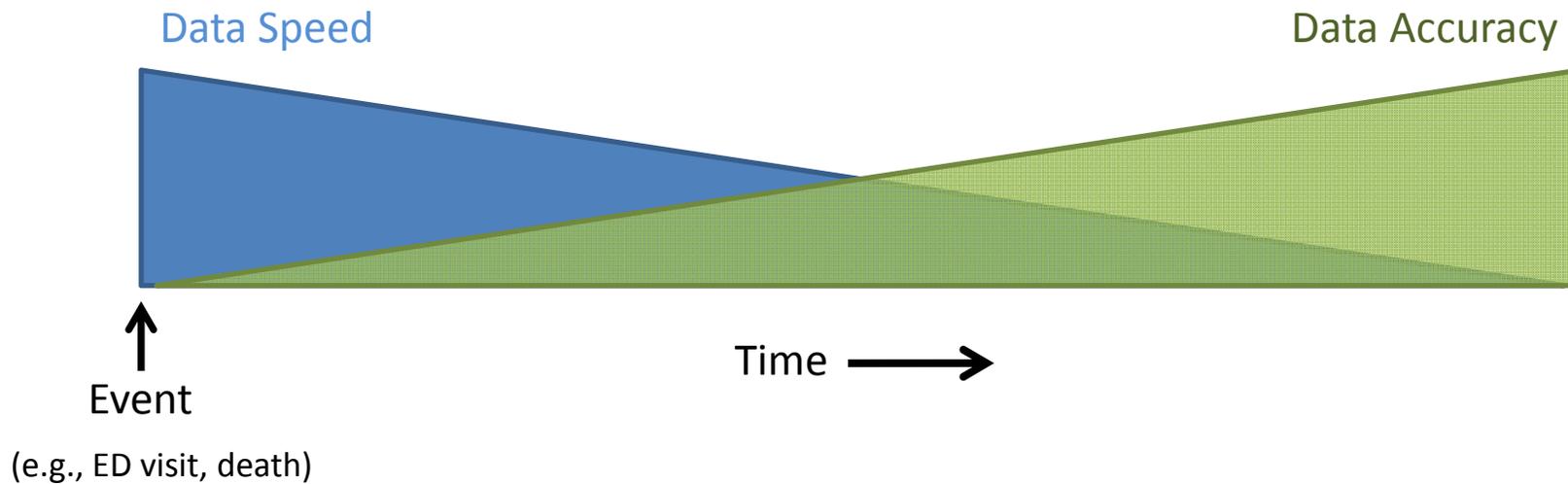
Where can we conduct heroin-related surveillance?





Surveillance System Overview

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





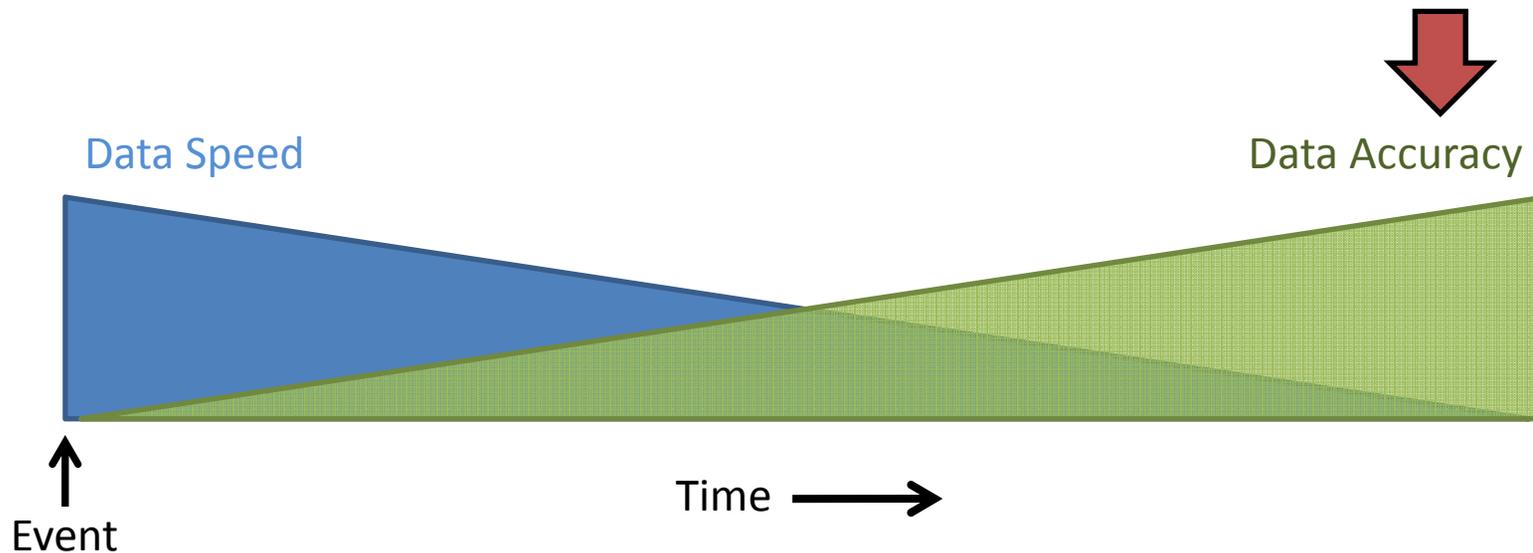
Heroin-related Mortality Surveillance

Pros

High Accuracy

Cons

Increased time to data availability



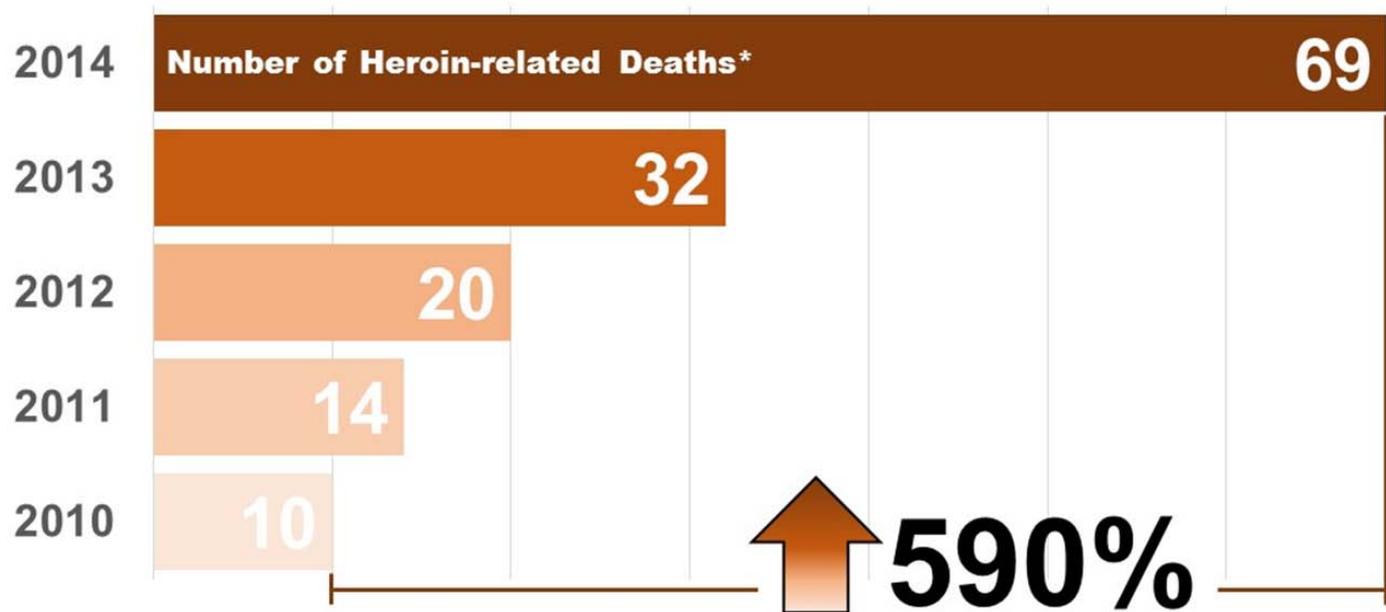


Heroin-related Mortality Surveillance

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



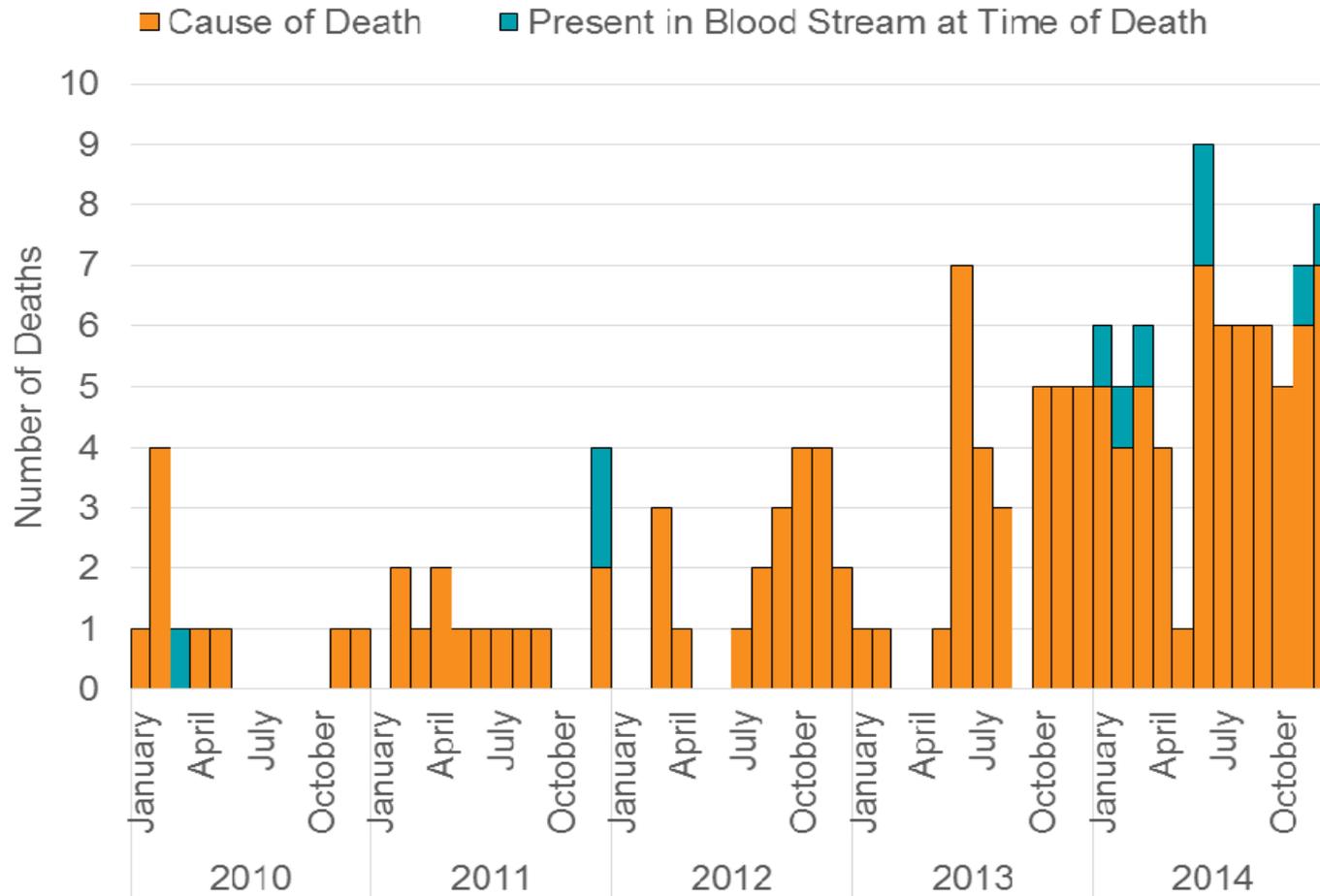
Heroin-related Mortality, Orange County, Florida 2010-2014



