Welcome to the

2023 SEOW Annual Symposium

Friday, 8:30 AM - 4:30 PM

INDIANA FAMILY & SOCIAL SERVICES ADMINISTRATION

SyraHealth

Agenda

08:30 AM - 09:15 AM	Registrations
09:15 AM - 09:45 AM	Jean Capler – Psychotherapist, MSW, LCSW, CBIS
10:00 AM - 10:20 AM	Douglas Huntsinger – Drug Czar, Office of the Governor
10:30 AM - 10:50 AM	Jay Chaudhary - JD, Director, Division of Mental Health and Addiction
11:00 AM - 11:45 AM	Srikant Devaraj - Ph.D., Chair of SEOW & VP of Health Analytics, Syra Health
12:00 PM - 01:15 PM	Lunch & Poster Presentations
01:15 PM - 01:45 PM	Justin Blackburn Ph.D., & Heather Taylor - Assistant Professors at IU
02:00PM - 02:30 PM	Don McCay Ph.D. & Adam McFatridge, MA - HIDTA
02:45 PM - 03:15 PM	Dane Minnick - Ph.D., Vice Chair of SEOW and Assistant Professor at Ball State
03:30PM - 04:00 PM	Katelin Rupp - MA, Director of Program Evaluation for Tobacco & Cessation, IDOH
04:15 PM	Kelly Welker – Deputy of Addiction Services/Division of Mental Health and Addiction

Up Next

Name

Jean Capler, MSW, LCSW, CBIS

Position

Psychotherapist at Easterseals Crossroads

9:15am – 9:45am

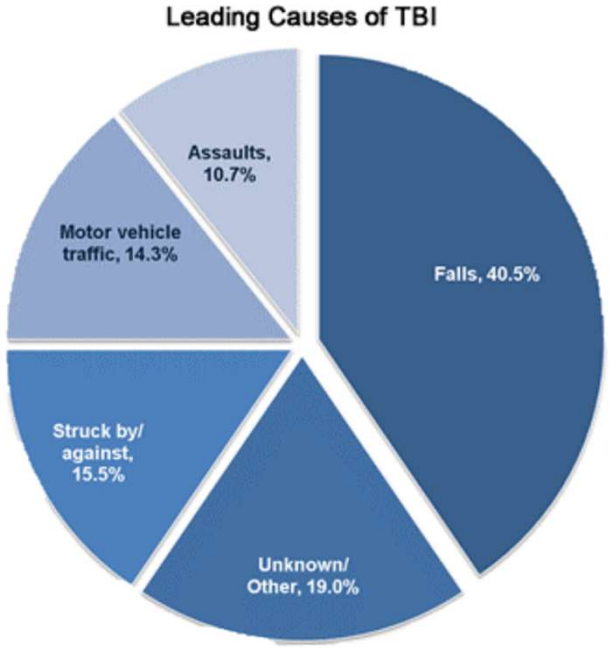
easterseals Crossroads

Screening for Lifetime Exposure to Brain Injury in Therapeutic Settings

Causes of Acquired Brain Injury

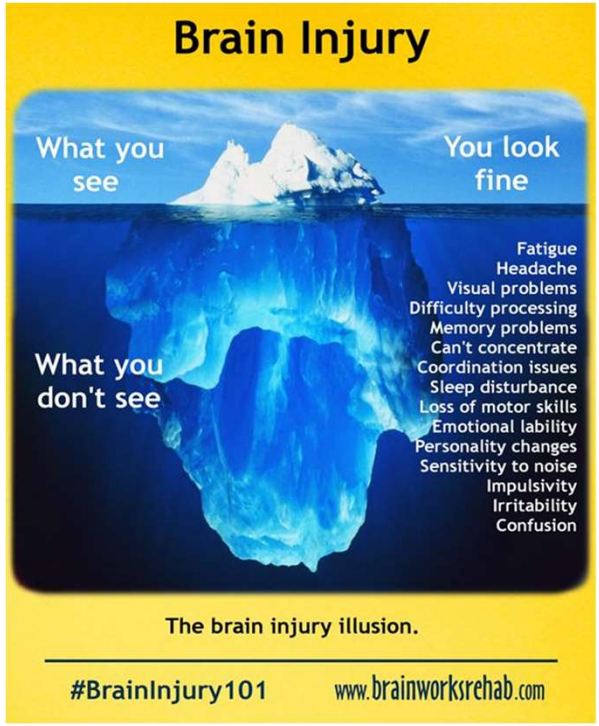
Typical causes of ABI include:

- Electric Shock
- Infectious Disease
- Lightning Strike
- Near Drowning
- Oxygen Deprivation (Hypoxia/Anoxia)
- Stroke
- Seizure Disorder
- Substance Abuse/Overdose
- Toxic Exposure
- Tumor
- Concussion/Traumatic Brain Injury (TBI)



easterseals Crossroads

A Silent and Undermanaged Condition



Comorbidities

- Pain
- Substance use
- Psychiatric disorders
- Social isolation
- Reinjury
- Neuroendocrine dysfunction
- Seizure
- Stroke
- Dementia
- Higher rates of diabetes, hypertension, myocardial infarction, cerebrovascular & peripheral vascular disease, chronic pulmonary disease, & renal disease

easterseals Crossroads

Consequences of TBI		Impact on Behavior
Attention deficit	→	Difficulty focusing on or responding to required tasks or directions on the job or in the classroom
Memory deficit	→	Difficulty understanding or remembering new information – forget what they are to do
Irritability or Anger	→	Incidents with co-workers, supervisors, criminal justice, family
Uninhibited or Impulsive Behavior	→	Poor Inhibition of emotions or desires (e.g., making inappropriate jokes, drug use, rage)
Executive Function deficit	→	Difficulty organizing behavior to execute stated intentions or goals (e.g., don't actually do what they wanted or said they would do)

easterseals Crossroads

TBI and Psychiatric Co-Morbidity

- 42-77% of people with TBI become depressed
- Among TBI subjects with MDD, 77% met DSM-IV criteria for anxiety disorder
- MDD is significantly associated with aggression in TBI (34% of TBI subjects within first 6 months of injury)
- Rate of suicide for TBI is between 2.7-4.1 times the population when matched for age & sex
- 34.9% of TBI subjects report clinically significant levels of hopelessness & suicidality
- 17.4% report suicide attempt within previous 5 years which converts to a 26.2% lifetime rate
- TBI results in a 2-5 fold increase in the risk of developing psychosis
- Most frequent psychiatric diagnosis is bipolar disorder and conduct disorder

easterseals Crossroads

TBI and Substance Use

- 35-50% of TBI's were found to be use related
- 71% of TBI secondary to assault were use related
- Those with TBI consumed significantly more than national averages pre-injury, but after injury, use was consistent with national averages after one year but increased again by two years post-injury
- TBI is associated with a 11-fold increase in death secondary to opioid overdose

easterseals Crossroads

Other Findings

- The lifetime prevalence of any severity of TBI in homeless and marginally housed individuals was 53-1% (18 studies, n=9702 individuals)
- TBI was consistently associated with poorer self-reported physical and mental health, higher suicidality and suicide risk, memory concerns, and increased health service use and criminal justice system involvement.
- Significant racial and ethnic disparities for vulnerability to TBI, access to care and rehabilitation, outcome and probability of arrest

easterseals Crossroads

Implications

- BH/SA systems and providers don't know that a significant number of their clients have lifetime exposure to brain injury and related impairments
- People with brain injury take 2-3 times more treatment and don't know why they are failing treatment
- Treatment failure-recidivism attributed to motivation
- Providers don't know what brain injury resources might be available or how to accommodate for the effects of the brain injury

easterseals Crossroads

Classification of Severity of TBI

	MILD	MODERATE	SEVERE
Loss of Conscious-ness	‹ 20 minutes	20 minutes to 36 hours	› 36 hours
Post-Traumatic Confusion	‹ 24 hours	1- 7 days	› 7 days
Glasgow Coma Scale	13-15	9-12	8-3

easterseals Crossroads

Screening for Lifetime Exposure

The Ohio State University (OSU) Traumatic Brain Injury (TBI) Identification Method (OSU TBI-ID) is a standardized procedure for eliciting a person's lifetime history of TBI via a 3-5 minute structured interview.

Used in medical, mental health, substance abuse, domestic violence, corrections and aging.

OSU TBD ID I Ohio State Brain Injury Prevention & Rehabilitation

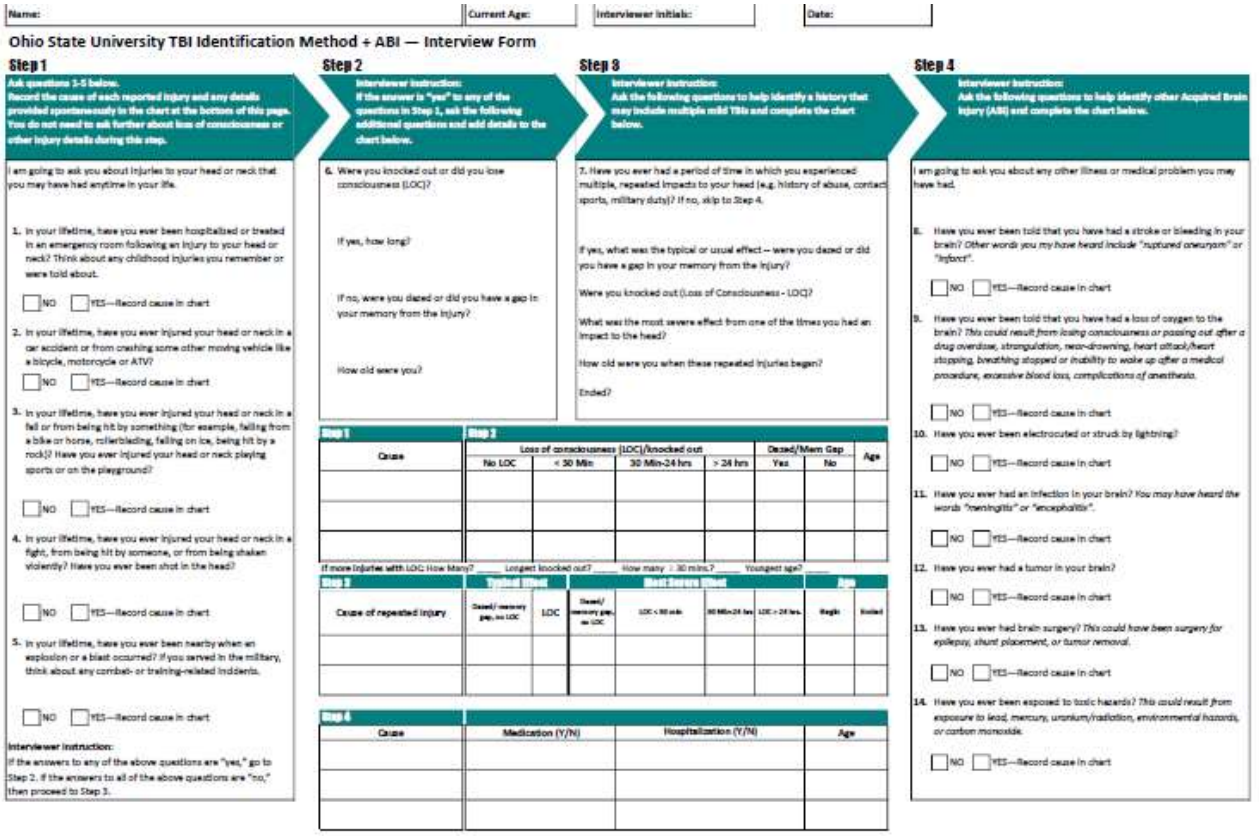
easterseals Crossroads

Why “Lifetime Exposure”

- Some TBI’s are mild- some are severe.
- Sometimes people have multiple TBIs over their lifetime.
- TBI is a risk factor for another TBI
  - Once you have one TBI, you are 3 times more likely to have another….
- OSU TBI ID seeks to quantify the overall lifetime exposure to potentially multiple TBIs and their severity.
  - Ex. Physical abuse as a child, several car accidents throughout life, multiple concussions from sports, physical altercations while growing up, etc.

easterseals Crossroads

OSU-TBI-ID



Name: | Current Age: | Interviewer Initials: | Date:

Ohio State University TBI Identification Method + ABI — Interview Form

Step 1

Ask questions 1-5 below.
Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You do not need to ask further about loss of consciousness or other injury details during this step.

I am going to ask you about injuries to your head or neck that you may have had anytime in your life.

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.
   ☐ NO ☐ YES—Record cause in chart
2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?
   ☐ NO ☐ YES—Record cause in chart
3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?
   ☐ NO ☐ YES—Record cause in chart
4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?
   ☐ NO ☐ YES—Record cause in chart
5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.
   ☐ NO ☐ YES—Record cause in chart

Interviewer instruction:
If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," then proceed to Step 3.

Step 2

Interviewer instruction:
If the answer is "yes" to any of the questions in Step 1, ask the following additional questions and add details to the chart below.

6. Were you knocked out or did you lose consciousness (LOC)?
   If yes, how long?
   If no, were you dazed or did you have a gap in your memory from the injury?
   How old were you?

Step 3

Interviewer instruction:
Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

7. Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)? If no, skip to Step 4.
   If yes, what was the typical or usual effect – were you dazed or did you have a gap in your memory from the injury?
   Were you knocked out (Loss of Consciousness - LOC)?
   What was the most severe effect from one of the times you had an impact to the head?
   How old were you when these repeated injuries began?
   Ended?

Step 1

Cause	Loss of consciousness (LOC)/knocked out				Dazed/Mem Gap		Age
	No LOC	< 30 Min	30 Min-24 hrs	> 24 hrs	Yes	No	

If more injuries with LOC: How Many? ____ Longest knocked out? ____ How many ≥ 30 mins.? ____ Youngest age? ____

Step 3

Cause of repeated injury	Typical Effect		Most Severe Effect			Age	
	Dazed/memory gap, no LOC	LOC	Dazed/memory gap, no LOC	LOC < 30 min	30 Min-24 hrs	LOC > 24 hrs	Begin	Ended

Step 4

Cause	Medication (Y/N)	Hospitalization (Y/N)	Age

Step 4

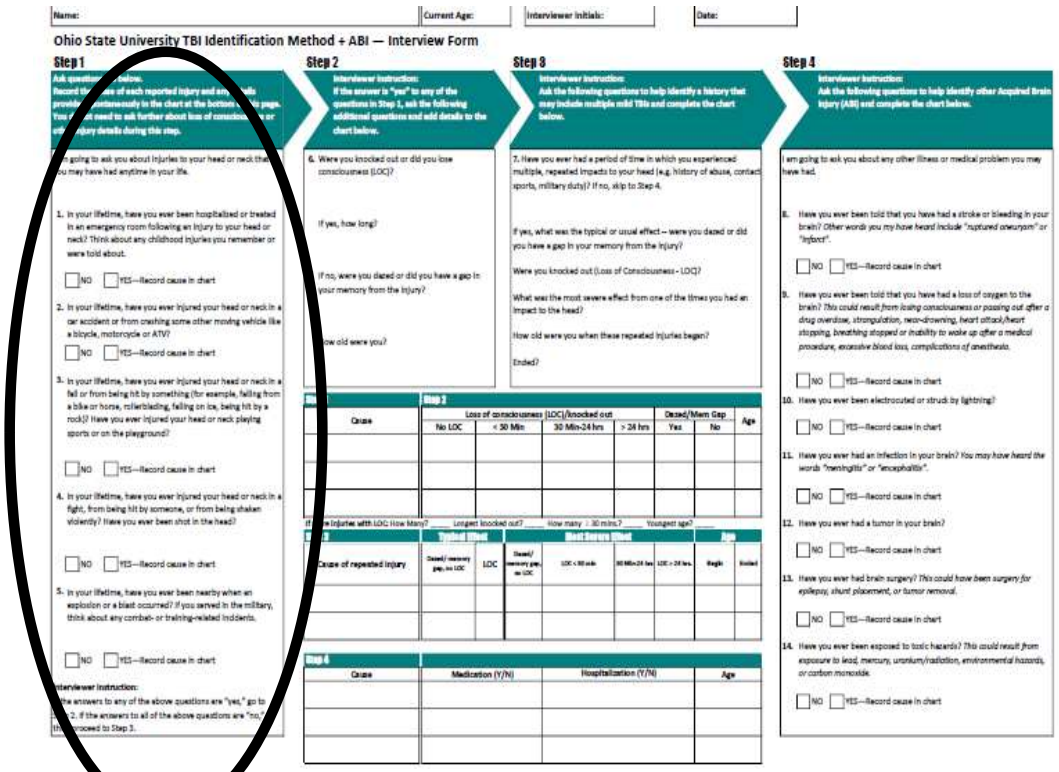
Interviewer instruction:
Ask the following questions to help identify other Acquired Brain Injury (ABI) and complete the chart below.

I am going to ask you about any other illness or medical problem you may have had.

8. Have you ever been told that you have had a stroke or bleeding in your brain? *Other words you may have heard include "ruptured aneurysm" or "infarct".*
   ☐ NO ☐ YES—Record cause in chart
9. Have you ever been told that you have had a loss of oxygen to the brain? *This could result from losing consciousness or passing out after a drug overdose, strangulation, near-drowning, heart attack/heart stopping, breathing stopped or inability to wake up after a medical procedure, excessive blood loss, complications of anesthesia.*
   ☐ NO ☐ YES—Record cause in chart
10. Have you ever been electrocuted or struck by lightning?
    ☐ NO ☐ YES—Record cause in chart
11. Have you ever had an infection in your brain? *You may have heard the words "meningitis" or "encephalitis".*
    ☐ NO ☐ YES—Record cause in chart
12. Have you ever had a tumor in your brain?
    ☐ NO ☐ YES—Record cause in chart
13. Have you ever had brain surgery? *This could have been surgery for epilepsy, shunt placement, or tumor removal.*
    ☐ NO ☐ YES—Record cause in chart
14. Have you ever been exposed to toxic hazards? *This could result from exposure to lead, mercury, uranium/radiation, environmental hazards, or carbon monoxide.*
    ☐ NO ☐ YES—Record cause in chart

easterseals Crossroads

Step 1



Name: | Current Age: | Interviewer Initials: | Date:

Ohio State University TBI Identification Method + ABI — Interview Form

Step 1

Ask questions below. Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You may not need to ask further about loss of consciousness or other injury details during this step.

I am going to ask you about injuries to your head or neck that you may have had anytime in your life.

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.
☐ NO ☐ YES—Record cause in chart

2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?
☐ NO ☐ YES—Record cause in chart

3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?
☐ NO ☐ YES—Record cause in chart

4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?
☐ NO ☐ YES—Record cause in chart

5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.
☐ NO ☐ YES—Record cause in chart

Interviewer Instruction:
If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," proceed to Step 3.

Step 2

Interviewer Instruction:
If the answer is "yes" to any of the questions in Step 1, ask the following additional questions and add details to the chart below.

6. Were you knocked out or did you lose consciousness (LOC)?

If yes, how long?

If no, were you dazed or did you have a gap in your memory from the injury?

How old were you?

Step 3

Interviewer Instruction:
Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

7. Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)? If no, skip to Step 4.

If yes, what was the typical or usual effect – were you dazed or did you have a gap in your memory from the injury?

Were you knocked out (Loss of Consciousness - LOC)?

What was the most severe effect from one of the times you had an impact to the head?

How old were you when these repeated injuries began?

Ended?

Step 4

Interviewer Instruction:
Ask the following questions to help identify other Acquired Brain Injury (ABI) and complete the chart below.

I am going to ask you about any other illness or medical problem you may have had.

8. Have you ever been told that you have had a stroke or bleeding in your brain? *Other words you may have heard include "ruptured aneurysm" or "infarct".*
☐ NO ☐ YES—Record cause in chart

9. Have you ever been told that you have had a loss of oxygen to the brain? *This could result from losing consciousness or passing out after a drug overdose, strangulation, near-drowning, heart attack/heart stopping, breathing stopped or inability to wake up after a medical procedure, excessive blood loss, complications of anesthesia.*
☐ NO ☐ YES—Record cause in chart

10. Have you ever been electrocuted or struck by lightning?
☐ NO ☐ YES—Record cause in chart

11. Have you ever had an infection in your brain? *You may have heard the words "meningitis" or "encephalitis".*
☐ NO ☐ YES—Record cause in chart

12. Have you ever had a tumor in your brain?
☐ NO ☐ YES—Record cause in chart

13. Have you ever had brain surgery? *This could have been surgery for epilepsy, shunt placement, or tumor removal.*
☐ NO ☐ YES—Record cause in chart

14. Have you ever been exposed to toxic hazards? *This could result from exposure to lead, mercury, uranium/radiation, environmental hazards, or carbon monoxide.*
☐ NO ☐ YES—Record cause in chart

Step 2

Cause	Loss of consciousness (LOC)/knocked out				Dazed/Mem Gap		Age
	No LOC	< 30 Min	30 Min-24 hrs	> 24 hrs	Yes	No	

If more injuries with LOC: How Many? ____ Longest knocked out? ____ How many ≥ 30 mins.? ____ Youngest age? ____

Cause of repeated injury	Dazed/ memory gap, no LOC	LOC	Dazed/ memory gap, no LOC	LOC < 30 min	30 Min-24 hrs	LOC > 24 hrs	Age	
							Begin	Ended

Step 4

Cause	Medication (Y/N)	Hospitalization (Y/N)	Age

easterseals Crossroads

Step 1

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.

Yes – Record cause in chart No

2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle, or ATV?

Yes – Record cause in chart No

easterseals Crossroads

Step 1

3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?

Yes – Record cause in chart No

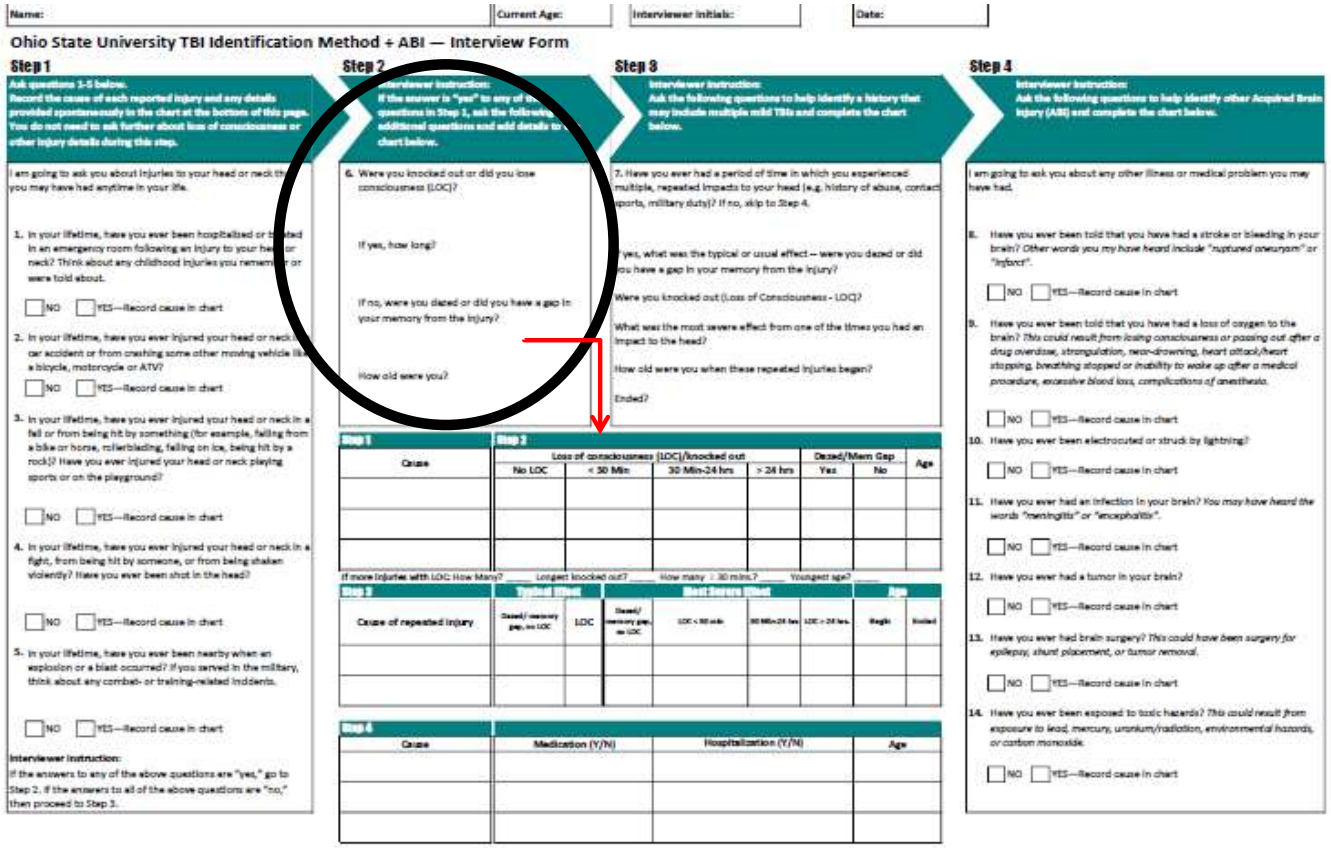
4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?

Yes – Record cause in chart No

5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.

Yes – Record cause in chart No

Step 2



Name: | Current Age: | Interviewer Initials: | Date:

Ohio State University TBI Identification Method + ABI — Interview Form

Step 1

Ask questions 1-5 below.
Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You do not need to ask further about loss of consciousness or other injury details during this step.

I am going to ask you about injuries to your head or neck that you may have had anytime in your life.

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.
   ☐ NO ☐ YES—Record cause in chart
2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?
   ☐ NO ☐ YES—Record cause in chart
3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?
   ☐ NO ☐ YES—Record cause in chart
4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?
   ☐ NO ☐ YES—Record cause in chart
5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.
   ☐ NO ☐ YES—Record cause in chart

Interviewer Instruction:
If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," then proceed to Step 3.

Step 2

Interviewer Instruction:
If the answer is "yes" to any of the questions in Step 1, ask the following additional questions and add details to the chart below.

6. Were you knocked out or did you lose consciousness (LOC)?
   If yes, how long?
   If no, were you dazed or did you have a gap in your memory from the injury?
   How old were you?

Step 3

Interviewer Instruction:
Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

7. Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)? If no, skip to Step 4.
   If yes, what was the typical or usual effect – were you dazed or did you have a gap in your memory from the injury?
   Were you knocked out (Loss of Consciousness - LOC)?
   What was the most severe effect from one of the times you had an impact to the head?
   How old were you when these repeated injuries began?
   Ended?

Step 4

Interviewer Instruction:
Ask the following questions to help identify other Acquired Brain Injury (ABI) and complete the chart below.

I am going to ask you about any other illness or medical problem you may have had.

8. Have you ever been told that you have had a stroke or bleeding in your brain? *Other words you may have heard include "ruptured aneurysm" or "infarct".*
   ☐ NO ☐ YES—Record cause in chart
9. Have you ever been told that you have had a loss of oxygen to the brain? *This could result from losing consciousness or passing out after a drug overdose, strangulation, near-drowning, heart attack/heart stopping, breathing stopped or inability to wake up after a medical procedure, excessive blood loss, complications of anesthesia.*
   ☐ NO ☐ YES—Record cause in chart
10. Have you ever been electrocuted or struck by lightning?
    ☐ NO ☐ YES—Record cause in chart
11. Have you ever had an infection in your brain? *You may have heard the words "meningitis" or "encephalitis".*
    ☐ NO ☐ YES—Record cause in chart
12. Have you ever had a tumor in your brain?
    ☐ NO ☐ YES—Record cause in chart
13. Have you ever had brain surgery? *This could have been surgery for epilepsy, shunt placement, or tumor removal.*
    ☐ NO ☐ YES—Record cause in chart
14. Have you ever been exposed to toxic hazards? *This could result from exposure to lead, mercury, uranium/radiation, environmental hazards, or carbon monoxide.*
    ☐ NO ☐ YES—Record cause in chart

Step 1

Cause	Step 2: Loss of consciousness (LOC)/knocked out: No LOC	< 30 Min	30 Min-24 hrs	> 24 hrs	Dazed/Mem Gap: Yes	No	Age

If more injuries with LOC: How Many? ____ Longest knocked out? ____ How many > 30 mins.? ____ Youngest age? ____

Step 3: Cause of repeated injury	Typical Effect: Dazed/ memory gap, no LOC	LOC	Most Severe Effect: Dazed/ memory gap, no LOC	LOC < 30 min	30 Min-24 hrs	LOC > 24 hrs.	Age: Began	Ended

Step 4: Cause	Medication (Y/N)	Hospitalization (Y/N)	Age

easterseals Crossroads

Step 2

6. Were you knocked out or did you lose consciousness (LOC)?

If yes, how long?

If no, were you dazed or did you have a gap in your memory from the injury?

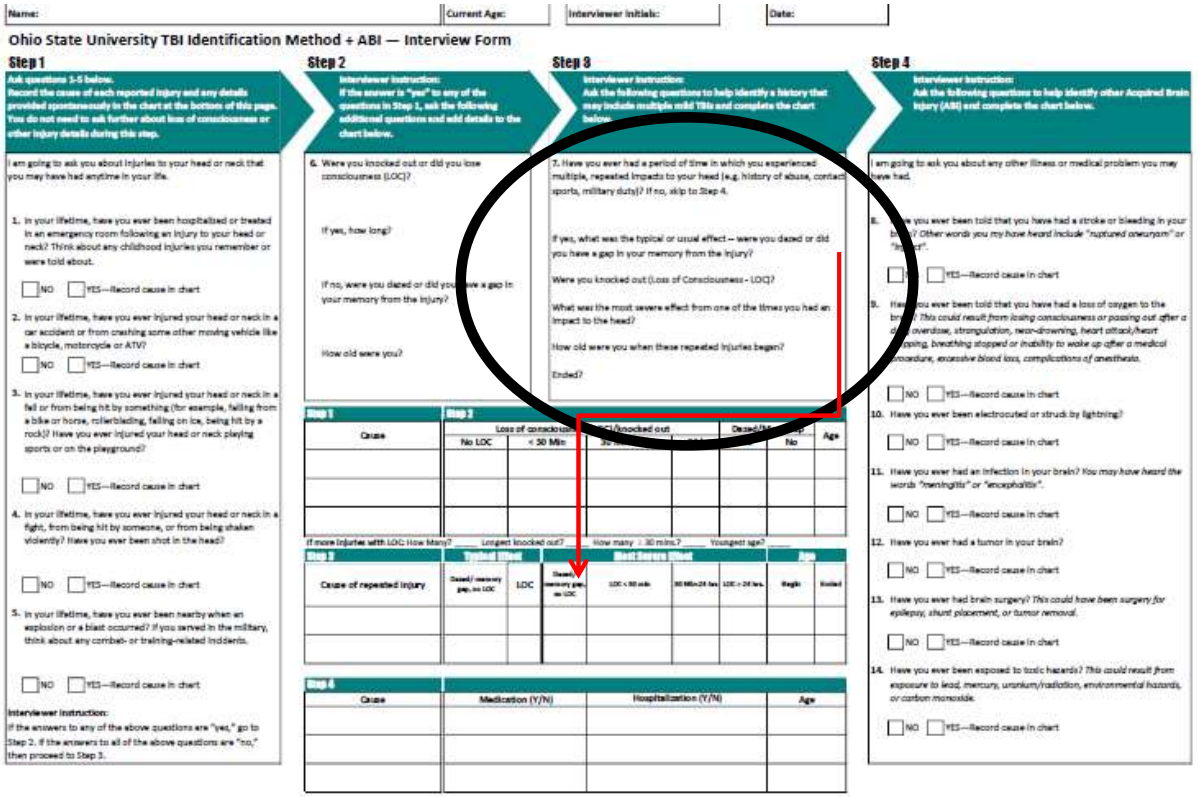
How old were you?

Step 1	Step 2						
Cause	Loss of consciousness (LOC)/knocked out				Dazed/Mem Gap		Age
	No LOC	< 30 Min	30 Min-24 hrs	> 24 hrs	Yes	No	

If more injuries with LOC: How Many? _____ Longest knocked out? _____ How many ≥ 30 mins.? _____ Youngest age? _____

easterseals Crossroads

Step 3



Name: | Current Age: | Interviewer Initials: | Date:

Ohio State University TBI Identification Method + ABI — Interview Form

Step 1

Ask questions 1-5 below. Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You do not need to ask further about loss of consciousness or other injury details during this step.

I am going to ask you about injuries to your head or neck that you may have had anytime in your life.

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.
   ☐ NO ☐ YES—Record cause in chart
2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?
   ☐ NO ☐ YES—Record cause in chart
3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?
   ☐ NO ☐ YES—Record cause in chart
4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?
   ☐ NO ☐ YES—Record cause in chart
5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.
   ☐ NO ☐ YES—Record cause in chart

Interviewer Instruction:
If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," then proceed to Step 3.

Step 2

Interviewer Instruction:
If the answer is "yes" to any of the questions in Step 1, ask the following additional questions and add details to the chart below.

6. Were you knocked out or did you lose consciousness (LOC)?
   If yes, how long?
   If no, were you dazed or did you have a gap in your memory from the injury?
   How old were you?

Step 3

Interviewer Instruction:
Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

7. Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)? If no, skip to Step 4.
   If yes, what was the typical or usual effect -- were you dazed or did you have a gap in your memory from the injury?
   Were you knocked out (Loss of Consciousness - LOC)?
   What was the most severe effect from one of the times you had an impact to the head?
   How old were you when these repeated injuries began?
   Ended?

Step 1	Step 2						
Cause	Loss of consciousness		Dazed/knocked out		Dazed/Hit head		
	No LOC	< 30 Min	30			No	Age

If more injuries with LOC: How Many? ____ Longest knocked out? ____ How many ≥ 30 mins.? ____ Youngest age? ____

Step 3	Typical Effect			Most Severe Effect			Age	
Cause of repeated injury	Dazed/ memory gap, no LOC	LOC	Dazed/ memory gap, no LOC	LOC < 30 min	30 Min-24 hrs	LOC > 24 hrs.	Began	Ended

Step 4			
Cause	Medication (Y/N)	Hospitalization (Y/N)	Age

Step 4

Interviewer Instruction:
Ask the following questions to help identify other Acquired Brain Injury (ABI) and complete the chart below.

I am going to ask you about any other illness or medical problem you may have had.

8. Have you ever been told that you have had a stroke or bleeding in your brain? Other words you may have heard include "ruptured aneurysm" or "bleed".
   ☐ NO ☐ YES—Record cause in chart
9. Have you ever been told that you have had a loss of oxygen to the brain? *This could result from losing consciousness or passing out after a drug overdose, strangulation, near-drowning, heart attack/heart stopping, breathing stopped or inability to wake up after a medical procedure, excessive blood loss, complications of anesthesia.*
   ☐ NO ☐ YES—Record cause in chart
10. Have you ever been electrocuted or struck by lightning?
    ☐ NO ☐ YES—Record cause in chart
11. Have you ever had an infection in your brain? You may have heard the words "meningitis" or "encephalitis".
    ☐ NO ☐ YES—Record cause in chart
12. Have you ever had a tumor in your brain?
    ☐ NO ☐ YES—Record cause in chart
13. Have you ever had brain surgery? *This could have been surgery for epilepsy, shunt placement, or tumor removal.*
    ☐ NO ☐ YES—Record cause in chart
14. Have you ever been exposed to toxic hazards? *This could result from exposure to lead, mercury, uranium/radiation, environmental hazards, or carbon monoxide.*
    ☐ NO ☐ YES—Record cause in chart

easterseals Crossroads

Step 3

Step 3

Interviewer instruction:
Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

7. Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)? If no, skip to Step 4.

If yes, what was the typical or usual effect -- were you dazed or did you have a gap in your memory from the injury?

Were you knocked out (Loss of Consciousness - LOC)?

What was the most severe effect from one of the times you had an impact to the head?

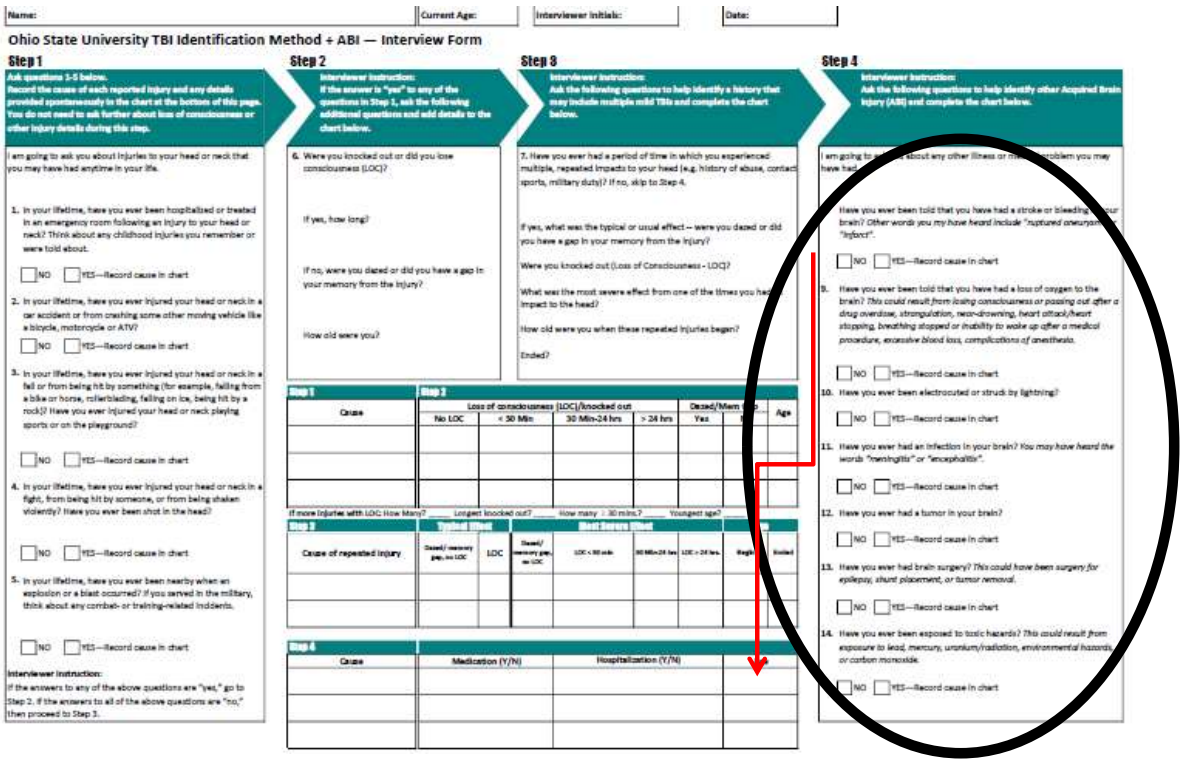
How old were you when these repeated injuries began?

Ended?

Step 3	Typical Effect		Most Severe Effect				Age	
Cause of repeated injury	Dazed/ memory gap, no LOC	LOC	Dazed/ memory gap, no LOC	LOC < 30 min	30 Min-24 hrs	LOC > 24 hrs.	Begin	Ended

easterseals Crossroads

Step 4



Name: | Current Age: | Interviewer Initials: | Date:

Ohio State University TBI Identification Method + ABI — Interview Form

Step 1

Ask questions 1-5 below.
Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You do not need to ask further about loss of consciousness or other injury details during this step.

I am going to ask you about injuries to your head or neck that you may have had anytime in your life.

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.
   ☐ NO ☐ YES—Record cause in chart
2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?
   ☐ NO ☐ YES—Record cause in chart
3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?
   ☐ NO ☐ YES—Record cause in chart
4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?
   ☐ NO ☐ YES—Record cause in chart
5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.
   ☐ NO ☐ YES—Record cause in chart

Interviewer Instruction:
If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," then proceed to Step 3.

