



Using Data to Combat the Opioid Epidemic

Public Health Perspective



USING DATA TO COMBAT THE OPIOID EPIDEMIC – PUBLIC SAFETY PERSPECTIVE

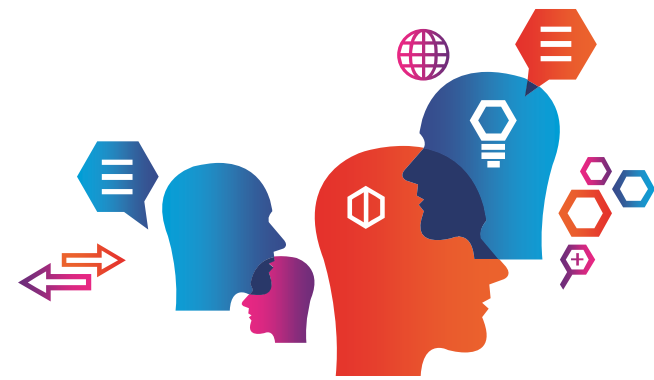
DEA PHILADELPHIA DIVISION

CJAB CONFERENCE

APRIL 2017

Agenda for Breakout Session

1:45pm-3:15pm



Why data?

Important data indicators

2016 drug overdose data- a preliminary analysis

Naloxone reporting

Considerations for collaborative data sharing



Why Data?



Overview

- Impressions and judgments are based on information that is available
 - Happens quickly
 - An assumption is made that that is all the information there is so a conclusion has to be drawn for what is available
 - "Gut reaction"
- When it comes to complex systems such as the drug overdose crisis, we do not have enough "quick" information to form an accurate assessment

Why Data?



Stakeholder alignment

- Removes values and beliefs from the information available to make decisions
- Eliminates terminology gaps between public safety and public health
- Removes "he said/she said" from projects

Why Data?



Data informs:

- Assessment
 - Define the problem
- Planning
 - Determination of what strategy(s) will yield the greatest impact to eliminate the problem
- Implementation/Evaluation
 - Quality improvement
 - Overall success/failure of the program
- Sustainability
 - Grant funding
 - Building local, state, national support around the strategy

Ideal:

- On Demand
- Immediately
- 1x1
- Defect Free
- No Waste
- Safe

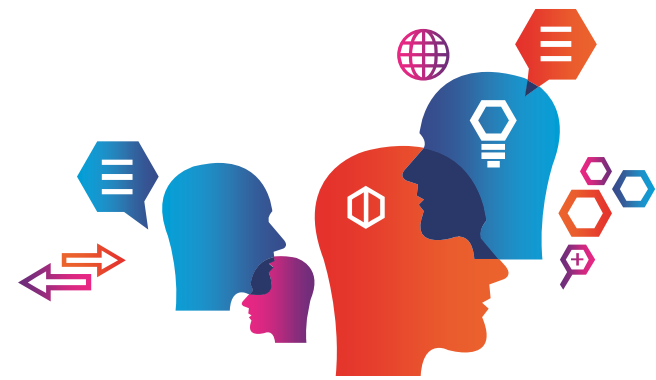


DATA AND PUBLIC SAFETY



- Why are we doing this? Why is it important?
 - Inform decision makers/stakeholders/policy makers to make informed decisions on resource allocation
 - Tactical response strategies
 - Strategic assessment
 - Lack of centralized data collection (to our knowledge), timely data, and analysis reporting

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IMPORTANT DATA INDICATORS



- Fatal overdoses
- Non-fatal overdoses: naloxone administrations and/or reversals – LE, EMS
- Treatment admissions
- ER/ED admissions
- 911 or poison control calls; LE OD incident response
- PDMP/Rx drug production and movement
- Public Safety- Forensic laboratory analyses
- Public Health- Health Consequences

IMPORTANT DATA INDICATORS



- Fatal overdoses
- Non-fatal overdoses: naloxone administrations and/or reversals – LE, EMS
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- ER/ED admissions
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- PDMP/Rx drug production and movement
- Public Safety- Forensic laboratory analyses
- Public Health- Health Consequences

Can be monitored for real-time tactical response to surge in ODs

IMPORTANT DATA INDICATORS



- Fatal overdoses – Coroners/MEs
 - Dates of OD/death
 - Locations – incident/residence
 - Demographics (age, gender, race)
 - Cause/manner of death
 - Toxicology – drugs identified

IMPORTANT DATA INDICATORS



- Non-fatal overdoses – LE/EMS
 - Date of incident
 - Locations – incident/residence
 - Demographics (age, gender, race)
 - Repeat victim (identifying info ONLY if LE response)
 - Number of doses administered
 - Physical response
 - Evidence observed

IMPORTANT DATA INDICATORS



- ER/ED admissions
 - Primary drug of use at first admission, subsequent admissions – if reported
 - Date/locations (as available)
 - Demographics
 - Naloxone administered – subsequent to LE/EMS?
 - Admitted for additional inpatient care

IMPORTANT DATA INDICATORS



- 911 or poison control calls; LE OD incident response
 - Drug or suspected drug reported
 - Date/locations (as available)
 - Demographics
 - Naloxone administered?
 - Additional details if LE response (to determine if repeat victim, consider referral to PH)
 - Next steps: hospital, treatment, departed scene

IMPORTANT DATA INDICATORS



- Treatment admissions
 - Primary drug of use at first admission, subsequent admissions
 - Dates/locations (as available)
 - Demographics
 - Education level
 - Occupation
 - Focus group information (availability, methods of use)

Important Data Indicators



Intervention/Treatment

- How is a person identified for treatment
 - Who gets screened/assessed
 - Who does the screening/assessment
- How does a person access treatment
 - Who/what resources aid the person in getting to treatment
 - What is the treatment availability
- How long is a person engaged in treatment
 - Days stayed
 - Moving across levels of care

IMPORTANT DATA INDICATORS



- PDMP/Rx drug production and movement
 - PDMP: de-identified aggregate prescription data, primarily Schedule II
 - Oxycodone/hydrocodone prescriptions written over time
 - Locations (prescribed vs. filled); residence of patient
 - DEA: wholesale Rx drug manufacturing/ordering trends; quantities, locations, doctors vs. pharmacies

Important Data Indicators



Prescription Drug Monitoring/Dispensing

- Does the area have high prescribing per person compared to other counties?
 - Is PDMP Education needed in the area, and can it be targeted to a particular population?
- Are there pharmacies that are dispensing large amounts of opioids?
 - Is PDMP Education needed in the area?
 - Education on naloxone

SPECIFIC IMPORTANT DATA INDICATORS



- Forensic laboratory analyses
 - Submitting agency
 - Date/location of acquisition
 - Suspected drug at submission (field test results); quantity
 - Drug(s) identified with lab analysis; quantities/combinations
 - Sources:
 - Major police departments
 - Third-party laboratories
 - Some ME offices
 - National Forensic Laboratory Information System (NFLIS)