* Heroin listed as a cause of death or heroin was in blood stream at time of death



Heroin-related Mortality, Orange County, Florida 2010-2014



Data Source: Florida District 9 Medical Examiner

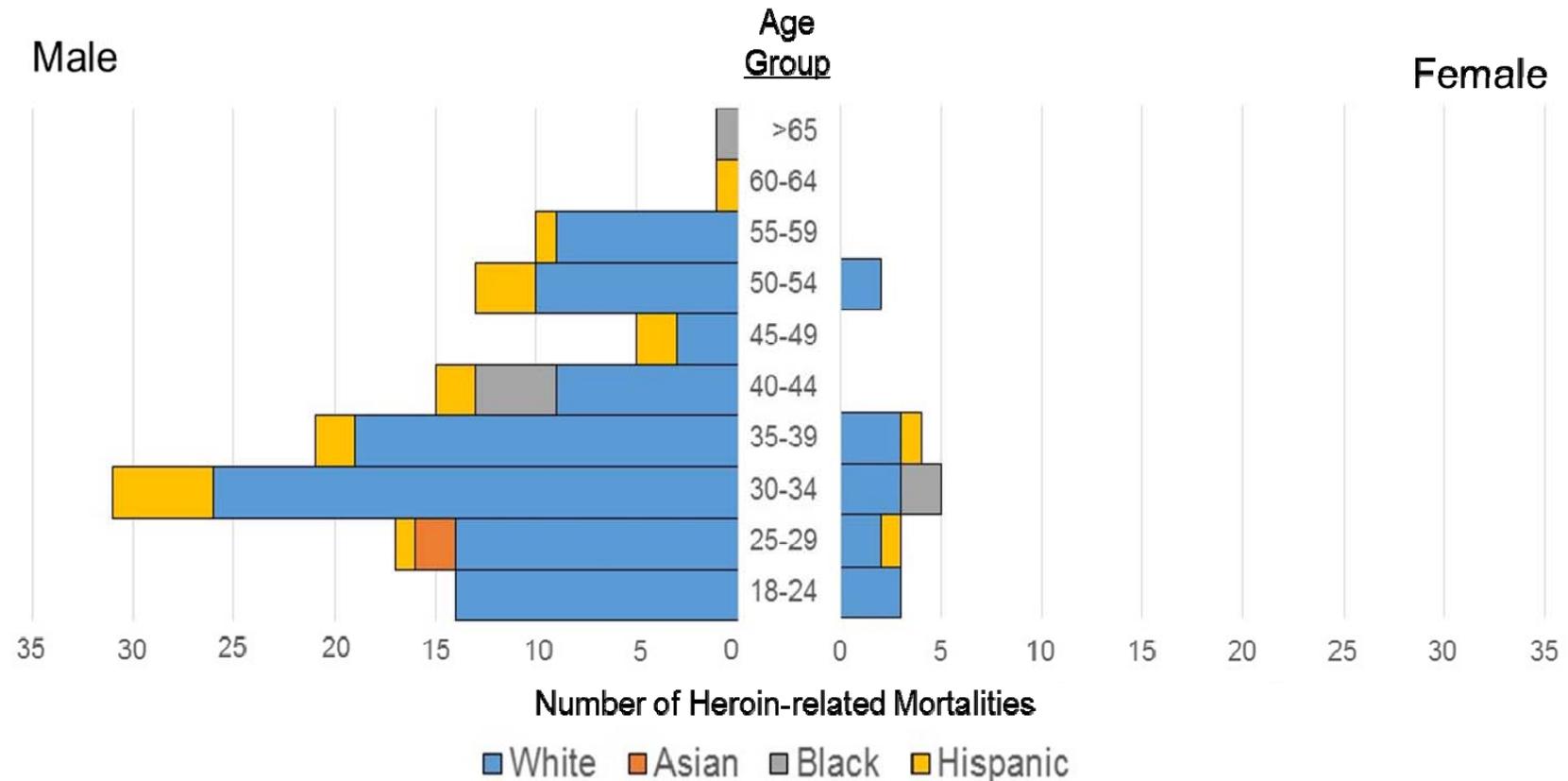


Heroin-related Mortality Surveillance

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



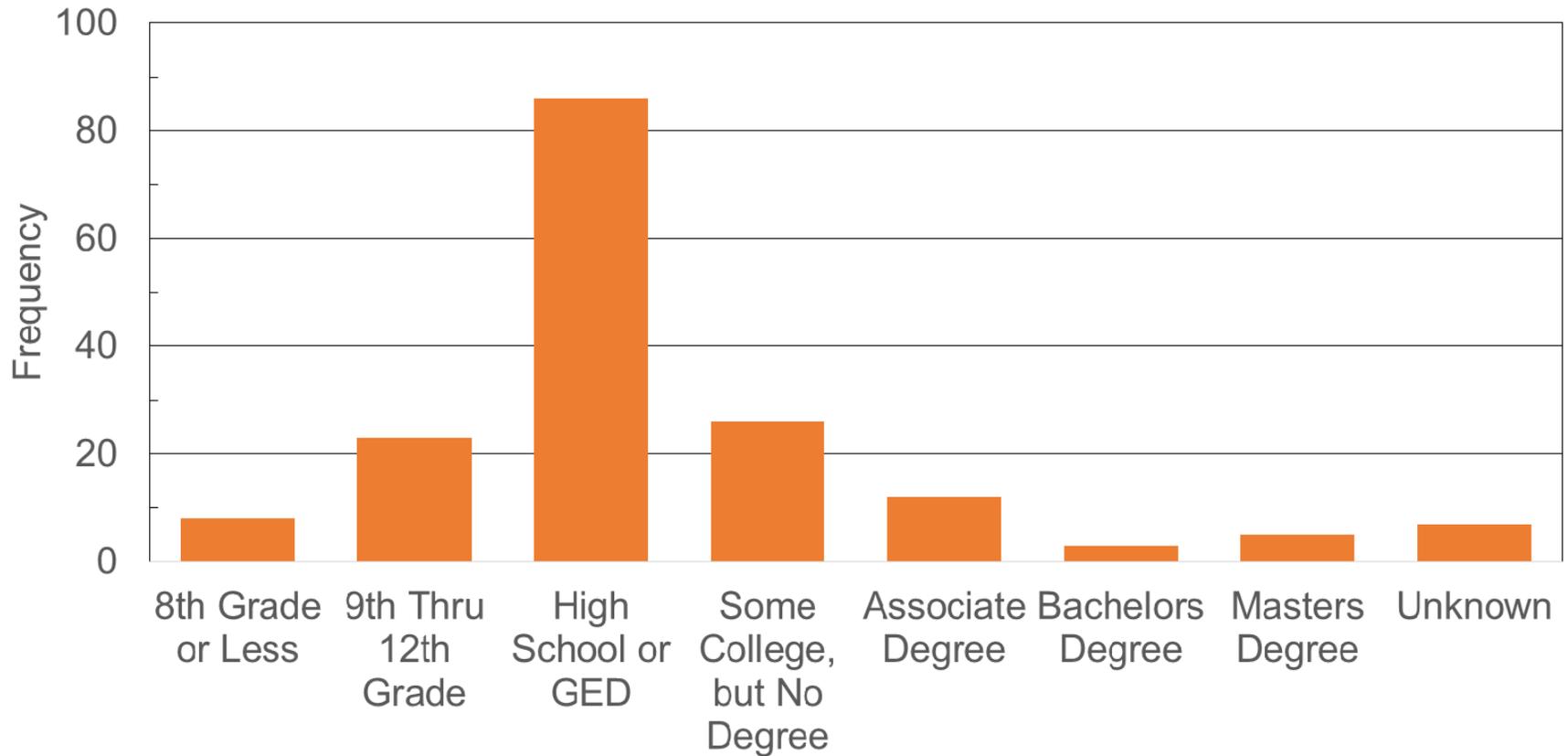
Heroin-related Mortality, Orange County, Florida 2010-2014



* Heroin listed as a cause of death or heroin was in blood stream at time of death



Heroin-related Mortality, Orange County, Florida 2010-2014



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



Heroin-related Mortality Surveillance

Where are heroin deaths occurring in
Orange County?



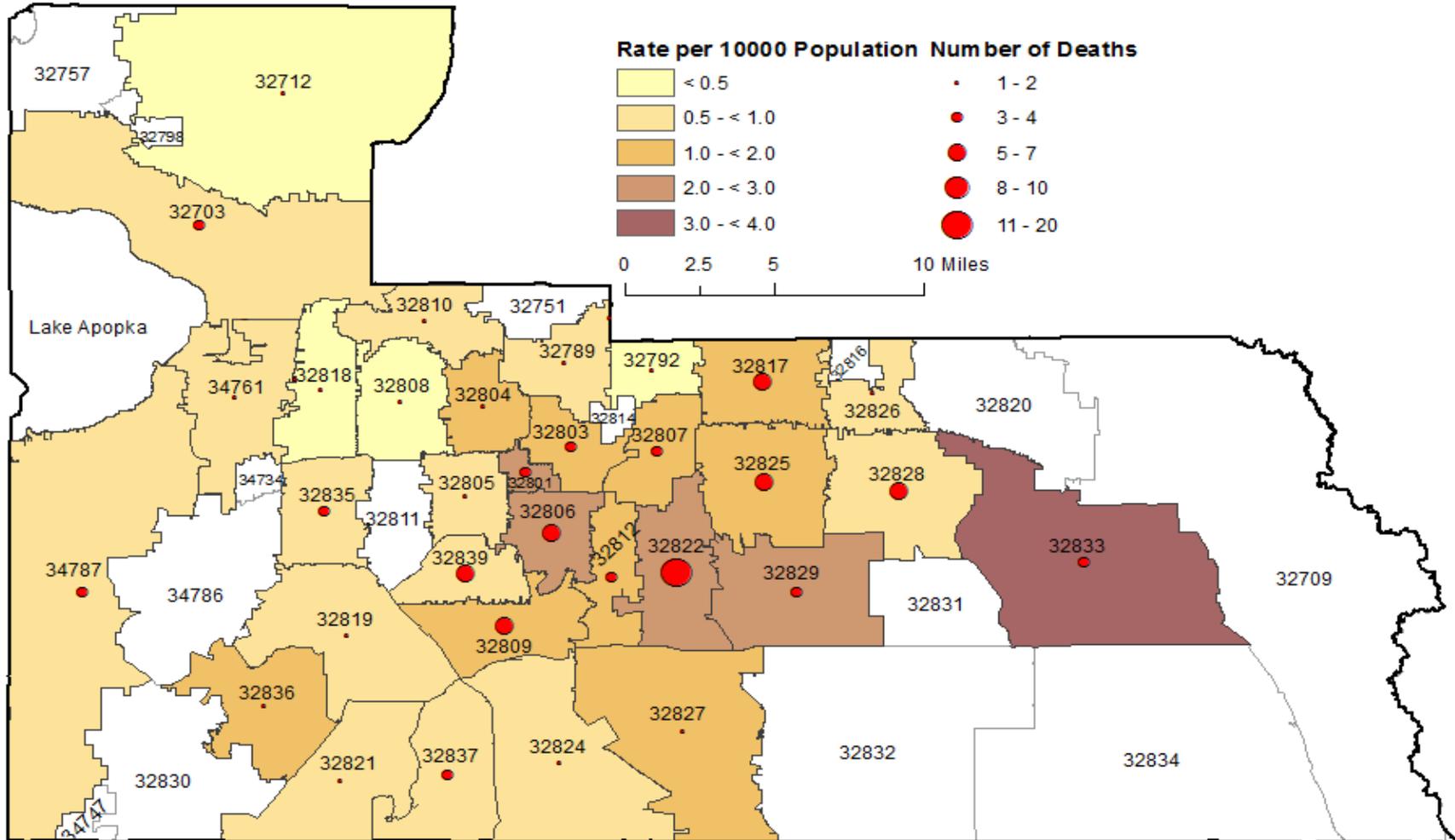
Total Number of Heroin-related Deaths by Zip Code among Orange County Residents, Orange County, Florida 2010-2014