Step 2

Interviewer Instruction:
If the answer is "yes" to any of the questions in Step 1, ask the following additional questions and add details to the chart below.

6. Were you knocked out or did you lose consciousness (LOC)?
   If yes, how long?
   If no, were you dazed or did you have a gap in your memory from the injury?
   How old were you?

Step 3

Interviewer Instruction:
Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

7. Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)? If no, skip to Step 4.
   If yes, what was the typical or usual effect -- were you dazed or did you have a gap in your memory from the injury?
   Were you knocked out (Loss of Consciousness - LOC)?
   What was the most severe effect from one of the times you had impact to the head?
   How old were you when these repeated injuries began?
   Ended?

Step 1	Step 2						
Cause	Loss of consciousness (LOC)/knocked out				Dazed/Mem Gap		Age
	No LOC	< 30 Min	30 Min-24 hrs	> 24 hrs	Yes		

If more injuries with LOC: How Many? ____ Longest knocked out? ____ How many ≥ 30 mins.? ____ Youngest age? ____

Step 3	Typical Effect		Most Severe Effect				
Cause of repeated injury	Dazed/ memory gap, no LOC	LOC	Dazed/ memory gap, no LOC	LOC < 30 min	30 Min-24 hrs	LOC > 24 hrs	Begin	Ended

Step 4			
Cause	Medication (Y/N)	Hospitalization (Y/N)	Age

Step 4

Interviewer Instruction:
Ask the following questions to help identify other Acquired Brain Injury (ABI) and complete the chart below.

I am going to ask you about any other illness or medical problem you may have had.

8. Have you ever been told that you have had a stroke or bleeding in your brain? *Other words you may have heard include "ruptured aneurysm" or "infarct".*
   ☐ NO ☐ YES—Record cause in chart
9. Have you ever been told that you have had a loss of oxygen to the brain? *This could result from losing consciousness or passing out after a drug overdose, strangulation, near-drowning, heart attack/heart stopping, breathing stopped or inability to wake up after a medical procedure, excessive blood loss, complications of anesthesia.*
   ☐ NO ☐ YES—Record cause in chart
10. Have you ever been electrocuted or struck by lightning?
    ☐ NO ☐ YES—Record cause in chart
11. Have you ever had an infection in your brain? *You may have heard the words "meningitis" or "encephalitis".*
    ☐ NO ☐ YES—Record cause in chart
12. Have you ever had a tumor in your brain?
    ☐ NO ☐ YES—Record cause in chart
13. Have you ever had brain surgery? *This could have been surgery for epilepsy, shunt placement, or tumor removal.*
    ☐ NO ☐ YES—Record cause in chart
14. Have you ever been exposed to toxic hazards? *This could result from exposure to lead, mercury, uranium/radiation, environmental hazards, or carbon monoxide.*
    ☐ NO ☐ YES—Record cause in chart

easterseals Crossroads

Step 4

8. Have you ever been told that you have had a stroke or bleeding in your brain? Other words you may have heard include “ruptured aneurysm” or “infarct”

No Yes – Record cause in chart

9. Have you ever been told that you have had a loss of oxygen to the brain? This could result from losing consciousness or passing out after a drug/alcohol overdose, being choked/strangled, near-drowning, heart attack / heart stopping, breathing stopped, inability to wake up after a medical procedure, excessive blood loss, complications of anesthesia.

No Yes – Record cause in chart

10. Have you ever been electrocuted or struck by lightning?

No Yes – Record cause in chart

easterseals Crossroads

Step 4

11. Have you ever had an infection in your brain? You may have heard the words “meningitis” or “encephalitis”

No Yes – Record cause in chart

12. Have you ever had a tumor in your brain?

No Yes – Record cause in chart

13. Have you ever had brain surgery? This could have been surgery for epilepsy, shunt placement, or tumor removal

No Yes – Record cause in chart

14. Have you ever been exposed to toxic hazards? This could result from exposure to lead, mercury, uranium/radiation, environmental hazards, or carbon monoxide

No Yes – Record cause in chart

Step 4

Step 4			
Cause	Medication (Y/N)	Hospitalization (Y/N)	Age

easterseals Crossroads

Scoring

SCORING CRITERIA

Scores will reflect both TBI (if applicable) and ABI (if applicable) below.

Classifying Worst TBI (circle one):

IMPROBABLE TBI	If all interview questions #1-5 are "no" or if in response to question #6, interview data reports never having LOC, being dazed or having memory lapses.
POSSIBLE MILD TBI / CONCUSSION WITHOUT LOC	If in response to question #6, interview data reports being dazed or having a memory lapse.
POSSIBLE MILD TBI / CONCUSSION WITH LOC	If in response to question #6, interview data reports LOC does not exceed 30 minutes for any injury.
POSSIBLE MODERATE TBI	If in response to question #6, interview data reports LOC for any one injury is between 30 minutes and 24 hours.
POSSIBLE SEVERE TBI	If in response to question #6, interview data reports LOC for any one injury exceeds 24 hours.

ABI (if applicable):

POSSIBLE ABI	If in response to Step 4, interview data reports "yes".

easterseals Crossroads

References

- Jeffrey S. Kreutzer, Ronald T. Seel, Eugene Gourley (2001) The prevalence and symptom rates of depression after traumatic brain injury: a comprehensive examination, Brain Injury, 15:7, 563-576, DOI: 10.1080/02699050116884
- Robinson RG & Jorge RE. Mood Disorders. In: *Textbook of Traumatic Brain Injury.* Arlington, VA: American Psychiatric Publishing, 2005, Pp 202-203.
- Teasdale TW, Engberg AW. Suicide after traumatic brain injury: a population study. Journal of Neurology, Neurosurgery & Psychiatry 2001;71:436-440.
- Simpson, G., & Tate, R. (2002). Suicidality after traumatic brain injury: demographic, injury and clinical correlates. *Psychological medicine*, *32*(4), 687-697.
- Ahmed I & Fujii D (1998). Posttraumatic psychosis. *Seminars in Clinical Neuropsychiatry 3*: 23-33.
- Thomsen IV (1984). Late outcome of very severe blunt head trauma: a 10–15 year second follow-up. *J Neurology, Neurosurgery, and Psychiatry 47:* 260-268. Sachdev P, Smith JS & Cathcart S (2001). Schizophrenia-like psychosis following traumatic brain injury: a chart-based descriptive and case-control study. *Psychological Medicine, 31* (2): 231-239.
- Corrigan JD, Rust E & Lamb-Hart GL (1995). The nature and extent of substance abuse problems in persons with traumatic brain injury. *Journal of Head Trauma Rehabilitation*, 10(3), 29-46.
- Parry-Jones B, Vaughn FL & Cox M (2006). Traumatic brain injury and substance misuse: A systematic review of prevalence and outcome research (1994-2004). *Neuropsychological Rehabilitation,* 16(5), 537-560. Ponsford, J, Whelan-Goodinson R & Bahar-Fuchs, A (2009). Alcohol and drug use following traumatic brain injury: A prospective study*, Brain Injury*, 21(13-14), 1385-1392.
- Jacob L Stubbs, Allen E Thornton, Jessica M Sevick, Noah D Silverberg, Alasdair M Barr, William G Honer, William J Panenka. Traumatic brain injury in homeless and marginally housed individuals: a systematic review and meta-analysis. The Lancet Public Health, Volume 5, Issue 1, 2020, Pages e19-e3

easterseals Crossroads

- Arango-Lasprilla, J. C., & Kreutzer, J. S. (2010). Racial and ethnic disparities in functional, psychosocial, and neurobehavioral outcomes after brain injury. *The Journal of head trauma rehabilitation*, *25*(2), 128-136.
- Gao, S., Kumar, R. G., Wisniewski, S., & Fabio, A. (2018). Disparities in health care utilization of adults with traumatic brain injuries are related to insurance, race and ethnicity: A systematic review. *The Journal of head trauma rehabilitation*, *33*(3), E40.
- Pugh Jr, M., Perrin, P. B., Arango-Lasprilla, J. C., Klyce, D. W., Jones, S. C., & Dautovich, N. D. (2022, October). Racial/ethnic differences in arrest probability trajectories after traumatic brain injury: a Model Systems Study. In *Healthcare* (Vol. 10, No. 10, p. 2078). MDPI.
- Hammond FM, Ketchum JM, Dams-O'Connor K, Corrigan JD, Miller AC, Haarbauer-Krupa J, Faul M, Trexler LE, Harrison-Felix C: Mortality Secondary to Unintentional Poisoning after Inpatient Rehabilitation for Traumatic Brain Injury. J Neurotrauma Published Online: Jul 8, 2020 https://doi.org/10.1089/neu.2020.7038
- Trexler, LE, Corrigan, JD, Davé, S and Hammond, FM. (2020) Recommendations for prescribing opioids for people with traumatic brain injury. Archives of Physical Medicine and Rehabilitation, 101: 2033-40. https://doi.org/10.1016/j.apmr.2020.07.005
- Shiroma, E. J., Ferguson, P. L., & Pickelsimer, E. E. (2010). Prevalence of traumatic brain injury in an offender population: A meta-analysis. *Journal of correctional health care*, *16*(2), 147-159.
- McGuire, L. M., Burright, R. G., Williams, R., & Donovick, P. J. (1998). Prevalence of traumatic brain injury in psychiatric and non-psychiatric subjects. Brain Injury, 12(3), 207-214.
- Luukkainen, S, Riala, K, Laukkanen, M et al (2012). Association of traumatic brain injury with criminality in adolescent psychiatric inpatients from Northern Finland. Psychiatry Research, 200, 767-772
- Brooks, N., Campsie, L., Symington, C., Beattie, A., & McKinlay, W. (1986). The five year outcome of severe blunt head injury: a relative's view. *Journal of Neurology, Neurosurgery & Psychiatry*, *49*(7), 764-770.
- Hall, K. M., Karzmark, P., Stevens, M., Englander, J., O'Hare, P., & Wright, J. (1994). Family stressors in traumatic brain injury: a two-year follow-up. *Archives of physical medicine and rehabilitation*, *75*(8), 876-884.
- SARAPATA, DOUGLAS HERRMANN, TOM JOHNSON, ROSE AYCOCK, M. I. C. H. A. E. L. (1998). The role of head injury in cognitive functioning, emotional adjustment and criminal behaviour. *Brain Injury*, *12*(10), 821-842.
- Trexler LE, Parrott D. The impact of resource facilitation on recidivism for individuals with traumatic brain injury: A pilot, non-randomized controlled study. Brain Inj. 2022 Mar 12:1-8. doi: 10.1080/02699052.2022.2051207. Epub ahead of print. PMID: 35285357.

QUESTIONS?

Up Next

Name

Doug Huntsinger

Position

Drug Czar, Office of the Governor

10:00am – 10:20am

Name

Jay Chaudhary

Position

Director of the Division of Mental Health & Addiction

10:30am – 10:50am

Up Next

Name

Srikant Devaraj, Ph.D.

Position

Chair of SEOW & VP of Health Analytics at Syra Health

11:00am – 11:45am

INDIANA STATE EPIDEMIOLOGICAL OUTCOMES WORKGROUP (SEOW)

Key trends and findings from the Annual SEOW Report (SFY 2023)

SRIKANT DEVARAJ, Ph.D.

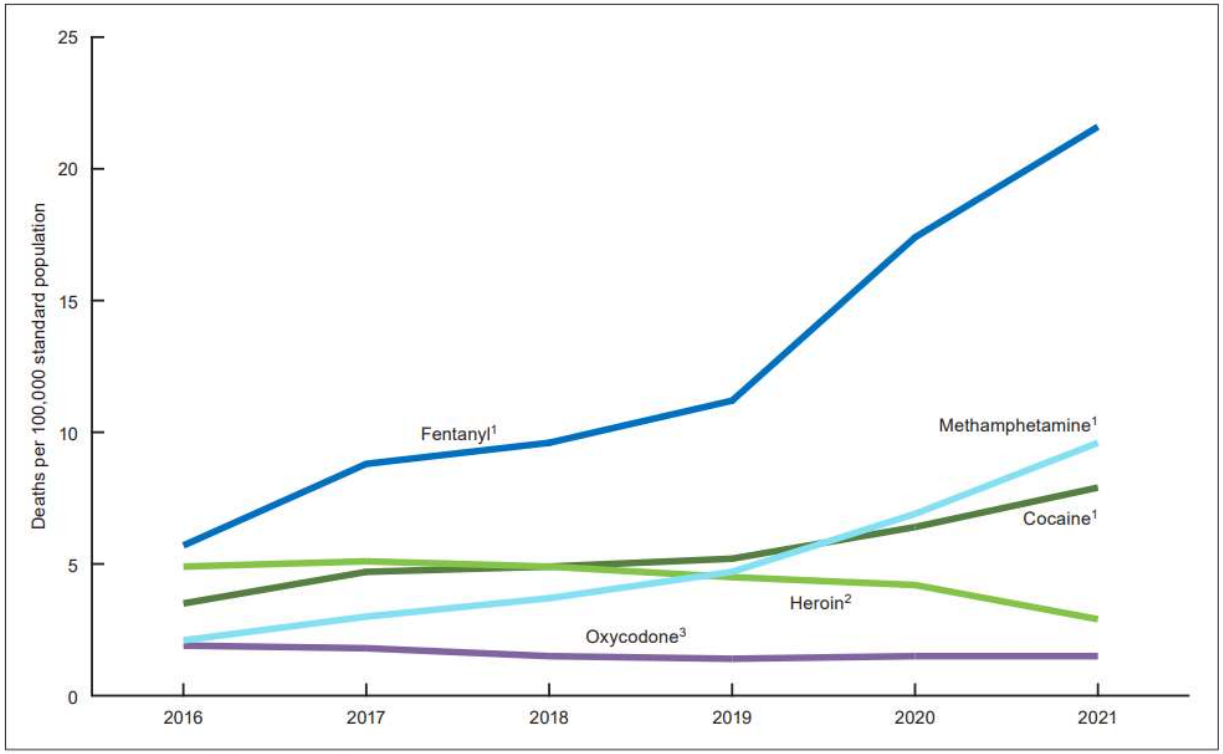
Chair of SEOW and VP of Health Analytics, Syra Health

About SEOW

- Representation from about 18 state agencies/divisions who are knowledgeable about mental, emotional and behavioral disorders, prevention, intervention, and treatment issues.
- Advisory capacity to the State of Indiana, the Division of Mental Health and Addiction (DMHA), the Mental Health and Addiction Planning and Advisory Council (MHAPAC), and the MHAPAC Prevention Leaders Workgroup.
- Monitor and mitigate substance abuse and protect the physical and mental wellbeing of all Indiana residents using epidemiological data and evidence-based practices.

National Trends
Results from CDC study (Spencer et al., 2023)

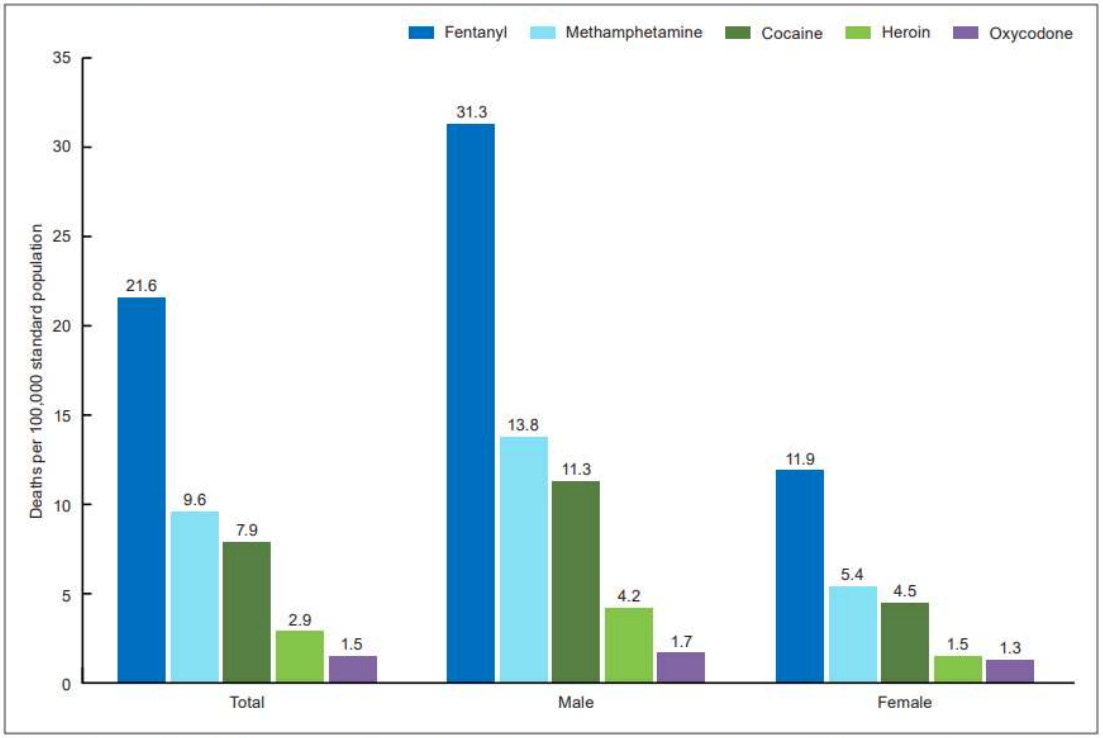
Figure 1. Age-adjusted rates of drug overdose deaths, by selected drugs: United States, 2016–2021



[1]Significant increasing trend from 2016 through 2021; $p < 0.05$.
[2]Stable trend from 2016 through 2021.
[3]Significant decreasing trend from 2016 through 2021; $p < 0.05$.
NOTES: Drug overdose deaths are identified using *International Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Deaths may involve other drugs in addition to the referent drug (that is, the one listed). Deaths involving more than one drug (for example, a death involving both heroin and cocaine) are included in both totals. Age-adjusted death rates were calculated using the direct method and the U.S. 2000 standard population. Caution should be used when comparing rates across years. The reporting of at least one specific drug or drug class in the literal text, as identified by multiple cause-of-death codes T36–T50.8, improved from 85% of drug overdose deaths in 2016 to 95% in 2021.
SOURCE: National Center for Health Statistics, National Vital Statistics System, death certificate literal text data.

National Trends (contd.)
Results from CDC study (Spencer et al., 2023)

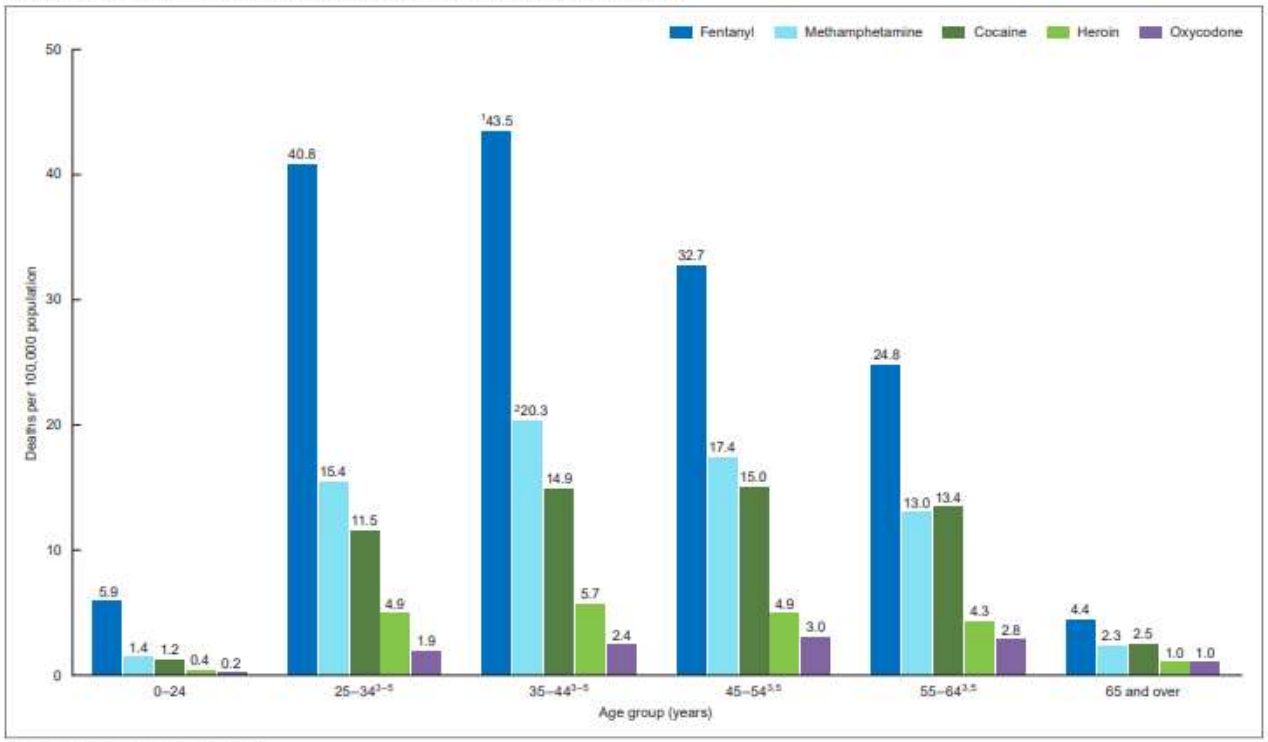
Figure 2. Age-adjusted rates of drug overdose deaths, by selected drugs and sex: United States, 2021



NOTES: Drug overdose deaths are identified using *International Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Deaths may involve other drugs in addition to the referent drug (that is, the one listed). Deaths involving more than one drug (for example, a death involving both heroin and cocaine) are included in both totals. Age-adjusted death rates were calculated using the direct method and the U.S. 2000 standard population. Differences in rates between selected drugs for all groups were significant ($p < 0.05$).
SOURCE: National Center for Health Statistics, National Vital Statistics System, death certificate literal text data.

National Trends (contd.)
Results from CDC study (Spencer et al., 2023)

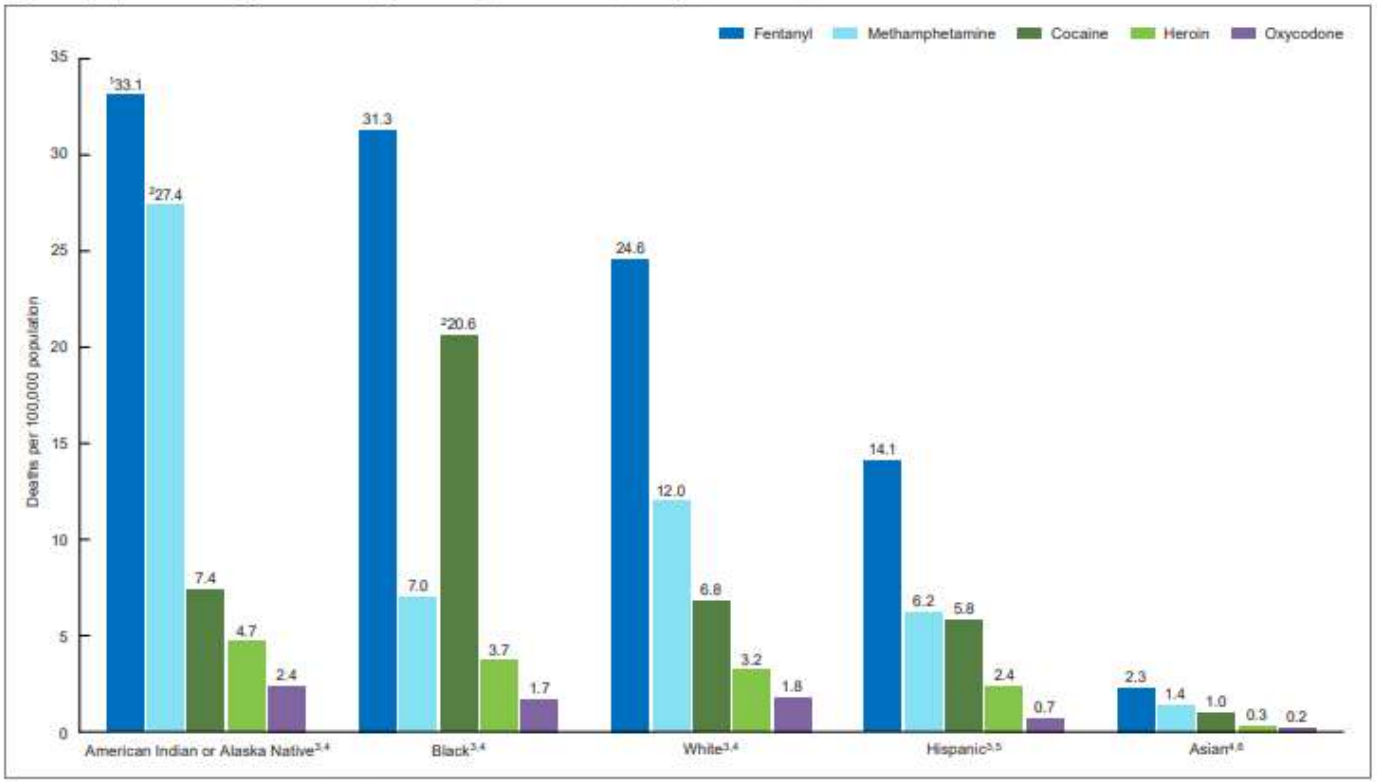
Figure 3. Age-specific rates of drug overdose deaths, by selected drugs and age group: United States, 2021



[1]Significantly higher than all other age groups ($p < 0.05$).
[2]Significantly higher than all other age groups ($p < 0.05$) except 45–54.
[3]Rate of deaths involving fentanyl was highest compared with the rate of deaths involving methamphetamine, cocaine, heroin, and oxycodone ($p < 0.05$).
[4]Rate of deaths involving methamphetamine was highest compared with the rate of deaths involving cocaine, heroin, and oxycodone ($p < 0.05$).
[5]Rate of deaths involving oxycodone was lowest compared with the rate of deaths involving fentanyl, methamphetamine, and cocaine ($p < 0.05$).
NOTES: Drug overdose deaths are identified using *International Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Deaths may involve other drugs in addition to the referent drug (that is, the one listed). Deaths involving more than one drug (for example, a death involving both heroin and cocaine) are included in both totals. Age-adjusted death rates were calculated using the direct method and the U.S. 2000 standard population.
SOURCE: National Center for Health Statistics, National Vital Statistics System, death certificate literal text data.

National Trends (contd.)
Results from CDC study (Spencer et al., 2023)

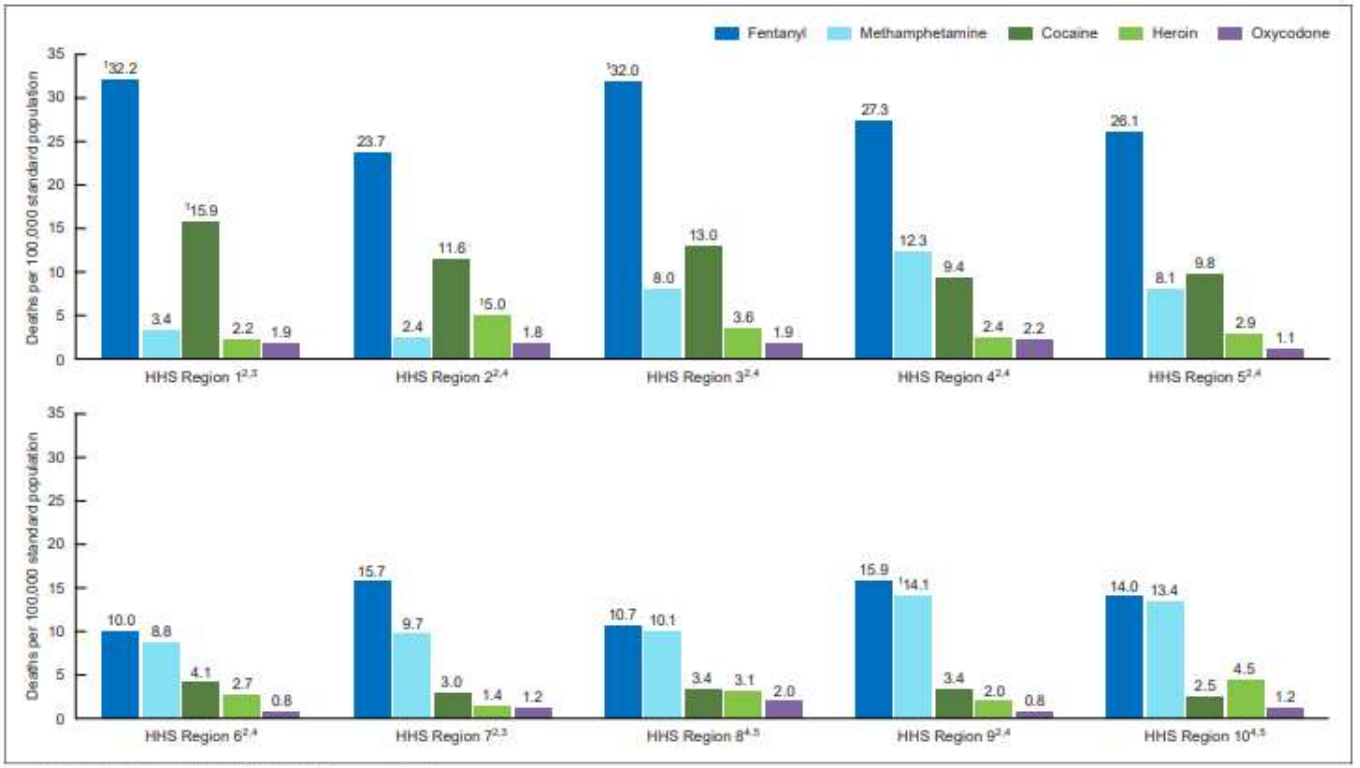
Figure 4. Age-adjusted rates of drug overdose deaths, by selected drugs and race and Hispanic origin: United States, 2021



[1]Significantly higher than all other race and Hispanic-origin groups ($p < 0.05$) except non-Hispanic Black.
[2]Significantly higher than all other race and Hispanic-origin groups ($p < 0.05$).
[3]Differences in rates between selected drugs were statistically significant ($p < 0.05$).
[4]Race groups are non-Hispanic.
[5]People of Hispanic origin may be of any race.
[6]Differences in rates between selected drugs were statistically significant ($p < 0.05$), except between heroin and oxycodone.
NOTES: Drug overdose deaths are identified using *International Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Deaths may involve other drugs in addition to the referent drug (that is, the one listed). Deaths involving more than one drug (for example, a death involving both heroin and cocaine) are included in both totals. Age-adjusted death rates were calculated using the direct method and the U.S. 2000 standard population.
SOURCE: National Center for Health Statistics, National Vital Statistics System, death certificate literal text data.

National Trends (contd.)
Results from CDC study (Spencer et al., 2023)

Figure 5. Age-adjusted rates of drug overdose deaths, by selected drugs and public health region: United States, 2021



[1]Rate of deaths involving this drug is significantly higher than all other regions ($p < 0.05$).
[2]Rate of deaths involving fentanyl was highest compared with the rate of deaths involving methamphetamine, cocaine, heroin, and oxycodone ($p < 0.05$).
[3]Rate of deaths involving oxycodone was lowest compared with the rate of deaths involving fentanyl, methamphetamine, and cocaine ($p < 0.05$).
[4]Rate of deaths involving oxycodone was lowest compared with the rate of deaths involving fentanyl, methamphetamine, cocaine, and heroin ($p < 0.05$).
[5]Rate of deaths involving fentanyl was highest compared with the rate of deaths involving cocaine, heroin, and oxycodone ($p < 0.05$).
NOTES: The 10 U.S. Department of Health and Human Services (HHS) public health regions are: Region 1 (CT, MA, ME, NH, RI, and VT); Region 2 (NJ and NY); Region 3 (DC, DE, MD, PA, VA, and WV); Region 4 (AL, FL, GA, KY, MS, NC, SC, and TN); Region 5 (IL, IN, MI, MN, OH, and WI); Region 6 (AR, LA, NM, OK, and TX); Region 7 (IA, KS, MO, and NE); Region 8 (CO, MT, ND, SD, UT, and WY); Region 9 (AZ, CA, HI, and NV); and Region 10 (AK, ID, OR, and WA). Drug overdose deaths are identified using *International Classification of Diseases, 10th Revision* (ICD–10) underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Deaths may involve other drugs in addition to the referent drug (that is, the one listed). Deaths involving more than one drug (for example, a death involving both heroin and cocaine) are included in both totals. Age-adjusted death rates were calculated using the direct method and the U.S. 2000 standard population.
SOURCE: National Center for Health Statistics, National Vital Statistics System, death certificate literal text data.

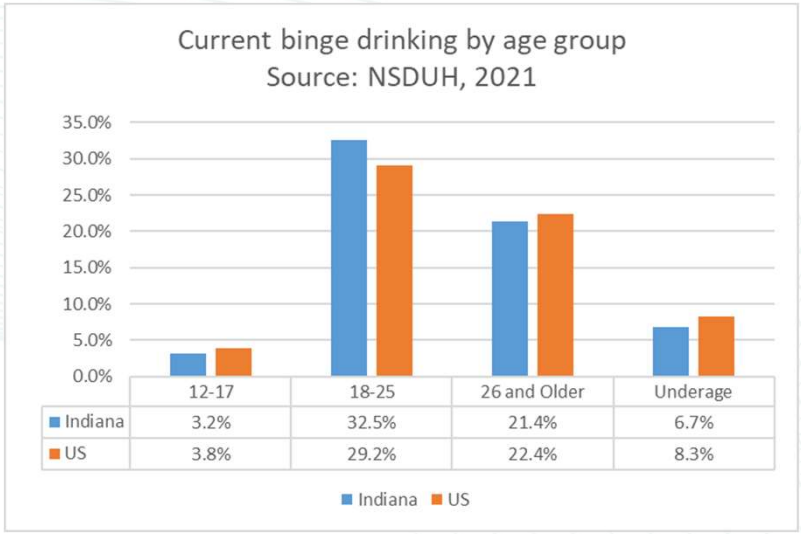
SEOW Focus Areas

- Alcohol
- Tobacco
- Marijuana
- Opioids – Rx Opioids, Heroin
- Stimulants – Methamphetamine, Cocaine, Rx Stimulants
- Mental health
- Problem gambling
- Viral Hepatitis/HIV/AIDS

Alcohol

Prevalence

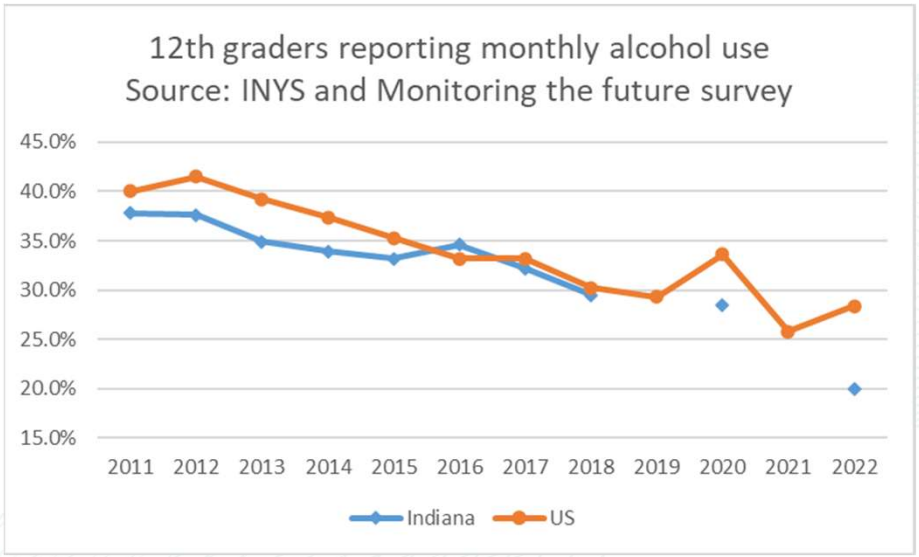
- In 2021, 44.1% Hoosiers (12 years and older) reported current alcohol use [4.3 percentage point (PP)↘ from previous year] (NSDUH, 2021).
- Relative to other age groups, higher incidence of alcohol use among young adults (18 to 25 year old) with 51.5% reporting past-month use [3.6 PP↘ from previous year] (NSDUH, 2021).
- About 21.1% Hoosiers (12+ years old) reportedly engaged in binge drinking [32.5% among young adults] (NSDUH, 2021).
- Adult alcohol use increased slightly to 51.9% in 2021 [0.8 PP↗ from previous year]; with 55.4% men [0.7 PP↘ previous year] and 46.1% women [1.9 PP↗ from previous year] used alcohol in the past month (CDC-BRFSS, 2021).
- About 10.6% of Indiana population (12+ years) reported having Alcohol Use Disorder in the past year [1.2 PP ↗ from previous year] (NSDUH, 2021).

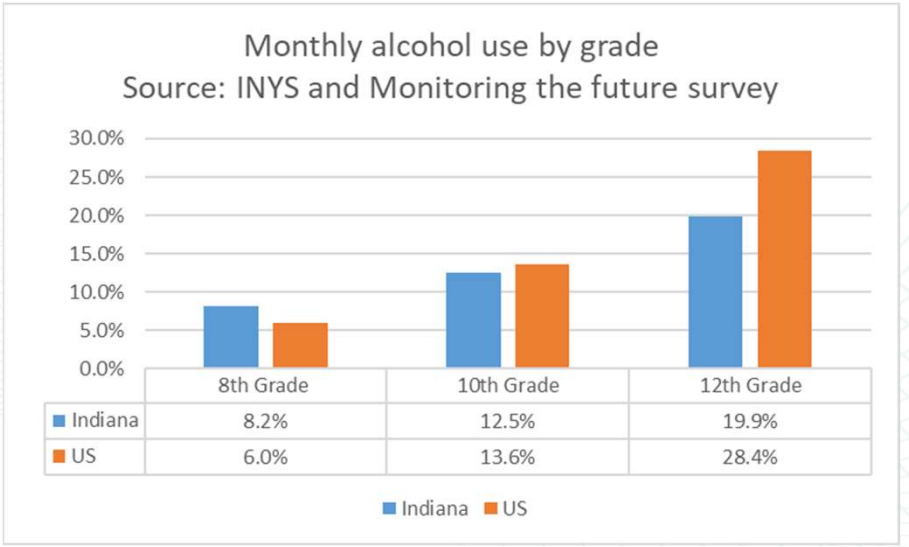


- State Epidemiological Outcomes Workgroup

Alcohol

Prevalence among youth

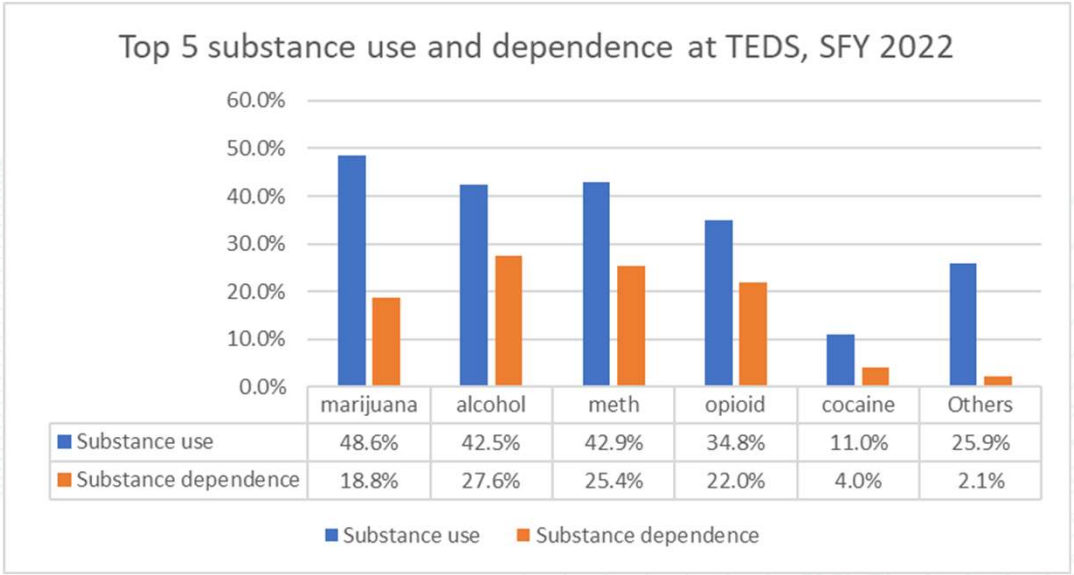




Alcohol

Treatment data

- About 42.5% of total treatment admissions had used alcohol as a primary/secondary/tertiary substance in SFY 2022 [0.9 PP ↘ from previous year]; where 27.6% of episodes had alcohol as primary substance [1.0 PP ↘ from previous year] (DMHA, 2022).



	marijuana	alcohol	meth	opioid	cocaine	Others
Substance use	48.6%	42.5%	42.9%	34.8%	11.0%	25.9%
Substance dependence	18.8%	27.6%	25.4%	22.0%	4.0%	2.1%

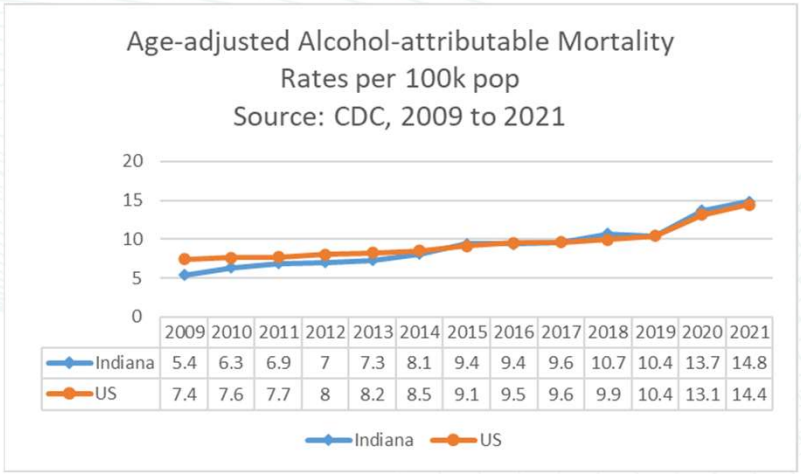
Alcohol (contd.)