Specific Important Data Indicators

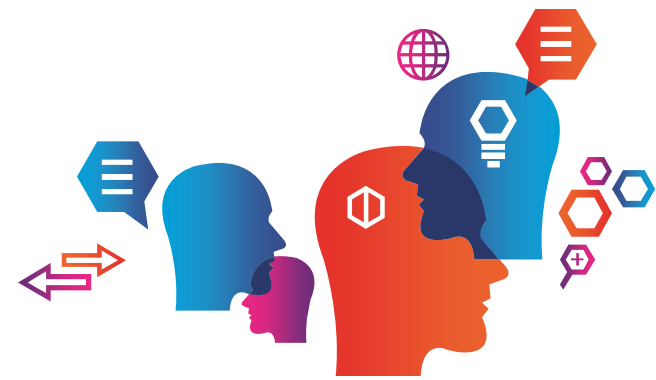


Health Consequences

- Persons with HIV
- Persons with Hepatitis C
- Persons with Endocarditis

- Neonatal abstinence syndrome diagnosis

Agenda for Breakout Session



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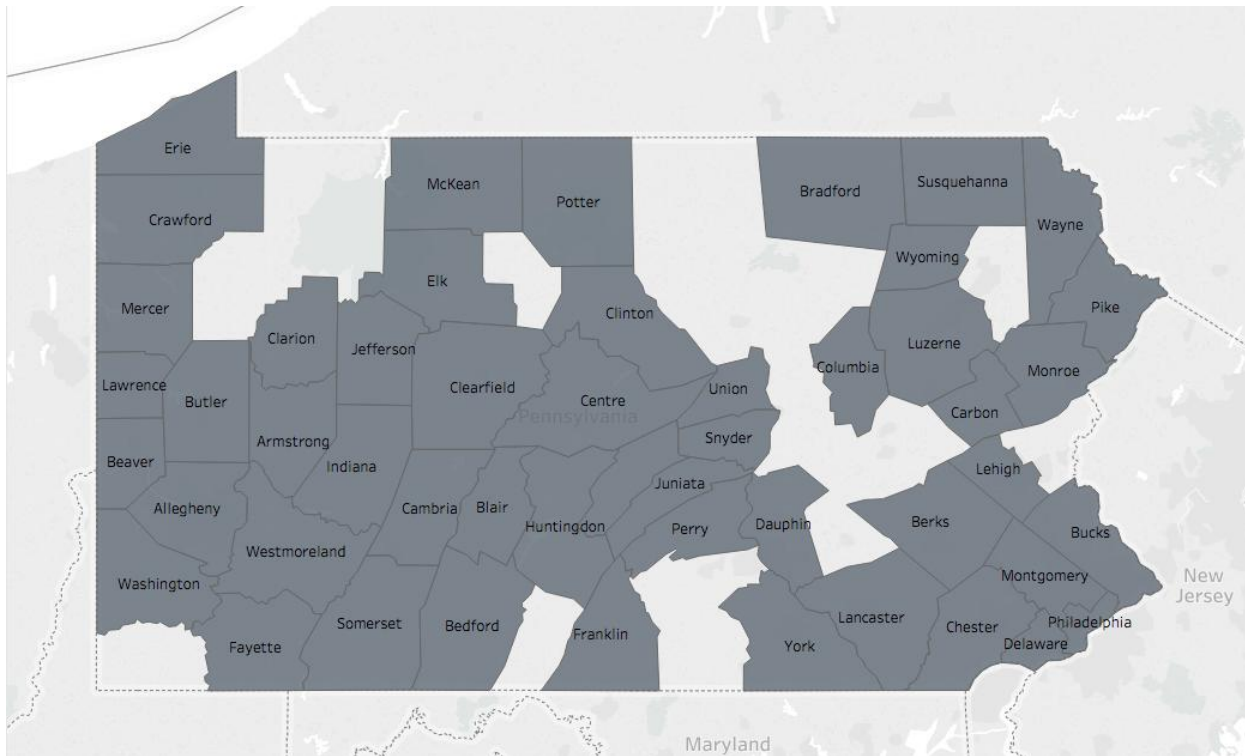
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Preliminary Analysis- 2016 Death Data



Preliminary Analysis- 2016 Death Data

Counts

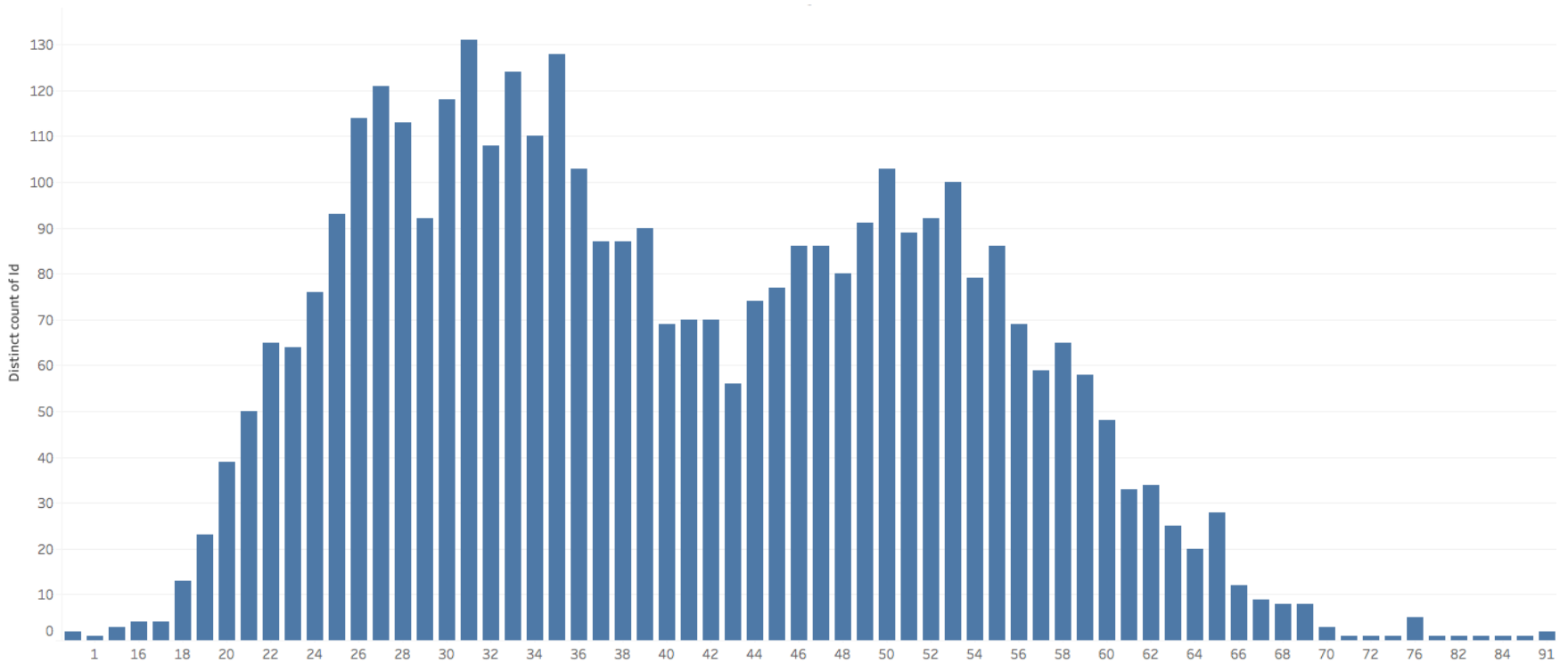


Year	Overdose Deaths	Percent Increase from Year Prior
2014	2742	
2015	3383	~23%
2016	Estimated- 4535	~34%