Zip Code	Crude Rate / 10,000 Population	Count
Orange County	1.03	145
Top Ten Zip Codes		
32833	3.25	3
32806	2.82	7
32822	2.64	14
32801	2.49	3
32829	2.24	4
32809	1.87	5
32803	1.58	3
32827	1.57	1
32817	1.42	5
32807	1.27	4

Data Source: Florida District 9 Medical Examiner



Heroin as Cause of Death: Crude Mortality Rate per 10,000 Population and Total Number of Deaths by Zip Code, Orange County, Florida 2010-2014



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: 10/07/2015

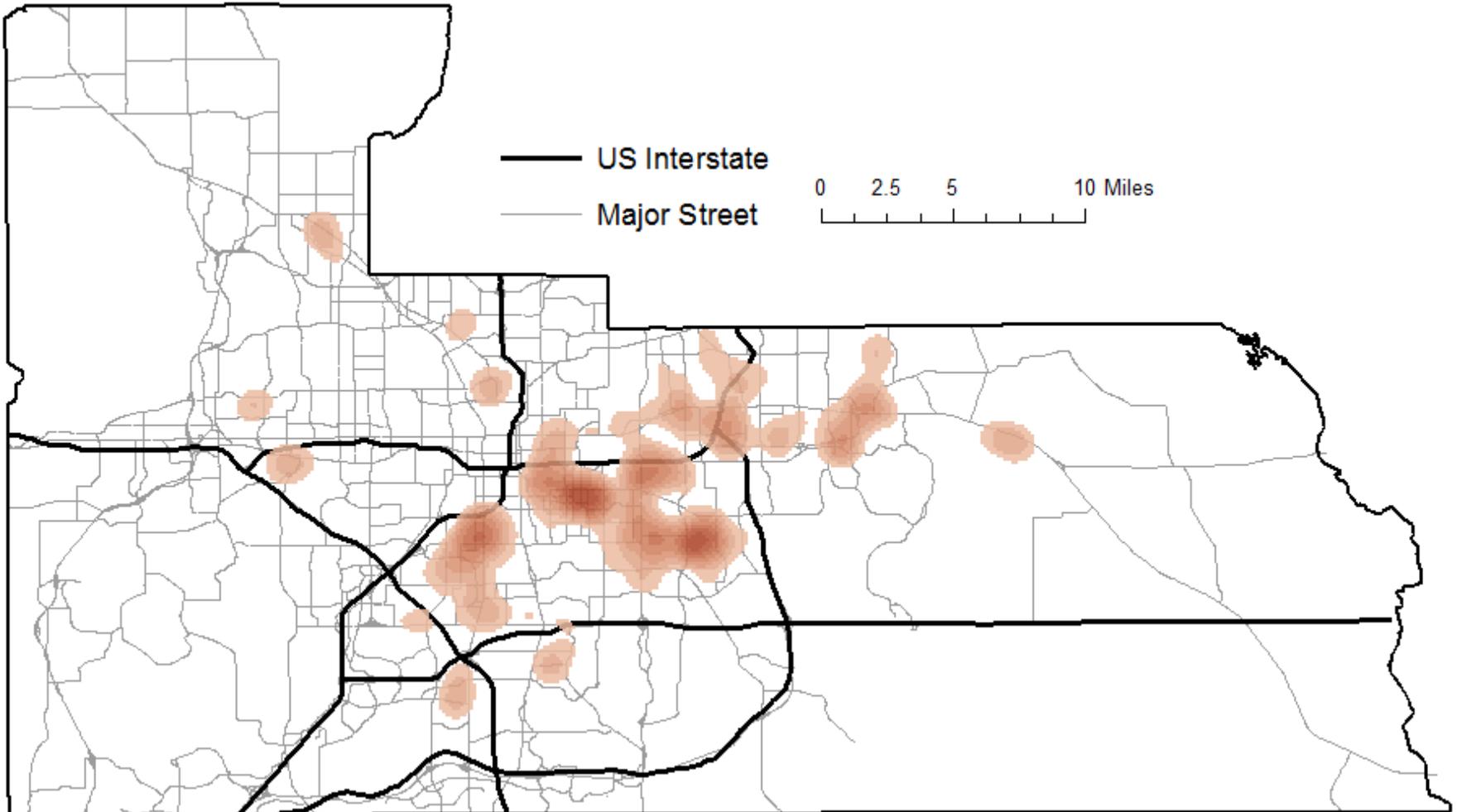


Heroin-related Mortality Surveillance

Are there clusters of heroin deaths in
Orange County?



Density Analysis of Heroin as Cause of Death, Orange County, Florida 2010-2014



Data Source: Florida Department of Health, Bureau of Emergency Medical Oversight, Health Information and Policy Analysis Section
Prepared by: Florida Department of Health in Orange County, Epidemiology Program
Prepared on: 10/15/2015