Consequences

- Age-adjusted alcohol-attributable mortality rate in Indiana was 14.8 per 100k population in 2021 [1.1 points↗ from previous year] (CDC,2021).
- Alcohol-related collision rate in Indiana was 0.62 per 1,000 population in 2021 (ARIES, 2021).
- About 10.2% of child removals in SFY 2021 was attributable to parental alcohol abuse [1.1 PP ↘ from prev year] (IN-DCS, 2022).

Key Takeaways

- Adult alcohol use increased slightly in 2021 (CDC-BRFSS, 2021).
- Share of women consuming alcohol increased in 2021
- Binge drinking among young adults (18 to 25 years) in Indiana is still higher than national average
- Alcohol-attributable mortality increased in 2021



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Indiana	5.4	6.3	6.9	7	7.3	8.1	9.4	9.4	9.6	10.7	10.4	13.7	14.8
US	7.4	7.6	7.7	8	8.2	8.5	9.1	9.5	9.6	9.9	10.4	13.1	14.4

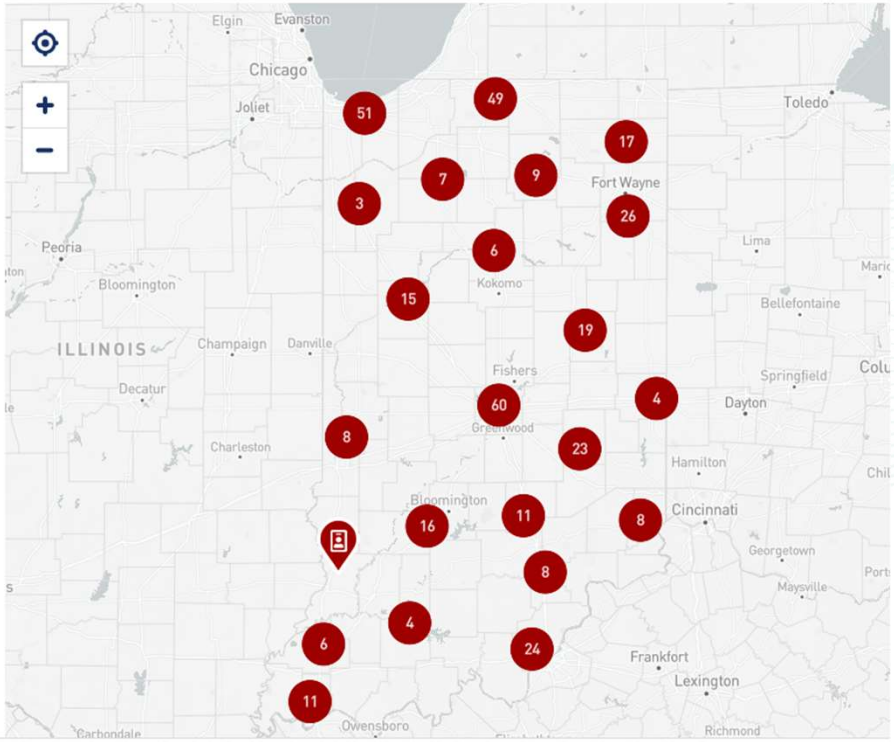
Tobacco

Prevalence

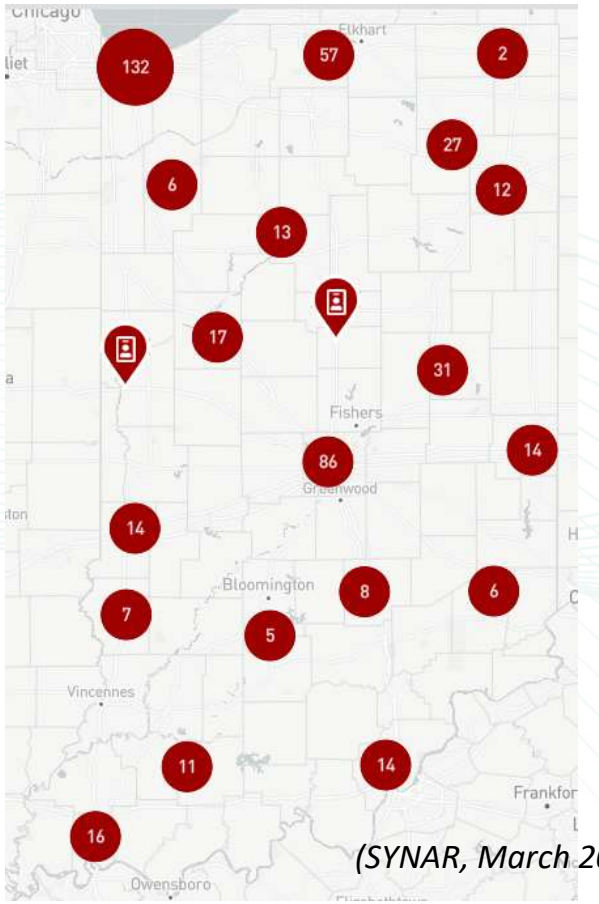
- In 2021, 23.8% Hoosiers (12 years and older) reported current tobacco use [1.6 PP↘ from previous year] and 18.9% used cigarettes [1.3 PP↘ from previous year] (NSDUH, 2021).
- About 18.3% men [2.5 PP↘ from previous year] and 16.4% women [1.7 PP↘ from previous year] smoked in 2021 (CDC-BRFSS, 2021).
- Higher incidence of smoking rates among working age adults, high school graduate or less, and among lower income groups (CDC-BRFSS,2021).
- Data for tobacco use (including e-Cigarette use) among youth will be released by IDOH soon

Tobacco retail underage inspection violations

Tobacco Inspection Map



Failed inspections in the last 12 months (SYNAR, January 2022)



(SYNAR, March 2023)

Comparisons from past year show higher violations in certain areas

Tobacco

Key Takeaways

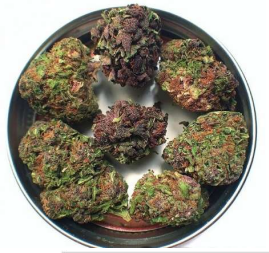
- Adult smoking declined from 25.6% in 2011 to 17.3% in 2021, but still above the national average of 15.5% (CDC-BRFSS, 2021).
- Smoking rates among women in 2021 declined slightly below 2019-levels.
- Focus on E-cigarette use among youth and young adults.

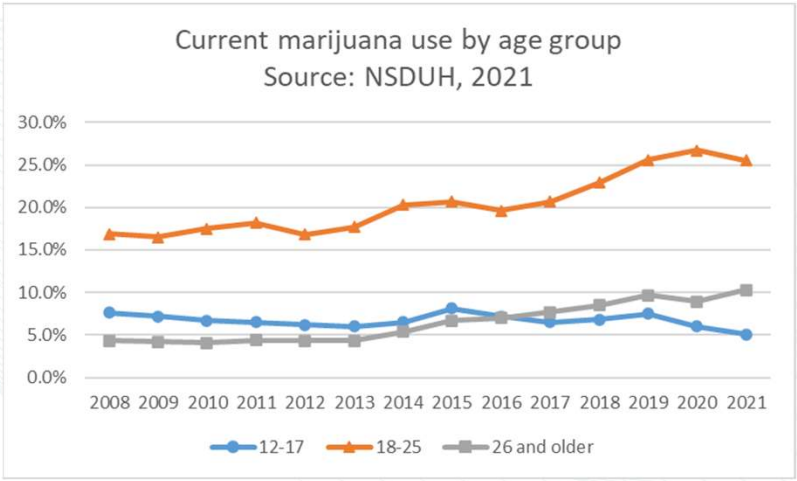
- State Epidemiological Outcomes Workgroup

Marijuana

Prevalence

- In 2021, 11.7% Hoosiers (12 years and older) reported current marijuana use [0.8 PP↗ from previous year] (NSDUH, 2021).
- Relative to other age groups, higher incidence of marijuana use among young adults (18 to 25 year old) with 25.5% reporting past-month use [1.2 PP ↘ from previous year] (NSDUH, 2021).
- About 48.6% of total treatment episodes had reported marijuana use as a primary, secondary or tertiary substance in SFY 2022 [1.5 PP↗ from previous year]; where 18.8% of episodes had reported marijuana as primary substance [0.7 PP↗ from previous year] (IN-DMHA, 2022).





Key Takeaways

- Marijuana use among young adults (18 to 25 years) has been increasing since 2016.
- One of our SEOW strategic priorities that will be monitored continually.

- State Epidemiological Outcomes Workgroup

Opioid

Prevalence

- As of 2022Q3, the opioid dispensation rate* in Indiana was 178.4 per 1,000 population [0.5 points↘ from 2021Q3] (IDOH, 2022).

  **Includes opioid analgesics, opioid antidiarrheal/antitussives and opioid antagonists and treatment addiction medications*

- About 1.5% Hoosiers (12 years and older) reported misusing prescription pain relievers in the prior year during the 2021 survey [1.8 PP↘ from previous year] (NSDUH, 2021).
- About 16.8% of total treatment admissions had reported opioid‡ use as a primary, secondary or tertiary substance in SFY 2021 [0.7 PP↗ from previous year]; where 7.4% of episodes had reported opioid as primary substance [0.4 PP↗ from previous year] (IN-DMHA,2022).

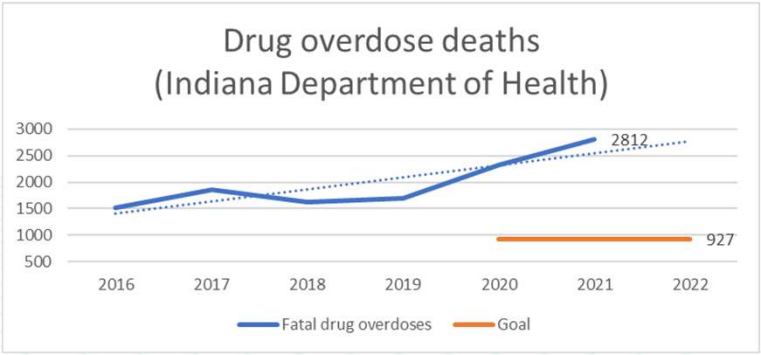
‡Includes non-prescription methadone and other opiates/synthetics (*such as buprenorphine, butorphanol, codeine, hydrocodone, hydromorphone, meperidine, morphine, opium, oxycodone, pentazocine, propoxyphene, tramadol, and other narcotic analgesics, opiates, or synthetics*)

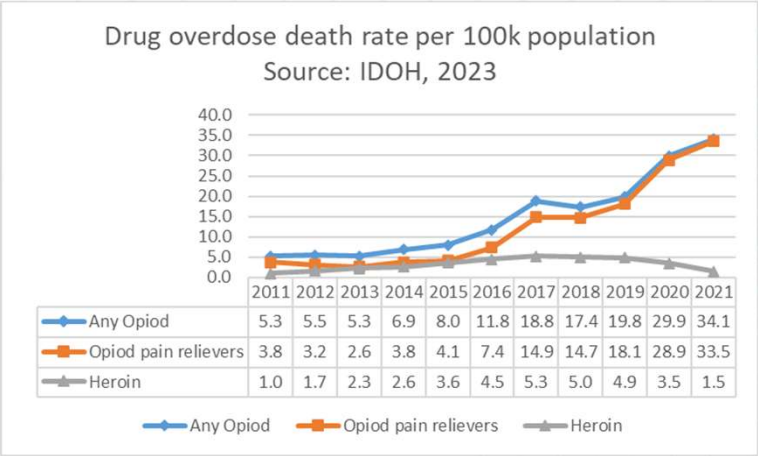
Opioid (contd.)

Consequences

- There were 2,812 deaths due to drug poisoning in 2021 [496 deaths↗ from previous year] with age adjusted rate of 43.1 per 100k population (IDOH, 2022).
- Drug overdose mortality rate involving any opioids* in 2021 was 34.1 per 100k population [4.2 points↗ from previous year] (IDOH,2023).

  *includes opium, heroin, natural/semi-synthetic opioids, methadone, synthetic opioids (fentanyl/tramadol), other narcotics
- Number of visits to Emergency Department due to any opioid overdose were 8,193 visits in 2021 [1,002 visits↗ from previous year] (IDOH, 2023).





	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Any Opiod	5.3	5.5	5.3	6.9	8.0	11.8	18.8	17.4	19.8	29.9	34.1
Opiod pain relievers	3.8	3.2	2.6	3.8	4.1	7.4	14.9	14.7	18.1	28.9	33.5
Heroin	1.0	1.7	2.3	2.6	3.6	4.5	5.3	5.0	4.9	3.5	1.5

OPIOID (contd.)

Key Takeaways

- Drug overdose deaths involving opioids continues to rise dramatically from 1,098 deaths in 2018 to 2,205 deaths in 2021 (IDOH, 2023).
- Impacted by polysubstance use, fentanyl, and/or lower drug prices.
- Continues to be an important public health issue for Indiana.

- State Epidemiological Outcomes Workgroup

Heroin

Prevalence

- From the 2021 survey, about 1% population (12 years and older) used heroin in the past year (NSDUH, 2021).
- Among all treatment admissions in SFY 2022, 21.8% reported heroin use as primary, secondary or tertiary substance [1.1 PP↘ from previous year]; and 14.7% of episodes reporting heroin as primary substance [1.4 PP↘ from previous year] (IN-DMHA,2022).

Stimulants – Cocaine

Prevalence and consequences

- From the 2021 NSDUH data, about 1.5% Hoosiers reported using cocaine in the previous year [0.3 PP↘ from 2020 data] and 2.9% of young adults (18 to 25 year old) used cocaine during the same period (NSDUH, 2021).
- About 11% of total treatment admissions had reported cocaine use as a primary, secondary or tertiary substance in SFY 2022 [0.8 PP↗ from previous year]; where 4% of episodes had reported cocaine use as primary substance [0.7 PP↗ from previous year] (IN-DMHA,2022).

- State Epidemiological Outcomes Workgroup

Stimulants –Methamphetamine

Prevalence and consequences

- From 2021 data, 1.0% of Hoosiers reported using methamphetamine in the previous year [0.2 PP from previous year] (NSDUH, 2021).
- Among all treatment admissions in SFY 2021, 42.9% reported methamphetamine use as primary, secondary or tertiary substance [1.5 PP ↗ from previous year]; and 25.4% of episodes reporting methamphetamine use as primary substance [1.4 PP ↗ from previous year] (IN-DMHA,2022).
- In 2022, the number of clandestine meth labs seized in Indiana was 22 [16 lab seizures ↘ from 2021] and the number of arrests made at the meth labs by Indiana law enforcement agencies was 17 [22 arrests ↘ from 2021] (ISP, 2023).

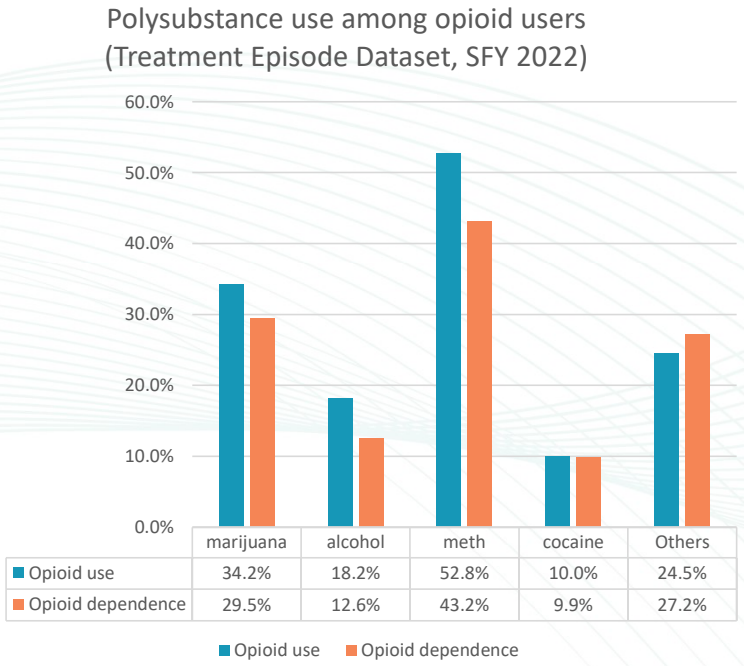
Key Takeaways

- Higher share of patients seeking substance use treatment appear to be using methamphetamine (as a primary or secondary or tertiary source).
- The meth lab seizures has decreased from 1,808 in 2013 to 22 in 2022.

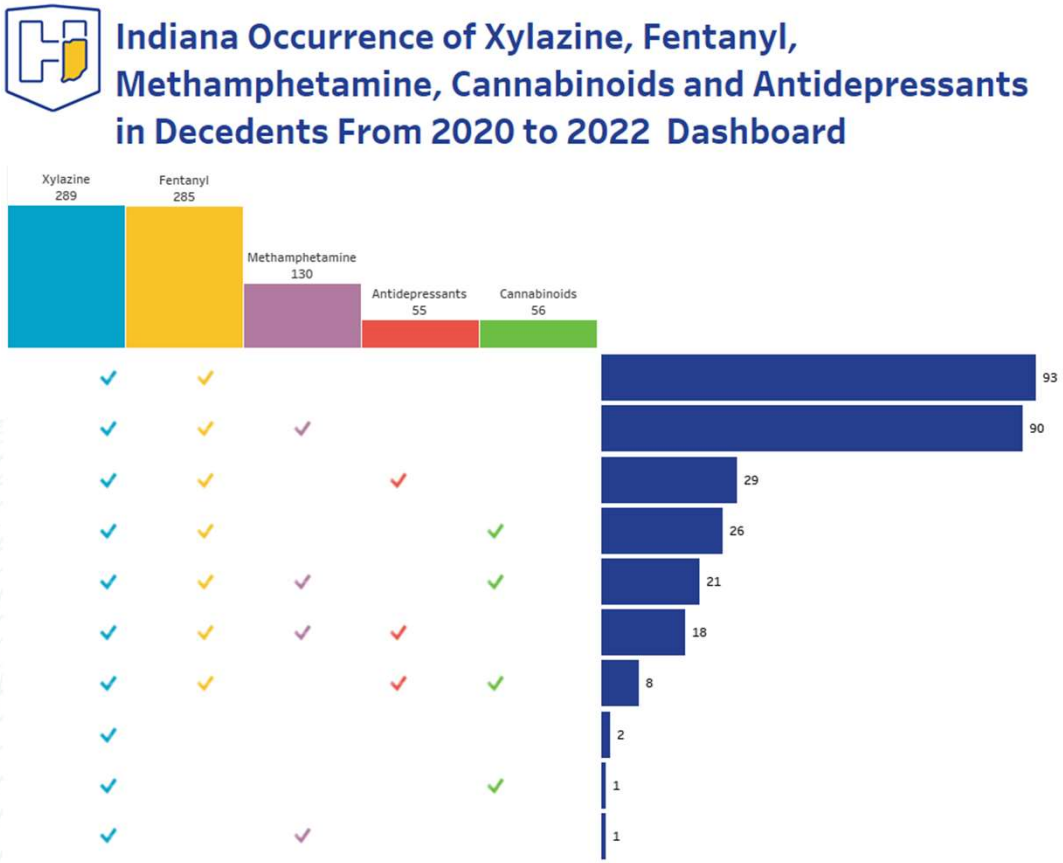
Polysubstance Use

Prevalence

- In SFY 2022, 34.8% of Hoosiers who received substance use treatment had reported using opioids (including heroin, non-prescription methadone and other opiates/synthetics) as a primary, secondary or tertiary substance (IN-DMHA, 2022).
- Among these opioid users, methamphetamine use was highest (52.8%), followed by Marijuana use (34.2%) and alcohol use (18.2%) (IN-DMHA, 2022).
- Similar patterns for opioid dependent [or opioid as primary use] treatment patients



Polysubstance Use



Polysubstance Use

Key Takeaways

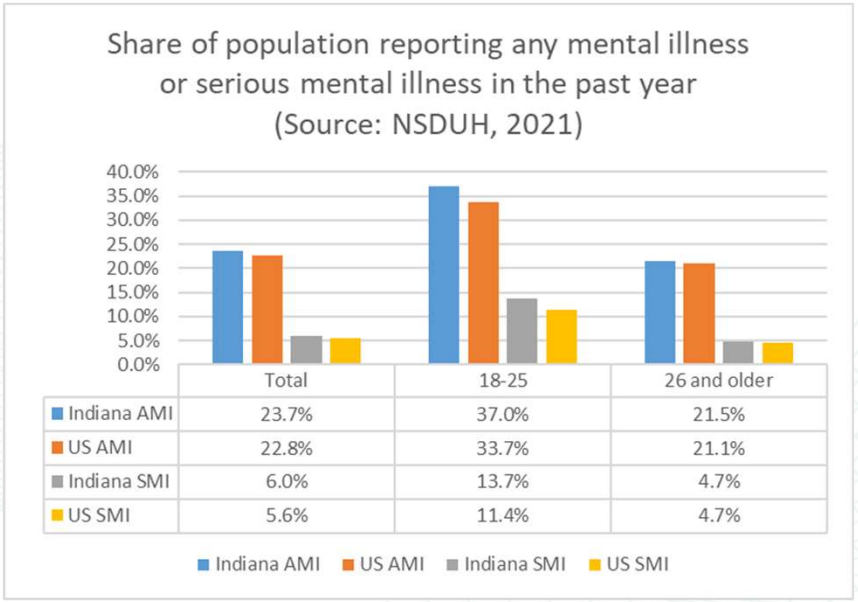
- Strong evidence of polysubstance use among opioid users.
- Xylazine consumed with other substances has been an emerging trend

- State Epidemiological Outcomes Workgroup

Mental Health

Prevalence

- From 2021 data, about 23.7% Hoosiers (18 years and older) reported having any mental illness* in the past year [1.9 PP ↗ from previous time period] (NSDUH, 2021).
  - **Any Mental Illness (AMI) is defined as those having a diagnosable mental/behavioral/emotional disorder*
- About 6.0% Hoosiers in 2021 reported having serious mental illness‡ in the past year [0.8 PP ↘ from previous time period] (NSDUH, 2021).
  - *‡Serious Mental Illness (SMI) are subset of individuals with AMI, but with serious functional impairment*
- In 2021, about 9.4% Hoosiers (18 years or older) reported having at least one major depressive episode [0.6 PP↗ from previous time period] (NSDUH, 2021).

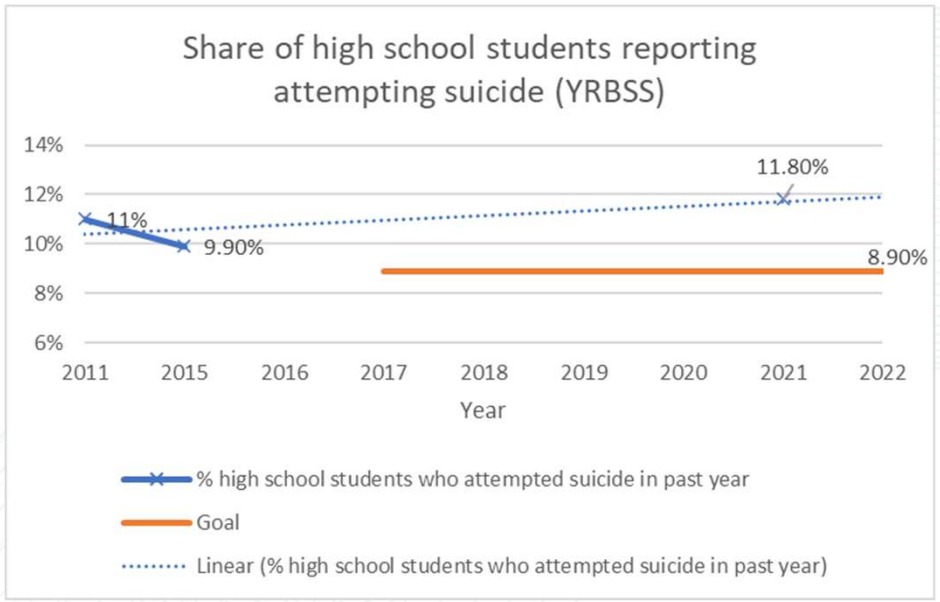


	Total	18-25	26 and older
Indiana AMI	23.7%	37.0%	21.5%
US AMI	22.8%	33.7%	21.1%
Indiana SMI	6.0%	13.7%	4.7%
US SMI	5.6%	11.4%	4.7%

- State Epidemiological Outcomes Workgroup

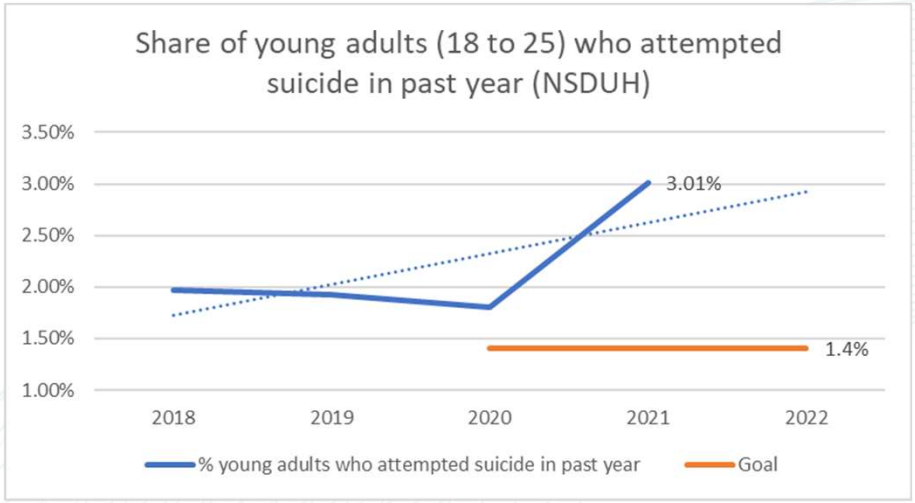
Mental Health

SUICIDE ATTEMPTS IN YOUTH

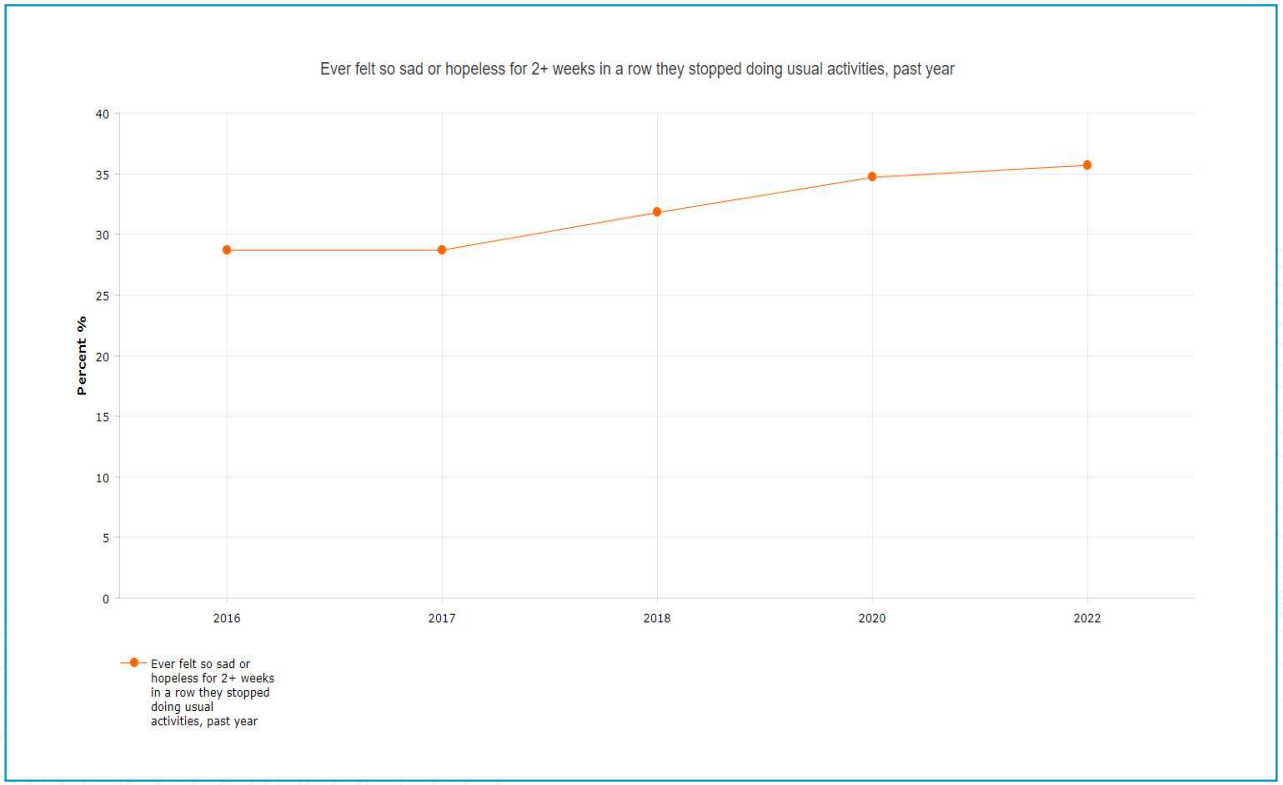


Mental Health (contd.)

SUICIDE ATTEMPTS IN YOUNG ADULTS



Mental Health (Contd.)



35.7% of students (7th to 12th grade) felt sad or hopeless for 2+ weeks in the past year (INYS, 2022)

Source: INYS, 2016 to 2022

Mental Health (contd.)

Heterogeneity by gender and race

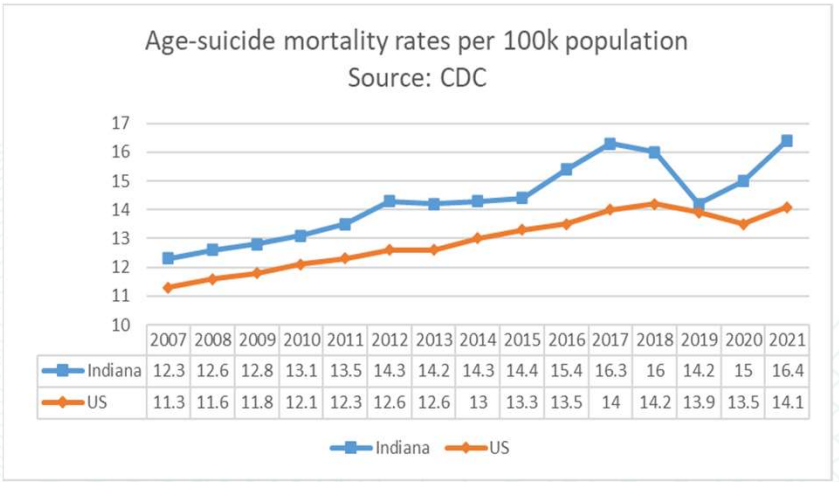
- About 16.2% men [0.4 PP↗ from previous year] and 31.8% women [4.1 PP↗ from previous year] reported being told that they had depression (CDC-BRFSS, 2021).
- Reported increase in depression rates among all race groups in 2020 – White race [25.3%; 2.4 PP ↗ from 2020]; African-American race [18.9%; 1.5 PP ↗ from 2020]; Hispanic race [18.5%; 0.7 PP ↗ from 2020].

Consequences

- Age-adjusted suicide mortality rate in Indiana was 16.4 per 100k population [1.4 points↗ from previous year] in 2021 (CDC,2021).
- The age-adjusted suicide mortality rate (2018 to 2021 average) was higher for men (25.2 per 100k population) relative to women (6.1 per 100k population) (CDC,2018-2021).

Key Takeaways

- Depression rates increased more for women (CDC-BRFSS, 2021).
- Suicide mortality rates has been increasing for Indiana
- Evidence of increasing depression rates across all race



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Indiana	12.3	12.6	12.8	13.1	13.5	14.3	14.2	14.3	14.4	15.4	16.3	16	14.2	15	16.4
US	11.3	11.6	11.8	12.1	12.3	12.6	12.6	13	13.3	13.5	14	14.2	13.9	13.5	14.1

- State Epidemiological Outcomes Workgroup

Problem Gambling

Type of Gambling	Population Estimate	Percentage (%)	95% CI
Any Gambling	4,305,550	84.8	79.7-88.9
Any Lottery	3,647,866	71.7	66.0-76.8
Any Casino	2,031,805	40.4	34.2-47.0
Any Sports Gambling	1,028,196	20.5	15.6-26.4
Other Gambling	3,673,708	72.3	66.3-77.6

	Population Estimate	Percentage (%)	95% CI
DSM-V			
Low Risk	4,886,658	95.9	91-98.2
Gambling disorder	206,554	4.1	1.8-9.0
NODS			
No risk	4,320,258	84.8	79.2-89.1
Mild risk	432,351	8.5	5.5-12.8
Moderate risk	165,279	3.3	1.3-8.6
Pathological gambling	175,324	3.4	1.3-8.6

(Source: Jun et al., 2021)

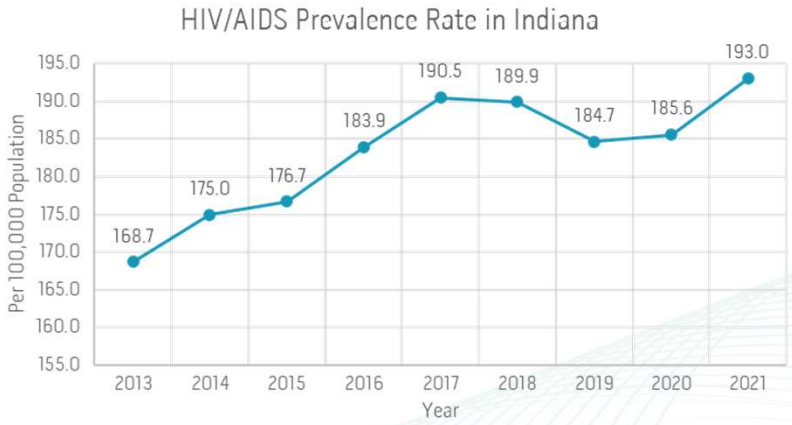
Problem Gambling (contd.)