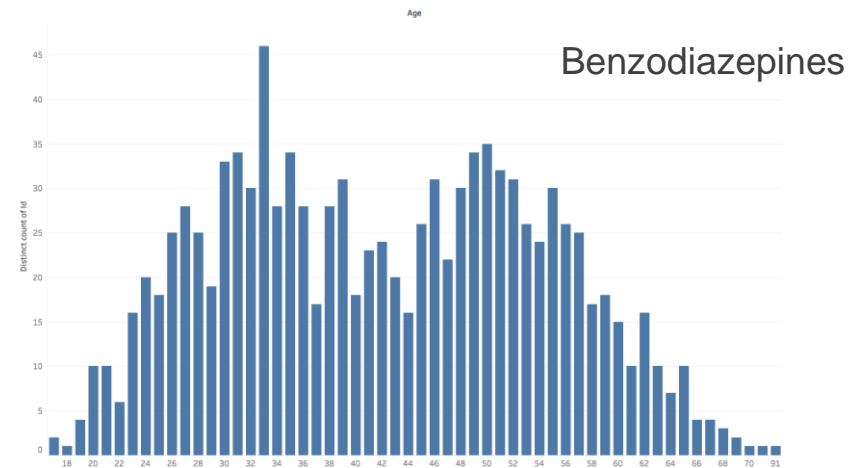
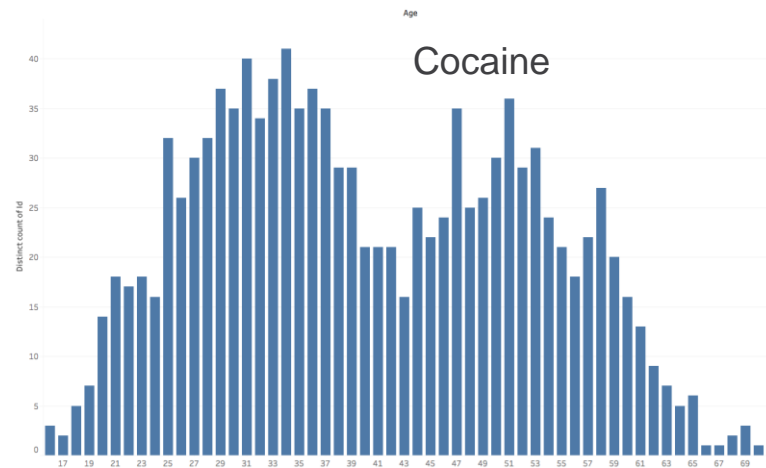
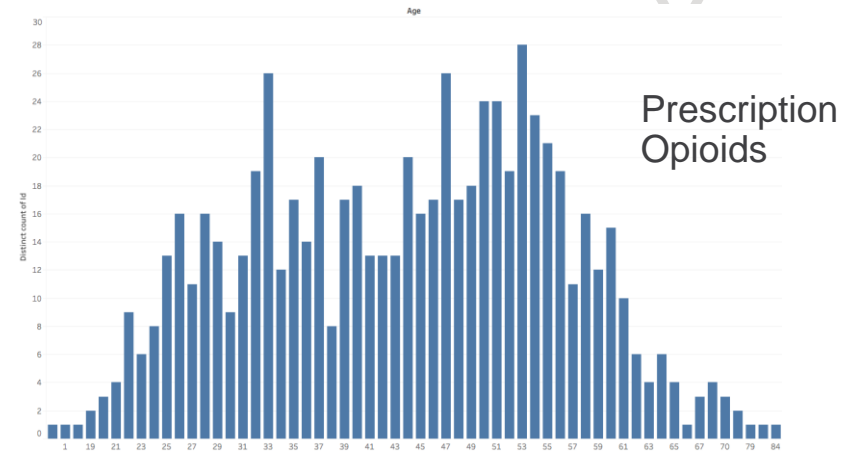
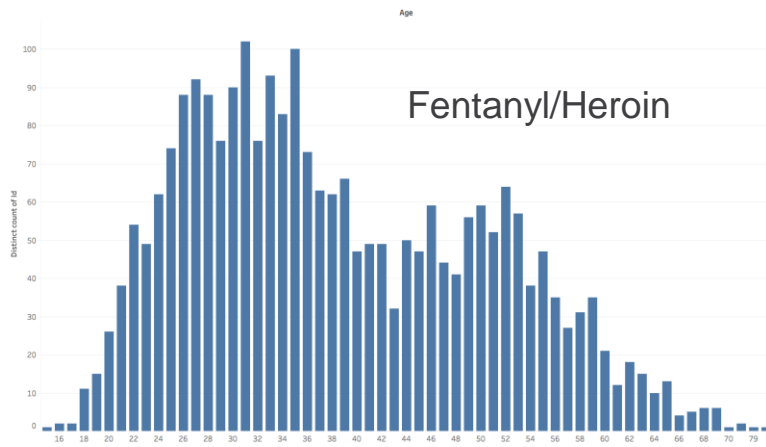
Preliminary Analysis- 2016 Death Data