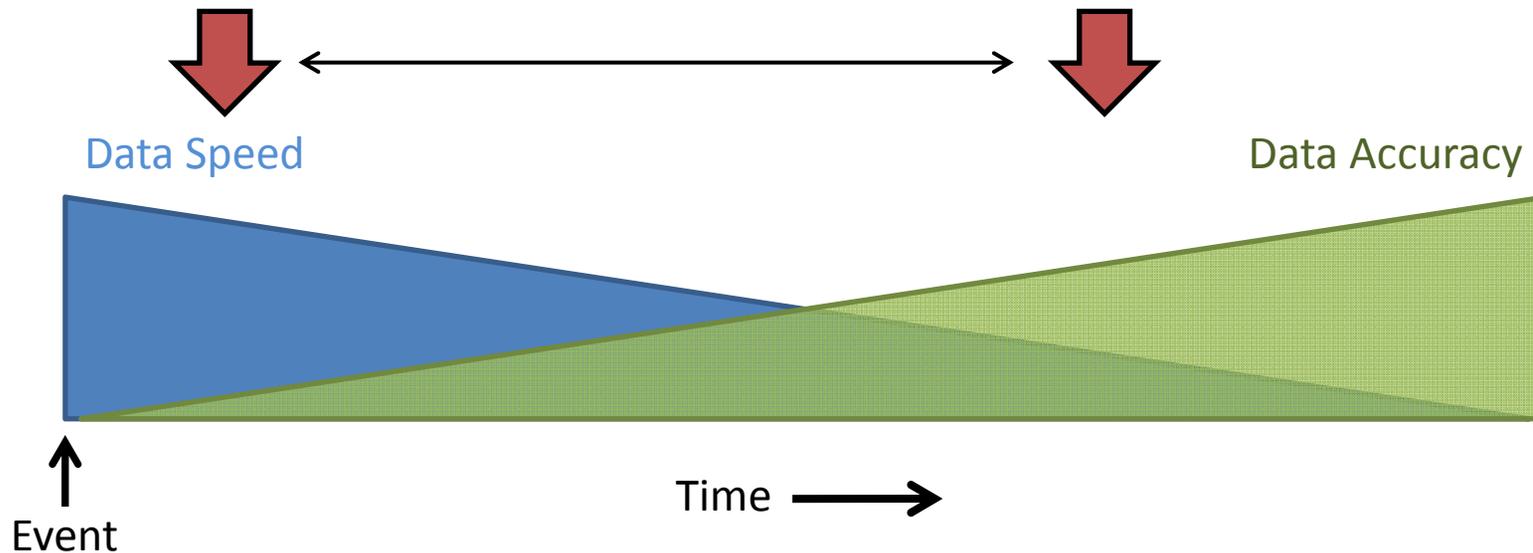
Heroin-related Morbidity Surveillance

Pros

Short to moderate time to data availability

Cons

Moderate accuracy



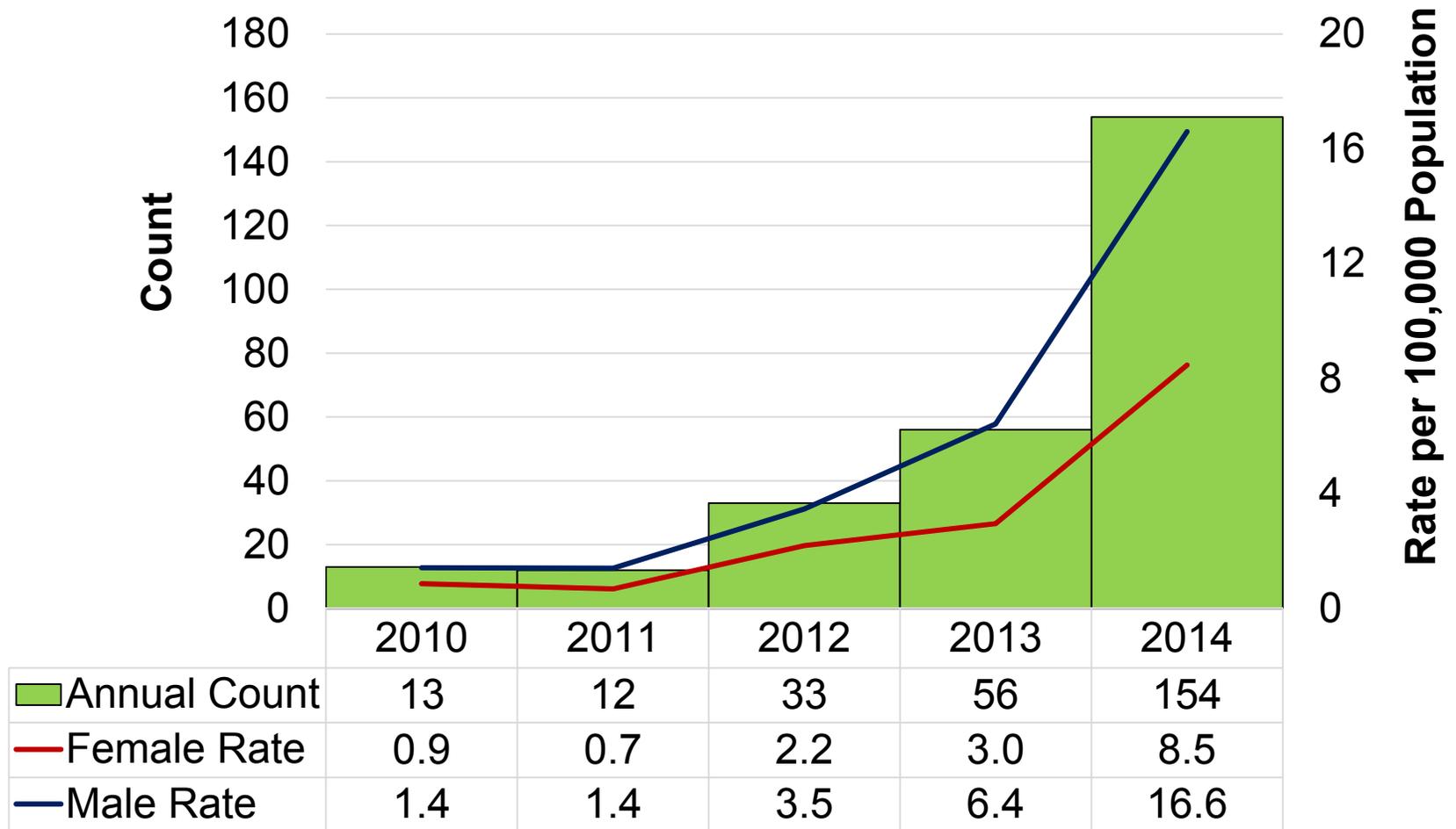


Heroin-related Morbidity Surveillance

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

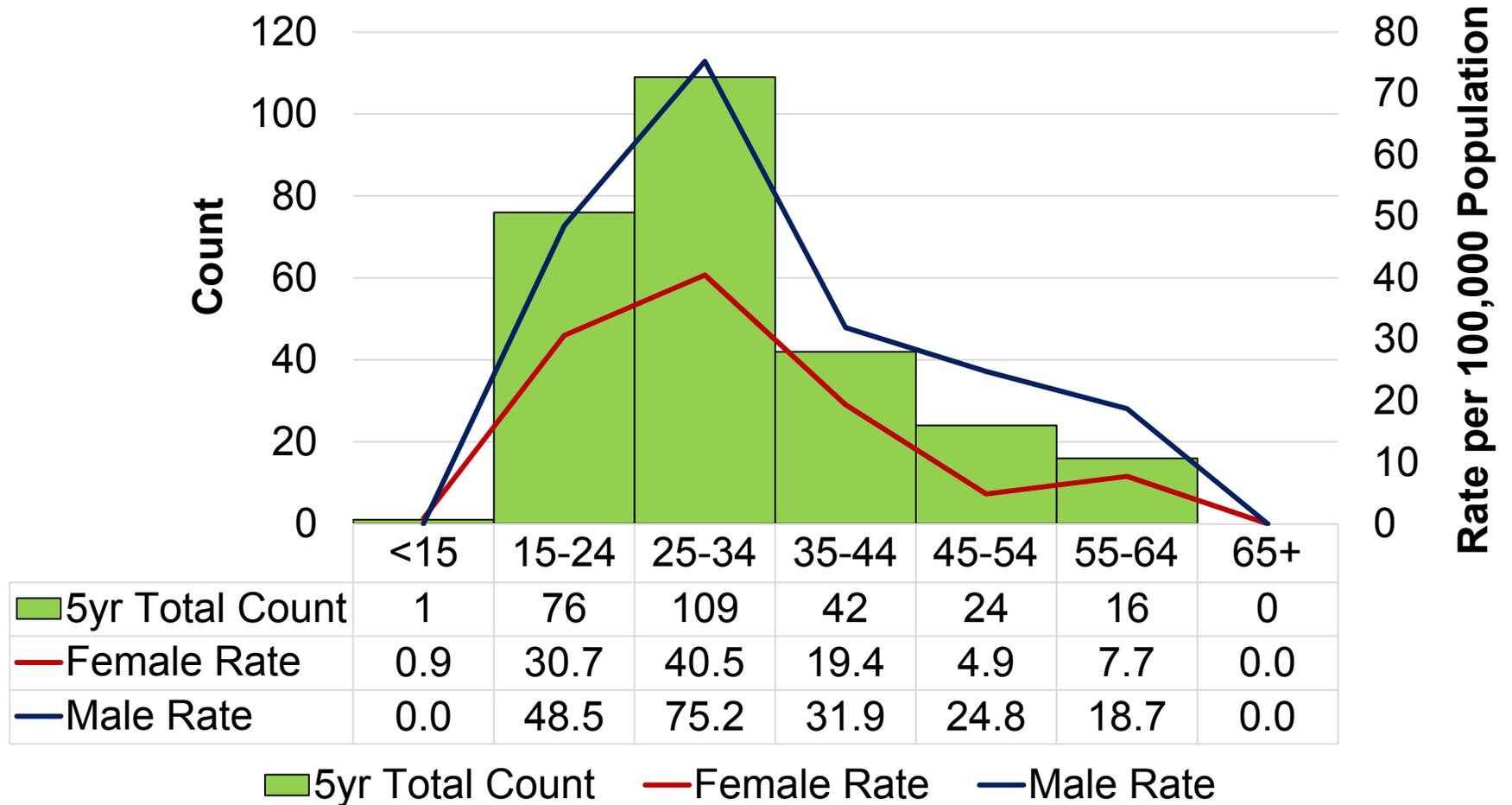


AHCA Heroin-related Emergency Department Visits among Orange County Residents by Sex and Year, Florida 2010-2014



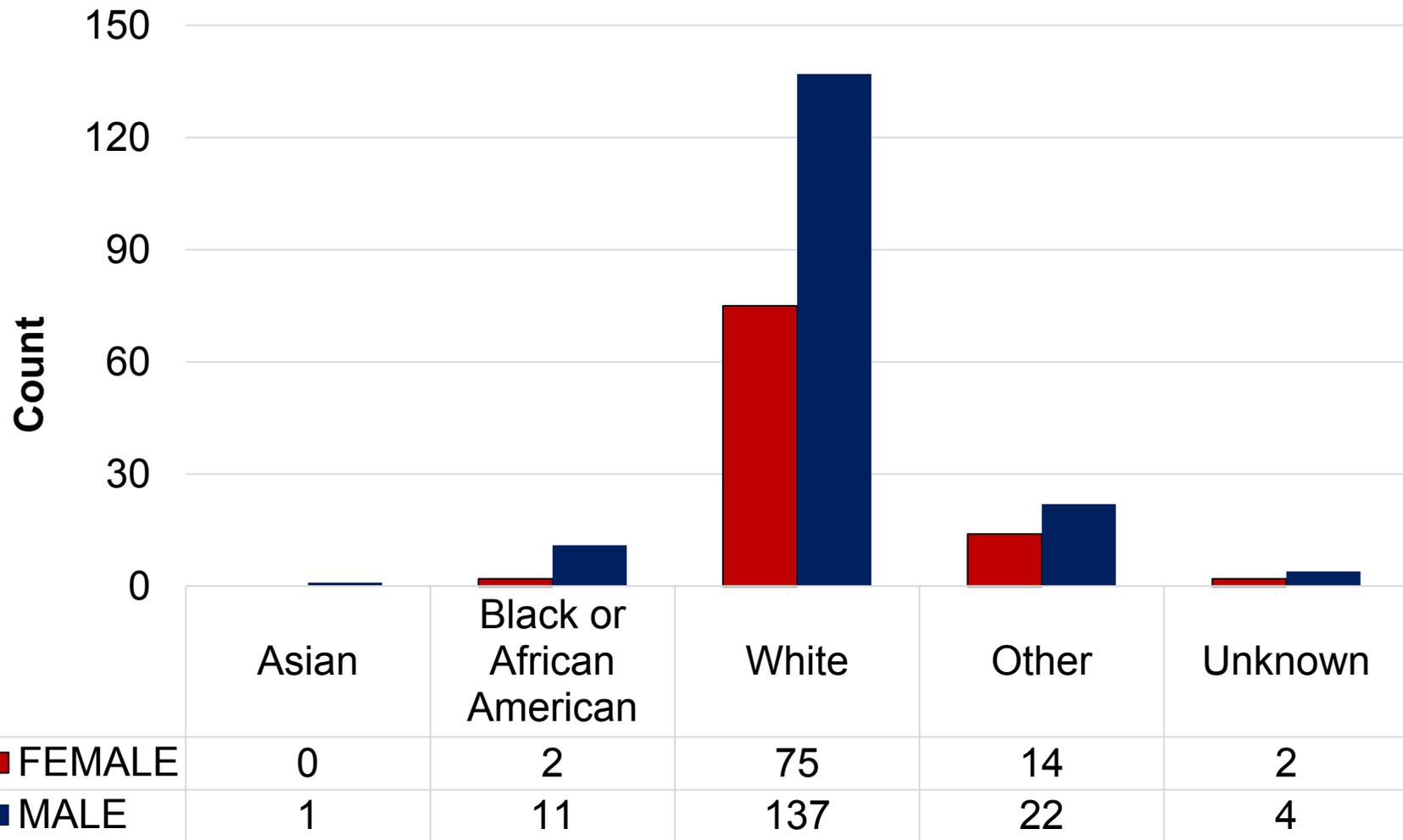


AHCA Heroin-related Emergency Department Visits among Orange County Residents by Sex and Age Group, Florida 2010-2014