Percentages of Indiana adults who used selected substances in the past month by problem gambling risk, 2021

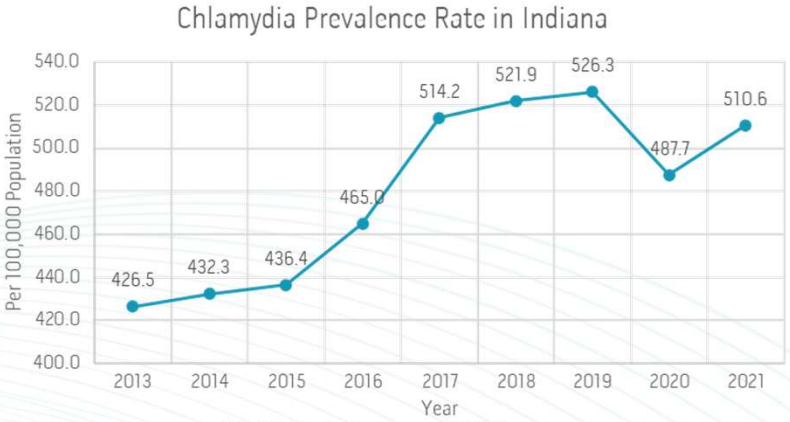
p<.05	Alcohol	Cigarettes	Vaping Devices	Marijuana	Misuse of Prescription or Over the Counter Drugs
DSM-V					
Low risk	72.5	26.7	12.5	18.2	8.9
Gambling disorder	100	73.7	67.7	59.5	60.0
NODS					
No risk	71.3	23.1	12.4	16.4	8.0
Mild Risk	83.1	47.1	5.1	16.7	17.7
Moderate Risk	86.1	65.1	29.8	52.5	6.0
Pathological gambling	95.8	82.5	94.2	76.9	76.9
PGSI					
Non-problematic	71.3	21.6	11.6	14.5	8.6
Low severity	80.2	49.0	13.4	28.4	4.3
Moderate severity	83.6	63.0	42.4	62.7	39.1
Problematic gambling	100	85.4	74.5	74.5	74.5

(Source: Jun et al., 2021)

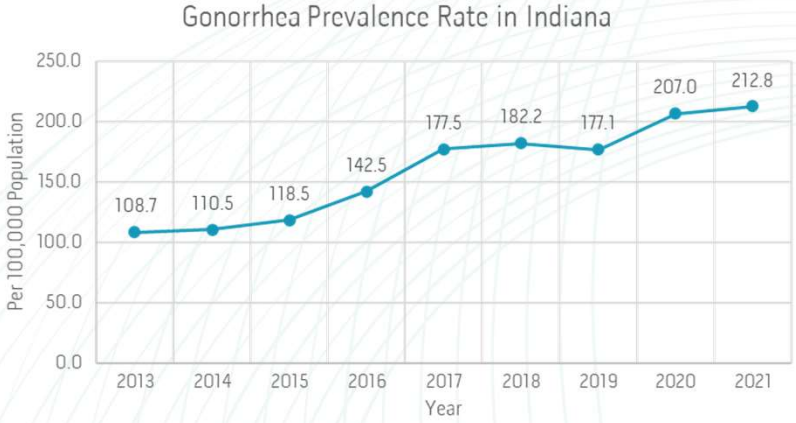
Viral Hepatitis/HIV/AIDS



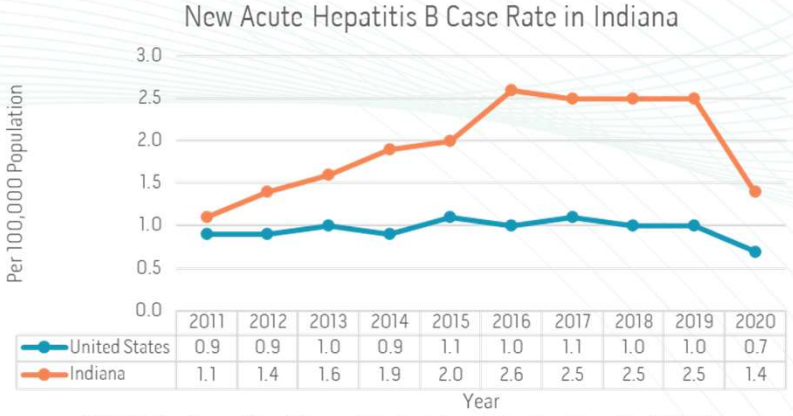
(IDOH Stats Explorer, 2023)



(IDOH Stats Explorer, 2023)

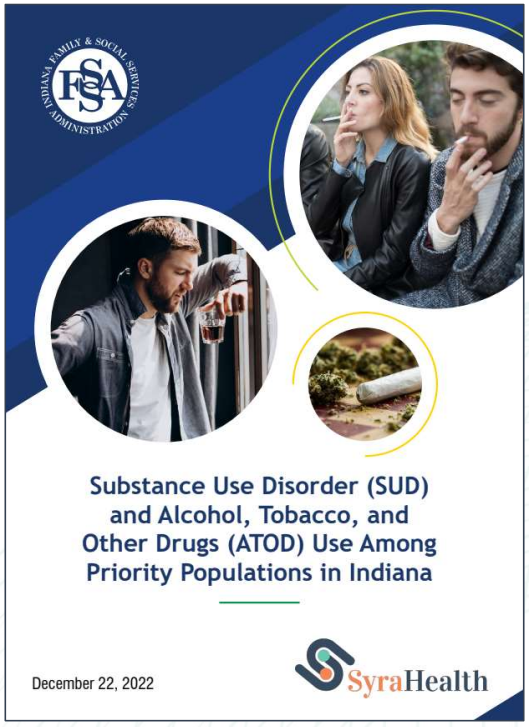


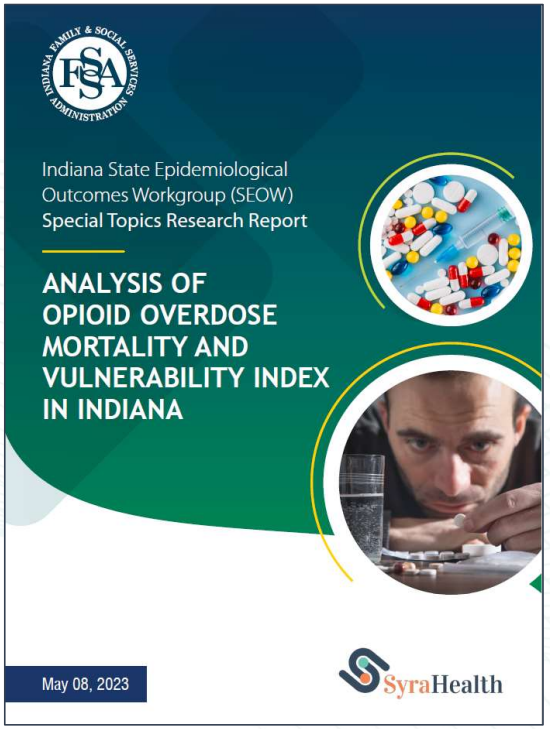
(IDOH Stats Explorer, 2023)



(IDOH, Indiana Viral Hepatitis Epidemiological Profile 2020)

Special Topics Report for SFY 2023





Special topic report #4: Community Addiction Service Assessment for Workforce Capacity (scheduled to be released by mid-June)

SEOW Strategic Behavioral Health Priorities for 2022-2026

1. Tobacco use in youth, pregnant women, and overall adults
2. High-risk alcohol consumption in youth and young adults
3. Misuse of prescription and non-prescription opioids, often leading to, potentially fatal overdoses
4. Suicide attempts in youth and young adults
5. Marijuana use among young adults

Priorities	Measures	Latest statistic	Source	SEOW 5-year Goal
Youth tobacco use	*Past-month use of any tobacco product, including e-cigarettes among High school students*	22.90%	*IYTS, 2018*	17.00%
Youth tobacco use	*Past-month use of any tobacco product, including e-cigarettes among middle school students*	8.10%	*IYTS, 2018*	5.00%
Smoking during pregnancy	*Mothers smoking during pregnancy*	9.80%	*IDOH, 2021*	6.00%
Adult smoking	*Prevalence rate of adults who are current smokers*	17.30% (2.1 PP↘)	*CDC-BRFSS, 2021*	15.00%
Underage drinking	*Past-month alcohol use among 12- to 20-year-olds*	12.6% (3.5 PP↘)	*NSDUH, 2021*	12.90%
Binge drinking in young adults	*Past-month binge drinking in young adults ages 18 to 24*	22.40% (2.1 PP↗)	*CDC-BRFSS, 2021*	16.20%
Drug overdose mortality	*Annual fatal drug overdoses (number of deaths)*	2812 (496 deaths↗)	*IDOH, 2021*	927
Prescription misuse	*Overall prescription pain reliever misuse among age 12+ years in past year*	3.15% (0.15 PP↘)	*NSDUH, 2021*	2.60%
Prescription misuse	*Prescription pain reliever misuse in youth ages 12 to 17 in past year*	1.97% (0.43 PP↘)	*NSDUH, 2021*	1.90%
Prescription misuse	*Prescription pain reliever misuse in young adults ages 18 to 25 in past year*	3.51% (1.29 PP↘)	*NSDUH, 2021*	3.80%
Prescription misuse	*Prescription pain reliever misuse among adults ages 26+ years in past year*	3.25% (0.15 PP↗)	*NSDUH, 2021*	2.50%
Suicide attempts among youth	*Percentage of high school students who attempted suicide in the past year*	11.80% (1.99 PP↗ from 2015)	*YRBSS, 2021*	8.90%
Suicide attempts among young adults	*Young adults ages 18 to 25 years who attempted suicide in the past year*	3.01% (1.21 PP↗)	*NSDUH, 2021*	1.40%
Marijuana use among young adults	*Past-month marijuana use among young adults ages 18 to 25 years*	25.52% (1.18 PP↘)	*NSDUH, 2021*	21.40%

SEOW Strategic Behavioral Health Priorities for 2022-26: Update

Updates and SEOW efforts

- Annual Epidemiological Profile report, and Drug fact sheets will be published in our SEOW website by end of June 2023
  - Accompanying data dashboards will be updated

- Evaluating the Regional Prevention System
  - Influencer survey

- Technical assistance to High Intensity Drug Trafficking Areas (HIDTA) on their threat assessment surveys to understand emerging trends
  - Interactive dashboard

THANK YOU

SyraHealth

1119 Keystone Way N #201
Carmel, IN 46032

srikantd@syrahealth.com
www.syrahealth.com

POSTER PRESENTATIONS

12:00 PM - 1:15 PM

in ATRIUM

2023

SEOW

oseph Gareis

nnabis Consumption on a College Campus:
ental and Behavioral Health

Whitney Cordoba-Grueso MD, MPH.

erobic Exercise and Cannabis Use: A Longitudinal study
ing the Add Health Survey, 1994-2018

shlyn Burns

ccess to Best Practice Behavioral Health Crisis Care
rvices in the US

ashad Freeman, MPH, CHES

hat Are We Counting: Using the Longitudinal Studies of Child Abuse
d Neglect (LONGSCAN) to compare conventional and expanded
dverse Childhood Experience (ACEs) frameworks to predict substance
e in late adolescence.

Lunch & Poster Presentations

12:00 PM - 1:15 PM

Poster Presentations in Atrium

Lunch in room C directly across from the Auditorium

ALL
SEOW Committee Members
PLEASE
MEET ON
STAGE FOR A
GROUP PHOTO

Name

Justin Blackburn, PhD & Heather Taylor, PhD

Position

Richard M. Fairbanks School of Public Health: Department of Health Policy and Management

1:15pm – 1:45pm

2023 SEOW Annual Symposium

The economic burden of untreated mental illness in Indiana

Justin Blackburn, PhD & Heather Taylor, PhD

Richard M. Fairbanks School of Public Health – Department of Health Policy and Management

Mental illness (MI) impacts individuals, families, and communities

- MI has an effect on chronic diseases, such as diabetes and cardiovascular disease
- Approximately 20% of population has MI
- Prevalence is 40% among justice-involved
- Highest prevalence among the homeless, nearly half
- Serious illness associated with unemployment

Little work has been done to quantify the population-level economic impact of untreated mental illness

- Policymakers, health insurers, and employers need credible and reliable estimates of the economic burden of mental illness
  - Make evidence-based decisions
  - Frame targeted interventions

Picture credit: greaterdiversity.com

Indiana Behavioral Health Commission

www.in.gov/fssa/dmha/indiana-behavioral-health-commission
BxHealth.Commission@fssa.IN.gov

- Behavioral Health Commission established by state statue in 2019
- Mandated to discuss and make recommendations related to the overall improvement of the behavioral and mental health of Indiana residents
- Part of the Commission's work was to **establish the cost of untreated mental illness in Indiana**

Supporting partnership

- The WISE Indiana team was asked to work with the FSSA Division of Mental Health and Addiction (DMHA) to complete this analysis

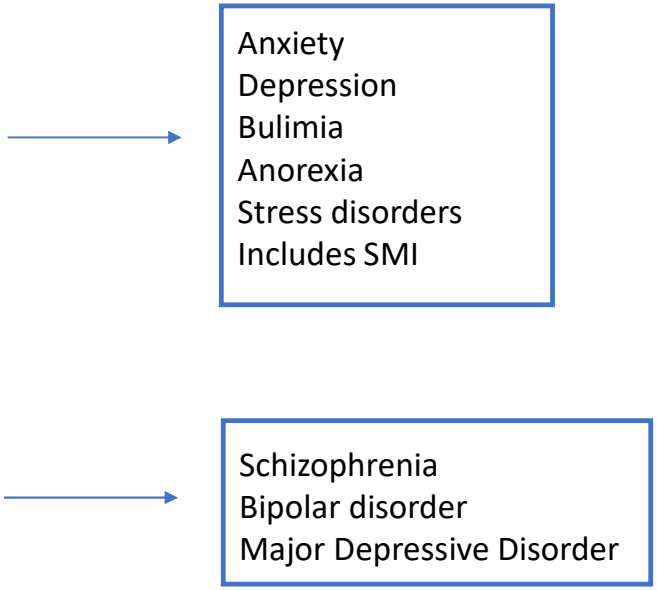
What is the economic burden of untreated mental illness in Indiana?

- How do we define mental illness?
- What societal costs are associated with mental illness?
- How do we estimate these costs for the untreated at the societal level?

How do we define mental illness?

Any mental illness (AMI) is defined as a mental, behavioral, or emotional disorder. AMI can vary in impact, ranging from no impairment to mild, moderate, and even severe impairment (e.g., individuals with serious mental illness as defined below).

- Serious mental illness (SMI) is defined as a mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities. The burden of mental illnesses is particularly concentrated among those who experience disability due to SMI.



SMI and other MI

Combined several definitions/groupings from NIMH, NCQA, and FSSA (DMHA)

Consistent with literature/FSSA, estimate

- **Serious Mental Illnesses (SMI)**
- **other Mental Illnesses (other MI)**

Clinical Classification System Revised Category	Mental Illness Category
Schizophrenia spectrum and other psychotic disorders (CCSR MBD001)	Schizophrenia or Other Psychotic Disorder
Bipolar and related disorders (CCSR MBD003)	Bipolar Disorder
Other specified and unspecified mood disorders (CCSR MBD004)	Depression or Other Mood Disorder
Depressive disorders (CCSR MBD002)	
Anxiety and fear-related disorders (CCSR MBD005)	Anxiety or Stress-Related Disorder
Trauma- and stressor-related disorders (CCSR MBD007)	
Obsessive-compulsive and related disorders (CCSR MBD006)	
Disruptive, impulse-control and conduct disorders (CCSR MBD008)	Other Mental Illness
Personality disorders (CCSR MBD009)	
Feeding and eating disorders (CCSR MBD010)	
Somatic disorders (CCSR MBD011)	
Suicidal ideation/attempt/intentional self-harm (CCSR MBD012)	
Suicide attempt/intentional self-harm; subsequent encounter (CCSR MBD027)	
Miscellaneous mental and behavioral disorders/conditions (CCSR MBD013)	

Adapted from Breslau et al, 2021.[6]

What costs are associated with mental illness?

GAO

United States Government Accountability Office

Report to Congressional Requesters

February 2019

BEHAVIORAL HEALTH

Research on Health Care Costs of Untreated Conditions is Limited

ORIGINAL RESEARCH

See commentary by Goldstein p152

The Economic Burden of Adults With Major Depressive Disorder in the United States (2005 and 2010)

Paul E. Greenberg, MS, MA; Andree-Anne Fournier, MA; Tammy Sisitsky, MA; Crystal T. Pike, MBA; and Ronald C. Kessler, PhD

ELSEVIER

Contents lists available at ScienceDirect

Journal of Affective Disorders

journal homepage: www.elsevier.com/locate/jad

Research paper

The economic burden of bipolar I disorder in the United States in 2015

Martin Cloutier[a], Mallik Greene[b,*], Annie Guerin[a], Maelys Touya[c], Eric Wu[d]

[a] Analysis Group, Inc., Montreal, Quebec, Canada
[b] Health Economics & Outcomes Research, Otsuka Pharmaceutical Development & Commercialization, Inc., Princeton, NJ, USA
[c] Health Economics and Outcomes Research (HEOR)-US, Lundbeck, Deerfield, IL, USA
[d] Analysis Group, Inc., Boston, MA, USA

THE JOURNAL OF CLINICAL PSYCHIATRY

Schizophrenia and Schizoaffective Disorders

The Economic Burden of Schizophrenia in the United States in 2013

Martin Cloutier, MSc; Myrlene Sanon Aigbogun, MPH; Annie Guerin, MSc; Roy Nitulescu, MA; Agnihotram V. Ramanakumar, PhD; Siddhesh A. Kamat, MBA; Michael DeLucia, BSc; Ruth Duffy, PhD; Susan N. Legacy, MD; Crystal Henderson, PharmD; Clement Francois, PhD; and Eric Wu, PhD

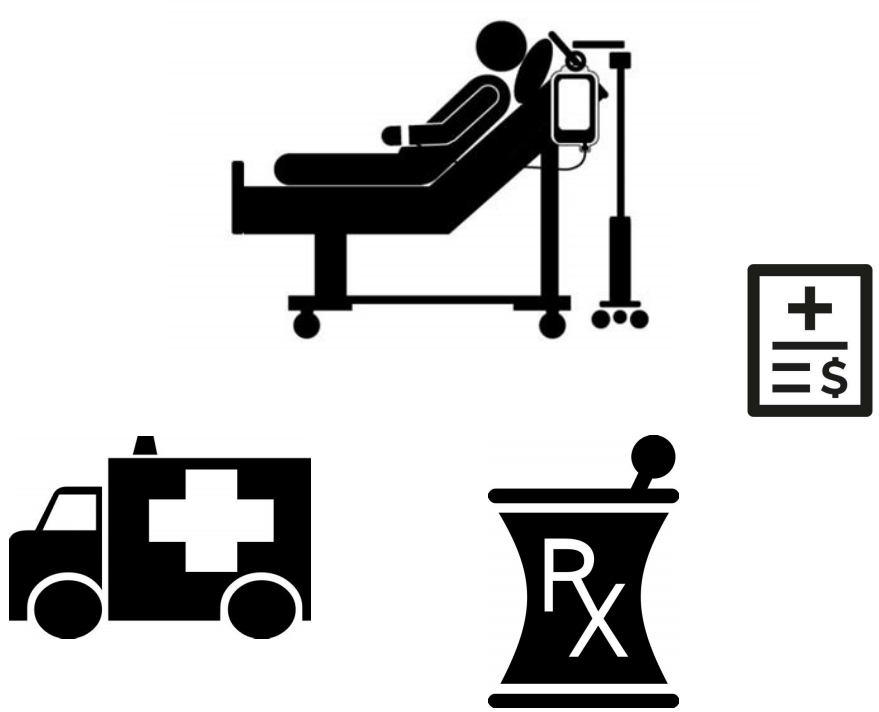
Economic outcomes associated with mental illness

Direct costs are disease-related expenditures
- direct health care costs
- direct non-healthcare costs.

Indirect costs are resources lost due to the illness

Direct health care costs

1. Inpatient expenditures
2. Outpatient expenditures
3. Emergency department expenditures
4. Pharmacy expenditures
5. All other healthcare expenditures



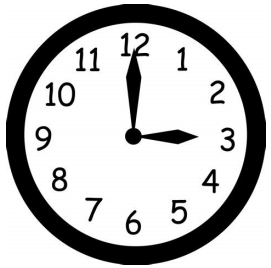
Direct non-healthcare costs

1. Incarceration costs
   - Prison
   - Jail
   - Juvenile Detention

2. Homeless shelter costs
   - Homeless
   - Chronically homeless (homeless for at least a year)

Indirect Costs

1. Unemployment
2. Productivity Loss
   - Absenteeism
   - Presenteeism
3. Premature mortality
   - Suicide
   - All-cause mortality
4. Caregiving costs
   - Excess health care costs
   - Productivity losses



Costs associated with untreated mental illness

1. Inpatient expenditures
2. Outpatient expenditures
3. Emergency department expenditures
4. Pharmacy expenditures
5. Other healthcare expenditures
6. Prison incarceration costs
7. Jail incarceration costs
8. Homeless shelter costs for homeless
9. Homeless shelter costs for chronically homeless
10. Unemployment costs
11. Productivity loss costs – Absenteeism
12. Productivity loss costs -Presenteeism
13. Premature mortality costs– Suicide
14. Premature mortality costs - All-cause mortality
15. Caregiving costs - Excess health care costs
16. Caregiving costs - Productivity losses

Direct healthcare costs

Direct non-healthcare costs

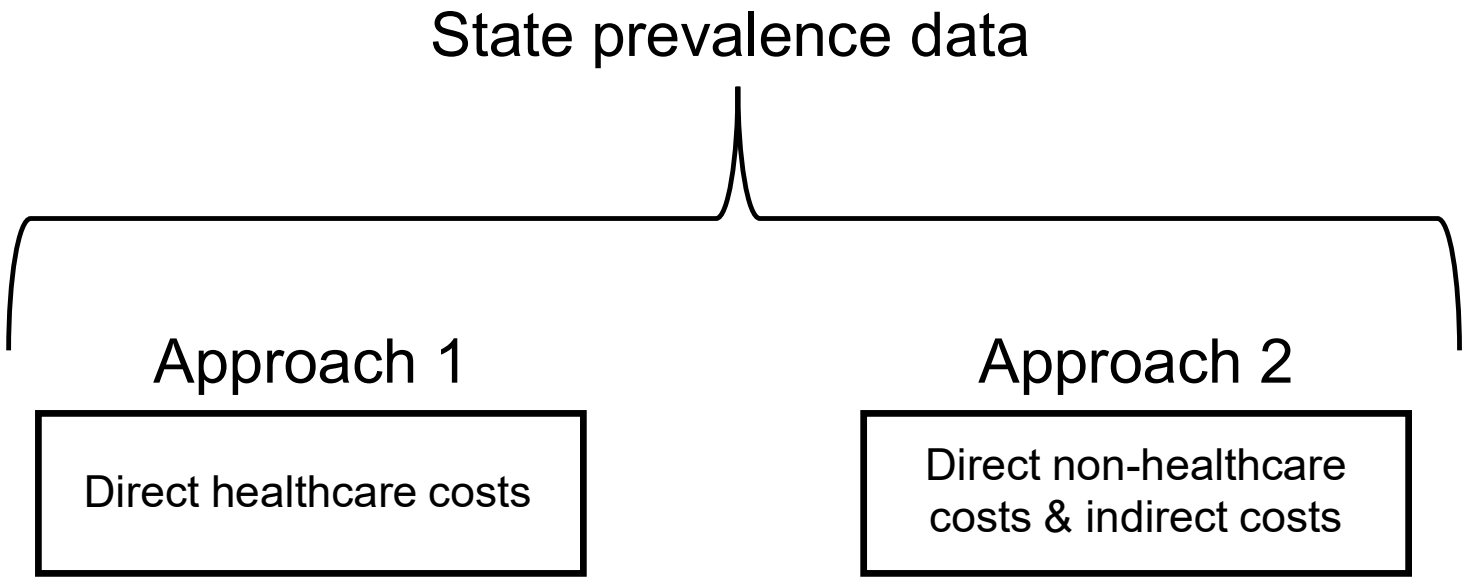
Indirect costs

Serious mental Illness

Other mental Illness

Mental Illness among children

Methods


State prevalence data
Approach 1
Direct healthcare costs
Approach 2
Direct non-healthcare costs & indirect costs

Prevalence of mental illness in Indiana by whether treatment was received in the past year - Adults

	All Adults		Adults with Any Mental Illness		Adults with Serious Mental Illness	
	Weighted Count	Prevalence	Weighted Count	Prevalence	Weighted Count	Prevalence
Needed mental health treatment but didn't receive it	367,000	7.3%	306,000	26.8%	155,000	52.5%
Total	5,049,000	100%	1,142,000	22.6%	296,000	5.9%

6% of Indiana's population has untreated MI / 3% untreated SMI

SAMHSA
Substance Abuse and Mental Health Services Administration

NSDUH
National Survey on Drug Use and Health

Prevalence of mental illness in Indiana by whether treatment was received in the past year - Children

Data Resource Center for Child & Adolescent Health

A project of the Child and Adolescent Health Measurement Initiative

ndicator 2.10: Does this child have a mental, emotional, developmental or behavioral (MEDB) problem, age 3-17 years?

	Child has 1 or more reported MEDB problems, and/or qualifies on CSHCN Screener EBD criteria	Child does not currently have mental, emotional, developmental, or behavioral problems	Total %
%	**25.9**	**74.1**	**100.0**
C.I.	22.6 - 29.5	70.5 - 77.4	
Sample Count	270	736	
Pop. Est.	341,009	975,458	

Indicator 4.4: During the past 12 months, has this child received any treatment or counselin health professional, age 3-17 years?

Select a Response Category: No, but needed to see a mental health professiona

		Child has 1 or more reported MEDB problems, and/or qualifies on CSHCN Screener EBD criteria
Nationwide	%	**7.1**
	C.I.	6.2 - 8.2
	Sample Count	827
	Pop. Est.	963,672
Indiana	%	**4.1**
	C.I.	2.3 - 7.1
	Sample Count	14
	Pop. Est.	13,583

Approach 1 – Estimating direct healthcare costs

Data: Indiana Medicaid claims

Design: Retrospective matched cohort design

Inclusion Criteria: Continuous enrollment for 24 months spanning 2018-2019
Between the ages of 5-64

Cohort:

- First identified individuals who were newly diagnosed with mental illness (no MI Year 1, MI Year 2)
- Identified a comparable group of Hoosiers (frequency matched on sex, age, race and county) who had no diagnosed MI within a similar two-year continuous time period

Approach 1 – Estimating direct healthcare costs

1. Tabulated difference in costs between year one and two for both groups and compared expenditures across groups to get excess health care costs attributable to untreated mental illness

2. Extrapolated these findings to those privately insured by multiplying excess costs by 1.7 (informed by published research)

3. Multiplied these excess costs by the statewide proportion of the population expected to have untreated mental illness (informed by state prevalence data)

Costs associated with untreated mental illness

1. Inpatient expenditures
2. Outpatient expenditures
3. Emergency department expenditures
4. Pharmacy expenditures
5. Other healthcare expenditures
6. Prison incarceration costs
7. Jail incarceration costs
8. Homeless shelter costs for homeless
9. Homeless shelter costs for chronically homeless
10. Unemployment costs
11. Productivity loss costs – Absenteeism
12. Productivity loss costs -Presenteeism
13. Premature mortality costs– Suicide
14. Premature mortality costs - All-cause mortality
15. Caregiving costs - Excess health care costs
16. Caregiving costs - Productivity losses

Direct healthcare costs

Direct non-healthcare costs

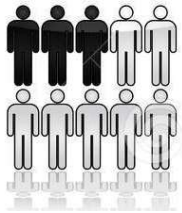
Indirect costs

Serious mental Illness

Other mental Illness

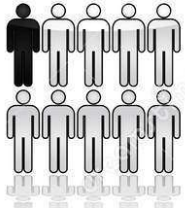
Mental Illness among children

Approach 2 – Determine excess risk
Estimating direct non-healthcare & indirect costs



Prevalence of outcome with mental illness

–



Prevalence of outcome without mental illness

=

Excess risk attributable to mental illness

Determine number of Hoosiers with MI and excess risk of outcome who are untreated

Excess risk of cost-related outcome

Number of Hoosiers with MI

Proportion of Hoosiers with MI who are untreated

Multiply

=

Number of Hoosiers with outcome attributable to **untreated** MI

Determine costs

Number of Hoosiers with outcome attributable to **untreated** MI X

Outcome costs

Cost per day for prison resident X Average length of stay in prison

= $$$

Costs associated with untreated mental illness

1. Inpatient expenditures
2. Outpatient expenditures
3. Emergency department expenditures
4. Pharmacy expenditures
5. Other healthcare expenditures
6. Prison incarceration costs
7. Jail incarceration costs
8. Homeless shelter costs for homeless
9. Homeless shelter costs for chronically homeless
10. Unemployment costs
11. Productivity loss costs – Absenteeism
12. Productivity loss costs -Presenteeism
13. Premature mortality costs– Suicide
14. Premature mortality costs - All-cause mortality
15. Caregiving costs - Excess health care costs
16. Caregiving costs - Productivity losses

Direct healthcare costs

Direct non-healthcare costs

Indirect costs

Serious mental Illness

Other mental Illness

Mental Illness among children

Costs associated with untreated mental illness

1. Inpatient expenditures
2. Outpatient expenditures
3. Emergency department expenditures
4. Pharmacy expenditures
5. Other healthcare expenditures
6. Prison incarceration costs
7. Jail incarceration costs
8. Homeless shelter costs for homeless
9. Homeless shelter costs for chronically homeless
10. Unemployment costs
11. Productivity loss costs – Absenteeism
12. Productivity loss costs -Presenteeism
13. Premature mortality costs– Suicide
14. Premature mortality costs - All-cause mortality
15. Caregiving costs - Excess health care costs
16. Caregiving costs - Productivity losses

Direct healthcare costs

Direct non-healthcare costs

Indirect costs

Serious mental Illness

Other mental Illness

Mental Illness among children

Results – Final Costs

- The cost of untreated mental illness in Indiana is estimated to be **$4.2 billion every year.**
- 1.2% of Indiana's GDP
- Largest cost was premature mortality

	Other MI	SMI	Children	Total
Direct non-healthcare costs				
Jail	$ 2,116,642.39	$ 3,291,954.63	$ -	$ 5,408,597.02
Prison	$ 37,691,467.56	$ 61,305,242.29	$ 2,036,473.26	$ 101,033,183.12
Criminal Justice	$ 39,808,109.95	$ 64,597,196.92	$ 2,036,473.26	$ 106,441,780.13
Homeless	$ 3,757,757.00	$ 4,530,057.18	$ -	$ 8,287,814.18
Chronic Homeless	$ 750,707.27	$ 904,993.82	$ -	$ 1,655,701.09
Combined Homeless	$ 4,508,464.27	$ 5,435,051.00	$ -	$ 9,943,515.28
Indirect costs				
Primary Education				760,348.70
Unemployment				406,870,494.53
Absenteeism				134,569,313.19
Presenteeism				750,172,243.44
Productivity Losses				884,741,556.63
All-cause Mortality				967,446,804.00
Suicide				431,324,037.97
Premature Mortality	$ 403,756,056.00	$ 995,014,785.97	$ 68,046,350.88	$ 1,466,817,192.85
Caregiving Productivity Loss	$ 322,441,199.44	$ 223,377,237.02	$ -	$ 545,818,436.46
Caregiving Direct Healthcare	$ 12,688,326.43	$ 7,811,747.31	$ -	$ 20,500,073.74
Caregiving	$ 335,129,525.87	$ 231,188,984.32	$ -	$ 566,318,510.20
Direct healthcare costs				
Medicaid healthcare	$ 59,400,366.69	$ 56,086,373.04	$ 26,020,848.91	$ 141,507,588.64
Private healthcare	$ 299,039,237.34	$ 225,088,188.42	$ 42,815,039.01	$ 566,942,464.78
Healthcare	$ 358,439,604.04	$ 281,174,561.46	$ 68,835,887.92	$ 708,450,053.42
TOTAL	$ 2,012,954,392.77	$ 1,997,709,998.19	$ 139,679,060.76	$ 4,150,343,451.73

4,150,343,451.73

Interpretation of findings should consider the following limitations:

- It is not possible to include all potential negative societal outcomes which incur costs
- Appropriate treatment of mental illness does not guarantee all costs would or can be averted.
- National estimates were utilized in cases where Indiana state estimates were not available.
- Estimates found in this report are not inclusive of disorders associated with substance use.
- Data is representative of 2019 and are not reflective of the prevalence of mental illness following the COVID-19 pandemic.

Implications

Business-case for employers

Report recommendations to the state included:

- Building a Comprehensive Crisis Response system
- Transitioning to Certified Community Behavioral Health Clinic models
- Supporting criminal justice-focused strategies
- Expanding the workforce
- Reducing administrative burdens associated with MI services

https://www.in.gov/fssa/dmha/files/INBHC-Report.pdf

Potential future work

The Commission acknowledges that some of the recommendations carry a significant price tag. Care has been taken to propose strategies that mitigate the long-term impact on the state budget while improving access to quality care for all Hoosiers. Furthermore, as instructed by the General Assembly, the Commission studied the cost of untreated mental illness in Indiana and estimates that cost to be a staggering $4.2 billion annually. [i]

Using the methodology presented here today, we could ***track costs over time*** to see whether the Commission's proposed interventions are making a financial impact on the overall burden of untreated mental illness

IU Fairbanks School of Public Health

- Justin Blackburn, PhD
- Heather Taylor, PhD, LDH
- Nir Menachemi, PhD, MPH
- Marion Greene, PhD

WISE Indiana

- Aaron Zych, MPH
- Emily Hardwick, MPH, CCRP, PMP
- Amber Osterholt, PhD

Research Jam

- Dustin Lynch, BFA

IU School of Medicine

- Ty Kelly, MD, MPH

Family Social and Services Administration

- Amy Gilbert, MPH, JD
- Jay Chaudhary, JD

IU O'Neil School of Public and Environmental Affairs

- Kosali Simon, PhD
- Coady Wing, PhD
- Ashley Railey, PhD

IU College of Arts and Sciences / Irsay Family Research Institute

- Bernice Pescosolido, PhD
- Brea Perry, PhD

Thank you.

Justin Blackburn: jblackb@iu.edu

Heather Taylor: hhavens@iu.edu

References

1. Mental Illness [Internet]. National Institute of Mental Health (NIMH). [cited 2022 Jun 13]. Available from: https://www.nimh.nih.gov/health/statistics/mental-illness
2. Key Substance Use and Mental Health Indicators in the United States: Results from the 2020 National Survey on Drug Use and Health [Internet]. Substance Abuse and Mental Health Services Administration; 2021 Oct. Available from: https://www.samhsa.gov/data/sites/default/files/reports/rpt35325/NSDUHFFRPDFWHTMLFiles2020/2020NSDUHFFR1PDFW102121.pdf
3. Zhu JM, Myers R, McConnell KJ, Levander X, Lin SC. Trends In Outpatient Mental Health Services Use Before And During The COVID-19 Pandemic. Health Aff . 2022 Apr;41(4):573–80.
4. 2019 National Survey of Drug Use and Health (NSDUH) Releases [Internet]. [cited 2022 Jun 13]. Available from: https://www.samhsa.gov/data/release/2019-national-survey-drug-use-and-health-nsduh-releases
5. National Alliance on Mental Illness. Mental Health By the Numbers [Internet]. 2022 [cited 2022 Jun 13]. Available from: https://nami.org/mhstats
6. U.S. Government Accountability Office. Behavioral Health: Research on Health Care Costs of Untreated Conditions is Limited [Internet]. [cited 2022 Jun 14]. Available from: https://www.gao.gov/products/gao-19-274
7. Gardner HH, Kleinman NL, Brook RA, Rajagopalan K, Brizee TJ, Smeeding JE. The economic impact of bipolar disorder in an employed population from an employer perspective. J Clin Psychiatry. 2006 Aug;67(8):1209–18.
8. Cloutier M, Aigbogun MS, Guerin A, Nitulescu R, Ramanakumar AV, Kamat SA, et al. The Economic Burden of Schizophrenia in the United States in 2013. J Clin Psychiatry. 2016 Jun;77(6):764–71.
9. Cloutier M, Greene M, Guerin A, Touya M, Wu E. The economic burden of bipolar I disorder in the United States in 2015. J Affect Disord. 2018 Jan 15;226:45–51.
10. Greenberg PE, Fournier A-A, Sisitsky T, Simes M, Berman R, Koenigsberg SH, et al. The Economic Burden of Adults with Major Depressive Disorder in the United States (2010 and 2018). Pharmacoeconomics. 2021 Jun;39(6):653–65.

References - continued

11. Greenberg PE, Fournier A-A, Sisitsky T, Pike CT, Kessler RC. The economic burden of adults with major depressive disorder in the United States (2005 and 2010). J Clin Psychiatry. 2015 Feb;76(2):155–62.
12. Substance Abuse and Mental Health Services Administration. Projections of National Expenditures for Treatment of Mental and Substance Use Disorders, 2010-2020 [Internet]. [cited 2022 Aug 2]. Available from: https://store.samhsa.gov/product/Projections-of-National-Expenditures-for-Treatment-of-Mental-and-Substance-Use-Disorders-2010-2020/SMA14-4883
13. Luca DL, Margiotta C, Staatz C, Garlow E, Christensen A, Zivin K. Financial Toll of Untreated Perinatal Mood and Anxiety Disorders Among 2017 Births in the United States. Am J Public Health. 2020 Jun;110(6):888–96.
14. To access the appendix, click on the Details tab of the article online.
15. Substance Abuse and Mental Health Services Administration. National Survey on Drug Use and Health 2019 Questionnaire [Internet]. [cited 2022 Sep 14]. Available from: https://www.samhsa.gov/data/report/nsduh-2019-questionnaire
16. US Census Bureau. National Survey of Children's Health (NSCH) [Internet]. [cited 2022 Sep 14]. Available from: https://www.census.gov/programs-surveys/nsch.html
17. National Survey of Children's Health (NSCH) 2018-2019: Children with mental, emotional, developmental or behavioral problems, Indiana [Internet]. [cited 2022 Jun 27]. Available from: https://www.childhealthdata.org/browse/survey/results?q=7981&r=16
18. United States Department of Corrections. Indiana 2019 [Internet]. National Institute of Corrections. 2021 [cited 2022 Jul 7]. Available from: https://nicic.gov/state-statistics/2019/indiana-2019
19. Bronson J, Berzofsky BSM, H. P. Indicators of Mental Health Problems Reported by Prisoners and Jail Inmates, 2011-12. Available from: https://bjs.ojp.gov/content/pub/pdf/imhprpji1112.pdf
20. Zeng Z, Minton TD, Statisticians B. Jail Inmates in 2019 [Internet]. 2021 [cited 2022 Jun 29]. Available from: https://bjs.ojp.gov/content/pub/pdf/ji19.pdf

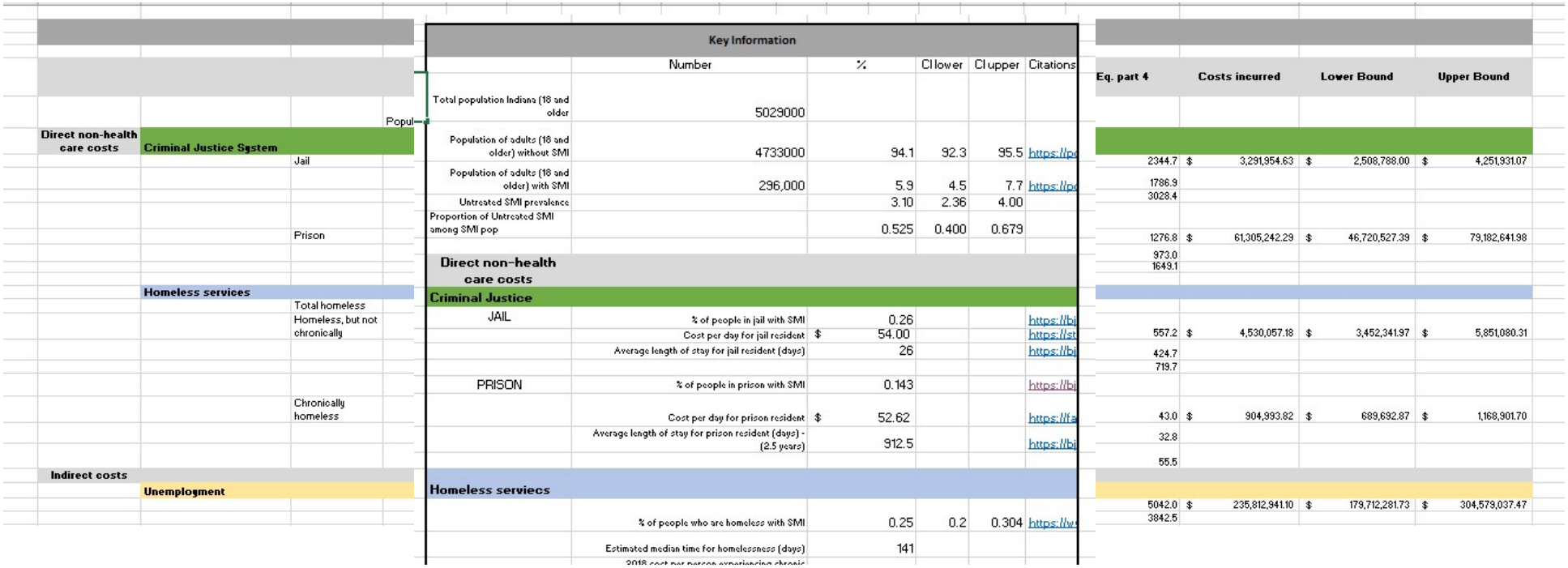
References - continued

21. Vera Institute. What Jails Cost - Indiana [Internet]. [cited 2022 Jan 2]. Available from: https://www.vera.org/publications/what-jails-cost-statewide/indiana
22. Kirch W, editor. Human Capital ApproachHuman capital approach. In: Encyclopedia of Public Health. Dordrecht: Springer Netherlands; 2008. p. 697–8.
23. Multiple Cause of Death Data on CDC WONDER [Internet]. [cited 2022 Jan 1]. Available from: https://wonder.cdc.gov/mcd.html
24. U.S. Bureau of Labor Statistics. Occupational Employment and Wage Statistics. May 2019 OES State Occupational Employment and Wage Estimates - Indiana [Internet]. 2008 [cited 2022 Jul 7]. Available from: https://www.bls.gov/oes/2019/may/oes_in.htm
25. Indiana Health Coverage Programs (IHCP) Fee Schedules [Internet]. [cited 2022 Jul 26]. Available from: http://provider.indianamedicaid.com/ihcp/Publications/MaxFee/fee_home.asp
26. National Committee for Quality Assurance. HEDIS 2019 Medication List Directory of NDC Codes [Internet]. [cited 2022 Jul 7]. Available from: https://www.ncqa.org/hedis/measures/hedis-2019-ndc-license/
27. Panzarino PJ Jr. The costs of depression: direct and indirect; treatment versus nontreatment. J Clin Psychiatry. 1998;59 Suppl 20:11–4.
28. Ivanova JI, Birnbaum HG, Chen L, Duhig AM, Dayoub EJ, Kantor ES, et al. Cost of post-traumatic stress disorder vs major depressive disorder among patients covered by medicaid or private insurance. Am J Manag Care. 2011 Aug 1;17(8):e314-23.
29. Indiana State Department of Agriculture. Indiana Agriculture.[Internet] [cited 2022 May 20] Available from: https://www.in.gov/isda/files/Brochure_Indiana-agriculture-small.pdf
30. Hilton MF, Scuffham PA, Sheridan J, Cleary CM, Vecchio N, Whiteford HA. The association between mental disorders and productivity in treated and untreated employees. J Occup Environ Med. 2009 Sep;51(9):996–1003.