Age Distribution

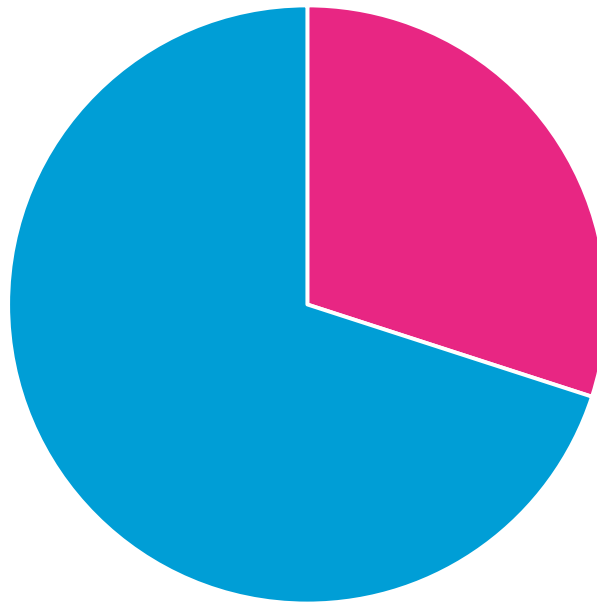


Preliminary Analysis- 2016 Death Data



Preliminary Analysis- 2016 Death Data

Gender



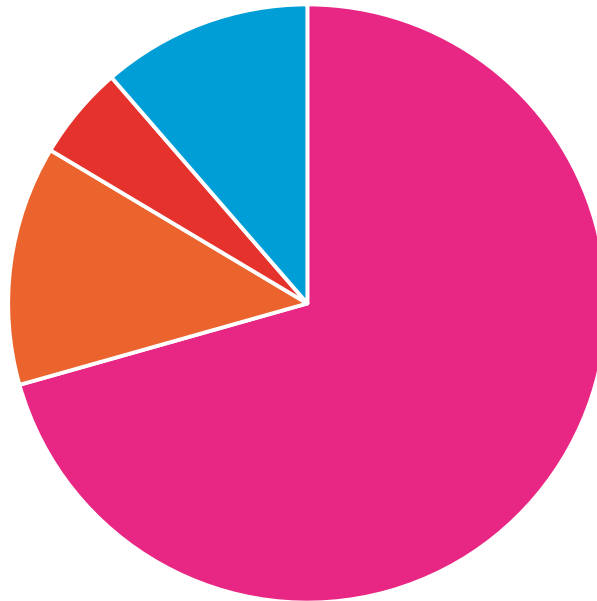
■ Female

■ Male



Preliminary Analysis- 2016 Death Data

Race



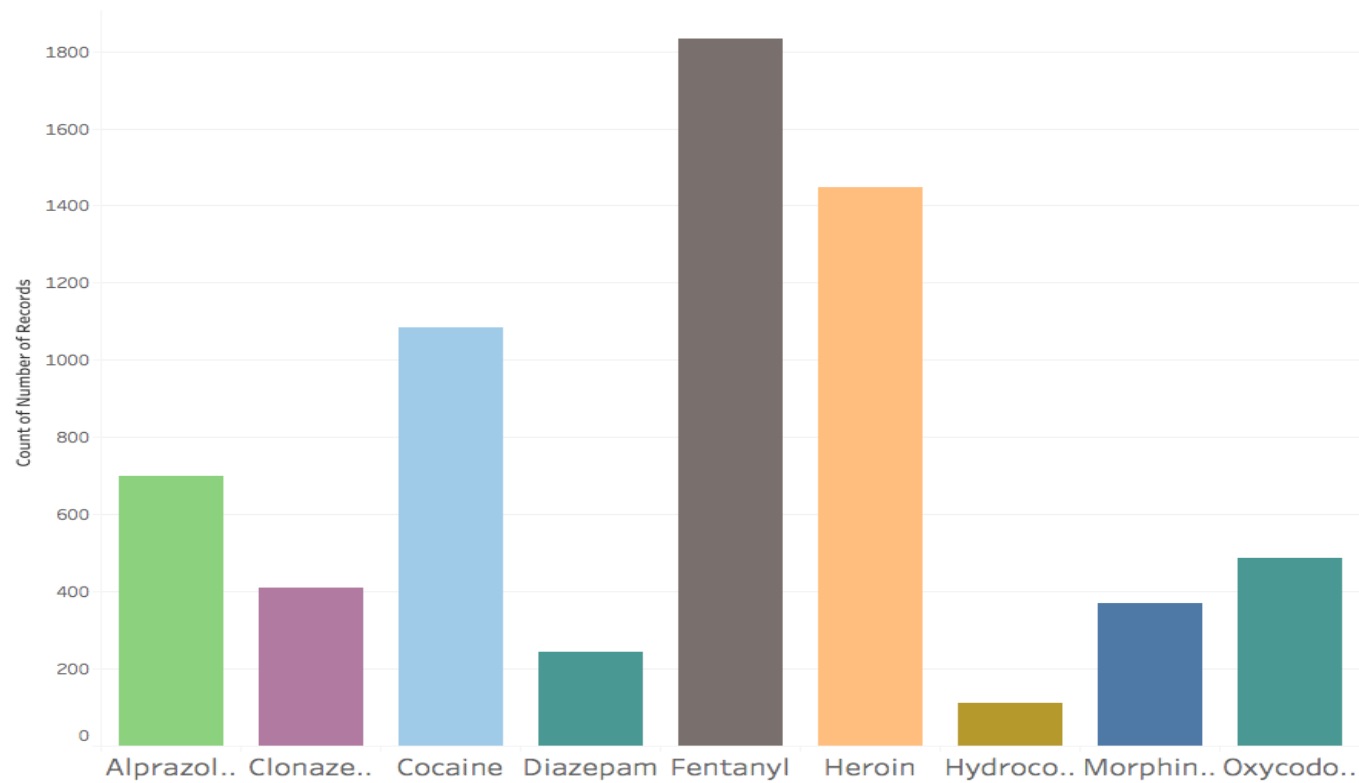
- Caucasian
- Black
- Hispanic
- Other



Preliminary Analysis- 2016 Death Data



Drugs



Preliminary Analysis- 2016 Death Data



Drugs

Name	Month of Death Date											
	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016
Cocaine	52	85	85	86	82	73	88	87	107	91	133	105
Fentanyl	50	148	115	98	113	112	153	145	185	213	249	238
Heroin	78	125	129	123	108	112	119	115	148	135	121	129

Preliminary Analysis- 2016 Death Data



Drugs

Month of Death Date

Name	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016
Fentanyl	50	148	115	98	113	112	153	145	185	213	249	238
Heroin	78	125	129	123	108	112	119	115	148	135	121	129
Hydrocodone (Free)	5	9	16	14	11	7	9	10	13	4	9	5
Morphine (Free)	17	29	34	29	31	31	37	32	29	32	34	33
Oxycodone (Free)	32	51	48	40	42	43	33	41	37	42	31	45

Preliminary Analysis- 2016 Death Data



Drugs

Month of Death Date

Name	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016
Buprenorphine (Free)	2	11	6	10	5	6	13	7	5	13	6	7
Fentanyl	50	148	115	98	113	112	153	145	185	213	249	238
Heroin	78	125	129	123	108	112	119	115	148	135	121	129
Hydrocodone (Free)	5	9	16	14	11	7	9	10	13	4	9	5
Methadone	14	19	15	15	15	22	22	11	18	20	17	13
Morphine (Free)	17	29	34	29	31	31	37	32	29	32	34	33
Naltrexone (Free)							1				1	
Oxycodone (Free)	32	51	48	40	42	43	33	41	37	42	31	45



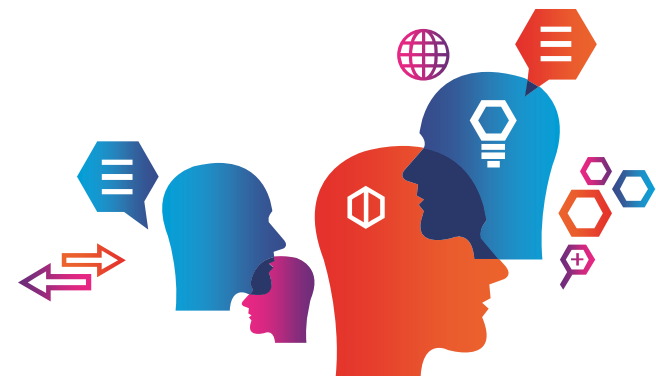
Preliminary Analysis- 2016 Death Data



Drugs

Name	Month of Death Date											
	January 2016	February 2016	March 2016	April 2016	May 2016	June 2016	July 2016	August 2016	September 2016	October 2016	November 2016	December 2016
3-Methyl Fentanyl			5	3			2		1	4	2	2
4-methoxy-butyryl fentanyl	1											
6-Acetyl Fentanyl		1								1		
Acetyl Fentanyl	4	11	3	4	7	7	2	1	2	5	15	14
Carfentanil											1	2
Furanyl fentanyl			5	5	7	8			3		3	11
Para-Fluoro-Isobutyryl-Fe..					1				2		1	1
Sufentanil		1					1					
U-47700	1		1	2	1	2		1		3	3	4