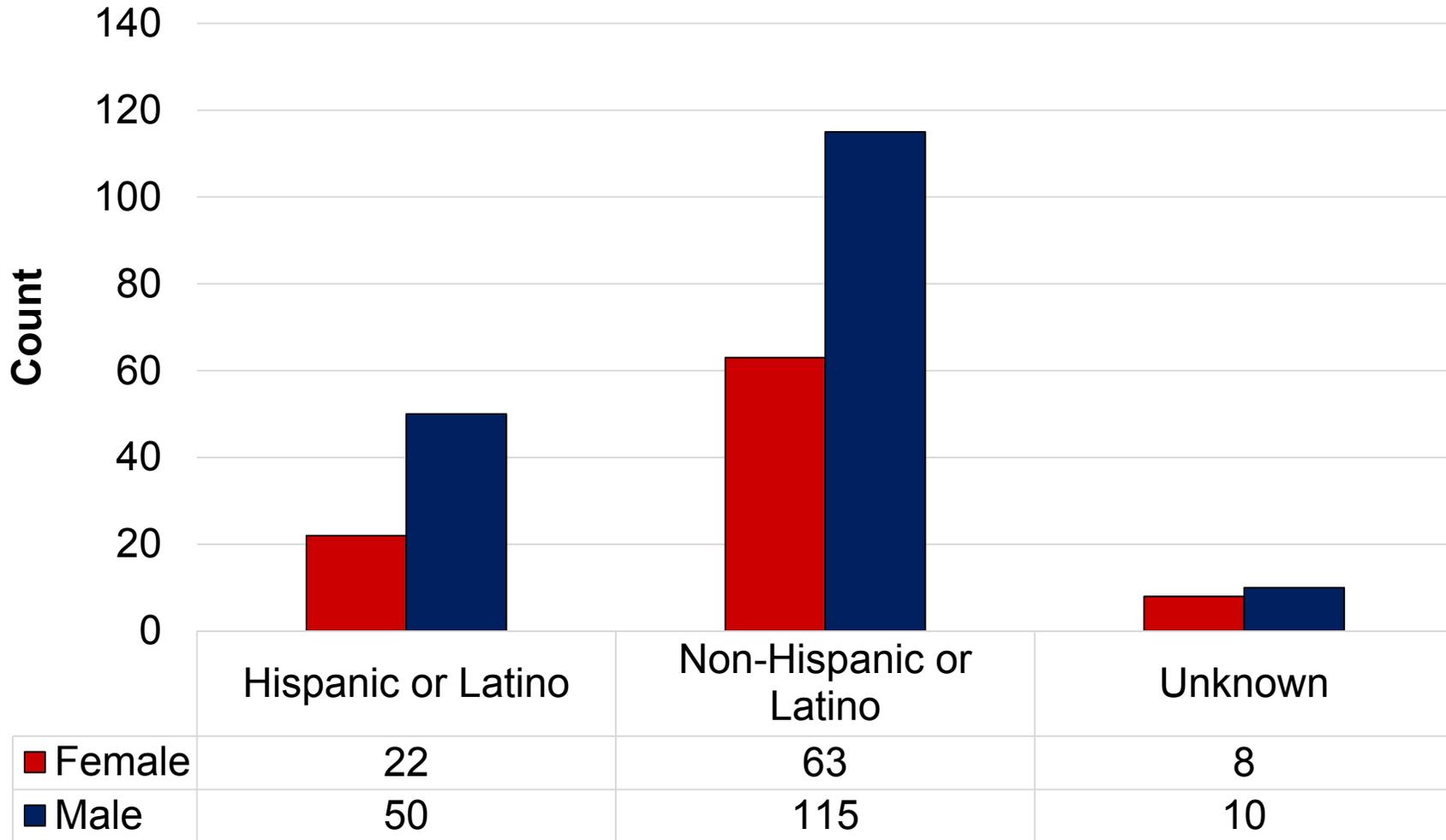


AHCA Heroin-related Emergency Department Visits among Orange County Residents by Sex and Race, Florida 2010-2014



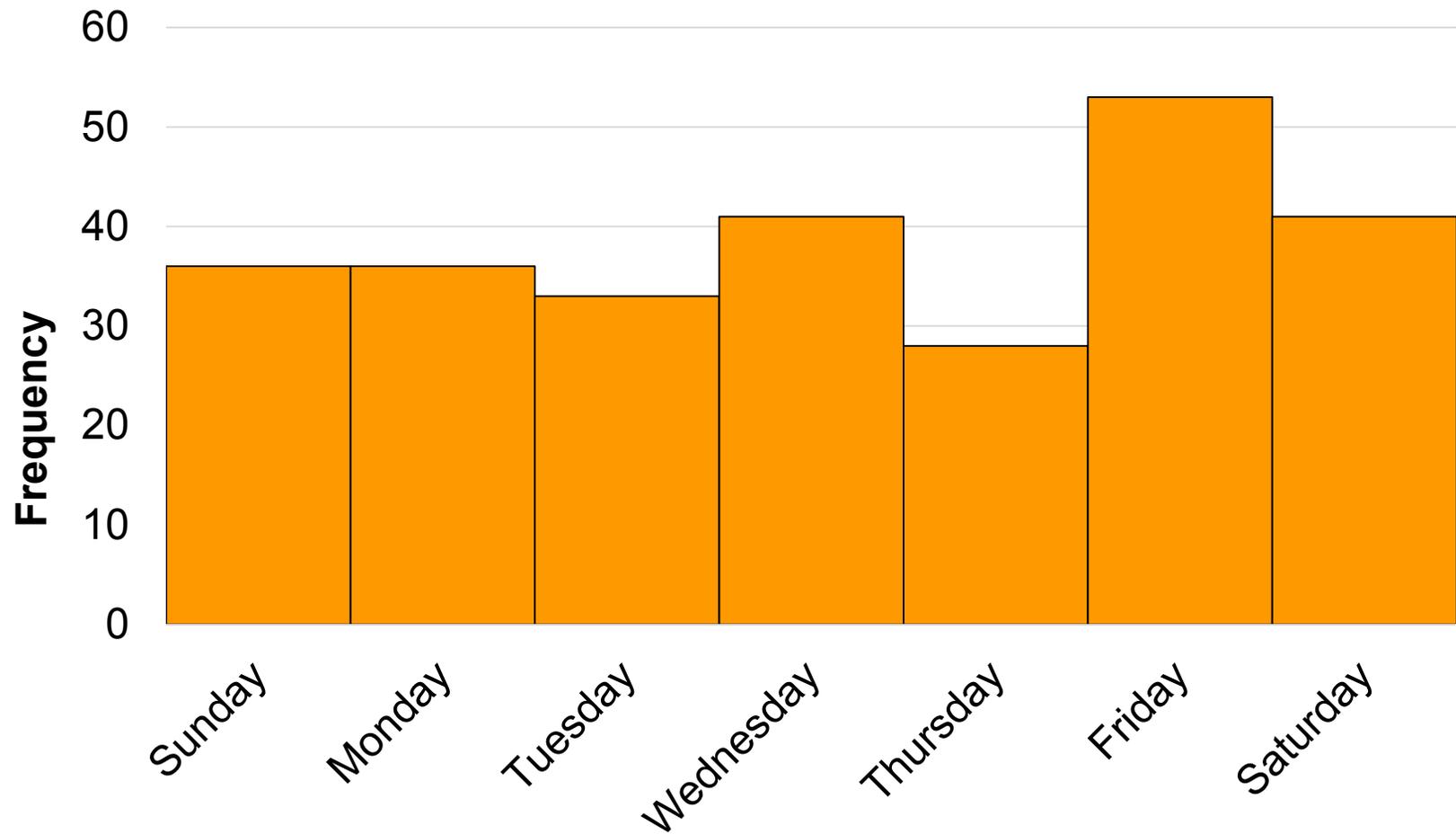


AHCA Heroin-related Emergency Department Visits among Orange County Residents by Sex and Ethnicity, Florida 2010-2014





AHCA Heroin-related Emergency Department Visits by Day of the Week among Orange County Residents, Florida 2010-2014





AHCA Heroin-related Emergency Department Visits by Insurance Type among Orange County Residents, Florida 2010-2014

PAYER	Total		REPORT YEAR				
	N	%	'10	'11	'12	'13	'14
Total	268	100	13	12	33	56	154
Self Pay- Patients with no insurance coverage	166	62	9	7	20	39	91
Commercial Health Insurance	44	16	1	2	6	7	28
Medicaid	15	6	1	0	4	2	8
Medicaid Managed Care	15	6	1	2	1	2	9
Other State/Local Government	9	3	0	0	1	1	7
Medicare Managed Care	8	3	0	0	0	1	7
Non-Payment Charity	4	1	1	0	0	2	1
Medicare	2	1	0	0	0	0	2
VA	2	1	0	1	0	1	0
TriCare or Other Federal Government	1	<1	0	0	0	1	0
Kidcare	1	<1	0	0	1	0	0
Commercial Liability Coverage	1	<1	0	0	0	0	1



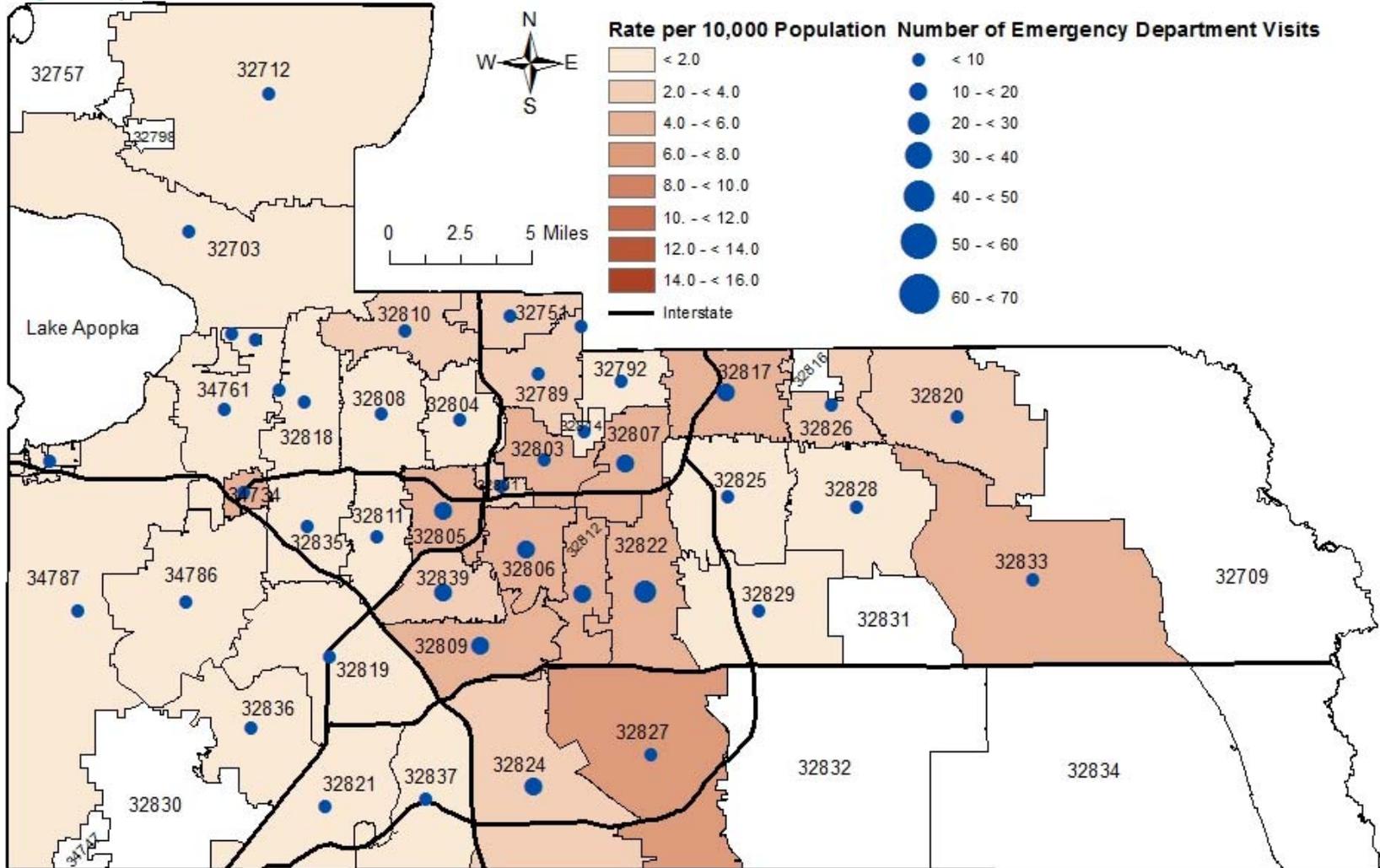
AHCA: Crude Emergency Department Visit Rate per 10,000 Population and Total Number of Emergency Department Visits by Zip Code among Orange County Residents, Florida 2010-2014