References - continued

31. Goldberg RJ, Steury S. Depression in the workplace: costs and barriers to treatment. Psychiatr Serv. 2001 Dec;52(12):1639–43.
32. Alegría M, Frank RG, Hansen HB, Sharfstein JM, Shim RS, Tierney M. Transforming Mental Health And Addiction Services. Health Aff . 2021 Feb;40(2):226–34.
33. Fry CE, McGuire TG, Frank RG. Medicaid Expansion's Spillover to the Criminal Justice System: Evidence from Six Urban Counties. RSF. 2020 Jul;6(2):244–63.
34. Murphy S, Irving CB, Adams CE, Driver R. Crisis intervention for people with severe mental illnesses. Cochrane Database Syst Rev. 2012 May 16;(5):CD001087.
35. Lau J, Knudsen J, Jackson H, Wallach AB, Bouton M, Natsui S, et al. Staying Connected In The COVID-19 Pandemic: Telehealth At The Largest Safety-Net System In The United States. Health Aff . 2020 Aug;39(8):1437–42.
36. Hubley S, Lynch SB, Schneck C, Thomas M, Shore J. Review of key telepsychiatry outcomes. World J Psychiatry. 2016 Jun 22;6(2):269–82.
37. Indiana Health Coverage Programs Bulletin. IHCP announces final 2022 telehealth and virtual services code set [Internet]. [cited 2022 Aug 2]. Available from: http://provider.indianamedicaid.com/ihcp/Bulletins/BT202239.pdf
38. Margiotta C, Gao J, O'Neil S, Vohra D, Zivin K. The economic impact of untreated maternal mental health conditions in Texas. BMC Pregnancy Childbirth. 2022 Sep 12;22(1):700.
39. Pratt SI, Naslund JA, Wolfe RS, Santos M, Bartels SJ. Automated telehealth for managing psychiatric instability in people with serious mental illness. J Ment Health. 2015;24(5):261–5.
40. Kennedy S, M. PP, M. SW. An Overview of the State-University Partnership Learning Network. [Internet].[cited 2022 Nov 29]. Available from: https://academyhealth.org/publications/2019-06/overview-state-university-partnership-learning-network
41. Brownson RC, Dodson EA, Kerner JF, Moreland-Russell S. Framing research for state policymakers who place a priority on cancer. Cancer Causes Control. 2016 Aug;27(8):1035–41.
42. Tabak RG, Eyler AA, Dodson EA, Brownson RC. Accessing evidence to inform public health policy: a study to enhance advocacy. Public Health. 2015 Jun;129(6):698–704.
43. Indiana University Public Policy Institute. Center for Research on Inclusion and Social Policy. Homelessness in Indianapolis. [Internet]. [cited 2022 Aug 2]. Available from: https://policyinstitute.iu.edu/doc/pit-count-2021.pdf

Operationalizing methods



			Key Information											
				Number	%	CI lower	CI upper	Citations	Eq. part 4	Costs incurred	Lower Bound	Upper Bound
			Total population Indiana (18 and older	5029000								
		Popul										
Direct non-health care costs	Criminal Justice System		Population of adults (18 and older) without SMI	4733000	94.1	92.3	95.5	https://pu	2344.7	$ 3,291,954.63	$ 2,508,788.00	$ 4,251,931.07
		Jail	Population of adults (18 and older) with SMI	296,000	5.9	4.5	7.7	https://pu	1786.9			
			Untreated SMI prevalence		3.10	2.36	4.00		3028.4			
			Proportion of Untreated SMI among SMI pop		0.525	0.400	0.679					
		Prison							1276.8	$ 61,305,242.29	$ 46,720,527.39	$ 79,182,641.98
			Direct non-health care costs						973.0			
									1649.1			
	Homeless services		Criminal Justice									
		Total homeless	JAIL	% of people in jail with SMI	0.26			https://bj				
		Homeless, but not chronically		Cost per day for jail resident	$ 54.00			https://st	557.2	$ 4,530,057.18	$ 3,452,341.97	$ 5,851,080.31
				Average length of stay for jail resident (days)	26			https://bj	424.7			
									719.7			
			PRISON	% of people in prison with SMI	0.143			https://bj				
		Chronically homeless		Cost per day for prison resident	$ 52.62			https://fa	43.0	$ 904,993.82	$ 689,692.87	$ 1,168,901.70
				Average length of stay for prison resident (days) - (2.5 years)	912.5			https://bj	32.8			
									55.5			
Indirect costs			Homeless serviecs									
	Unemployment								5042.0	$ 235,812,941.10	$ 179,712,281.73	$ 304,579,037.47
				% of people who are homeless with SMI	0.25	0.2	0.304	https://ws	3842.5			
				Estimated median time for homelessness (days)	141							
				2018 cost per person experiencing chronic								

Up Next

Name

Don McCay, Ph.D. & Adam McFatridge, MA

Position

Indiana HIDTA

2:00pm – 2:30pm

Indiana HIDTA 2023 Threat Assessment

Excerpt of Provisional Results

Funded by the Office of National Drug Control Policy

CW3 Adam McFatridge, MA

Don McCay, PhD

HIDTA Goals

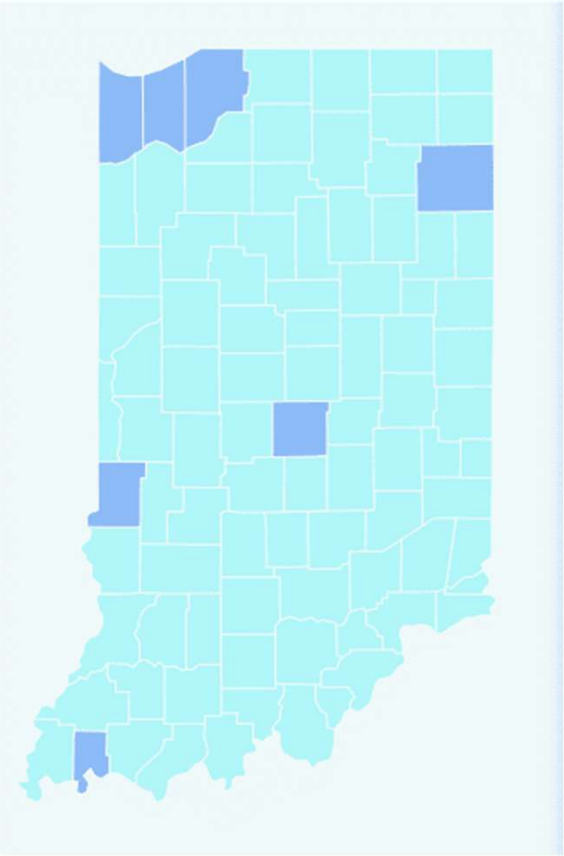
- Disrupt the market for illegal drugs by dismantling or disrupting drug trafficking and/or money laundering organizations
- Improve the efficiency and effectiveness of HIDTA initiatives

HIDTA History 101

- Created by Congress with the Anti-Drug Abuse Act of 1988
- Aids Federal, state, local, and tribal law enforcement agencies operating in areas determined to be critical drug-trafficking regions of the United States
- This grant program is administered by the Office of National Drug Control Policy (ONDCP)

HIDTA History 101

- Currently 33 HIDTAs
  - All 50 states
  - Puerto Rico
  - US Virgin Islands
  - District of Columbia



Indiana HIDTA
Area of Responsibility (AOR)

Indiana HIDTA Counties	Population (July 2021)
Allen	388,608
Lake	498,558
La Porte	112,390
Marion	971,102
Porter	174,243
Vanderburgh	179,987
Vigo	105,994

The Threat Assessment

- It is a mandated that every HIDTA complete a threat assessment each year
  - Survey of officers/administrators/analysts
  - Field interviews
  - Special thanks to SyraHealth for design assistance
- Published June 15

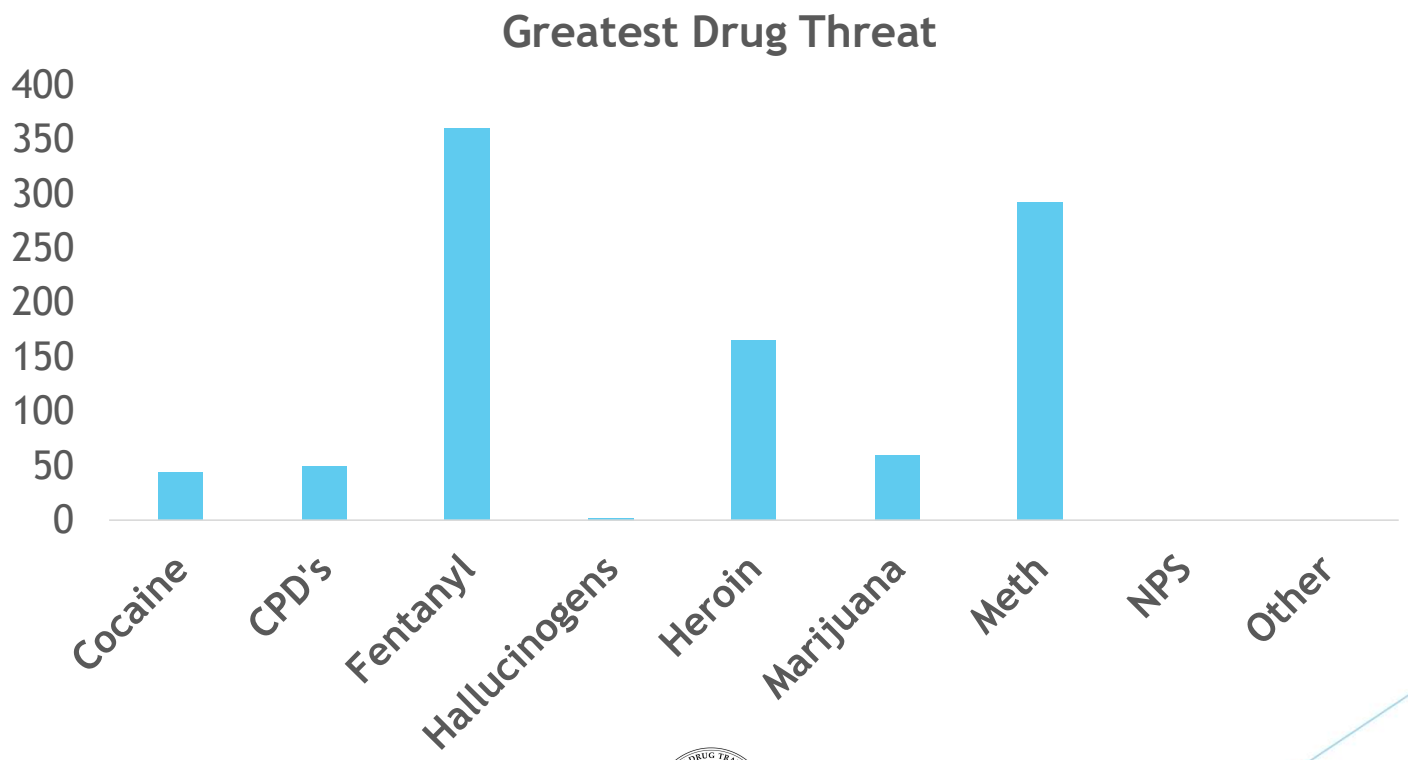
Greatest Threat

- Respondents were asked to identify the three drugs they viewed as the greatest threat in their AOR
- The greatest threats were determined through weighted rankings

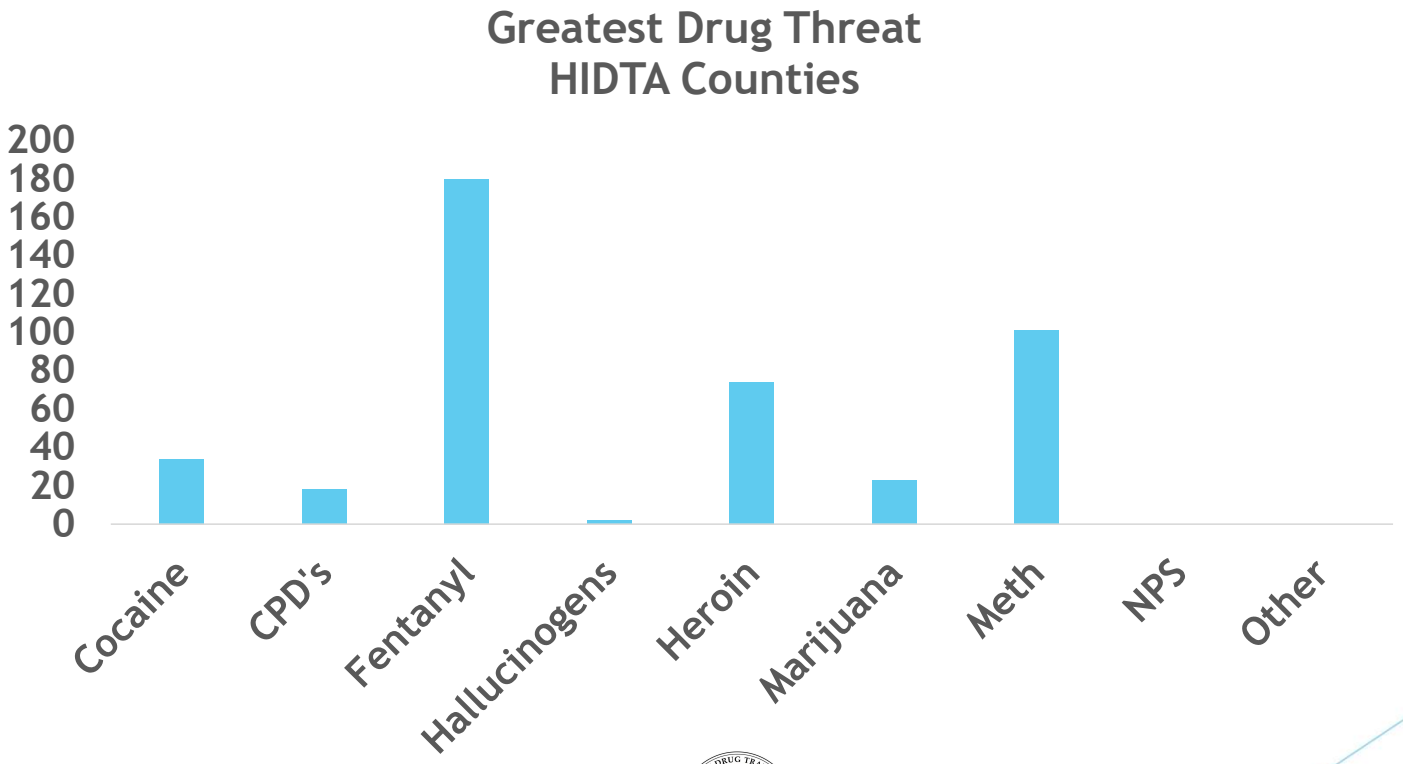
Greatest Threat

- Fentanyl
- Methamphetamine
- Heroin

Greatest Threat



Greatest Threat



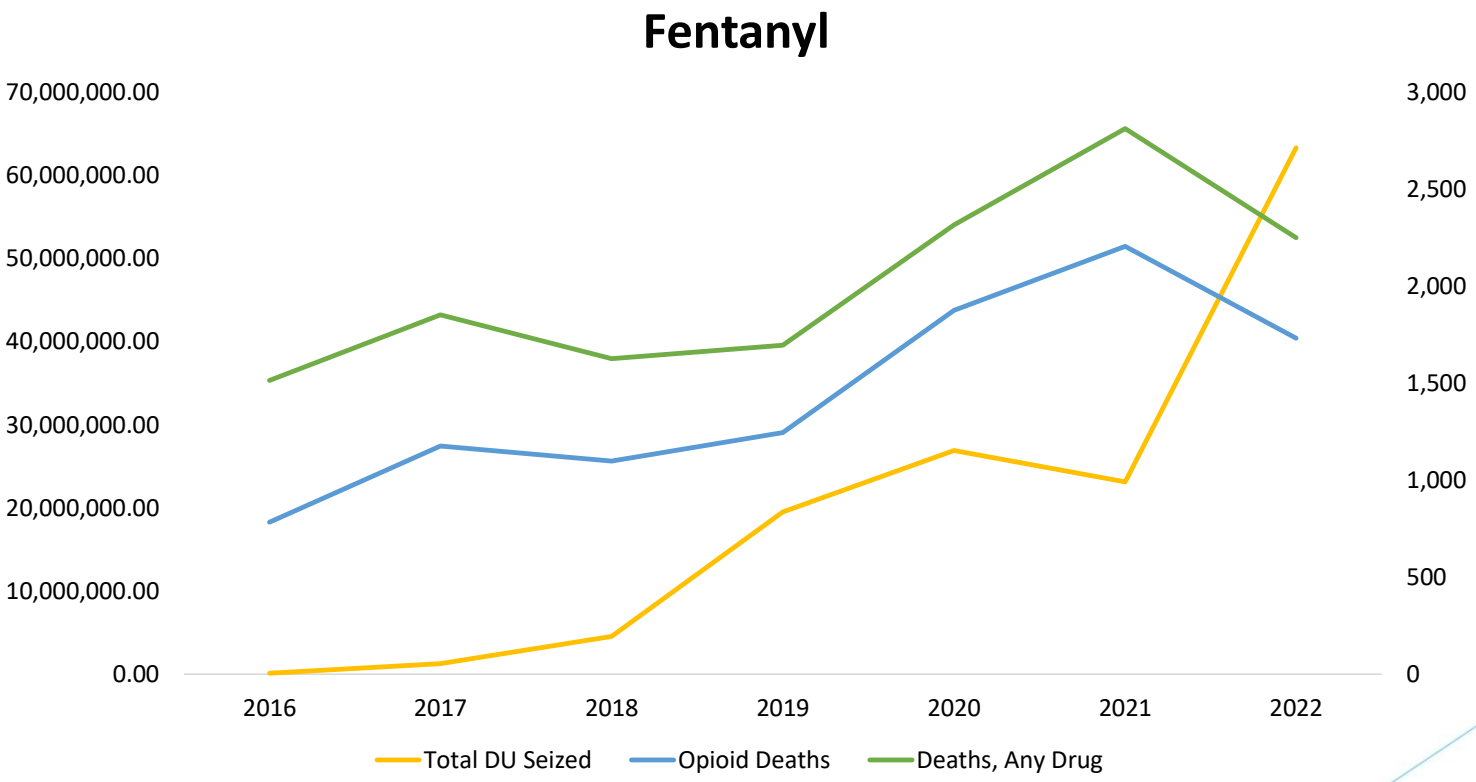
Fentanyl

- Availability
  - 65% indicated availability was high
  - 71% indicated that availability increased or significantly increased over the previous year

Fentanyl

- Demand
  - 69% indicated demand was high
  - 67% indicated demand increased or significantly increased over the previous year

HIDTA Initiative Fentanyl Seizures



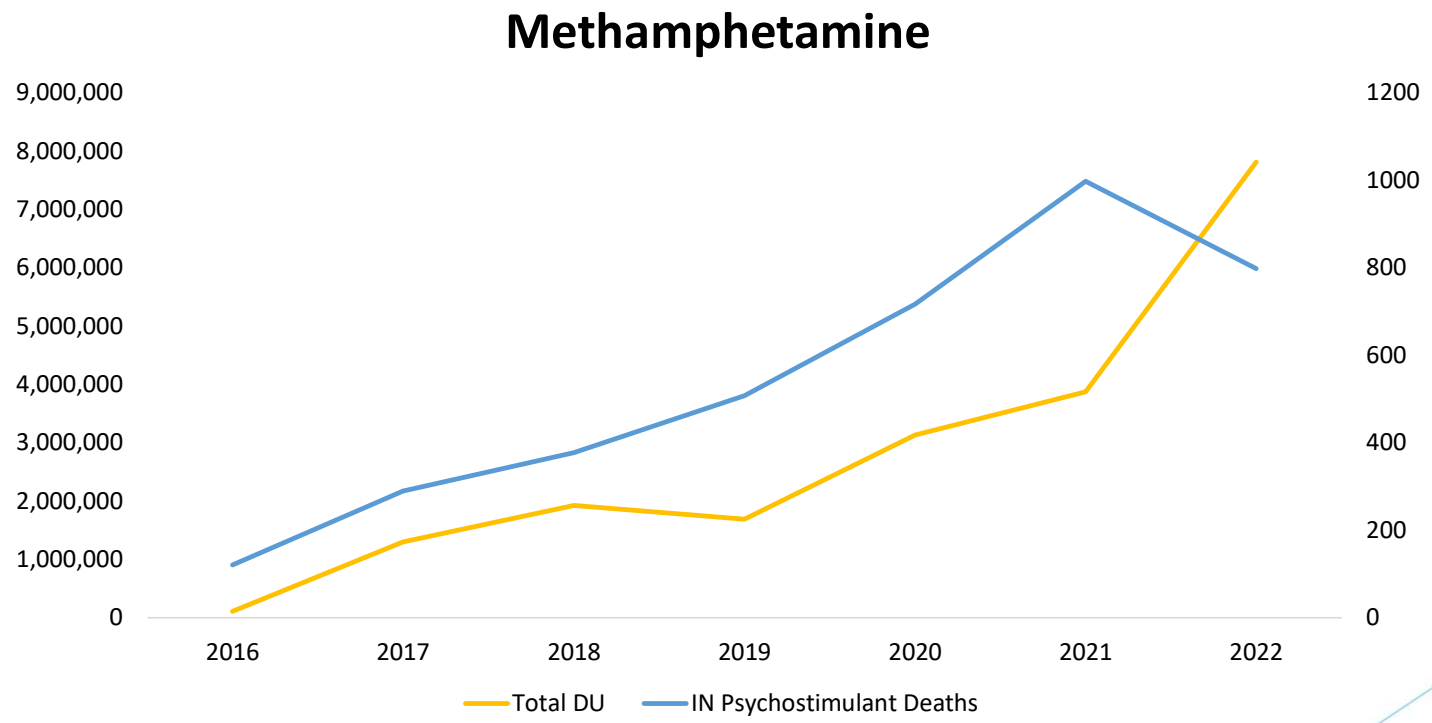
Methamphetamine

- Availability
  - 85% indicated availability was high
  - 59% indicated availability increased or significantly increased over the previous year

Methamphetamine

- Demand
  - 87% indicated demand was high
  - 59% indicated demand increased or significantly increased over the previous year

HIDTA Initiative Methamphetamine Seizures



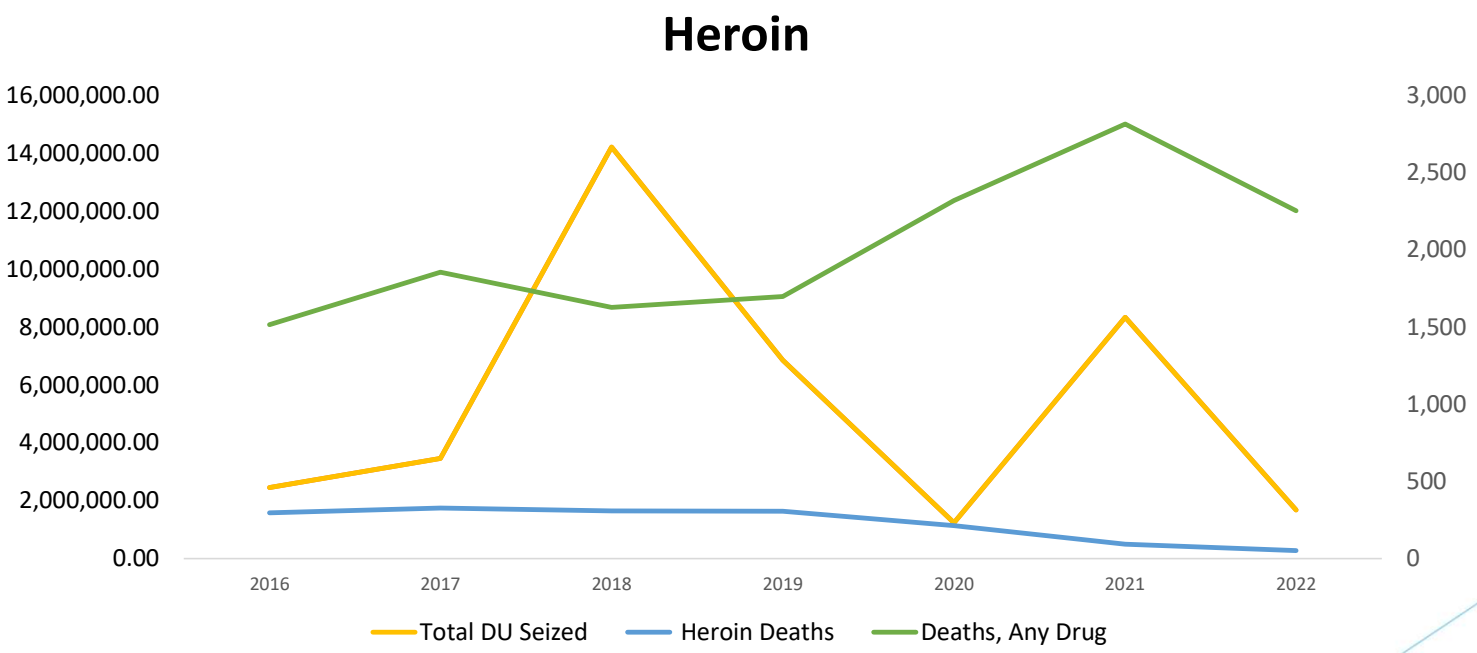
Heroin

- Availability
  - 49% indicated availability was high
  - 35% availability increased or significantly increased over the previous year

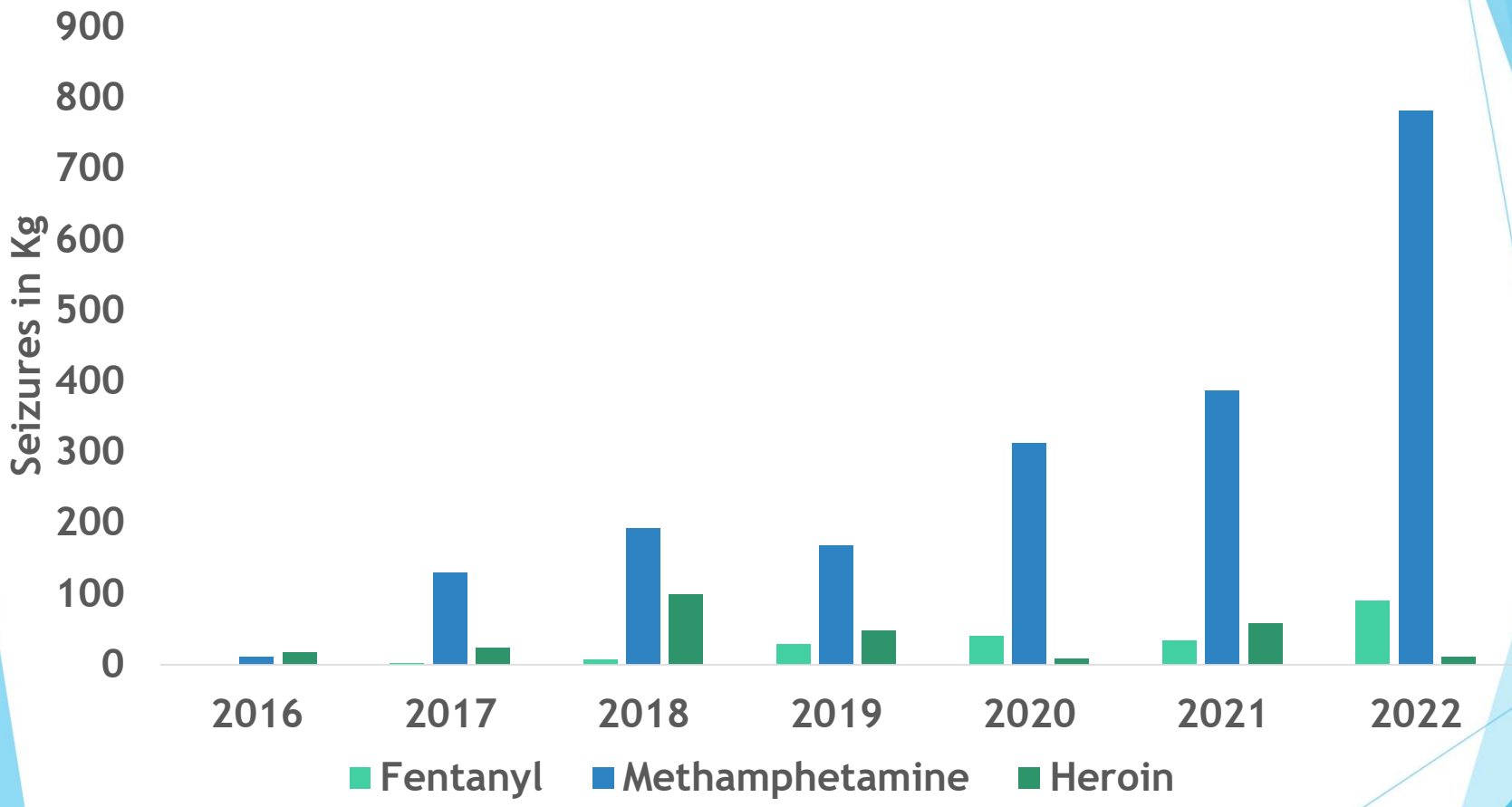
Heroin

- Demand
  - 54% indicated demand was high
  - 41% indicated demand increased or significantly increased over the previous year

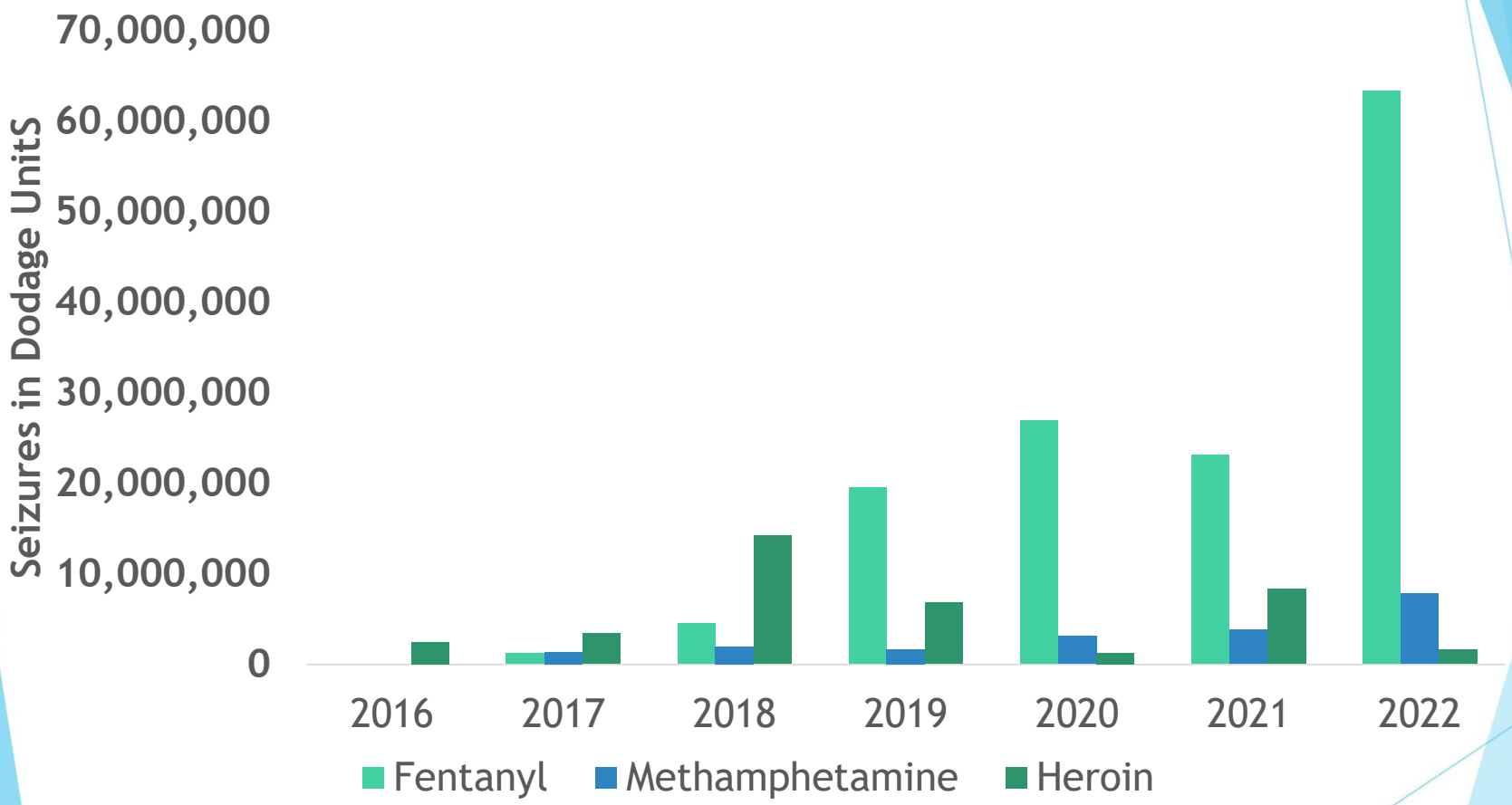
HIDTA Initiatives Heroin Seizures

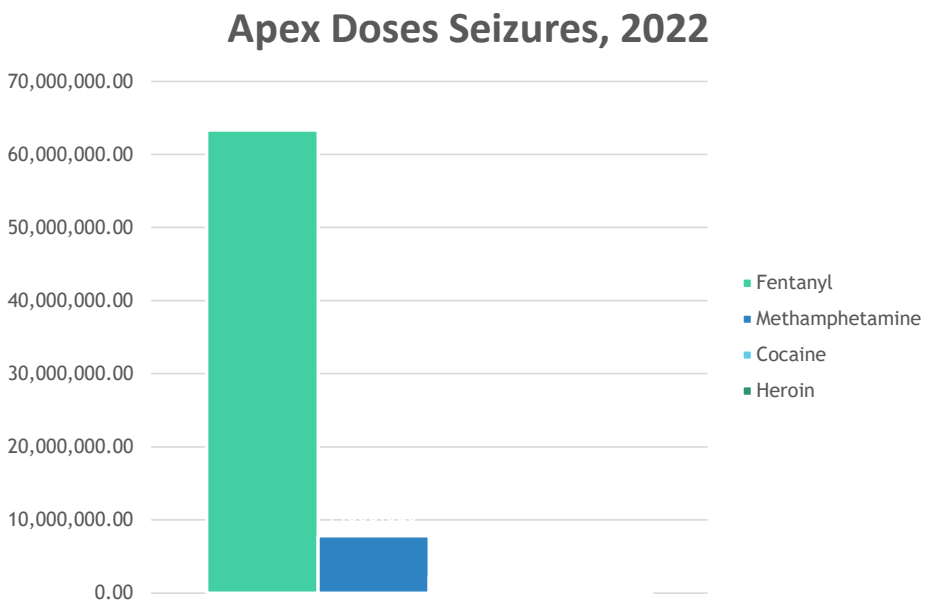


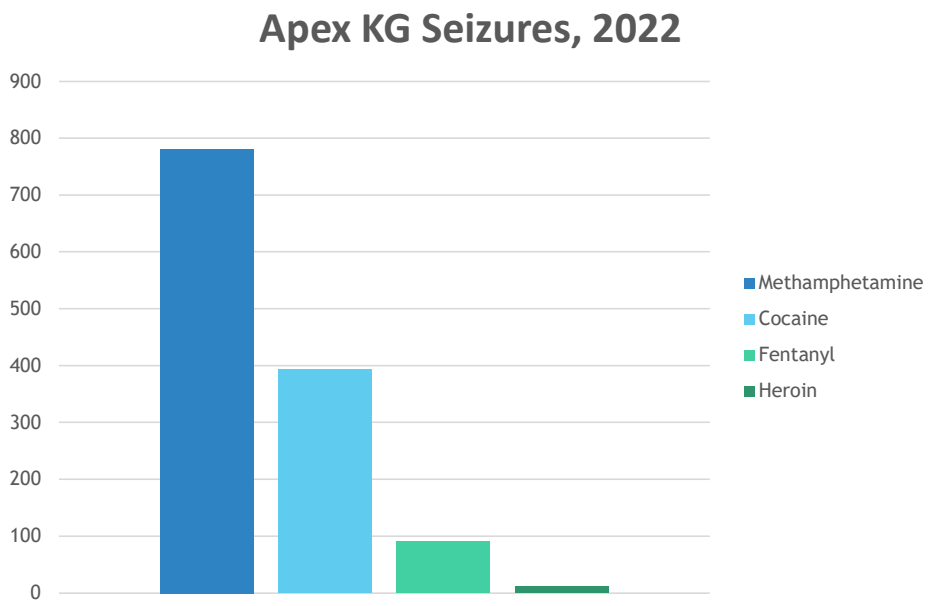
Indiana PMP Seizures



Indiana PMP Seizures




Apex Doses Seizures, 2022
70,000,000.00
60,000,000.00
50,000,000.00
40,000,000.00
30,000,000.00
20,000,000.00
10,000,000.00
0.00
Fentanyl
Methamphetamine
Cocaine
Heroin


Apex KG Seizures, 2022
900
800
700
600
500
400
300
200
100
0
Methamphetamine
Cocaine
Fentanyl
Heroin

Thank you for your time…
Are there any questions?