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NALOXONE REPORTING



- November 2014 – PA Act 139, Opioid Overdose Reversal Act
 - Naloxone administration by first responders
 - Immunity for reporting overdose
 - Third-party prescriptions

NALOXONE REPORTING



- Importance of reporting administrations – monitor scope of problem and impact of policy changes, PH/PS initiatives, LE efforts, etc.
- No reporting provision in Act 139
- Work with DDAP, PA Chiefs, PA District Attorneys to initiate/emphasize reporting

NALOXONE REPORTING



- Statewide reporting to Philadelphia/Camden HIDTA
- Requirement to receive funding to purchase naloxone
- Participation in LE naloxone administration: 59 PA counties, 640 LE agencies – 74% of PA population
- Reporting: 40+ counties to date to varying degrees; improving
- Working with PA State Police, DDAP, Pitt PERU/TAC to improve
- Gap: EMS naloxone administrations

Naloxone Administration - Pennsylvania

Please return completed forms to the Philadelphia/Camden HIDTA office

Email: narcen@pchidta.org OR Fax: 215-863-3495

PREVIOUS VERSIONS OF THIS FORM ARE OBSOLETE AND SHOULD NOT BE USED



AGENCY NAME		AGENCY INCIDENT NUMBER		DATE OF OVERDOSE		TIME OF OVERDOSE <input type="radio"/> AM <input type="radio"/> PM	
OVERDOSE OCCURRED - City		County		Zip Code		VICTIM RESIDENCE - City	
						State	
						Zip Code	
GENDER OF THE VICTIM		AGE		RACE/ETHNICITY OF THE VICTIM			
<input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Unk.				<input type="radio"/> White <input type="radio"/> Black <input type="radio"/> Hispanic <input type="radio"/> Asian/Indian <input type="radio"/> Native American <input type="radio"/> Pacific Islander			
Victim Last Name		Victim First Name		HAS THE VICTIM RECEIVED NALOXONE IN THE PAST?			
				<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown			

Details of Naloxone Administration

# DOSES YOU ADMINISTERED	NALOXONE VOLUME <input type="radio"/> 2 ml <input type="radio"/> 4 ml	# DOSES ADMINISTERED BY SOMEONE ELSE (Enter all that apply) EMS <input type="text"/> Other LE <input type="text"/> Bystander <input type="text"/> Other <input type="text"/>
DID THE PERSON SURVIVE?		HOW LONG DID IT TAKE FOR NALOXONE TO WORK?
<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown		<input type="radio"/> <1 Min. <input type="radio"/> 1-3 Min. <input type="radio"/> 3-5 Min. <input type="radio"/> >5 Min. <input type="radio"/> Don't Know <input type="radio"/> Did Not Work
PERSON'S RESPONSE TO NALOXONE <input type="radio"/> Combative <input type="radio"/> Responsive and Angry		
<input type="radio"/> Responsive and Alert <input type="radio"/> Responsive but Sedated <input type="radio"/> No Response to Naloxone		
IF THE PERSON WAS REVIVED, WHAT HAPPENED NEXT?		
<input type="radio"/> Arrest <input type="radio"/> Hospital <input type="radio"/> Released Free <input type="radio"/> Other <input type="text"/>		

Suspected Overdose on What Drugs? (Check all that apply.)

<input type="checkbox"/> Heroin/Fentanyl	<input type="checkbox"/> Benzos/Barbituates	<input type="checkbox"/> Cocaine/Crack	<input type="checkbox"/> Unknown
<input type="checkbox"/> Alcohol	<input type="checkbox"/> Methadone	<input type="checkbox"/> Suboxone	<input type="checkbox"/> Other (specify) <input type="text"/>

Evidence

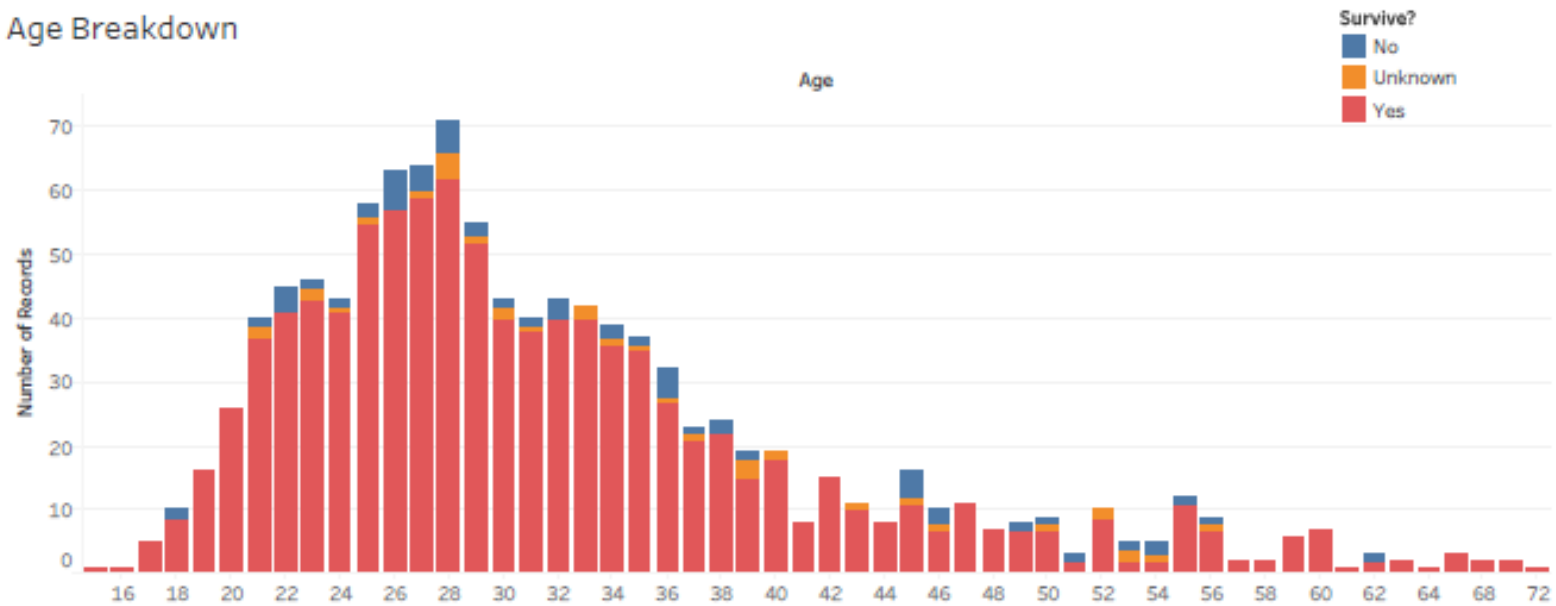
<input type="checkbox"/> Evidence Secured	<input type="checkbox"/> Drugs	<input type="checkbox"/> Paraphernalia
<input type="checkbox"/> Heroin	Stamp (face/Color): <input type="text"/>	Desc. Image: <input type="text"/>
	Stamp (face/Color): <input type="text"/>	Desc. Image: <input type="text"/>
<input type="checkbox"/> Opiate Pills	Pill Type: <input type="text"/>	Dr.'s Name: <input type="text"/>