Zip Code	Crude Rate / 10,000 Population	Count
Orange County	2.3	268
Top Ten Zip Codes		
32827	6.3	4
32809	5.6	15
32805	5.5	12
34734	5.2	2
32807	4.8	15
32803	4.7	9
32812	4.6	15
32817	4.6	16
32822	4.5	24
32833	4.3	4

Data sources: Agency for Health Care Administration
 US Census Bureau, 2010 Demographic Profile Data



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 2010-2014



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: 10/20/2015



Heroin-related Morbidity Surveillance

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

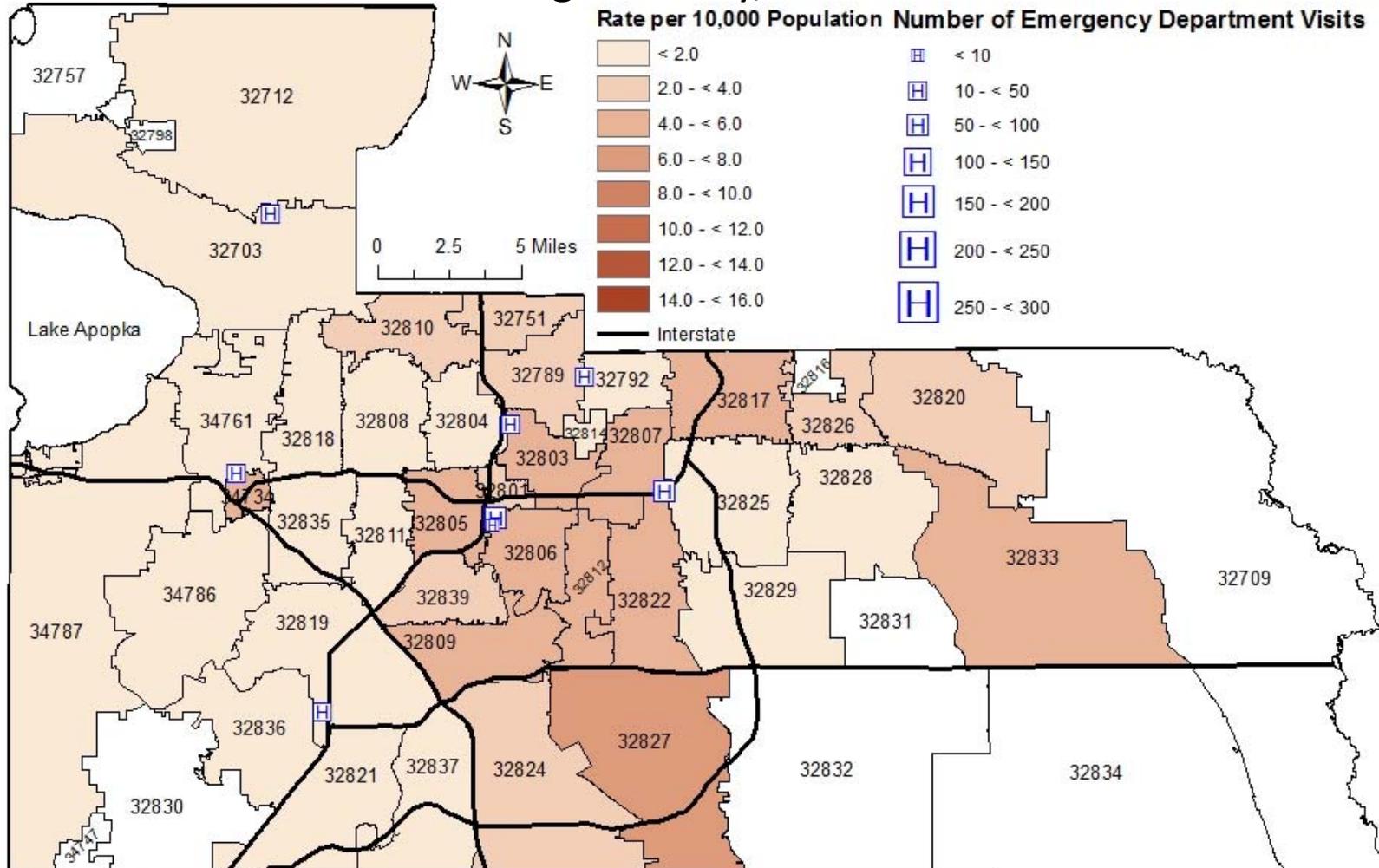


AHCA: Total Number of Heroin-related Emergency Department Visits by Orange County Hospital, Orange County, Florida 2010-2014

Emergency Department Facility	Number of Emergency Department Visits
Florida Hospital East	131
Orlando Regional Medical Center	104
Florida Hospital Orlando	43
Winter Park Memorial Hospital	34
Dr. P Phillips Hospital	31
Health Central Hospital	18
Florida Hospital Apopka	14
Arnold Palmer Medical Center	3



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 2010-2014



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: 10/20/2015

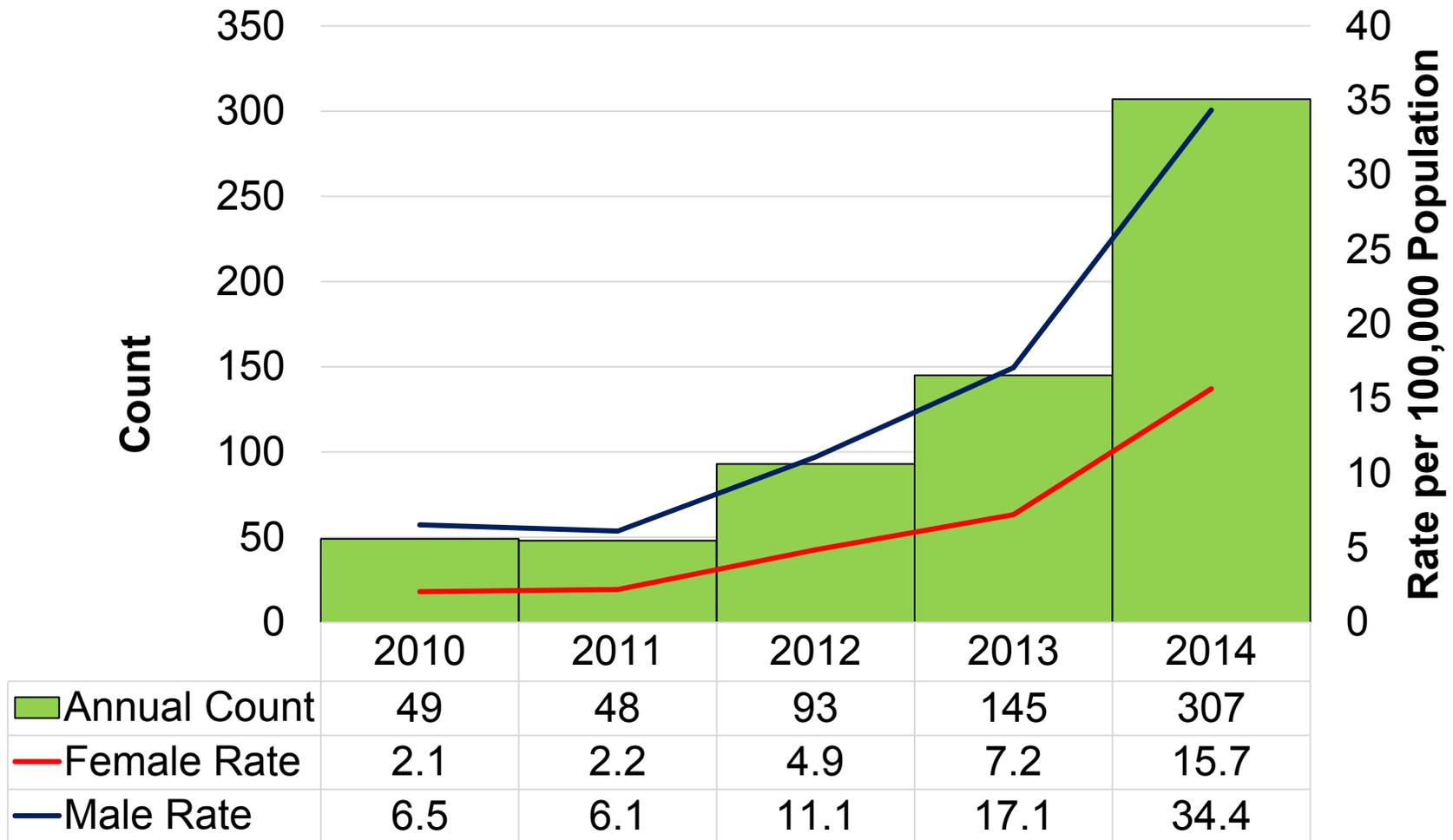


Heroin-related Morbidity Surveillance

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

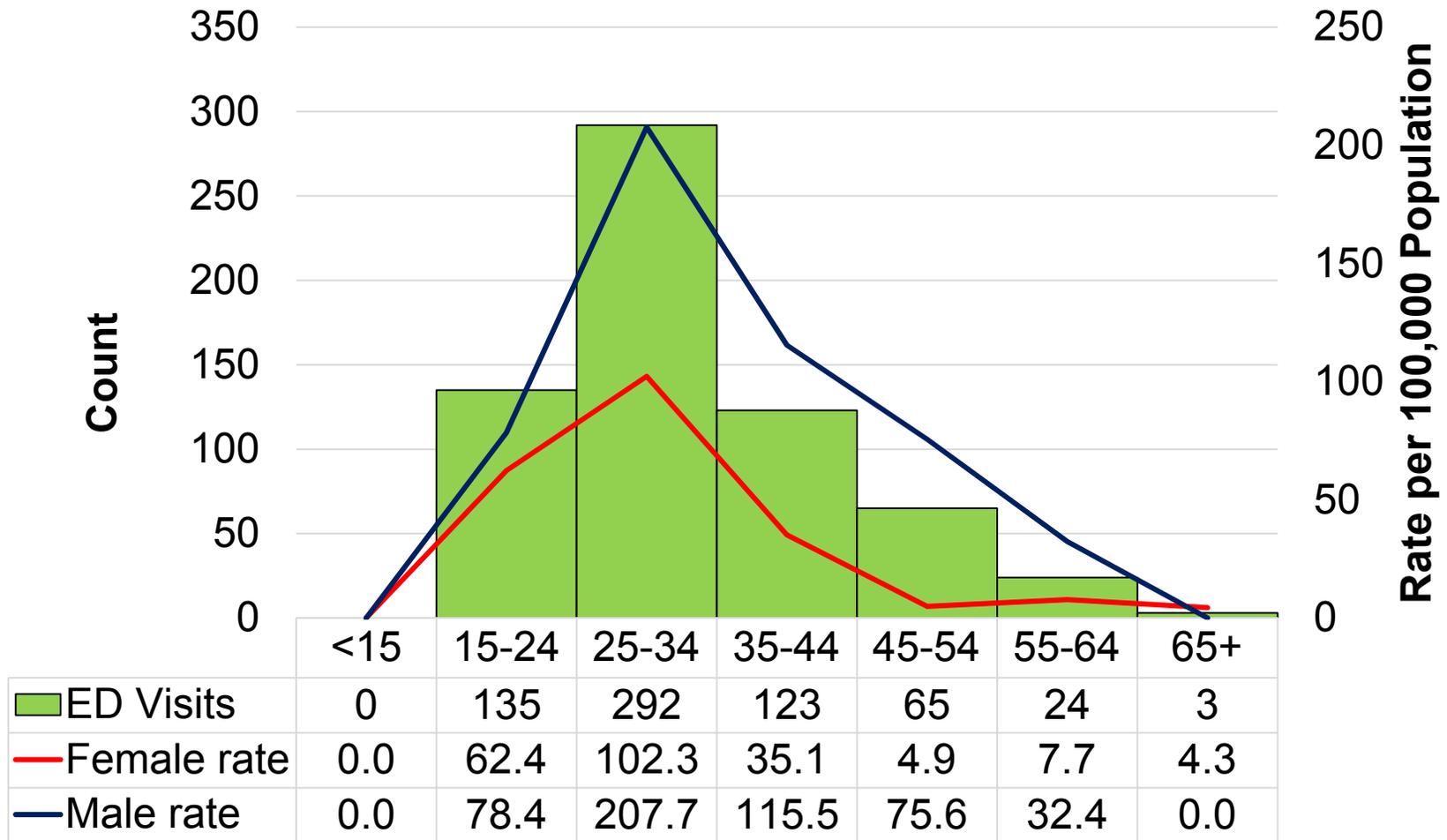


ESSENCE-FL Heroin-related Emergency Department Visits among Orange County Residents by Sex and Year, Florida 2010-2014