Up Next

Name

Dane Minnick

Position

Assistant Professor in the Dept. of Social Work at Ball State University & Vice Chair of the SEOW

2:45pm – 3:15pm

BALL STATE
UNIVERSITY

Substance Use Research
and Community Initiatives

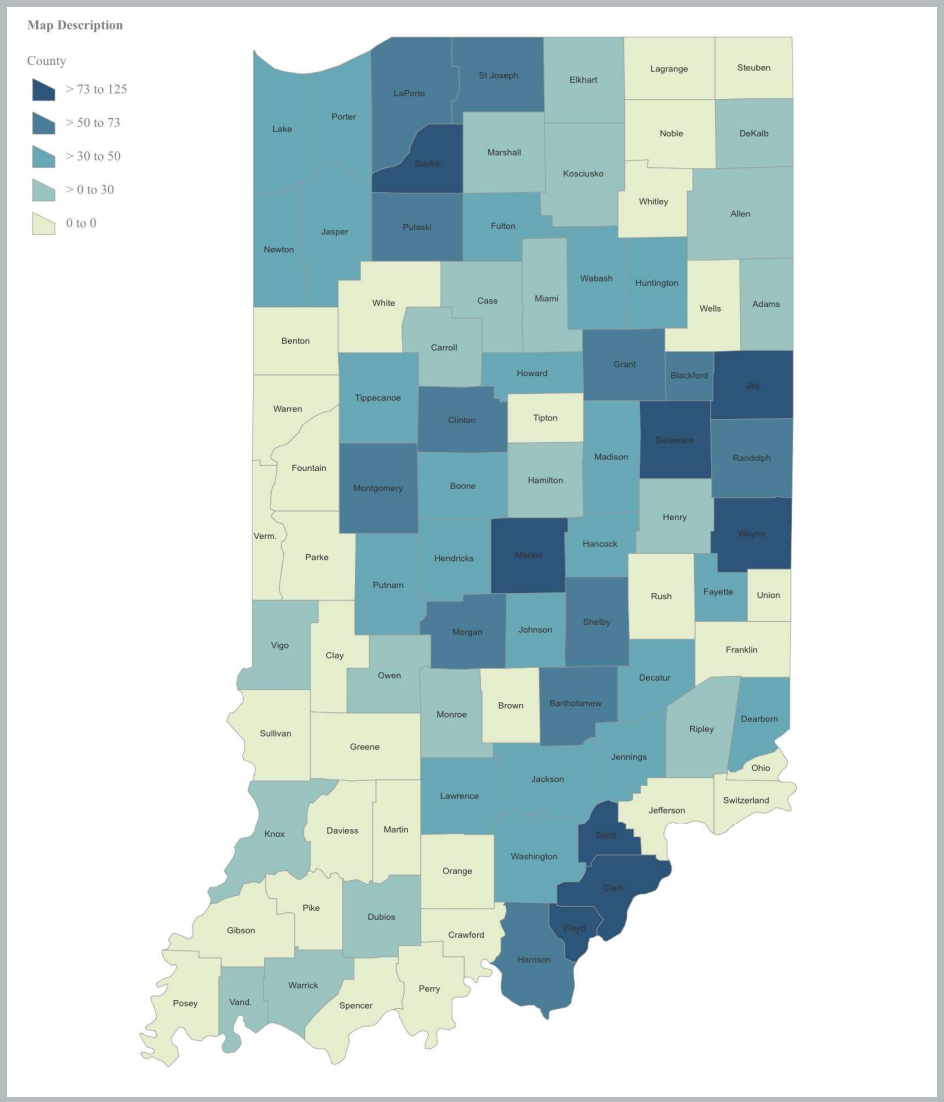
Assessment of Indiana Syringe Service Programs

Public Health & Medical Intervention

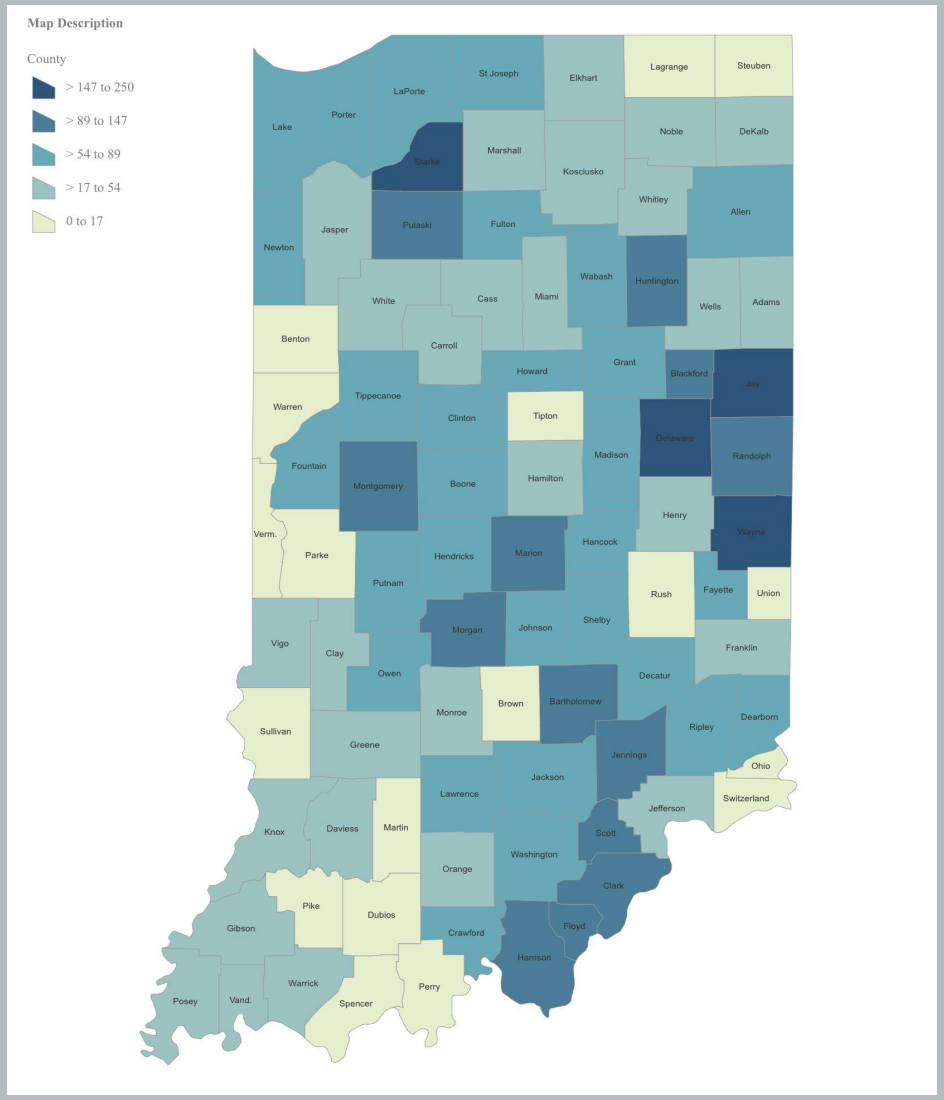
1. Disease Prevention
   i. Hep-C & HIV
2. Access Point to a High-Risk Population with Acute Vulnerability
   i. Food, clothing, and housing resources
   ii. Insurance navigation
   iii. Medical, mental, & behavioral health care
   iv. Treatment and recovery resources
      - Reduce recovery barriers

Syringe Service Programs

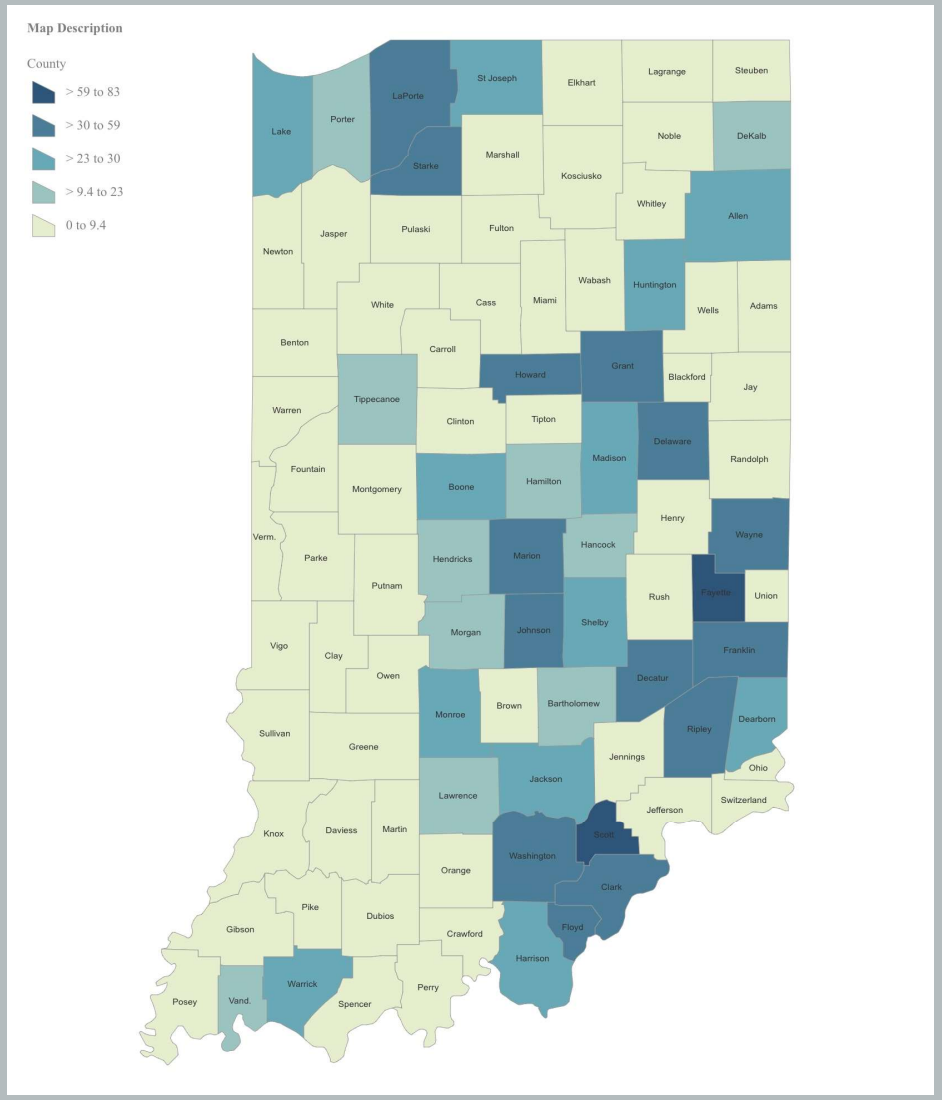
Non-Fatal E.D. Heroin 2019



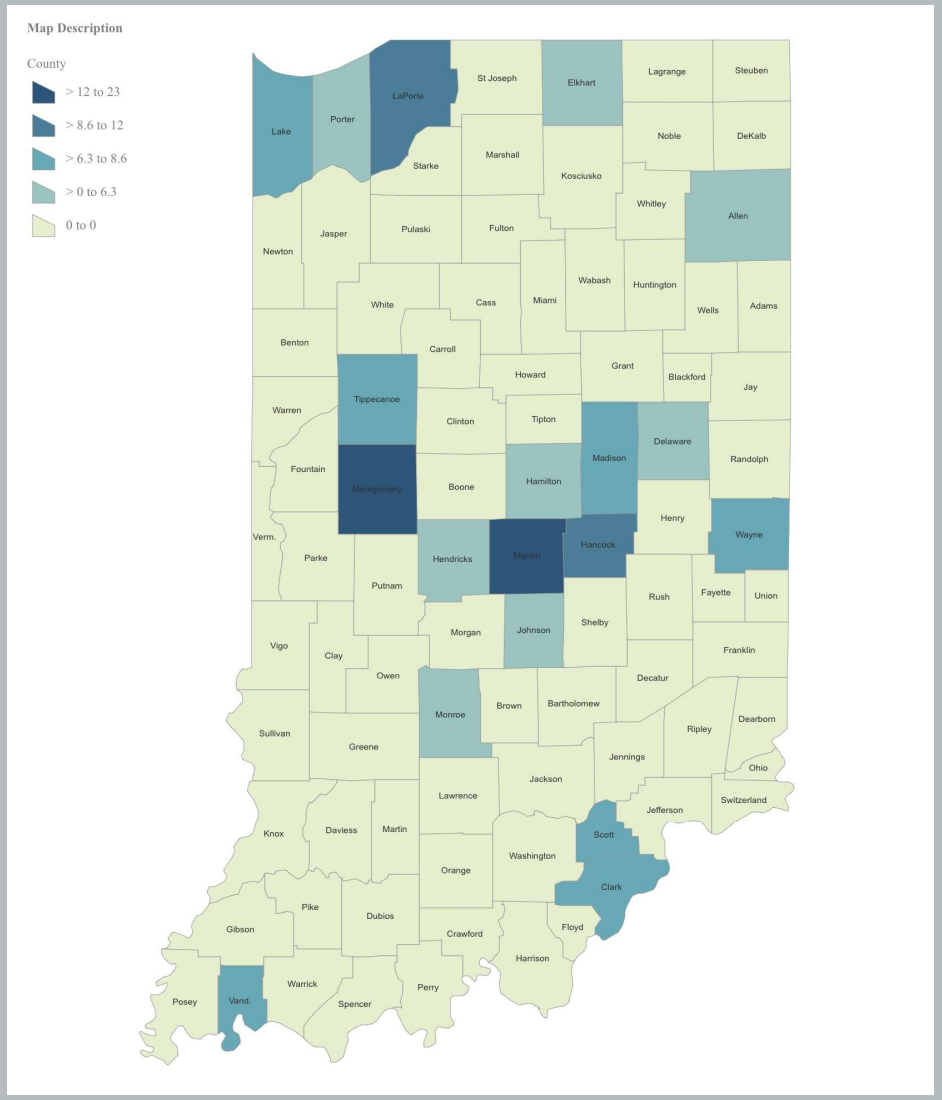
Non-Fatal E.D. Opioids 2019



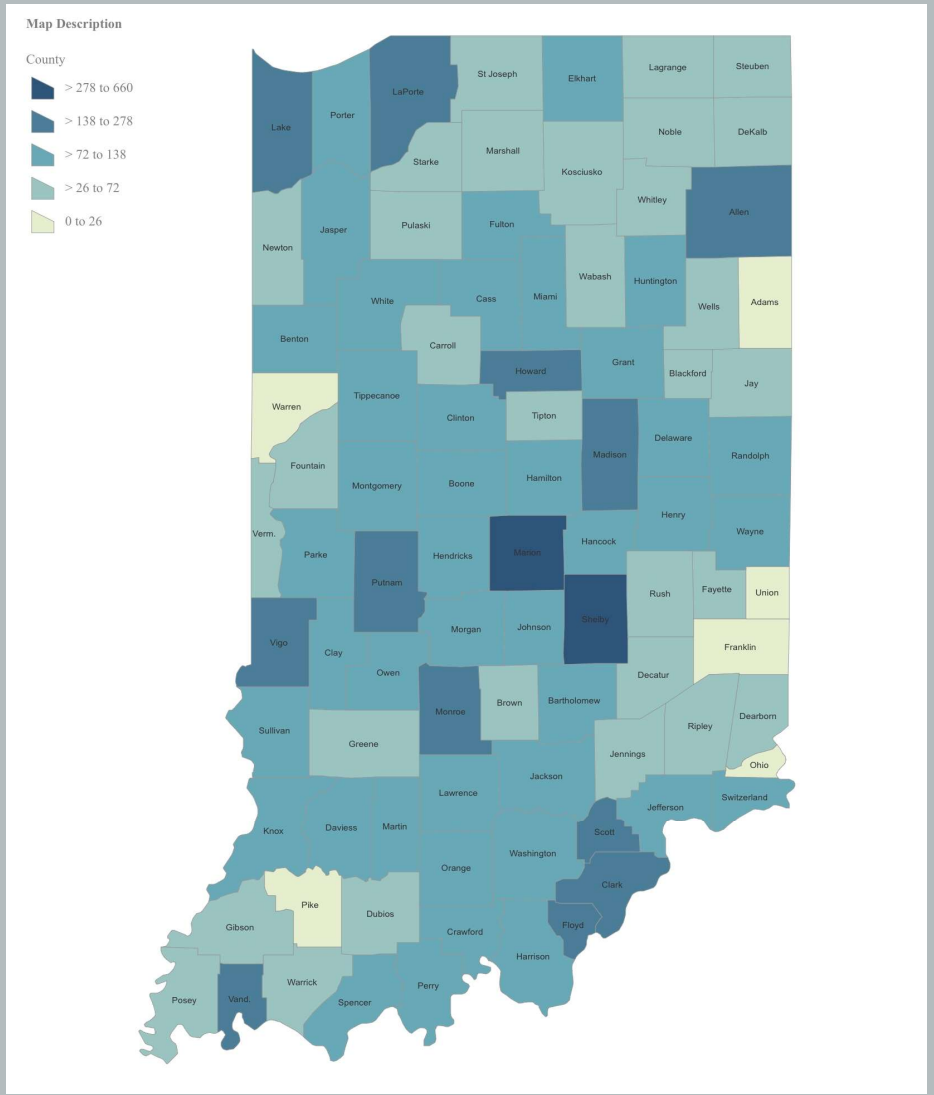
Opioid Overdose Deaths 2020



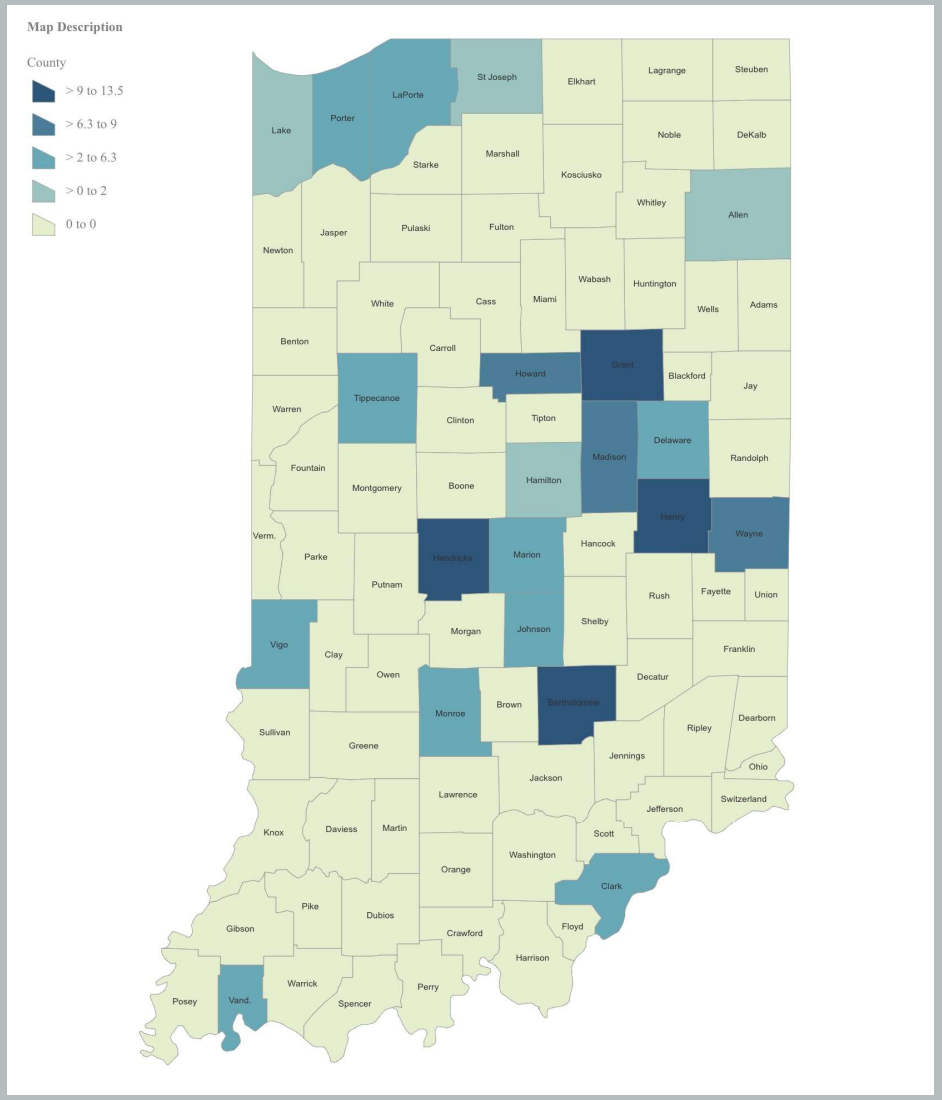
Newly Diagnosed HIV/AIDS 2021



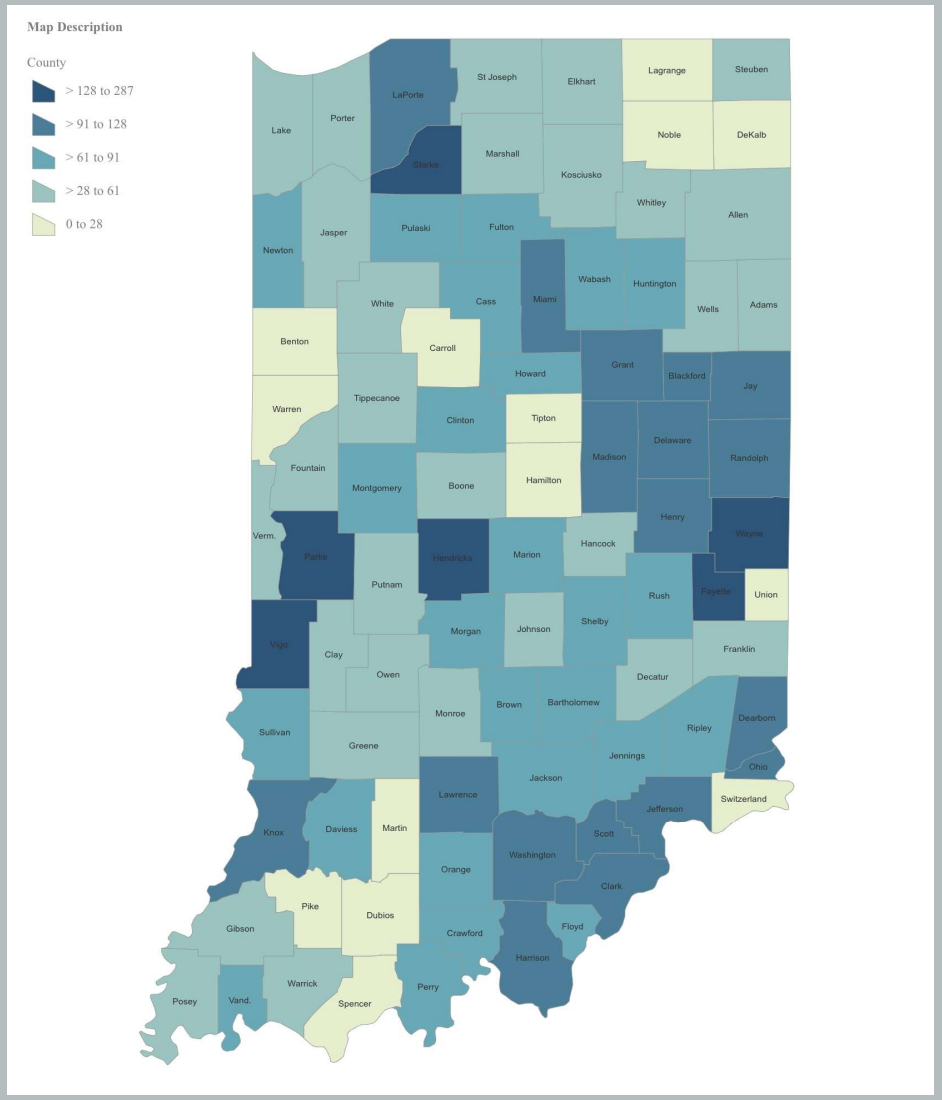
HIV/AIDS Prevalence 2021



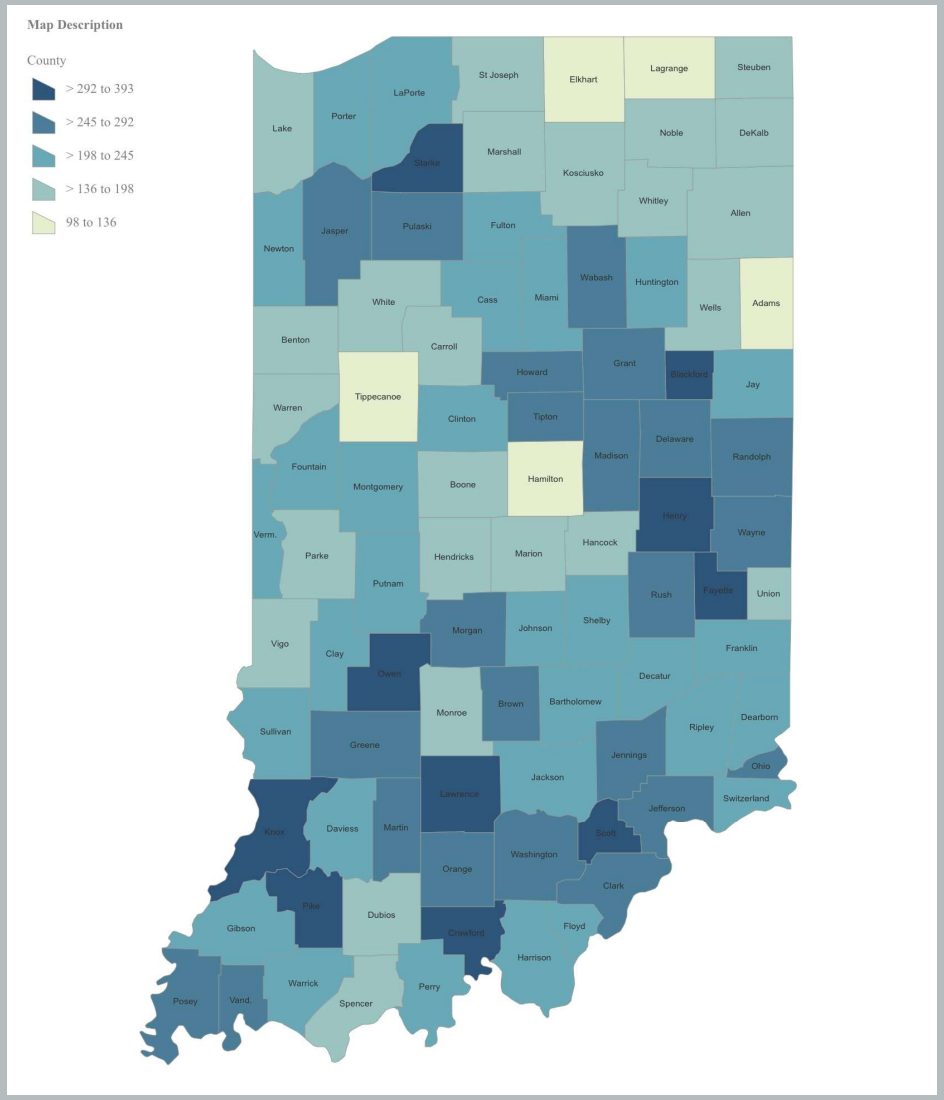
Hep-C Acute 2020



Hep-C Chronic 2021



Opioid Prescriptions 2019



Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
45,937	2.97%	4,308	-0.19%

1,191 Arrested Individuals per 10,000 State Residents

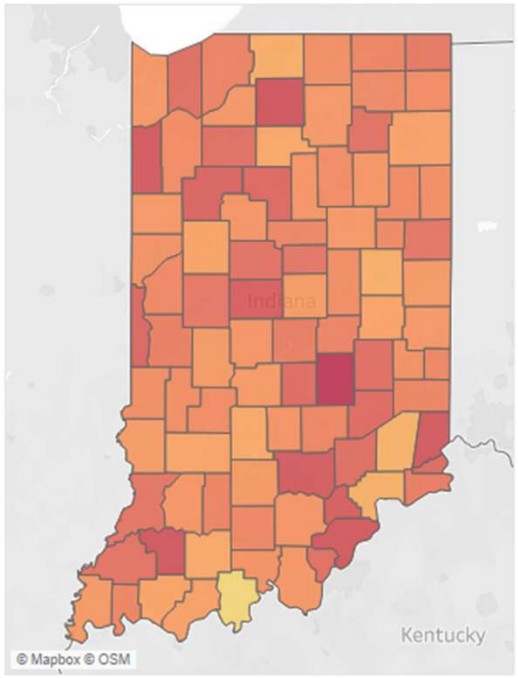
Show... Individuals Arrested

Offense Stage: Most Recent (Arrest or Disposition)

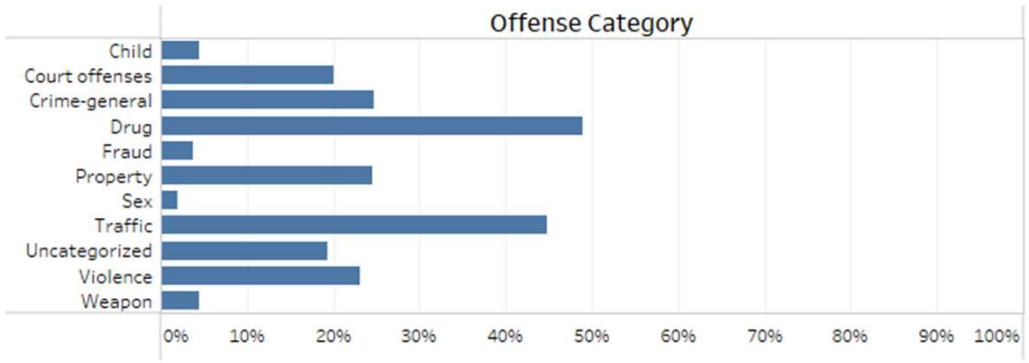
Year: Multiple values

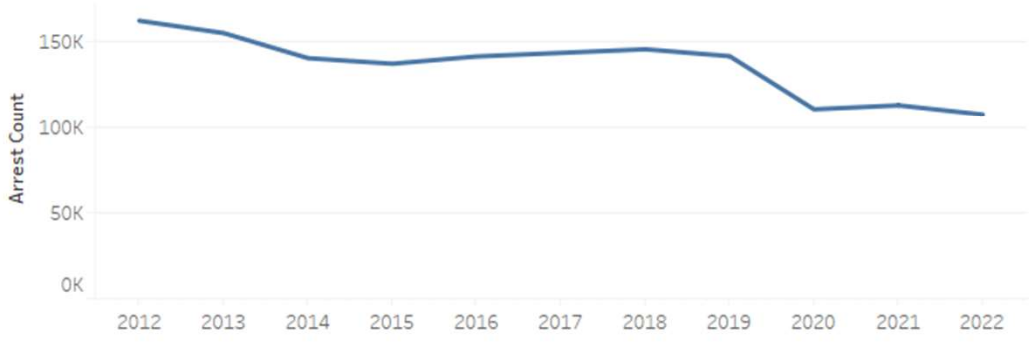
Heatmap or Line Chart: Line Chart

Rate or Count?
Rate per 10,000 County Residents

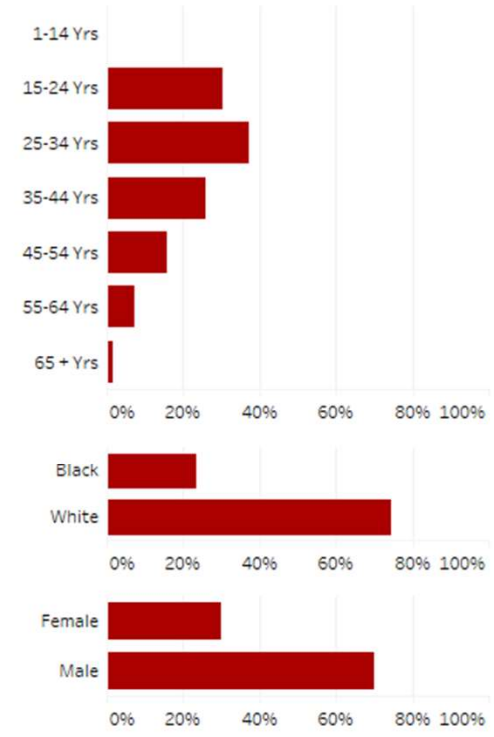


Select an Offense Category to see Subcategories





Demographic Information



Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
15,327	-6.00%	1,377	-5.88%

583 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

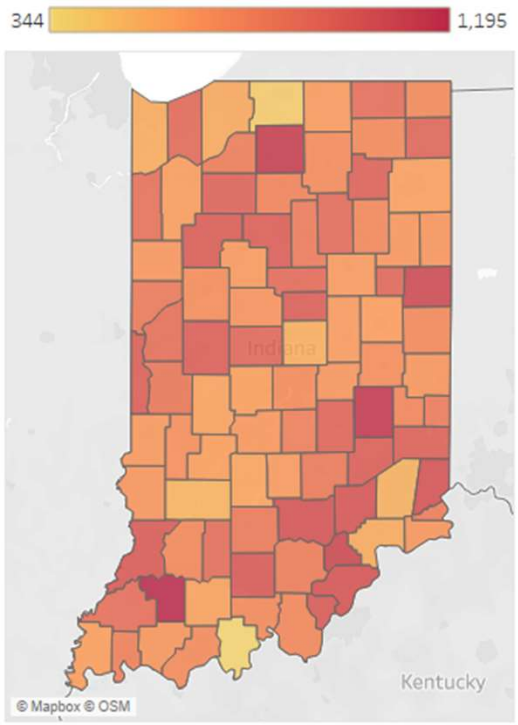
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

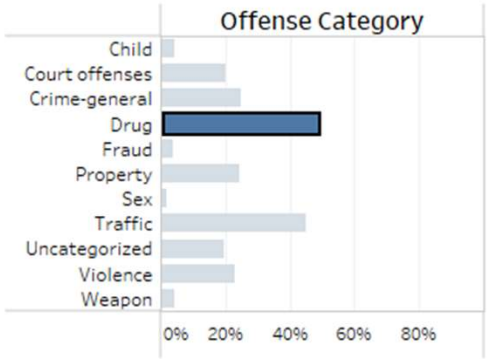
Heatmap or Line Chart: Line Chart

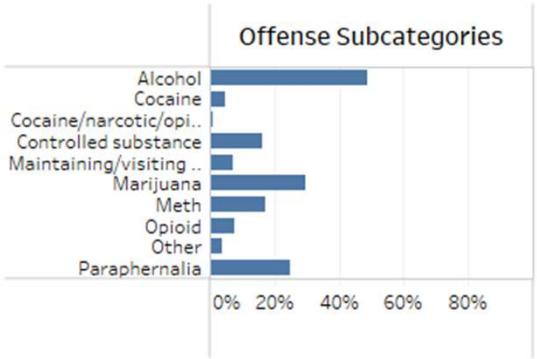
Rate or Count?

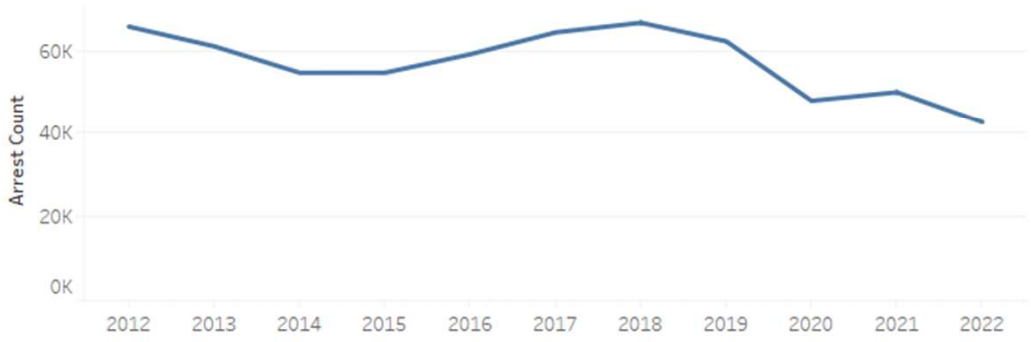
Rate per 10,000 County Residents



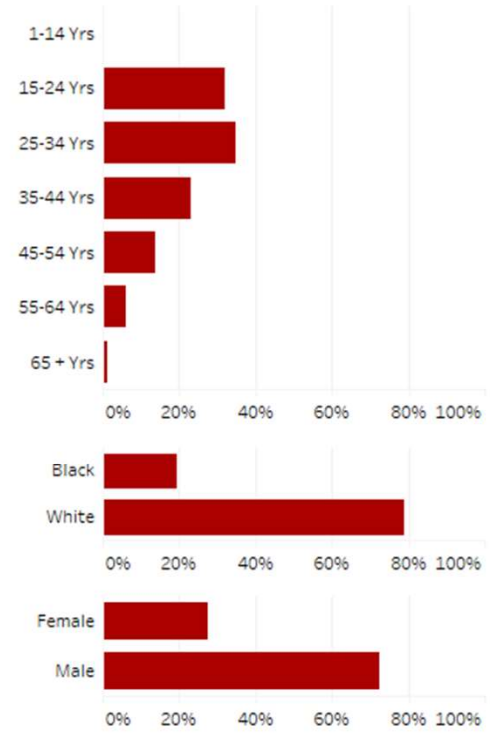
Select an Offense Category to see Subcategories







Demographic Information



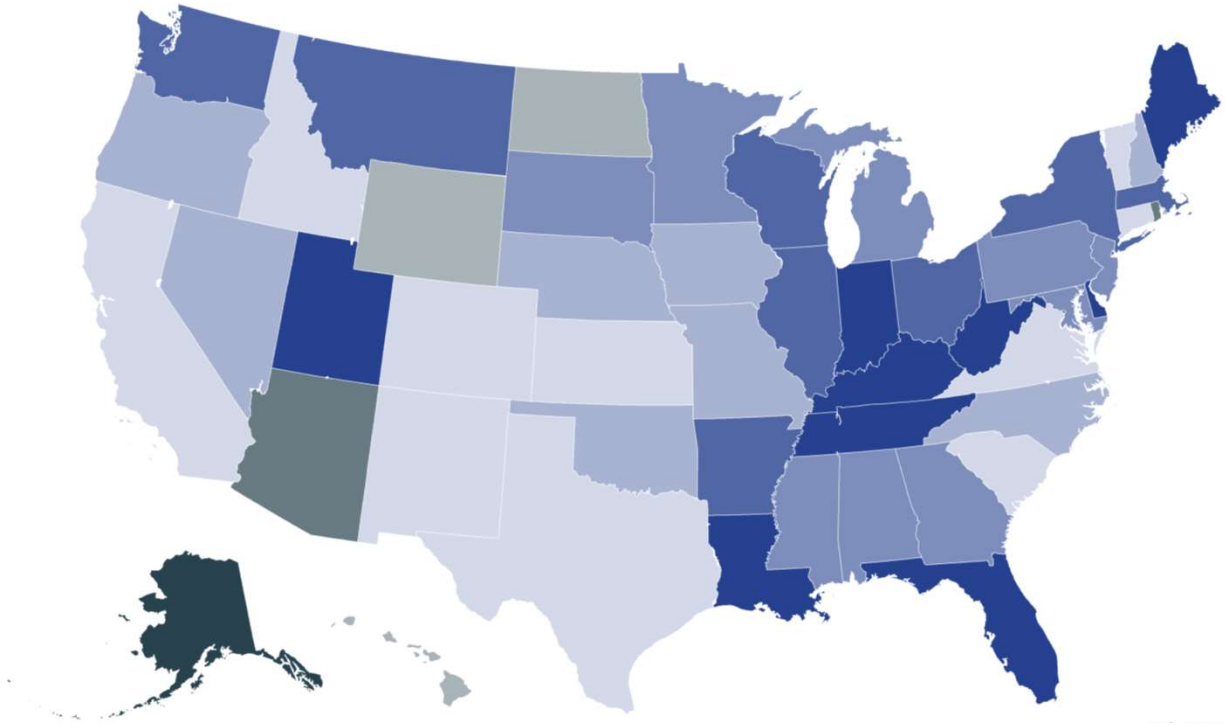
Nationwide Comparison

1. 6th in acute Hepatitis-C rates (2020)
   i. 3.6 per 100k
   ii. #1 in 2018
   iii. $84,000 per person for Tx
2. 25th in new cases of HIV (2020)
3. 10th in overdose mortality rates (2021)
   i. 43 per 100k; 2,811 deaths
   ii. Overdoses fatalities increased 38% from 2019-2020
4. 12th worst state for addiction according to a study by Wallethub.