NALOXONE LOT # <input type="text"/>	EXPIRATION DATE <input type="text"/>
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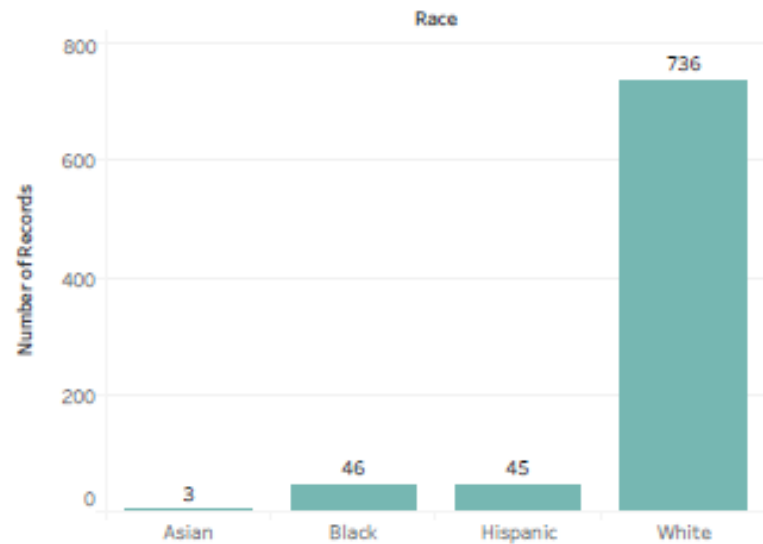
Notes/Comments

OFFICER'S NAME/BADGE # <input type="text"/>	OFFICER'S SIGNATURE/DATE <input type="text"/>	CONTACT PHONE NUMBER <input type="text"/>
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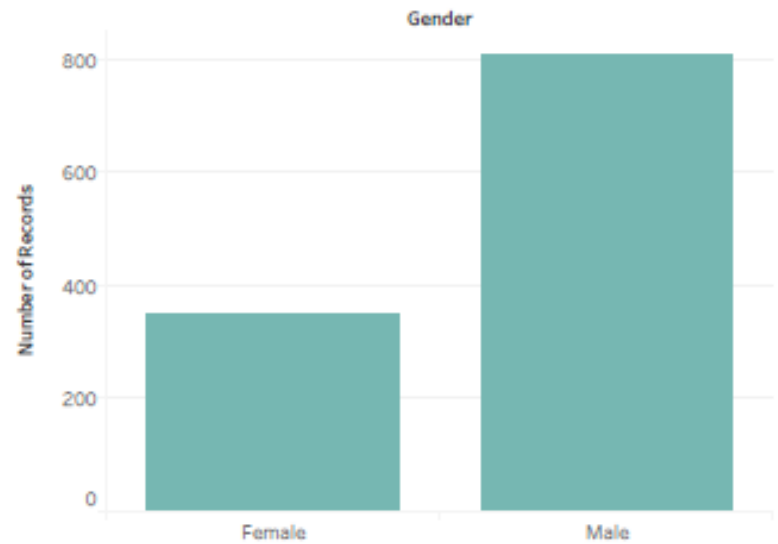
Age Breakdown