ESSENCE-FL Heroin-related Emergency Department Visits among Orange County Residents by Sex and Age Group, Florida 2010-2014



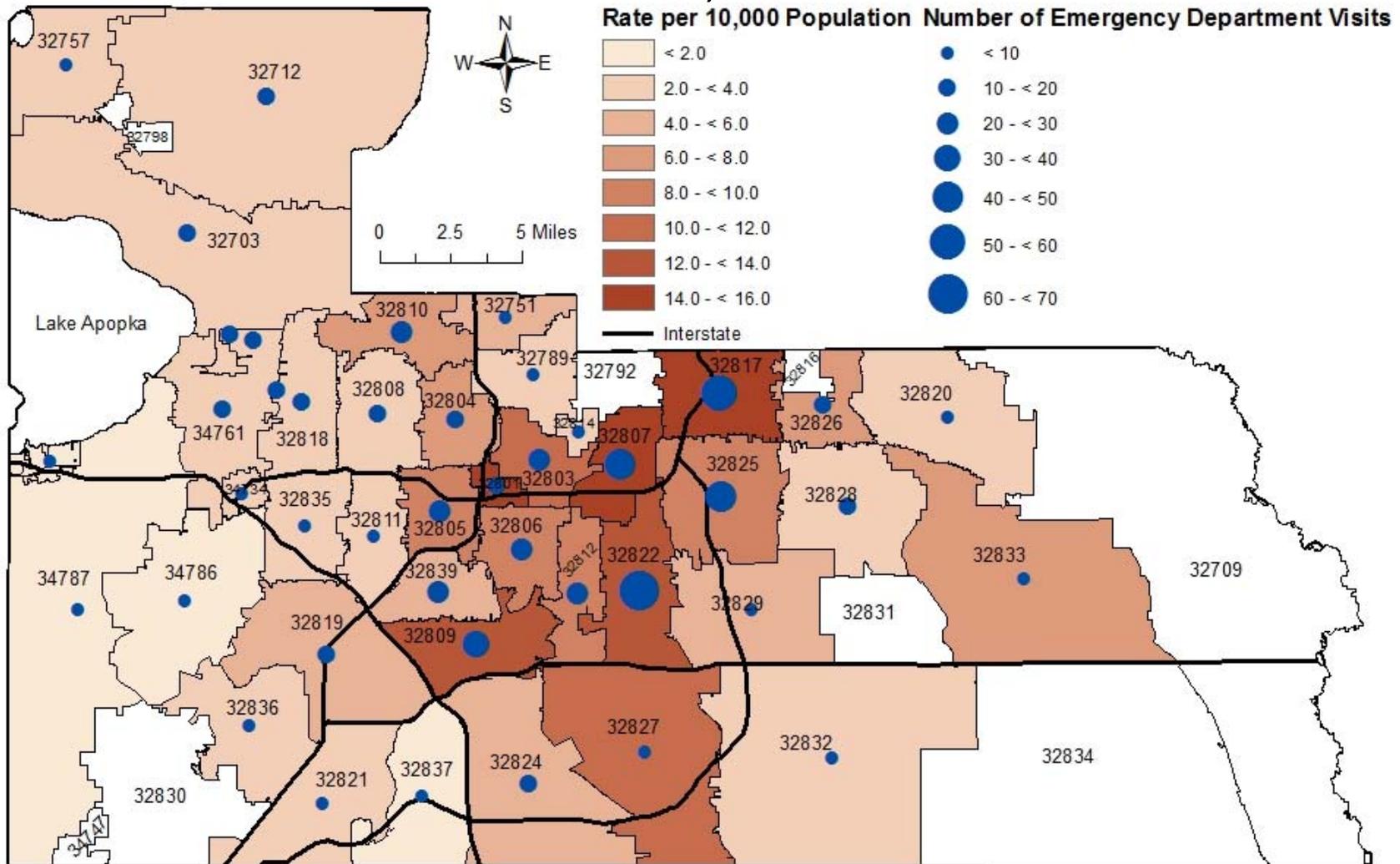


ESSENCE-FL: Crude Emergency Department Visit Rate per 10,000 Population and Total Number of Emergency Department Visits by Zip Code among Orange County Residents, Florida 2010-2014

Zip Code	Rate / 10,000 Population	Count
Orange County	5.6	642
Top Ten Zip Codes		
32817	14.5	51
32807	14.3	45
32801	14.1	17
32809	13.4	36
32822	13.2	70
32803	11.0	21
32827	11.0	7
32806	9.7	24
32805	9.6	21
32812	8.5	28



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 2010-2014



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

Prepared by: Florida Department of Health in Orange County, Epidemiology Program
Prepared on: 10/20/2015



Heroin-related Morbidity Surveillance

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

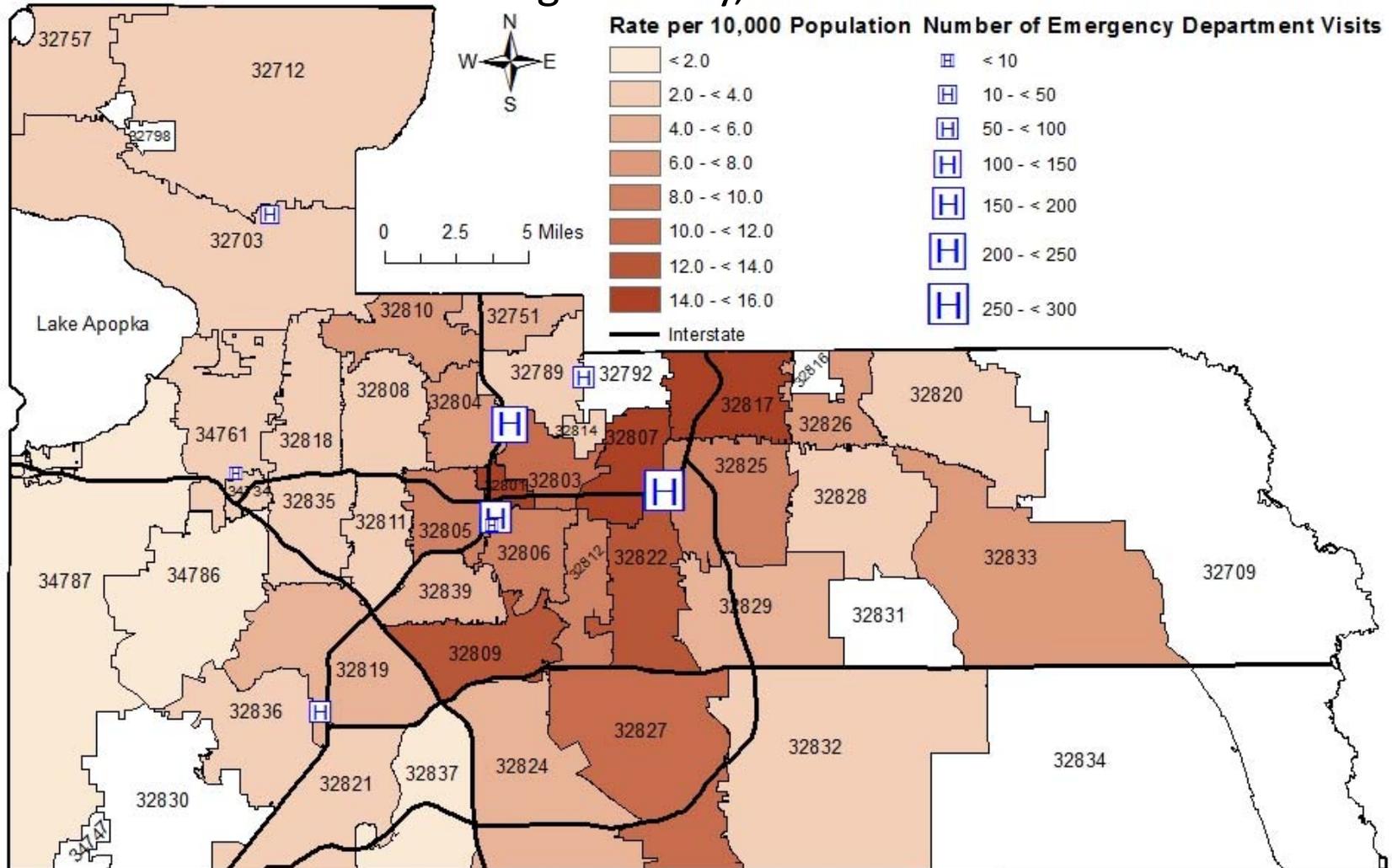


ESSENCE-FL: Total Number of Heroin-related Emergency Department Visits by Orange County Hospital, Orange County, Florida 2010-2014

Emergency Department Facility	Number of Emergency Department Visits
Florida Hospital East	273
Florida Hospital Orlando	209
Orlando Regional Medical Center	181
Winter Park Memorial Hospital	75
Dr. P Phillips Hospital	52
Florida Hospital Apopka	23
Health Central Hospital	4
Arnold Palmer Medical Center	1