Nationwide Comparison

Figure 3.3

Rates* of reported cases† of acute hepatitis C virus infection, by state or jurisdiction United States, 2020



Cases/100,000 Population

- 0.0–0.3
- 0.4–0.7
- 0.8–1.3
- 1.4–2.3
- 2.4–11.9
- No reported cases
- Data unavailable
- Not reportable

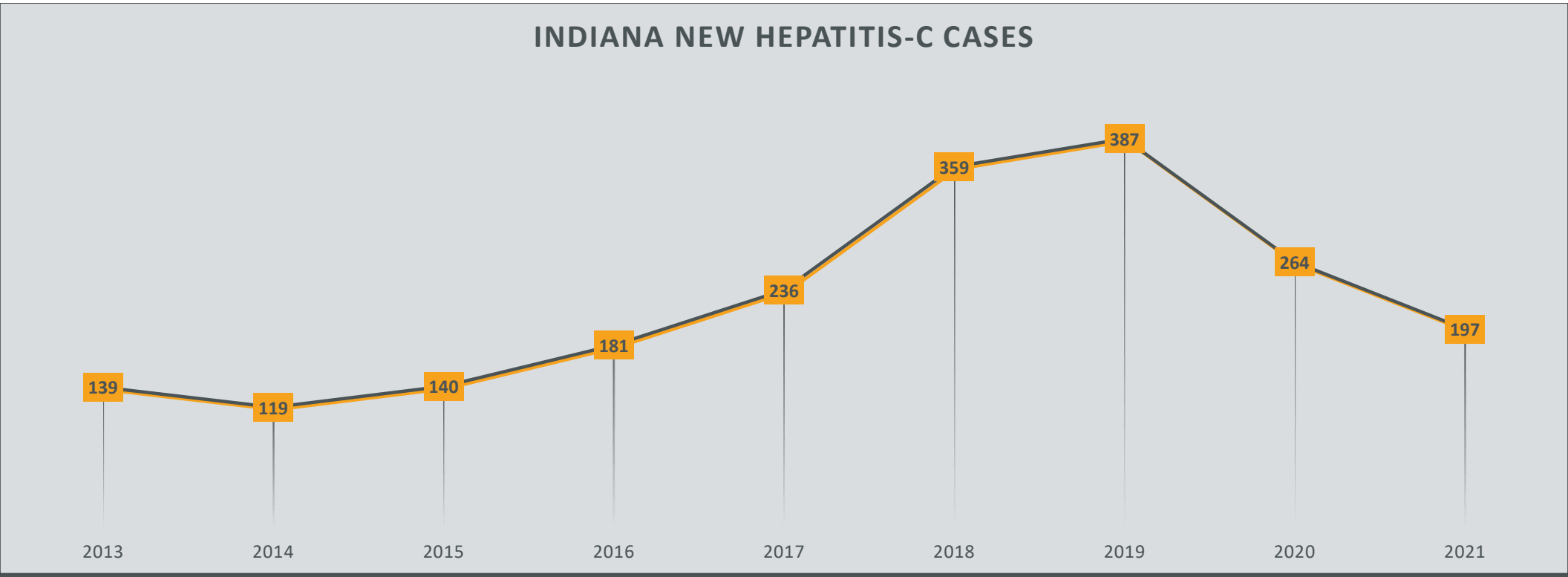
Color Key	Cases/100,000 Population	State or Jurisdiction
	0.0–0.3	NM, CA, ID, SC, TX, CO, VT, CT, KS, VA
	0.4–0.7	MO, NH, NV, IA, NE, OK, NC, OR
	0.8–1.3	MD, SD, AL, MN, PA, MI, GA, MS, NJ
	1.4–2.3	WA, IL, MT, OH, WI, NY, AR, MA
	2.4–11.9	TN, KY, UT, IN, DE, WV, LA, FL, ME
	No reported cases	HI, ND, WY
	Data unavailable	AZ, DC, RI
	Not reportable	AK

* Rates per 100,000 population.

† Reported cases that met the classification criteria for a confirmed case. For the case definition, see https://ndc.services.cdc.gov/conditions/hepatitis-c-acute/.

Source: CDC, National Notifiable Diseases Surveillance System.

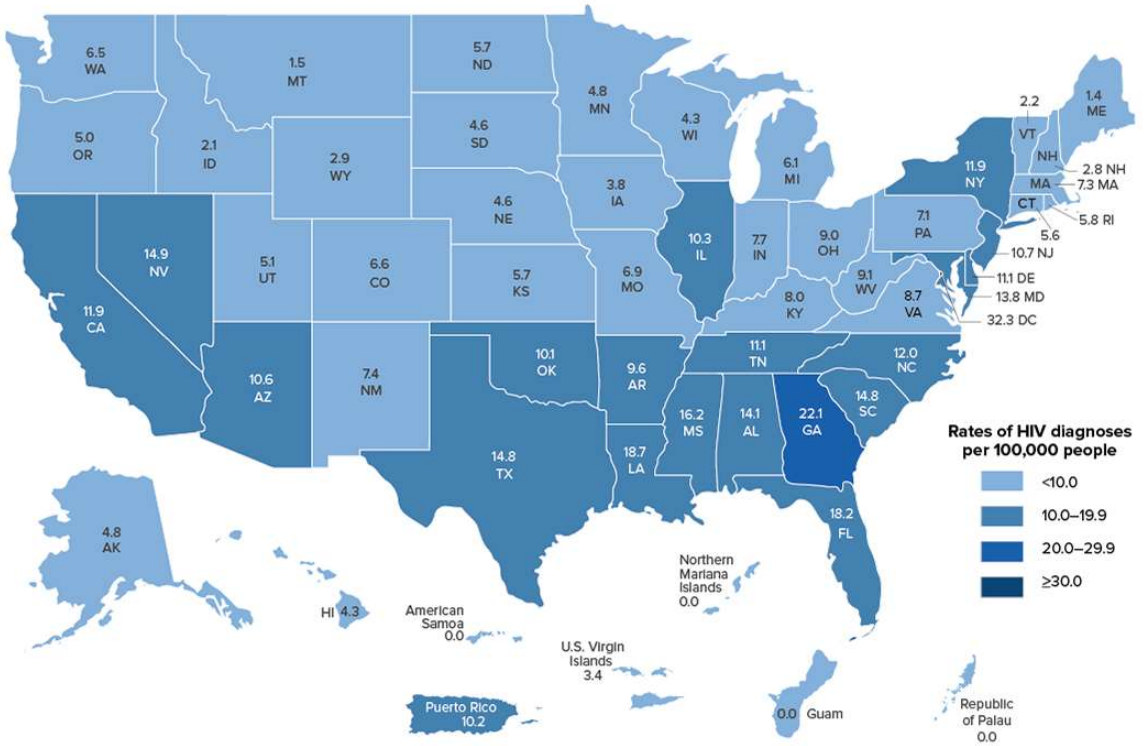
Centers for Disease Control and Prevention. Viral Hepatitis Surveillance Report – United States, 2020. https://www.cdc.gov/hepatitis/statistics/2020surveillance/index.htm. Published September 2022.



New Cases of Hep-C: Indiana

Rates of New HIV Diagnoses in the US and Dependent Areas, 2020*

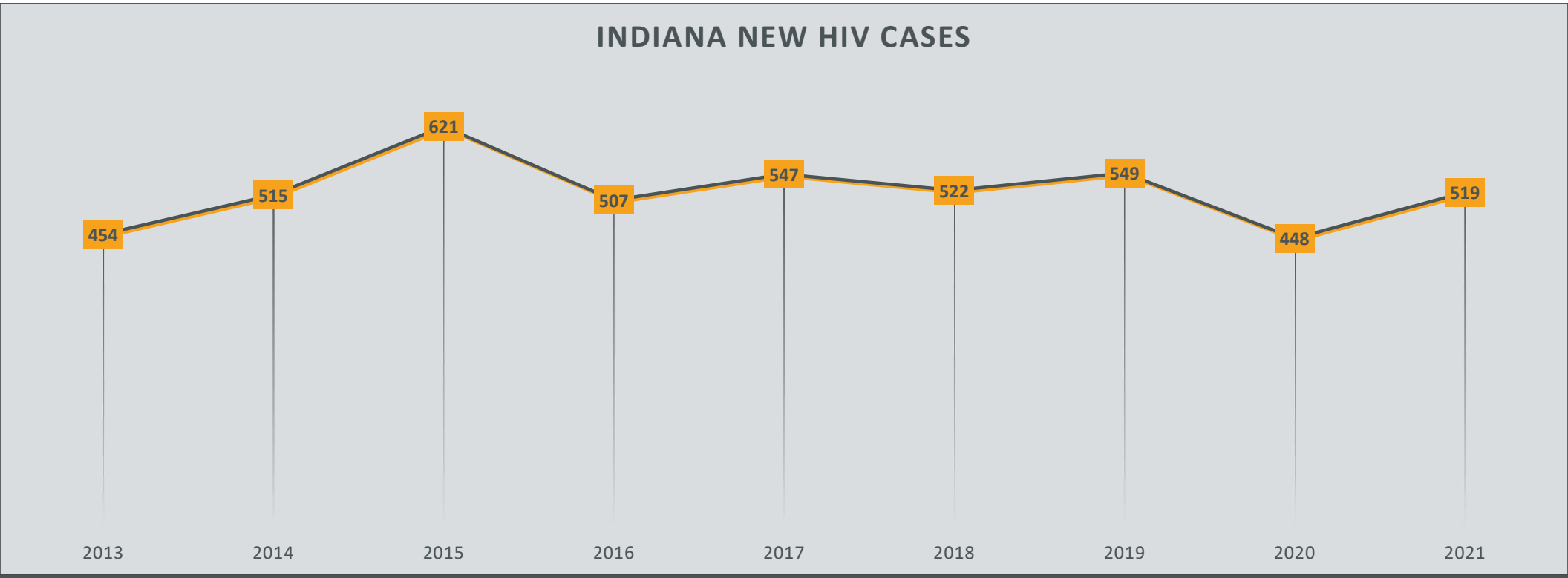
The highest rates of new HIV diagnoses were mainly in the South.



Data for 2020 should be interpreted with caution due to the impact of the COVID-19 pandemic on access to HIV testing, care-related services, and case surveillance activities in state and local jurisdictions.

* Among people aged 13 and older.

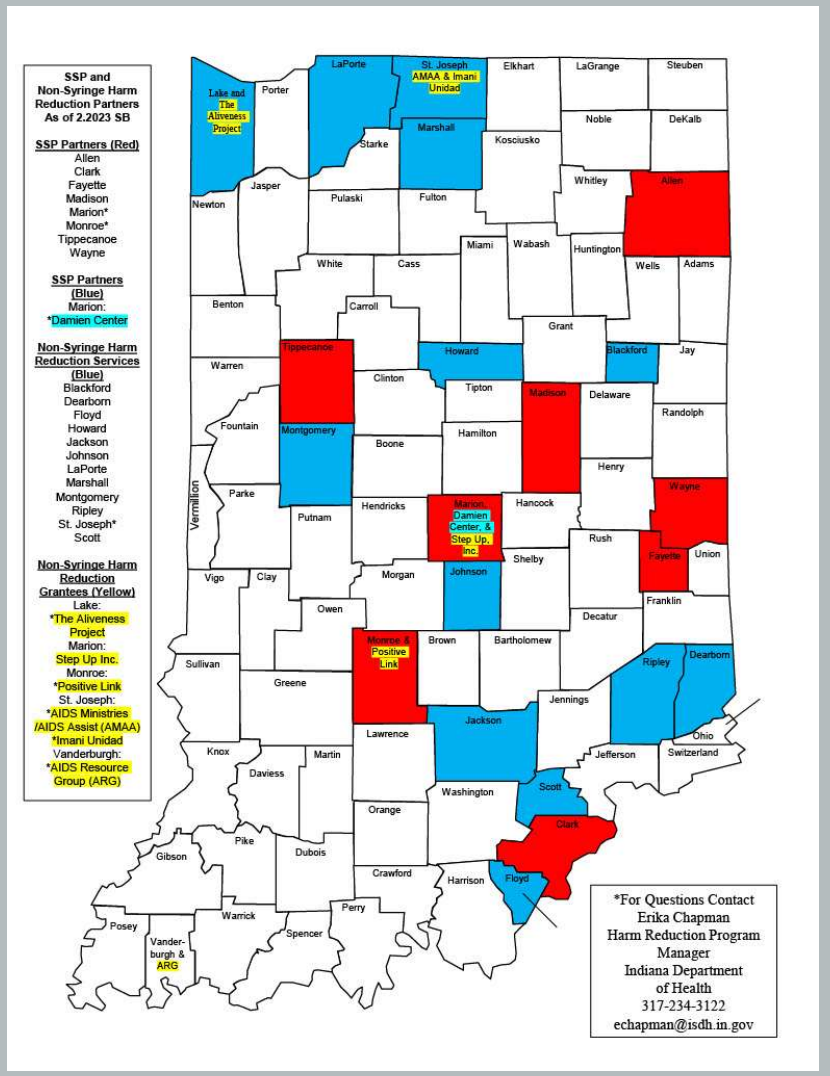
Source: CDC. New Diagnoses of HIV Infection in the United States and dependent areas, 2020. *HIV Surveillance Report* 2022;33.



New Cases of HIV: Indiana

Indiana Syringe Service Programs

Indiana Syringe Service Programs



Survey of Indiana SSPs

- Program logistics
- # of individuals served
- # of Tx referrals provided
- # of successful referrals

Evaluation

Public Health Analysis

1. Hepatitis-C
2. HIV
3. Tx admissions
4. Overdoses fatalities
5. Non-fatal overdose emergency department visits
6. Crime

Evaluation

Safe Syringe Access & Support Program

- Marion County
- 2019 (3.5 years)
- 3 employees, no volunteers
- Requires membership
- Open M-F with varied hours
- Mobile and central locations
- Services other counties

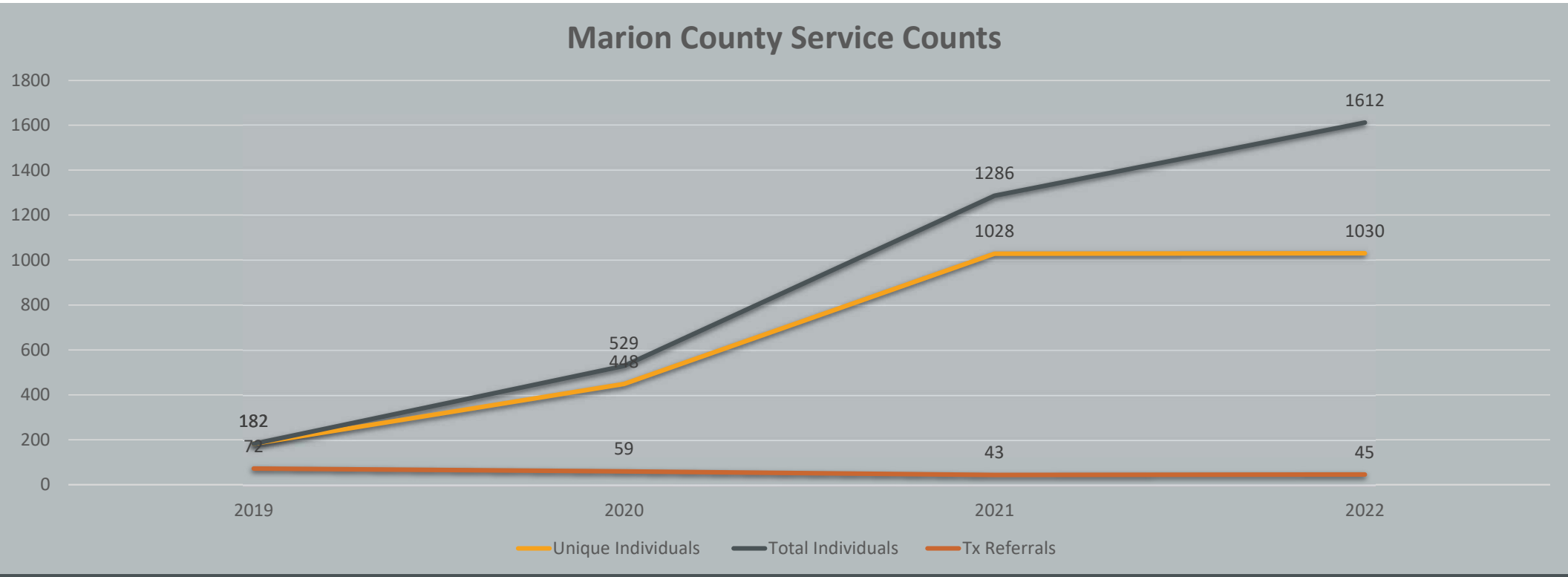
SURCI

Logistics

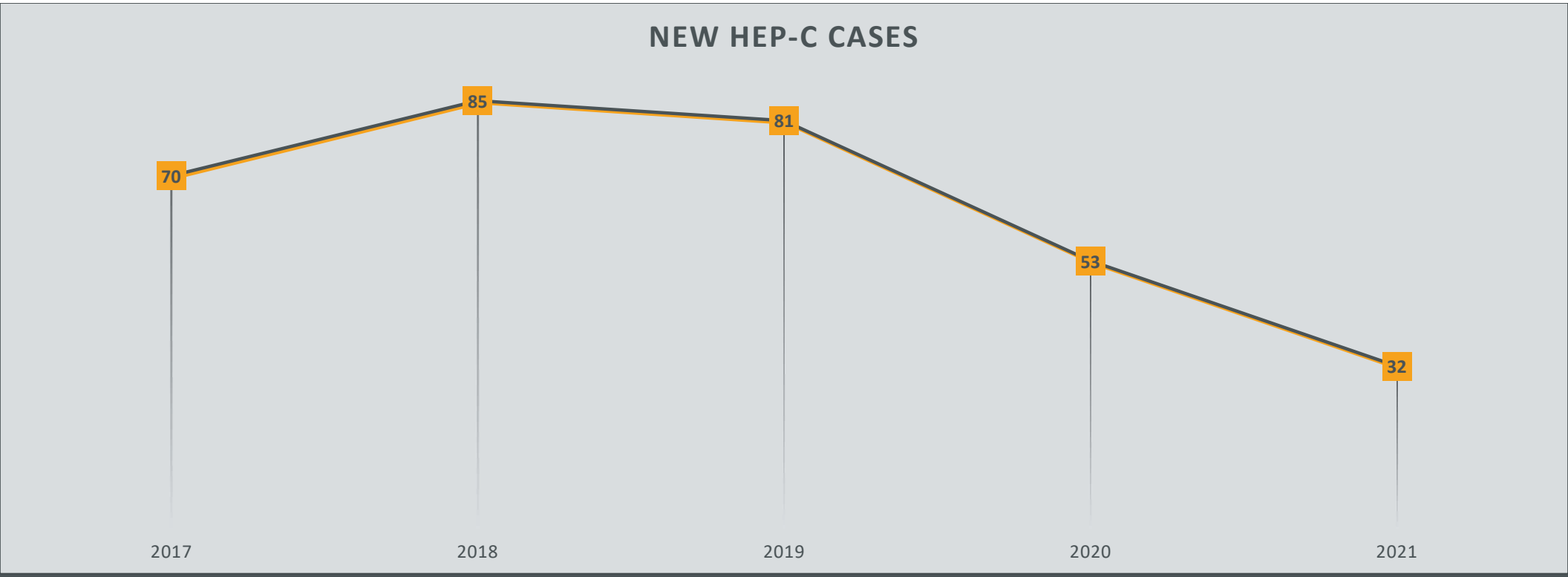
Safe Syringe Access & Support

- Wound care
- Recovery coaches
- Vaccinations
- HIV, Hep-C, STI testing
- + Community support
- + Legislative support

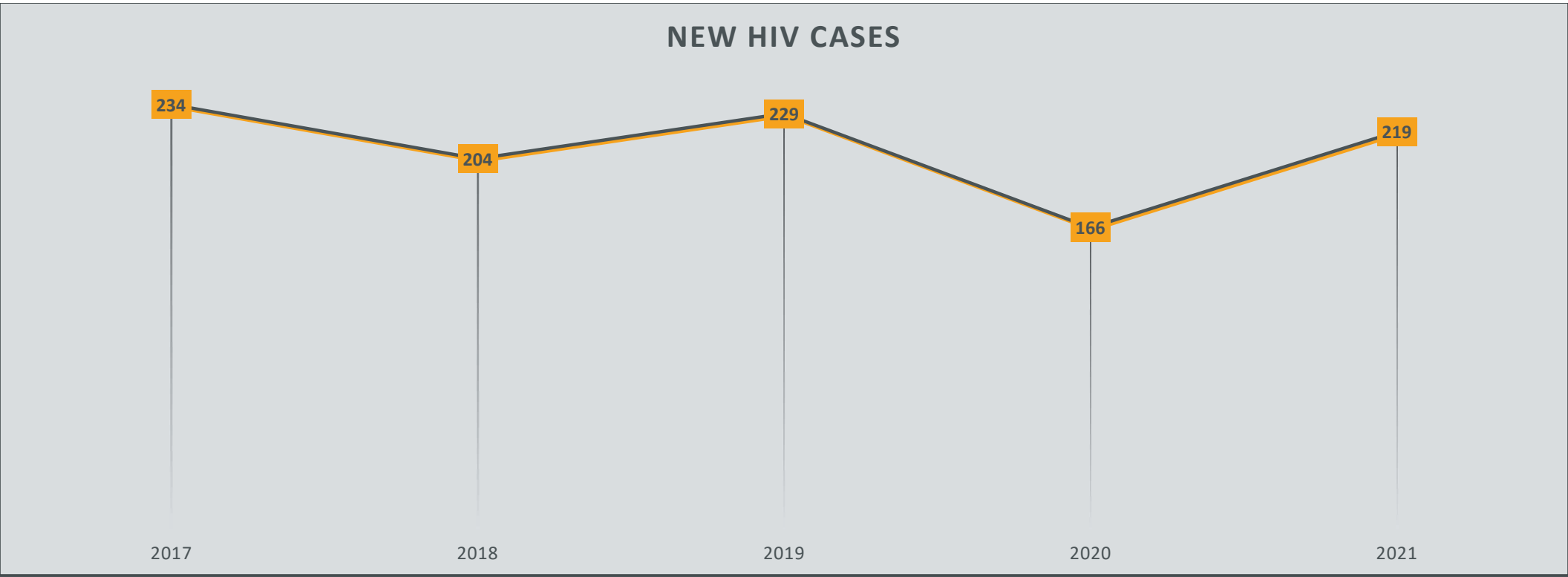
Additional Services



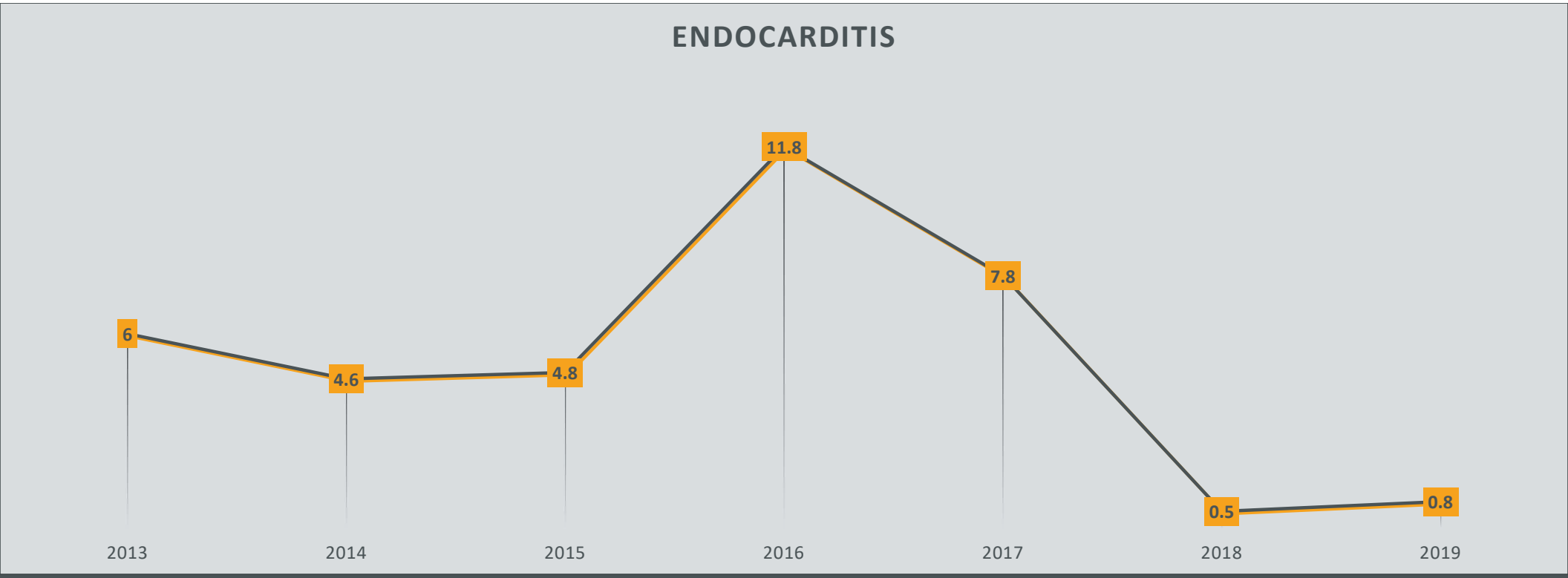
Marion County Service Outcomes



Marion County: Hepatitis C



Marion County: HIV



Marion County: Endocarditis per 100k

Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
8,204	17.54%	765	13.00%

1,191 Arrested Individuals per 10,000 State Residents

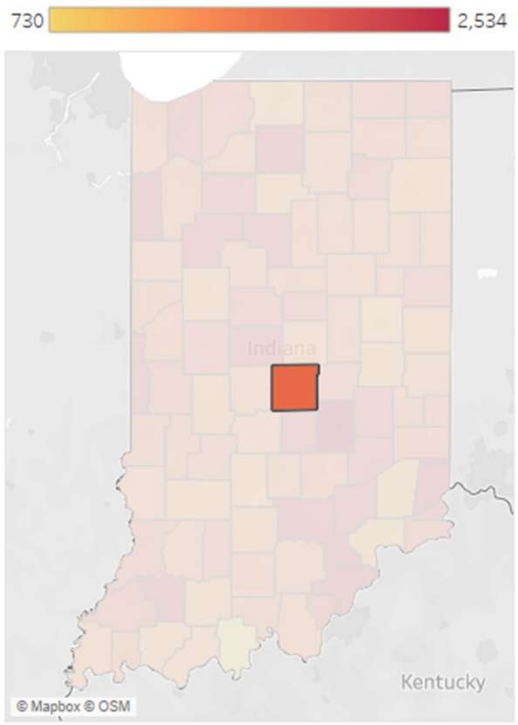
Show... Individuals Arrested

Offense Stage: Most Recent (Arrest or Disposition)

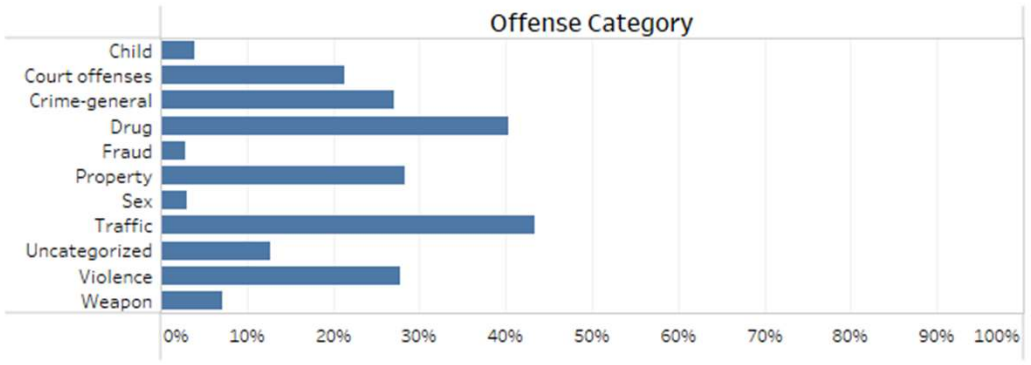
Year: Multiple values

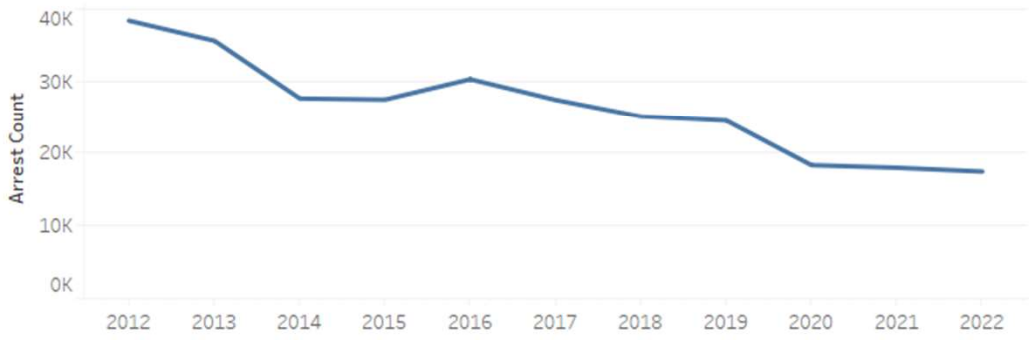
Heatmap or Line Chart: Line Chart

Rate or Count?
Rate per 10,000 County Residents

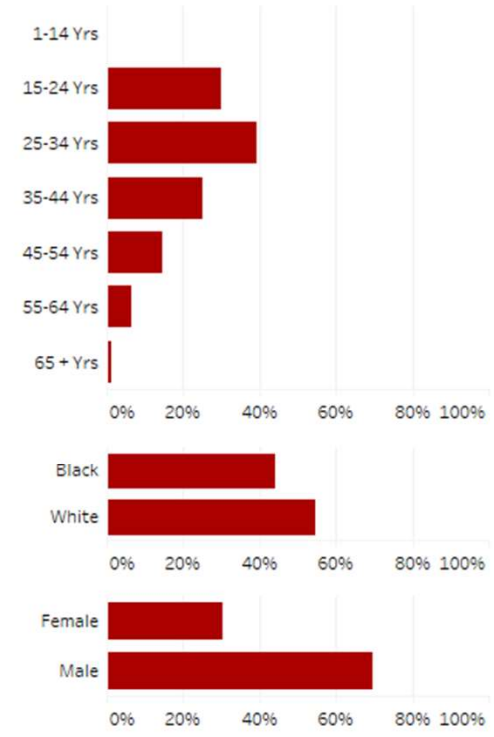


Select an Offense Category to see Subcategories





Demographic Information



Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
2,512	5.06%	254	12.89%

583 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

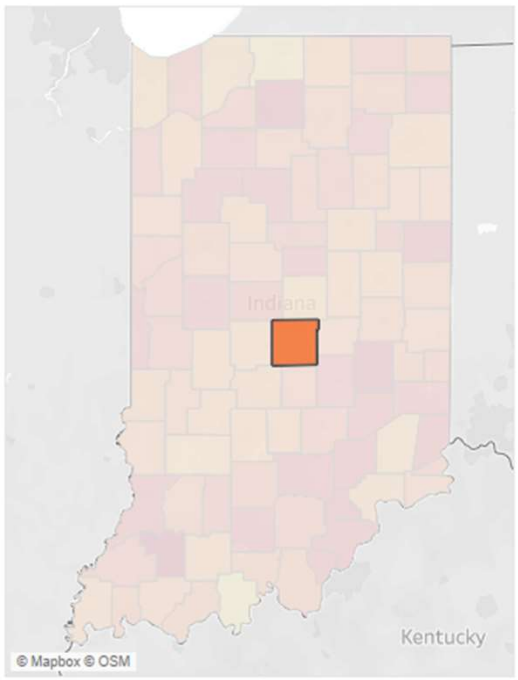
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

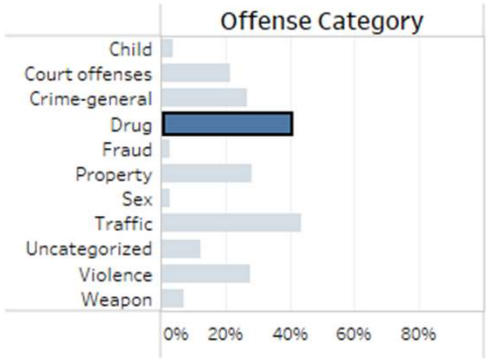
Heatmap or Line Chart: Line Chart

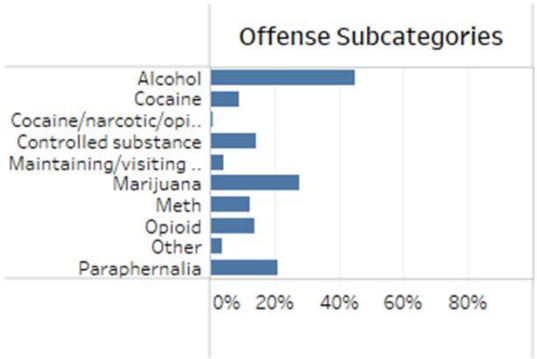
Rate or Count?

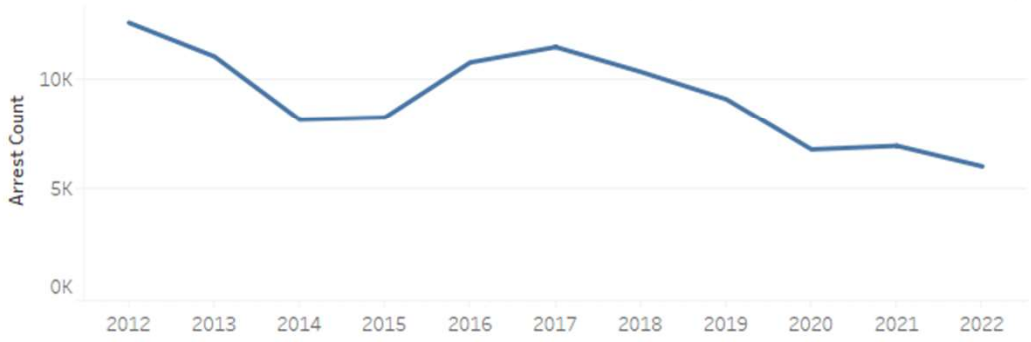
Rate per 10,000 County Residents



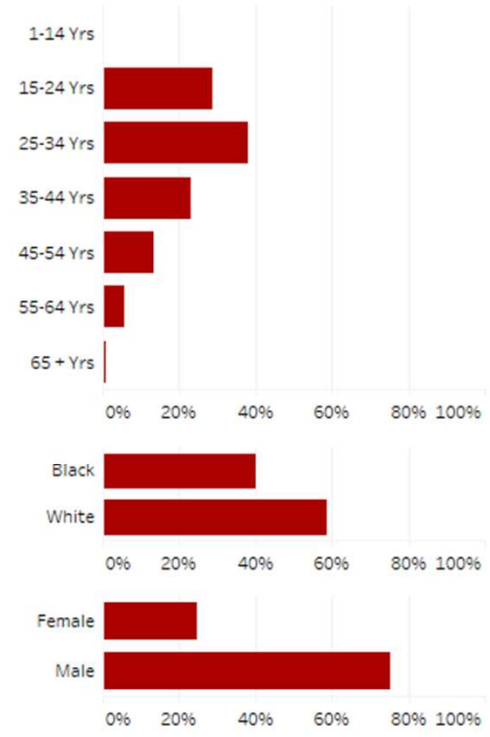
Select an Offense Category to see Subcategories







Demographic Information



Connection Café

- Fayette
- 2016 (6.5 years)
- 8 regular volunteers
- No membership
- 600 individuals served in 2021
- 100 referrals to Tx in 2021

SURCI

Logistics

Connection Café

- Open Tue.-Sat. with varied hours
- Mobile and central locations
- Connected to street outreach team
- + Community support
- + Legislative support

SURCI

Logistics

Connection Café

- Housing, Wound care
- Meals, Food pantry
- Access to Tx, Recovery coaches
- Vaccinations
- Showers, Laundry
- Career services
- Hep-C, HIV Testing
- Pro-social activities*

SURCI

Additional Services

Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
154	-21.03%	9	-40.00%

1,191 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

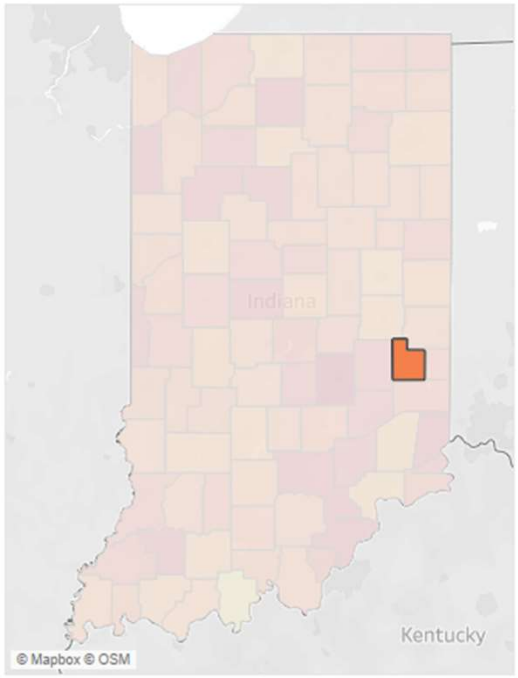
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

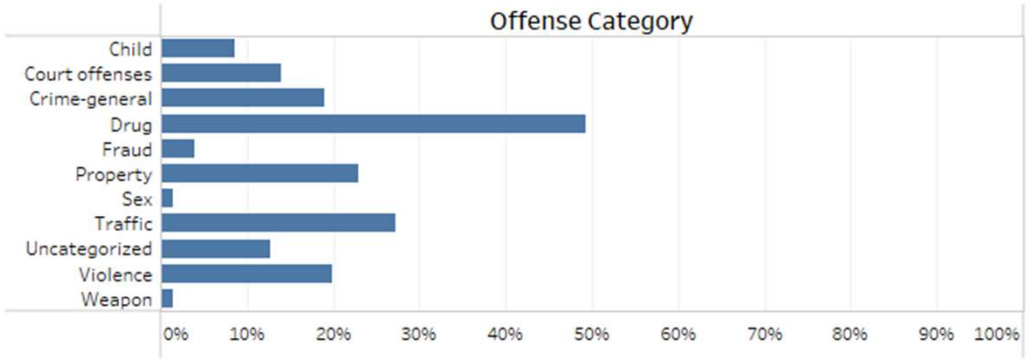
Heatmap or Line Chart: Line Chart

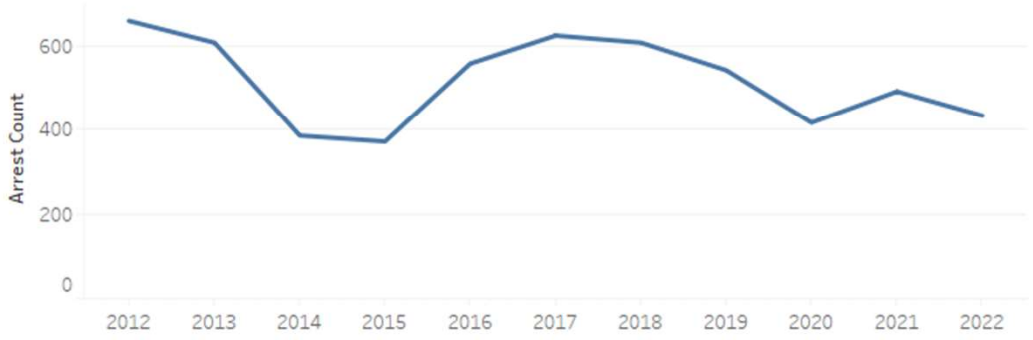
Rate or Count?
Rate per 10,000 County Residents

730 — 2,534

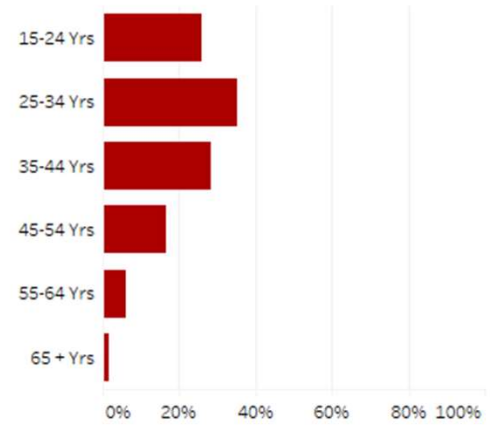


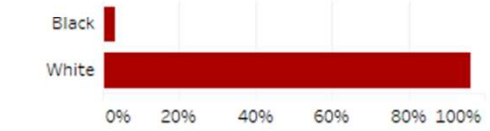
Select an Offense Category to see Subcategories

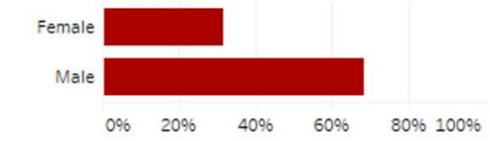




Demographic Information







Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
62	-30.34%	5	-37.50%

583 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

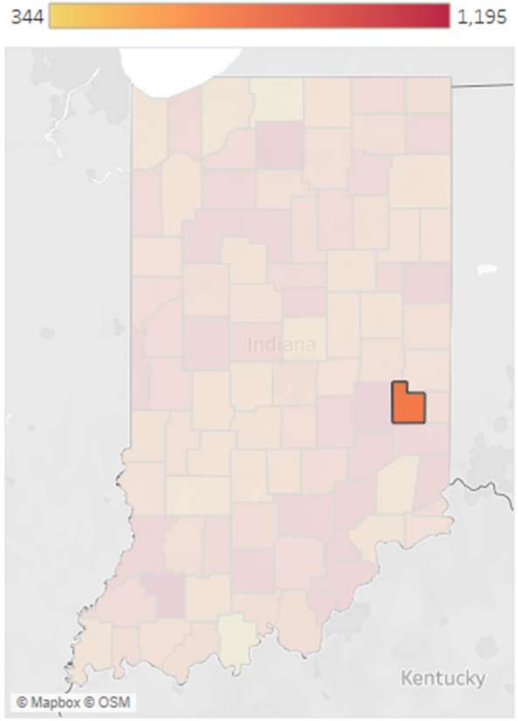
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

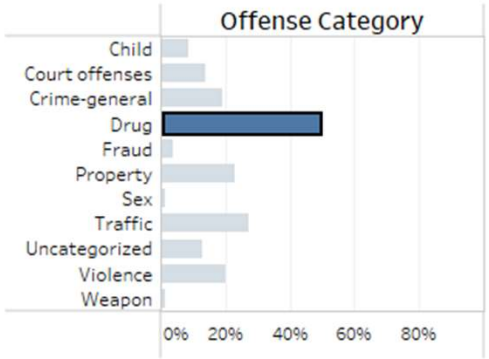
Heatmap or Line Chart: Line Chart

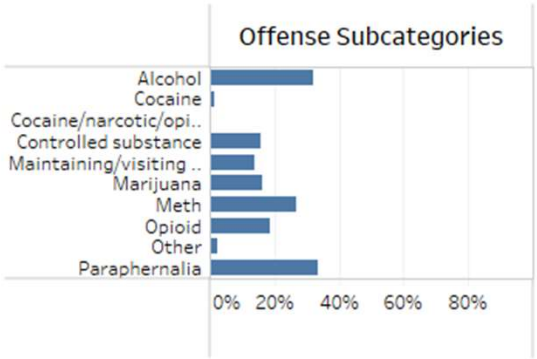
Rate or Count?