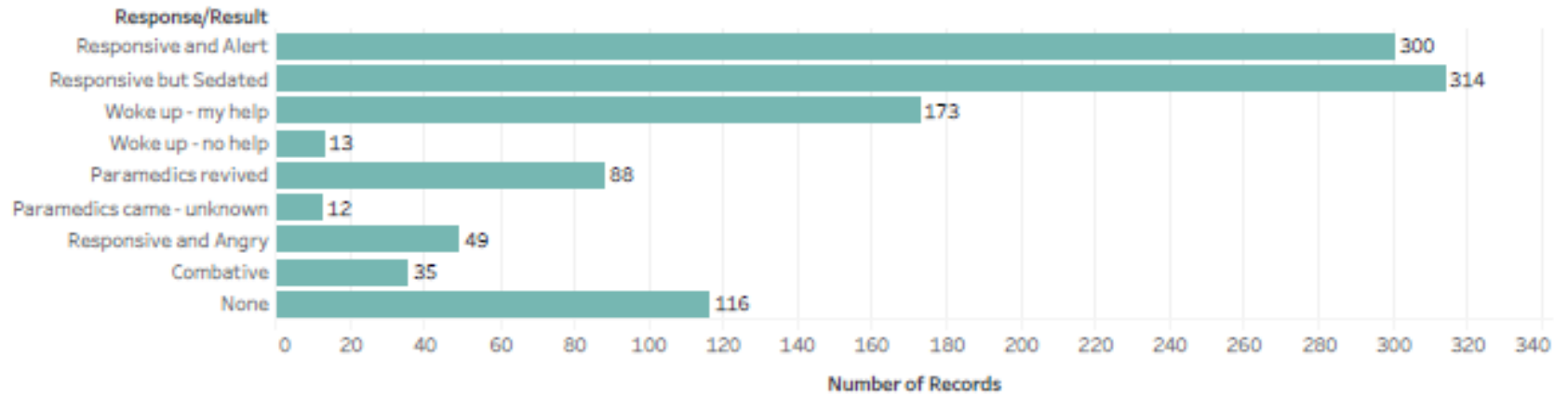
Race Breakdown



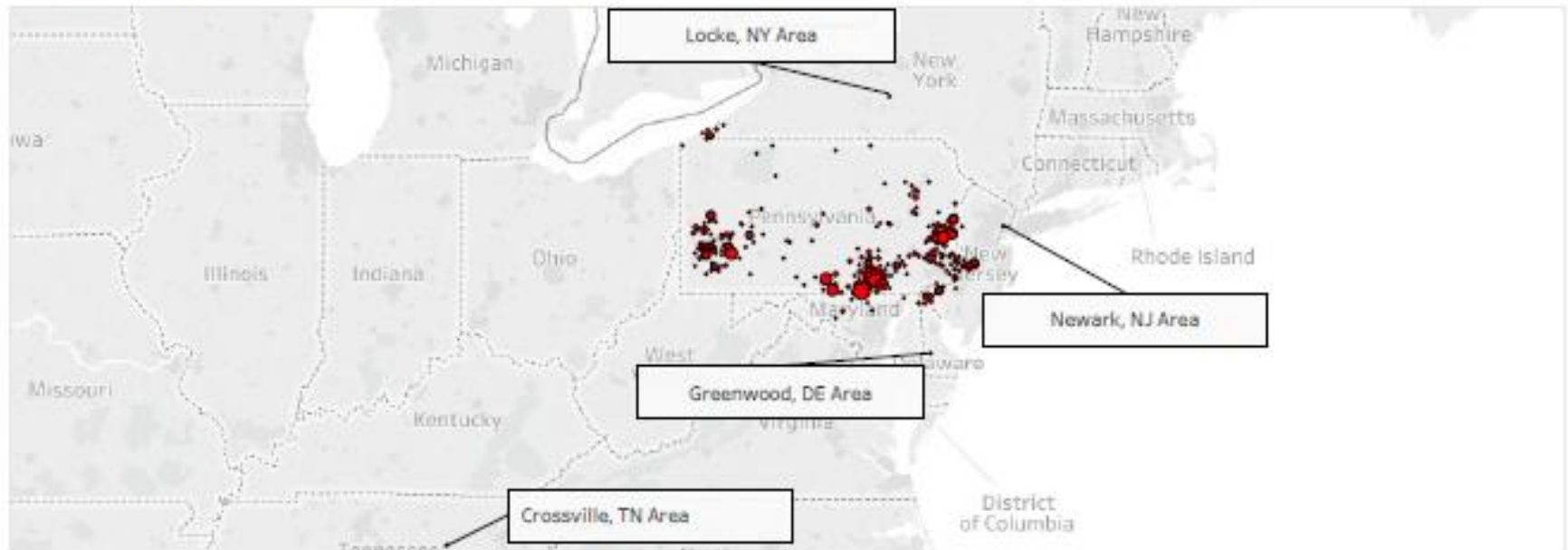
Gender Breakdown



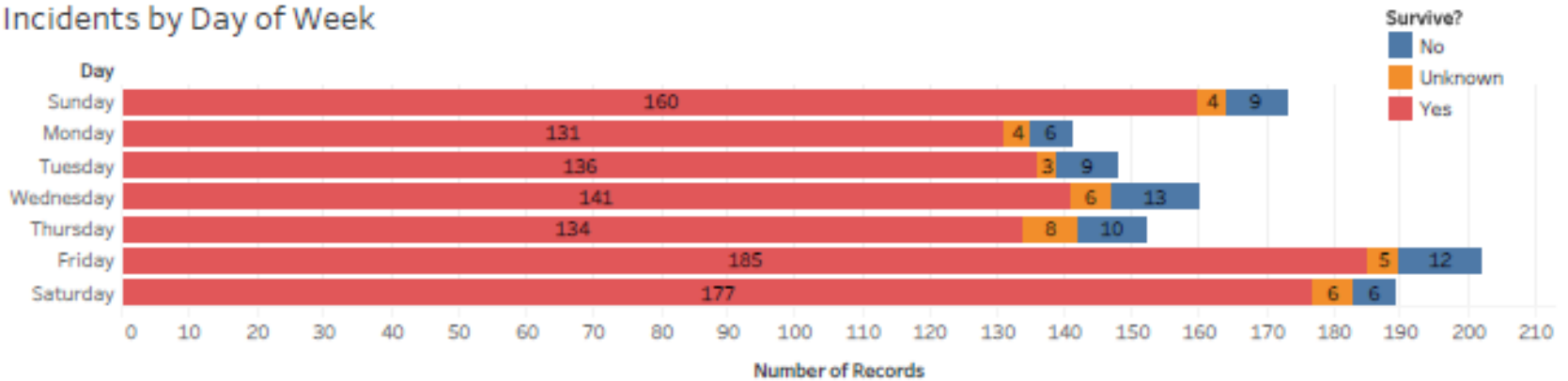
Responses Breakdown



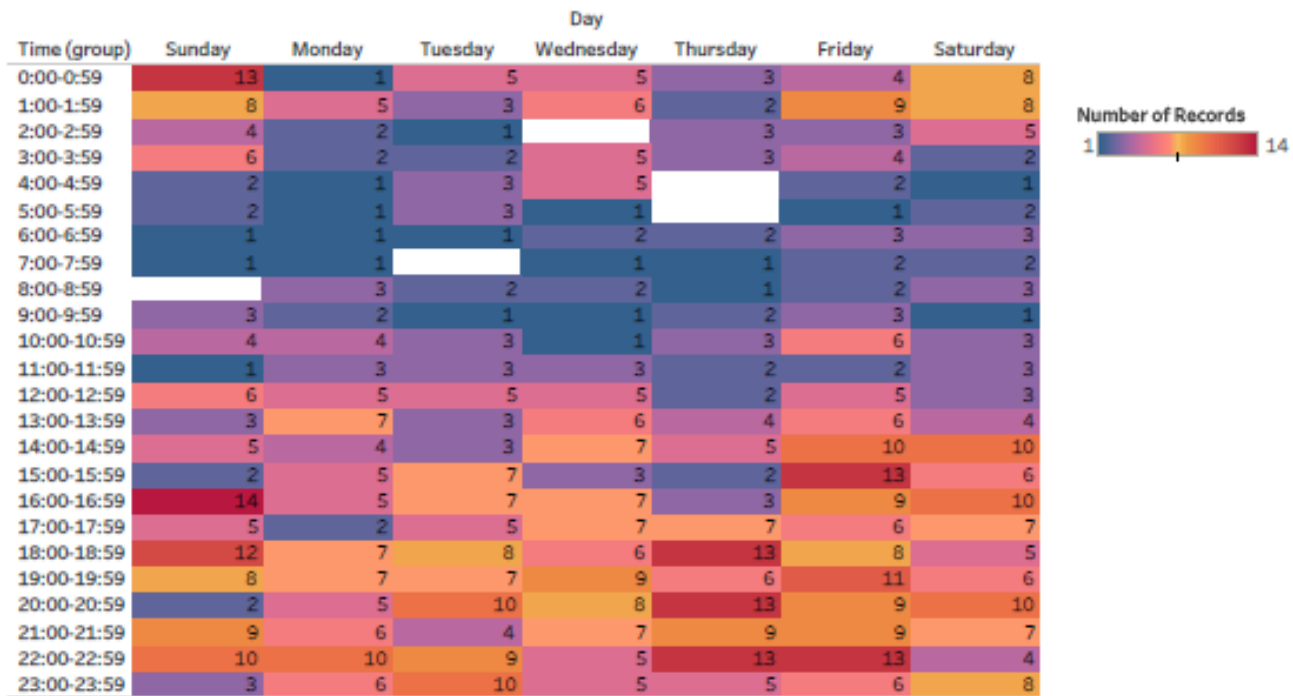
Victims Map by Residence Zip Code with Frequency