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 2010-2014



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

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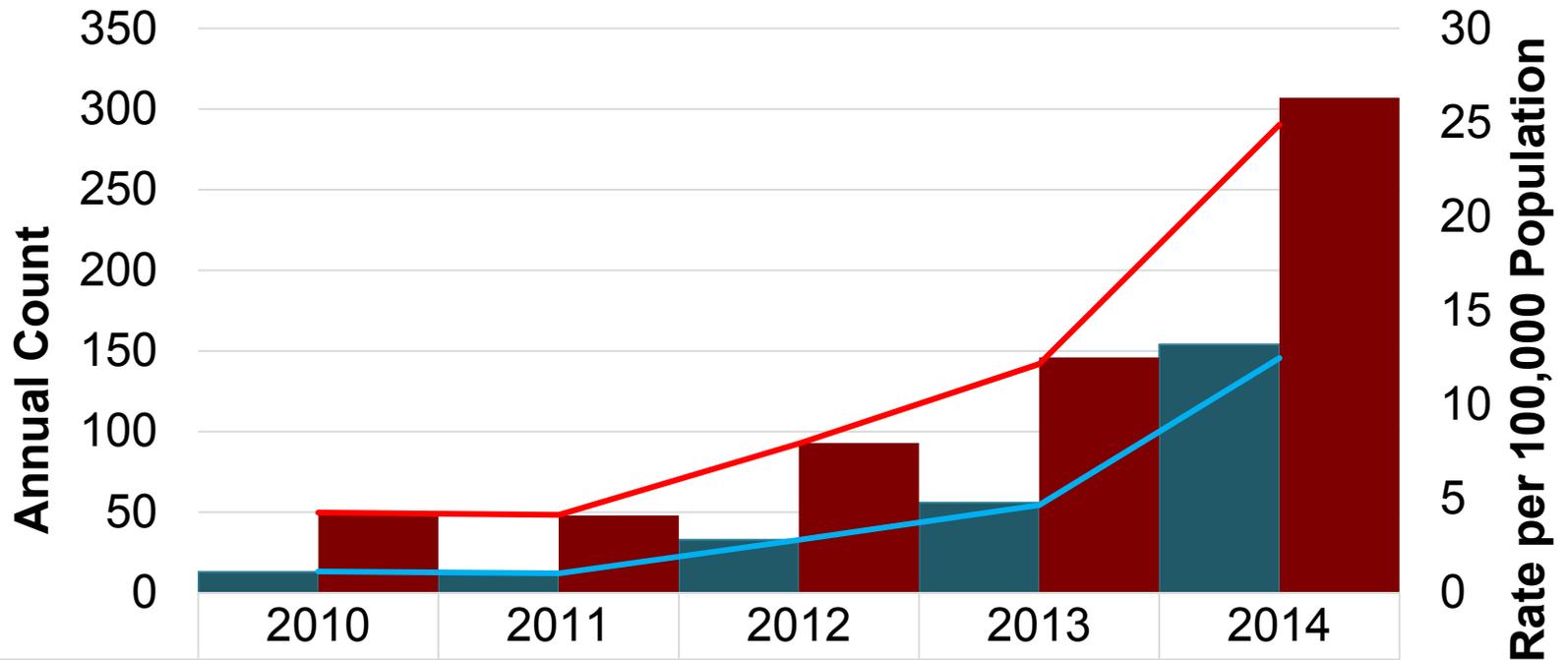


Heroin-related Morbidity Surveillance

How does AHCA compared to ESSENCE-FL data?



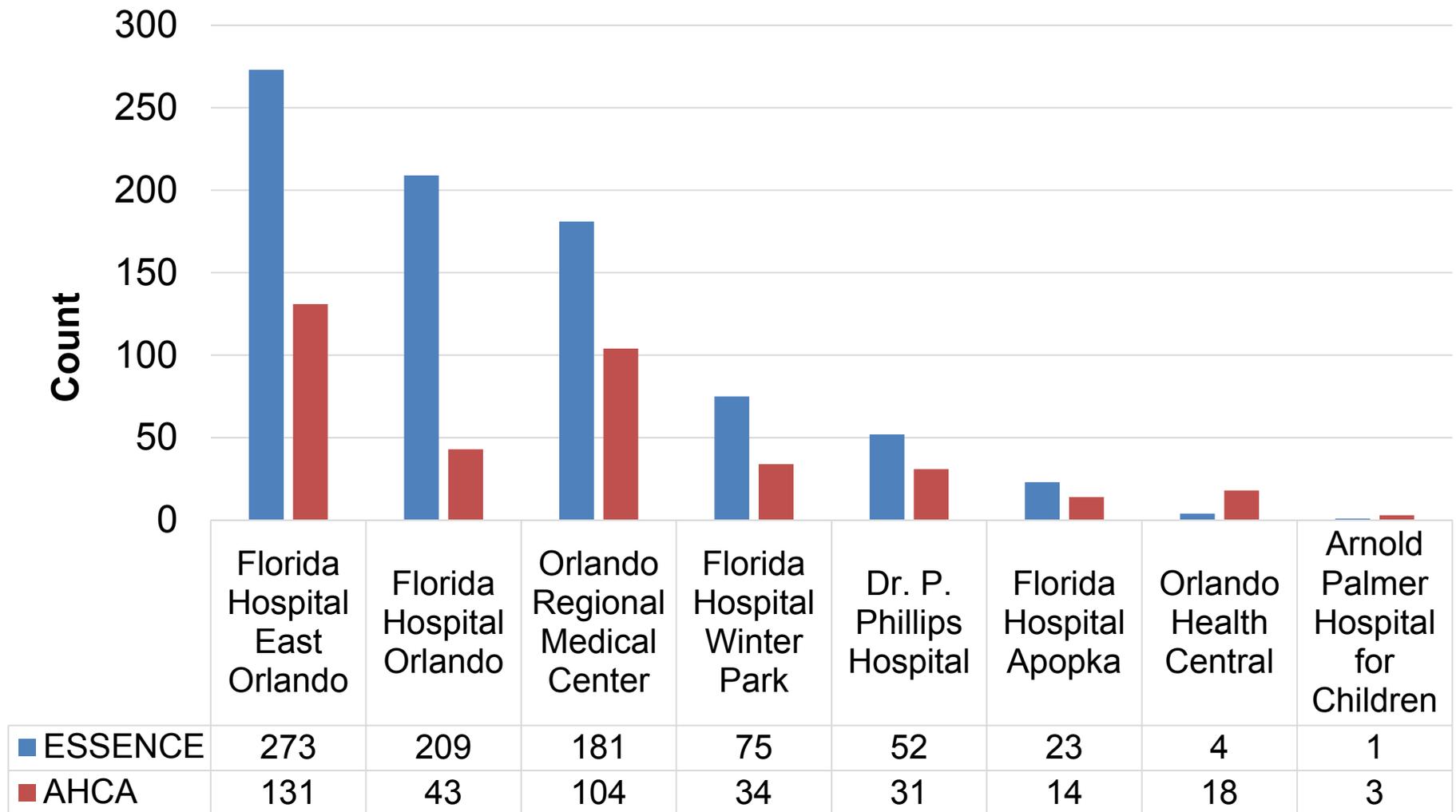
AHCA / ESSENCE-FL Heroin-related Emergency Department Visits among Orange County Residents, Florida 2010-2014



	2010	2011	2012	2013	2014
AHCA	13	12	33	56	154
ESSENCE	49	48	93	146	307
AHCA Rate	1.1	1.0	2.8	4.7	12.5
Essence Rate	4.3	4.1	7.9	12.2	24.9



AHCA / ESSENCE-FL Heroin-related Emergency Department Visits, Orange County, Florida 2010-2014





Heroin-related Surveillance

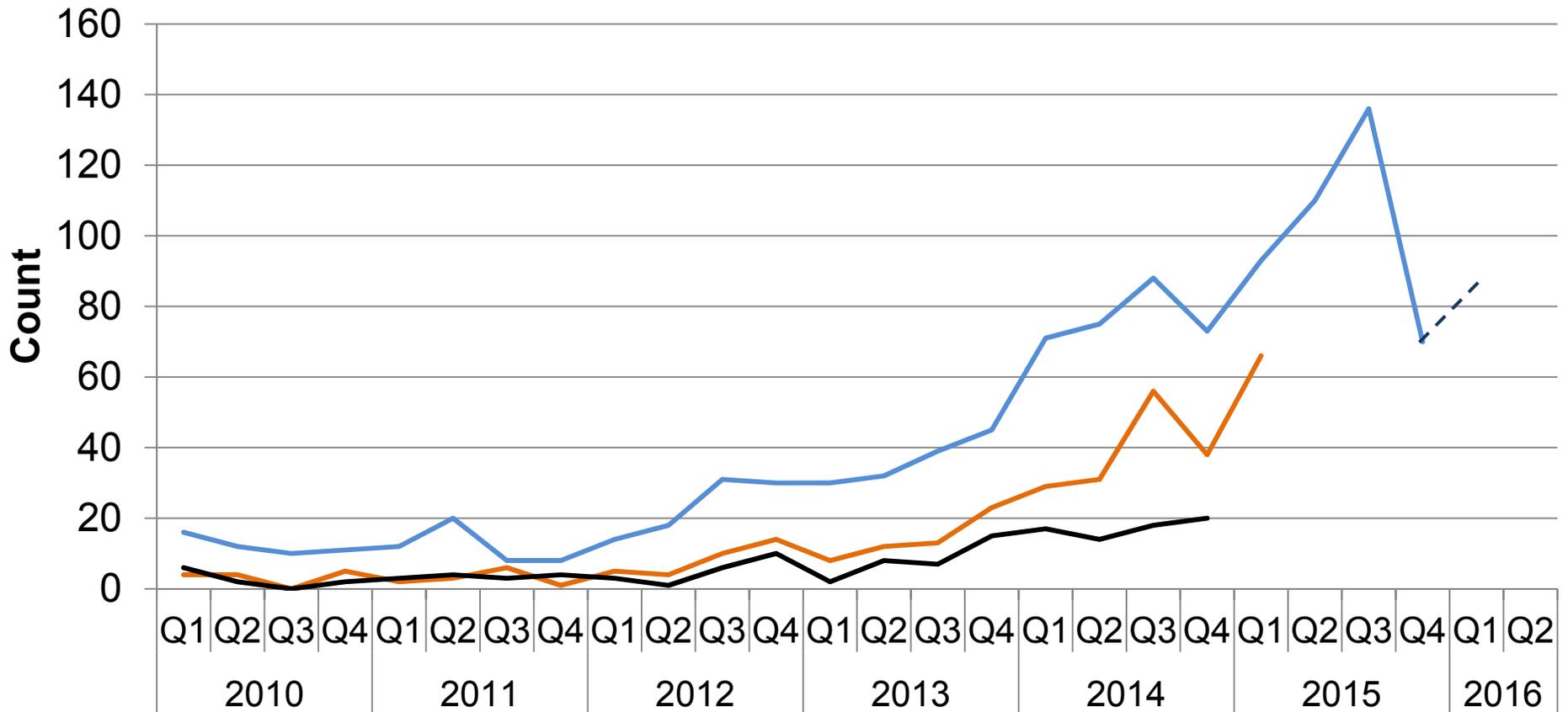
What is the overall trend of heroin-related morbidity and mortality in Orange County from 2010 to present?



Heroin-related Surveillance

Emergency Department Visits

— ESSENCE-FL — ACHA — Medical Examiner



- - - Projected Quarterly Total as of February 25, 2016



Summary

- In Orange County from 2010-2014, data shows:
 - 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 identified an increase in heroin-related morbidity through Q3 of 2015
 - An increase over the previous quarter is predicted in Q1 of 2016



Taskforce Surveillance Needs?

- Data sources?
- Timeframe?
- Type of analysis?
- Need for other data sources?
 - e.g., treatment/methadone clinic data



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!