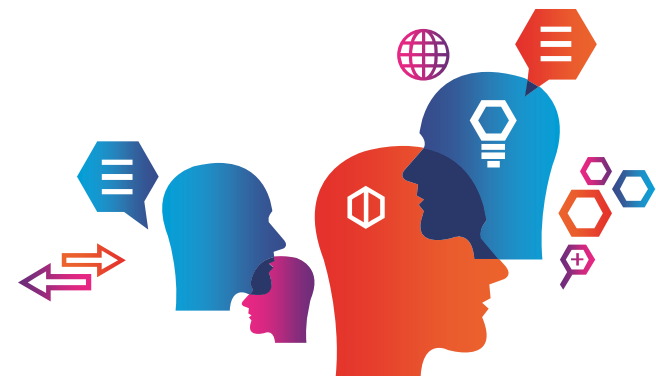
Incidents by Day of Week



Incidents by Day and Time



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DATA AND PUBLIC SAFETY



- How?
 - History of effort
 - Change in how we assess and characterize the threat
 - Not what type cases enforcement is working
 - Not what drug is most prevalent
 - Source diversity (ODs and public health data)

DATA AND PUBLIC SAFETY



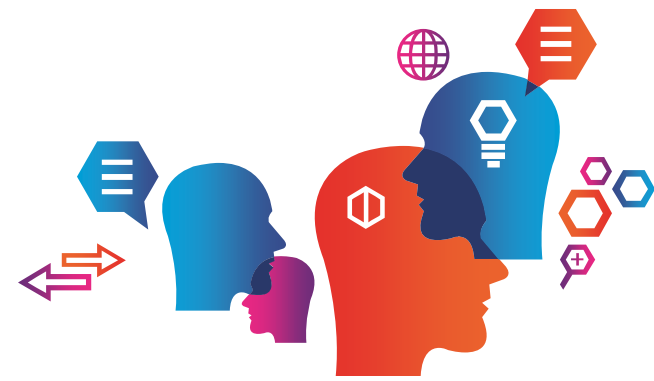
- How?
 - “Stepping out of our lane”
 - Engaging with public health entities, data sources – now to state/local OD task forces
 - Building, nurturing positive relationships based on mutual understanding and willingness to learn
 - Give something back; reciprocation

DATA AND PUBLIC SAFETY



- Lessons learned
 - Resistance due to LE stigma – we’re more than making cases
 - Importance of a data monitoring/surveillance infrastructure for immediate response to OD surges AND long term assessment/resource allocation – local and state level
 - Centralization of data crucial if only to minimize RFIs among numerous data sources
 - Relationships with experts beneficial; collaborations are “force multipliers” – **DEA/Pitt PERU TAC**

Building a data sharing system in your county



Practical Considerations

Identify the first point of contact for data

Draft a detailed communication flow diagram

Create an implementation strategy

Execute and evaluation implementation



Building a data sharing system in your county

Practical Considerations



- Resources
 - Software should work for you, not the other way around
 - Staff
- Resources available to help you
 - Technical Assistance Center/ OverdoseFreePA
 - Grant applications
 - Finding out what state and federal resources are available to you
 - Collaborating with state and federal agencies to leverage their resources
- Needs
 - Clear explanation of what data sharing is to occur
 - What the benefits are
 - Who is the the leader

Building a data sharing system in your county

First Point of Contact



Data set	First point of contact	Can the data be shared?	Next step
EMS	Lynn Mirigian lym17@pitt.edu	Yes	Final POC- invite to meeting Obtain any documentation for sharing
Fatal Overdose	Jerry Overman exam@indianaco.gov	Yes	All data on OverdoseFreePA

Building a data sharing system in your county

Communication Flow Diagram



- Convene a meeting with all final points of contact
- Design a communication flow diagram that includes
 - Data to be shared
 - How often
 - Who is sharing the data
 - Who is receiving the data for analysis/reporting
 - How often the data is reported and who the data is reported to
- Determine goal timeline for first cycle of data sharing



Building a data sharing system in your county

Implementation Protocol



- Convene a meeting with all final points of contact
- Design a communication flow diagram that includes
 - Data to be shared
 - How often
 - Who is collecting/ sharing the data
 - Who is analyzing/ reporting the data
 - Who does is the data reported to
 - What will the data sharer receive, and how often
- Determine goal for first cycle of data sharing

Building a data sharing system in your county

Execution and evaluation

- After the first data collection cycle, it is crucial to improve the process
- Write down exactly what happened
- Convene a meeting
- Compare each step of the process against the ideal
 - If it does not meet the ideal, test a new way to improve the process
- Continue this cycle until all steps have met the ideal



Ideal:

- On Demand
- Immediately
- 1x1
- Defect Free
- No Waste
- Safe



COLLABORATION



- DEA 360 Strategy
 - Comprehensive response to heroin and prescription opioid epidemic
 - Attack cycle of violence and addiction between drug cartels, violent gangs, and drug/heroin/fentanyl abuse



COLLABORATION



- DEA 360 Strategy
 - Approach
 - Coordinated **law enforcement** efforts against supply (DTOs and gangs)
 - **Diversion control** enforcement against registrants operating illegally
 - **Community outreach** – empowering communities to take back affected areas after enforcement for lasting impact

COLLABORATION



- DEA 360 Strategy
 - Goals
 - Reduce drug supply that fuels addiction and violence
 - Partner with medical community and pharmaceutical industry to raise awareness of dangers of opioid misuse and link to heroin (responsible prescribing practices)
 - Strengthen existing community organizations best positioned to provide long-term help and build drug-free communities

COLLABORATION



- DEA 360 Strategy
 - National Partners
 - DOJ Violence Reduction Network
 - HHS Substance Abuse and Mental Health Administration
 - CDC
 - Community Anti-Drug Coalitions of America
 - Boys and Girls Clubs
 - Boy Scouts and Girl Scouts of America
 - Partnership for Drug-Free Kids
 - Local Partnerships

COLLABORATION



- DEA 360 Strategy
 - Pilot Cities
 - 2016
 - Pittsburgh
 - Louisville
 - Milwaukee
 - St. Louis
 - 2017: Charleston, WV; Manchester, NH

COLLABORATION



- Law enforcement – Trojan Horse project
 - Promote two-way information sharing starting with law enforcement response to overdose incidents
 - Local law enforcement shares incident and victim information
 - Checks against DEA databases; provide feedback/recommendations
 - Assistance with identifying major supply organizations for efficient, targeted enforcement – locally and beyond
 - Training provided to local law enforcement

COLLABORATION



- HIDTA Heroin Response Strategy



COLLABORATION



- HIDTA Heroin Response Strategy
 - Goals
 - Reduce heroin/opioid-related overdose deaths
 - Dismantle heroin/opioid distribution networks
 - Educate families and youth about risks of heroin/opioid abuse and available treatment resources
 - Establish lasting public health-public safety partnerships

COLLABORATION



- HIDTA Heroin Response Strategy
 - Public Health and Public Safety Information Sharing Network
 - Drug Intelligence Officers/Public Health Analysts
 - Community Education and Prevention
 - Partnership for Drug-Free Kids – drugfree.org/heroin
 - Platform for regional public health/public safety partnerships
 - Annual symposium, state/local overdose task forces, DIO/PHA interactions



The only way we know we have a drug abuse problem or confirm the existence of such, and for public health/public safety to create collaborative partnerships and initiatives like OverdoseFreePA, DEA 360 and Trojan Horse, HIDTA Heroin Response Strategy, and numerous others at state and local level is through:

Increased availability to timely, accurate, and complete data