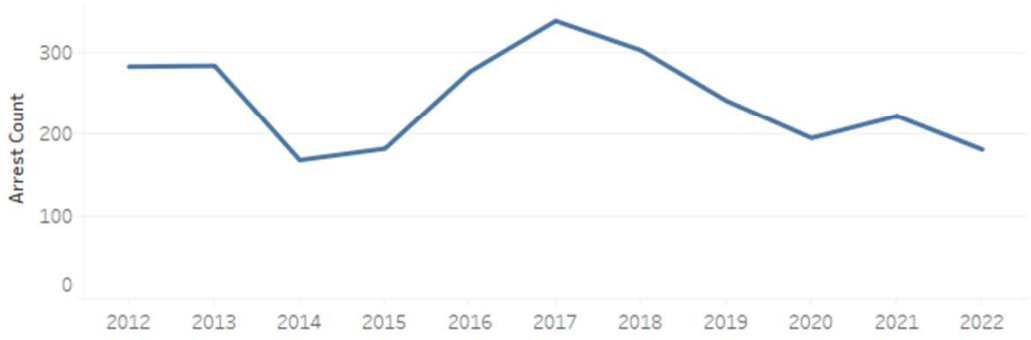
Rate per 10,000 County Residents



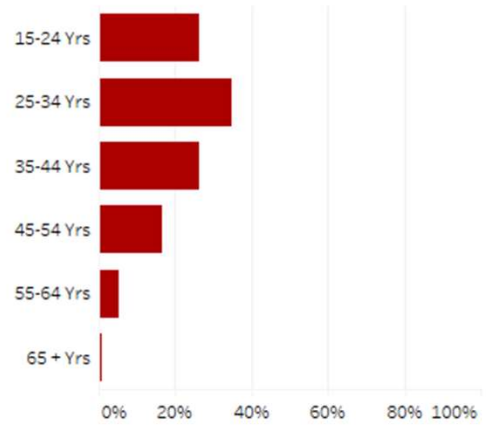
Select an Offense Category to see Subcategories

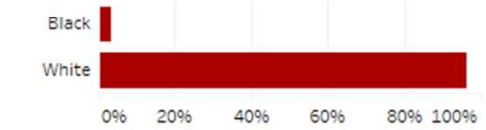


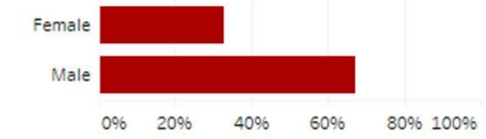




Demographic Information







Madison County Harm-Reduction Program

- Madison County
- 2018 (4.5 years)
- 5 pt. employees
- No membership

SURCI

Logistics

Madison County Harm-Reduction Program

- Open MWF with varied hours
- Mobile and central locations
- Services other counties
- Low community support
- Neutral legislative support

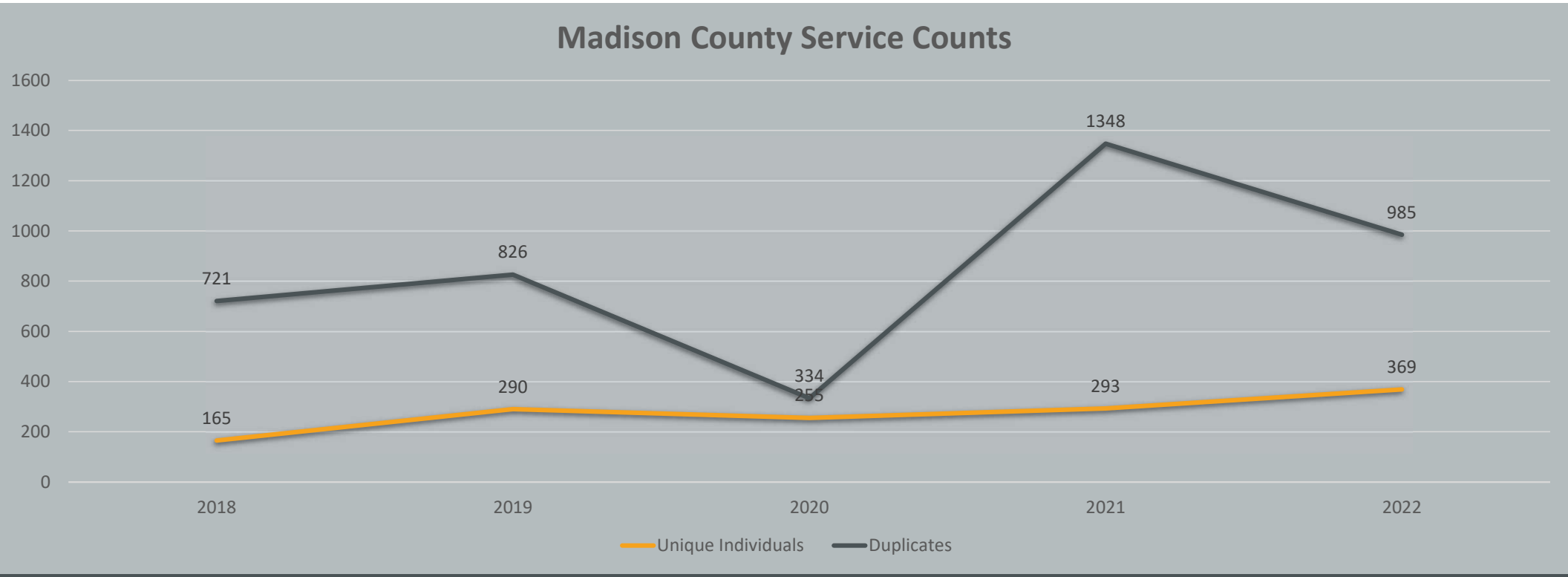
SURCI

Logistics

Madison County Harm-Reduction Program

- Wound care
- Recovery coaches
- Hep-C and HIV testing

Additional Services



Madison County Service Outcomes

Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
820	-3.76%	71	-16.47%

1,191 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

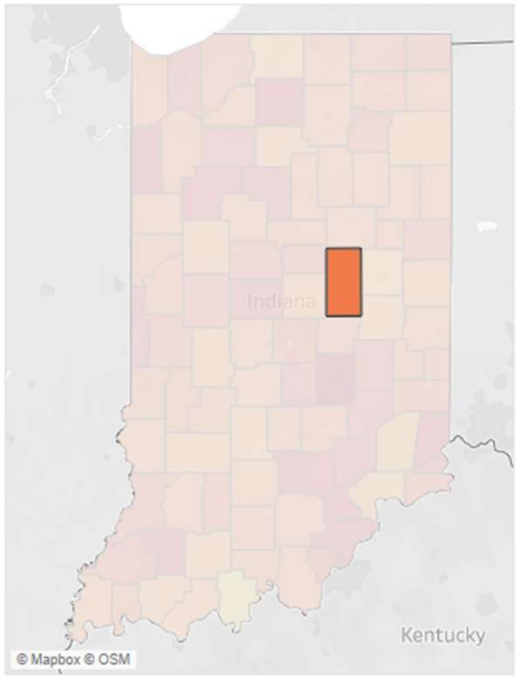
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

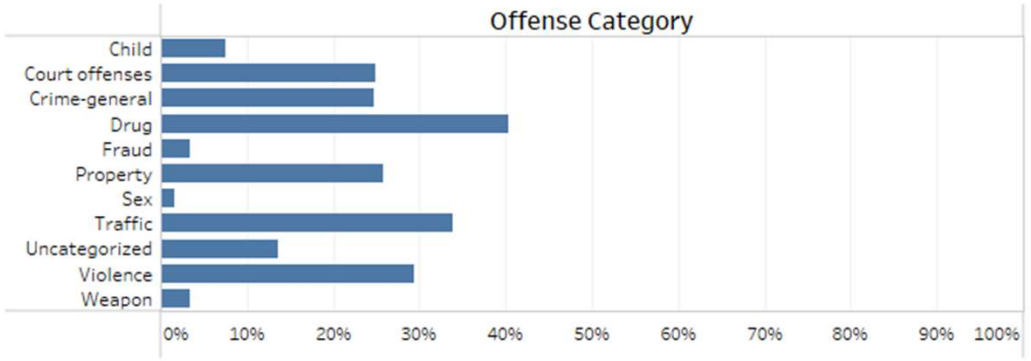
Heatmap or Line Chart: Line Chart

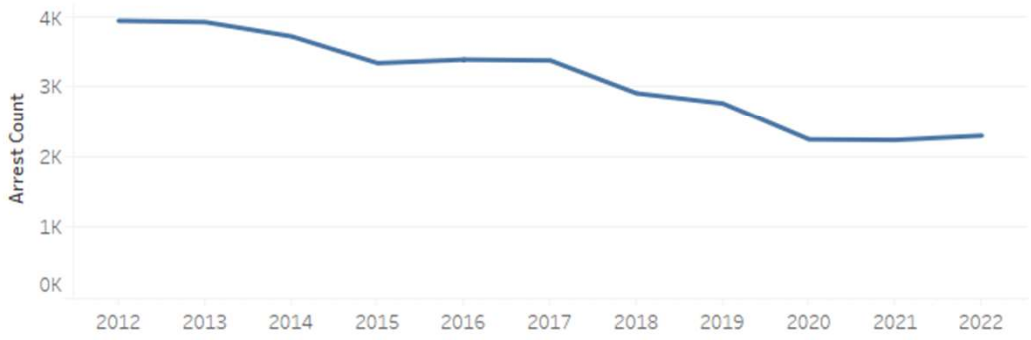
Rate or Count?
Rate per 10,000 County Residents

730 — 2,534

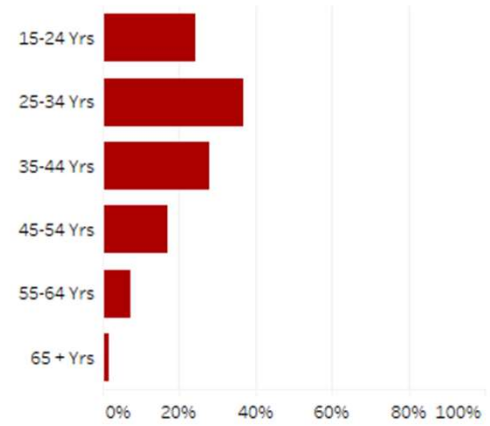


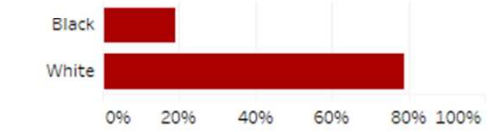
Select an Offense Category to see Subcategories

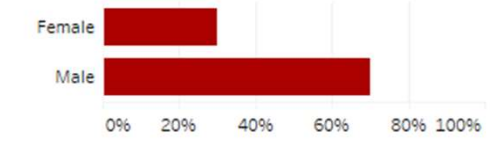




Demographic Information







Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
231	-14.76%	17	-41.38%

583 Arrested Individuals per 10,000 State Residents

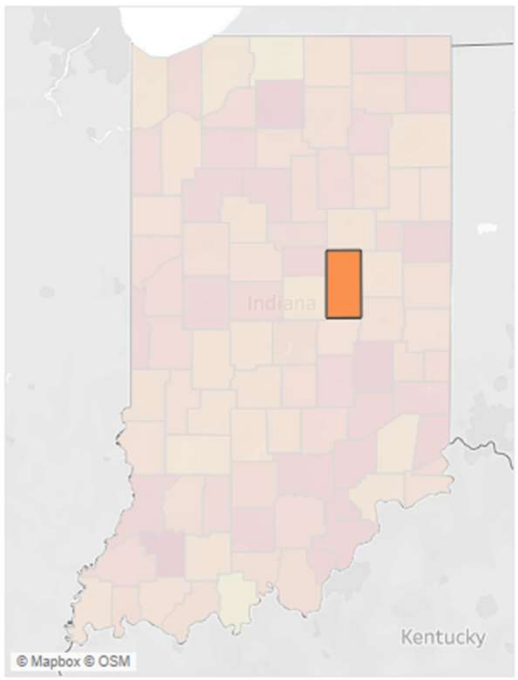
Show... Individuals Arrested

Offense Stage: Most Recent (Arrest or Disposition)

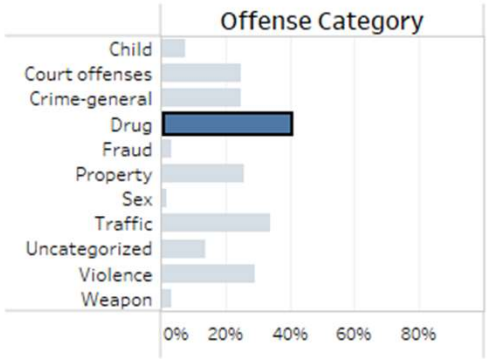
Year: Multiple values

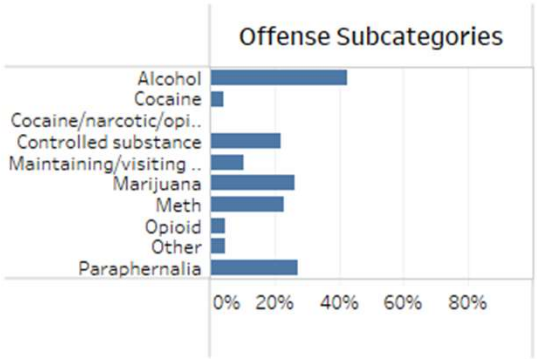
Heatmap or Line Chart: Line Chart

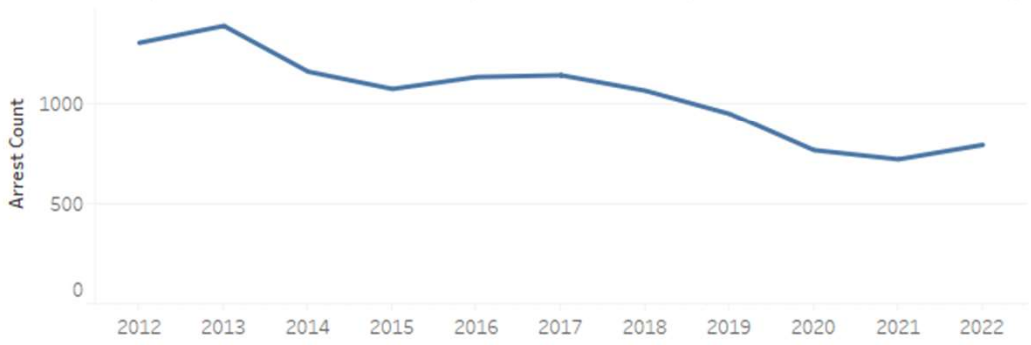
Rate or Count?
Rate per 10,000 County Residents

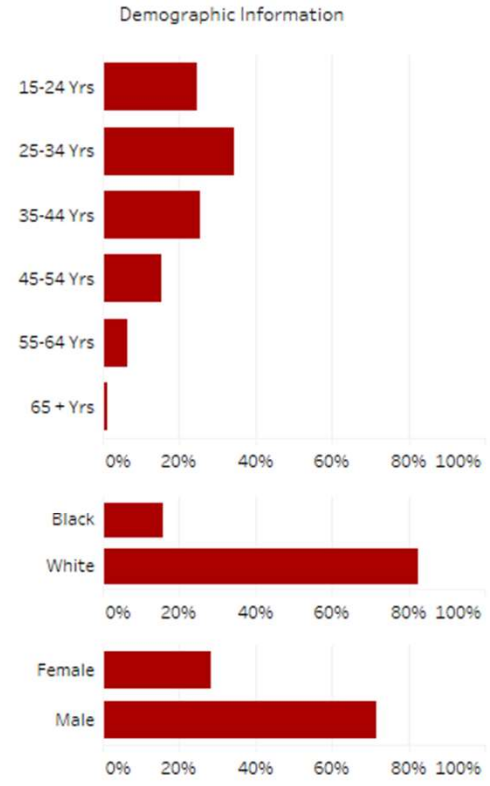


Select an Offense Category to see Subcategories









Gateway to Hope Syringe Service Program

- Tippecanoe County
- 2017 (5.5 years)
- 850 individuals served in 2022
- 500 referrals to Tx made in 2022
- 3 employees
- 2-4 volunteers
- No membership

SURCI

Logistics

Gateway to Hope Syringe Service Program

- Open Tue., Wed., Fri., Sat. with varied hours
- Mobile and central locations
- Connected to street outreach team
- Services other counties
- + community support
- + legislative support

Logistics

Gateway to Hope Syringe Service Program

- Housing
- Wound care
- Tx access, Recovery coaches
- Vaccinations, MATS
- Showers, Laundry
- Career development
- HIV, Hep-C, STI testing
- *clothing, transportation

Additional Services

Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
1,239	6.17%	113	-10.32%

1,191 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

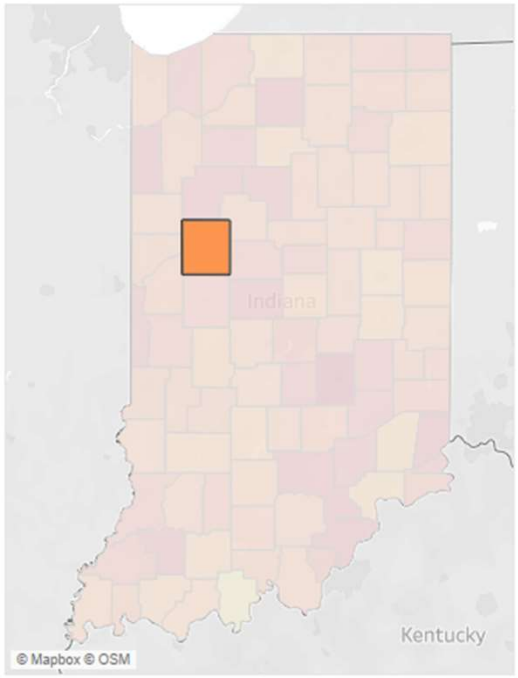
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

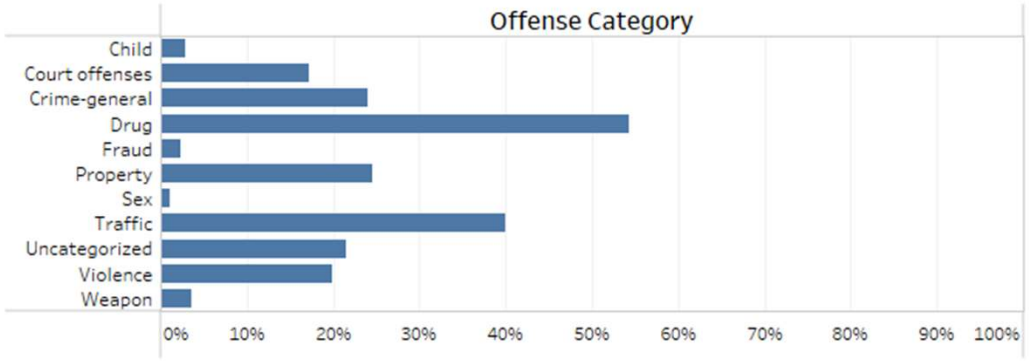
Heatmap or Line Chart: Line Chart

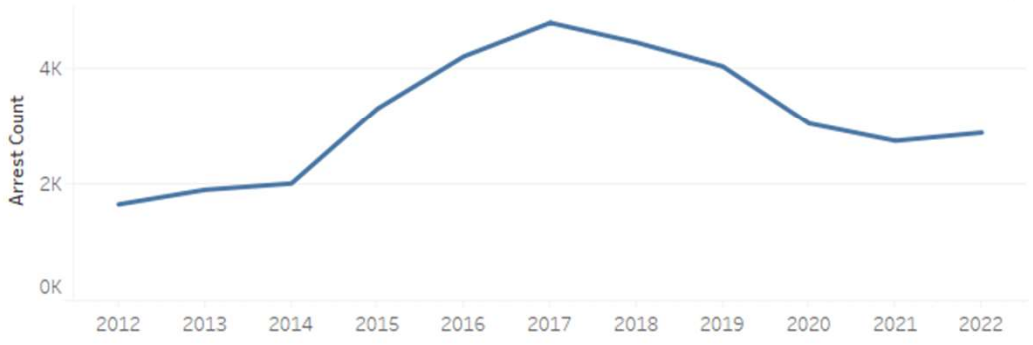
Rate or Count?
Rate per 10,000 County Residents

730 — 2,534

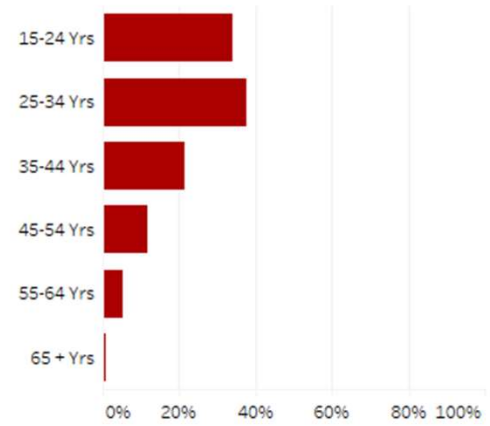


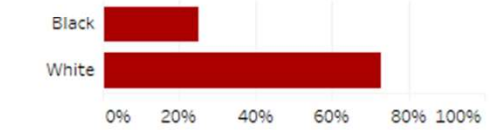
Select an Offense Category to see Subcategories

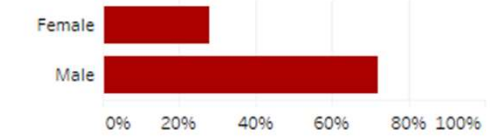




Demographic Information







Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
595	-8.04%	48	-28.36%

583 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

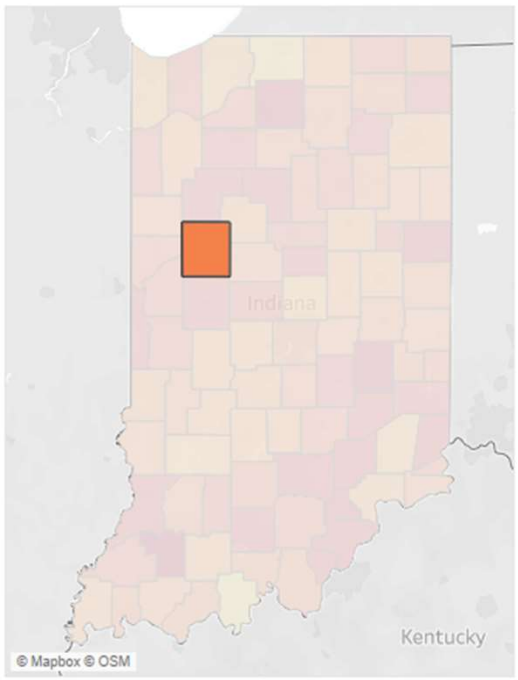
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

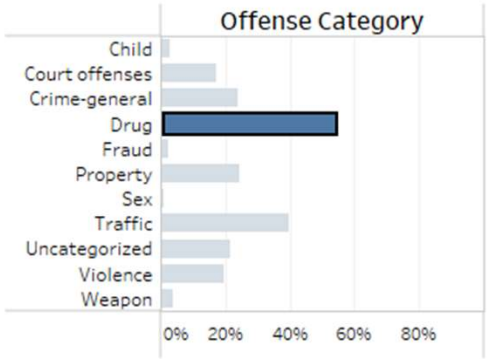
Heatmap or Line Chart: Line Chart

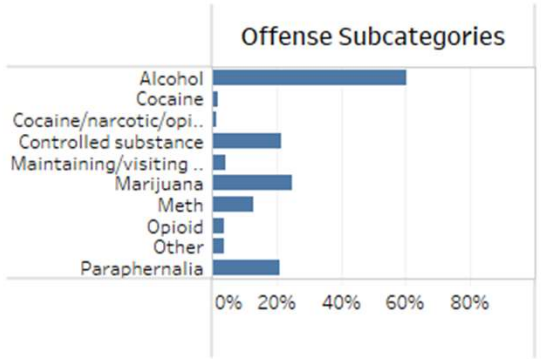
Rate or Count?

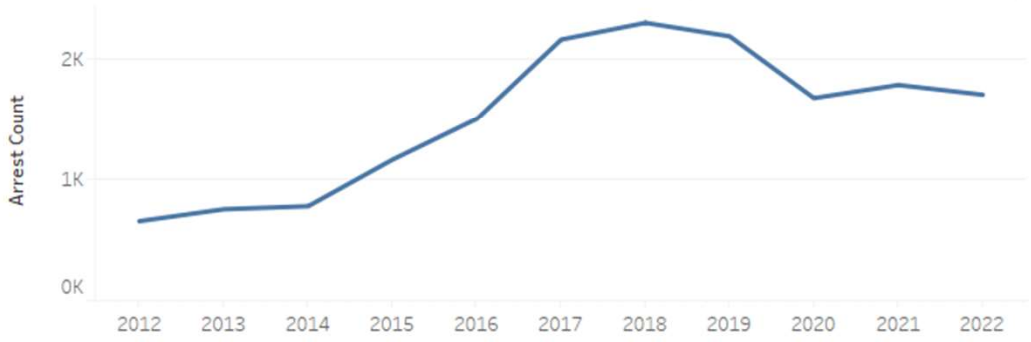
Rate per 10,000 County Residents



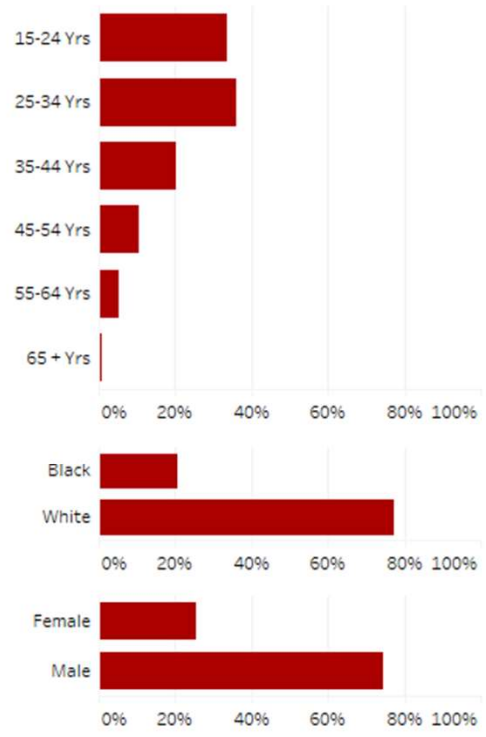
Select an Offense Category to see Subcategories







Demographic Information



Clark County Health Department Syringe Service Program

- Clark County
- 2017 (5.5 years)
- Requires membership
- Open M-F 9:00-3:00
- Central location

Logistics

Clark County Health Department Syringe Service Program

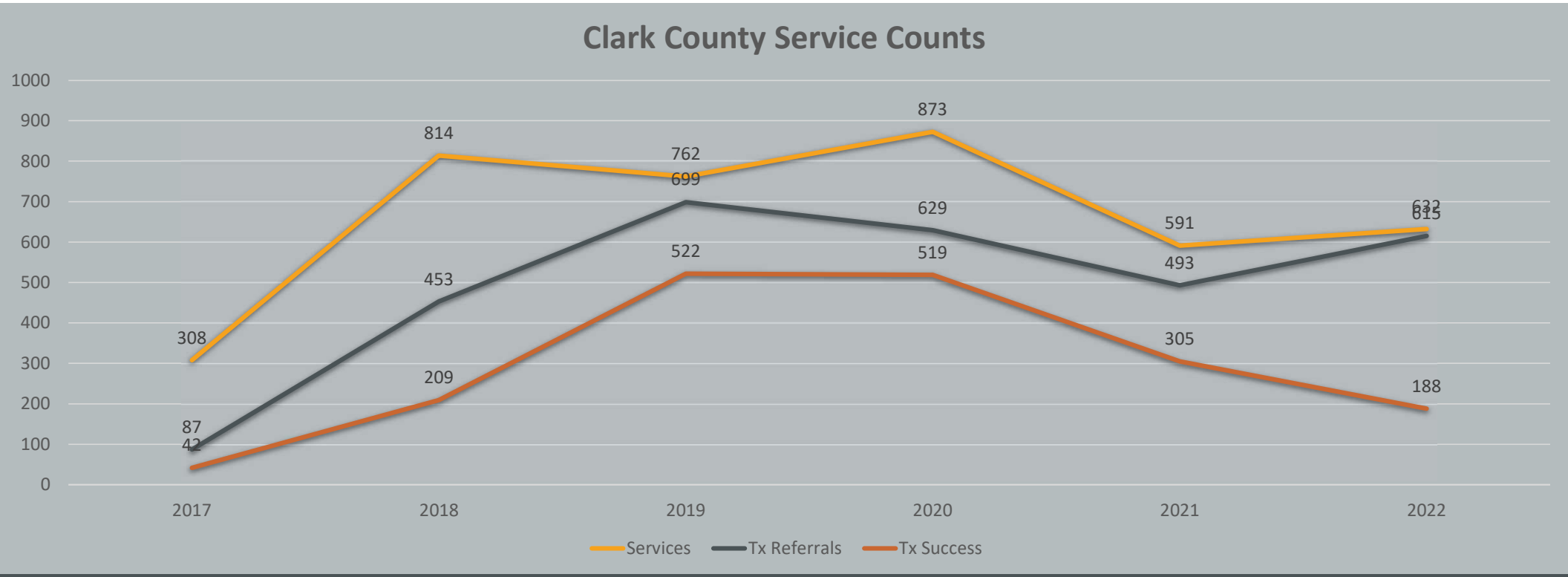
- Connected to street outreach team
- Services other counties
- Neutral community support
- Neutral legislative support

Logistics

Clark County Health Department Syringe Service Program

- Wound care
- Vaccinations
- HIV, Hep-C, STI testing

Additional Services



Clark County Service Outcomes

Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
747	433.57%	71	3450.00%

1,191 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

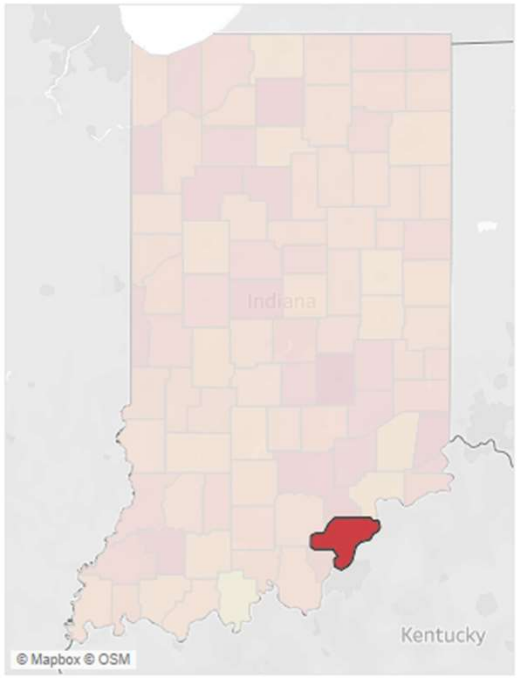
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

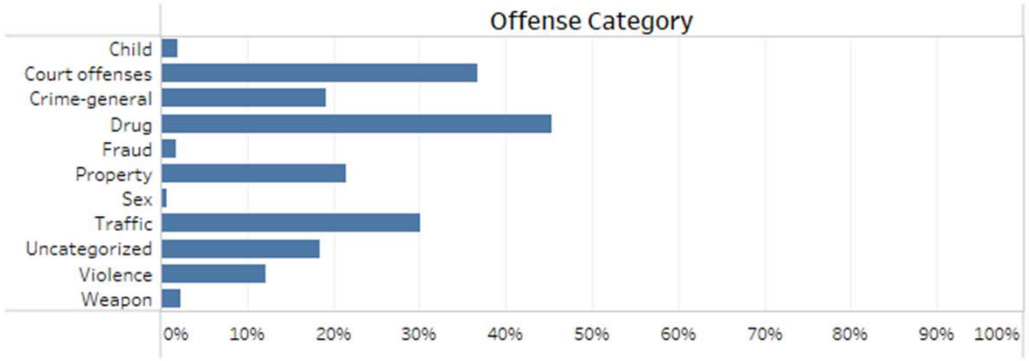
Heatmap or Line Chart: Line Chart

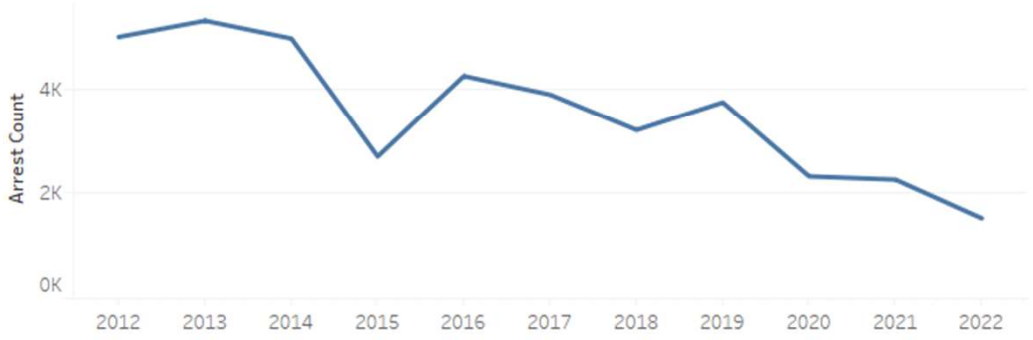
Rate or Count?
Rate per 10,000 County Residents

730 — 2,534

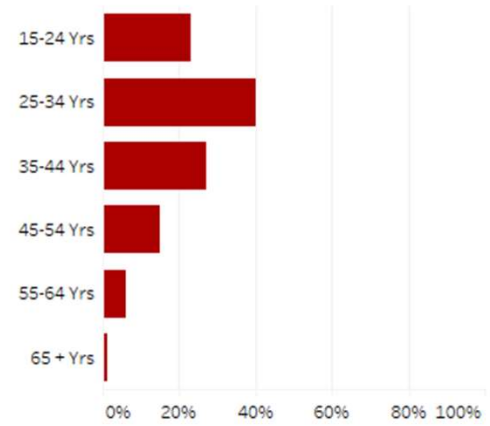


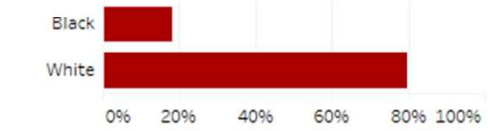
Select an Offense Category to see Subcategories

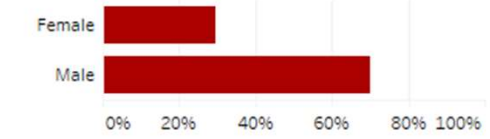




Demographic Information







Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
182	420.00%	22	2100.00%

583 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

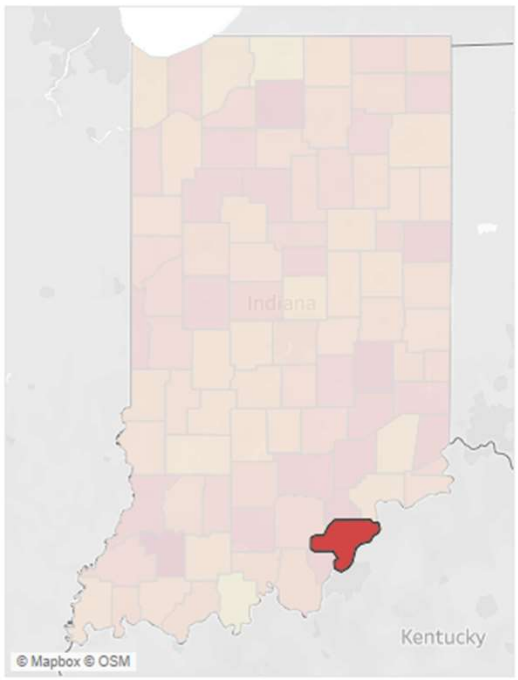
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

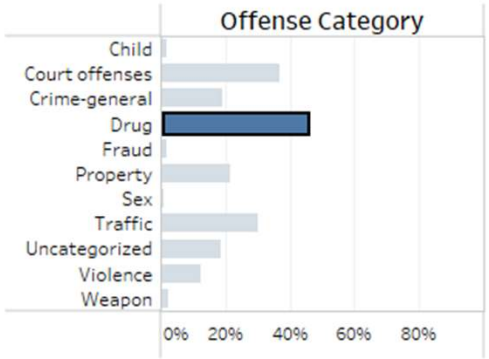
Heatmap or Line Chart: Line Chart

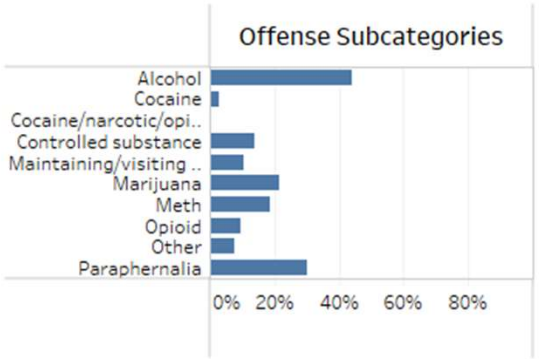
Rate or Count?

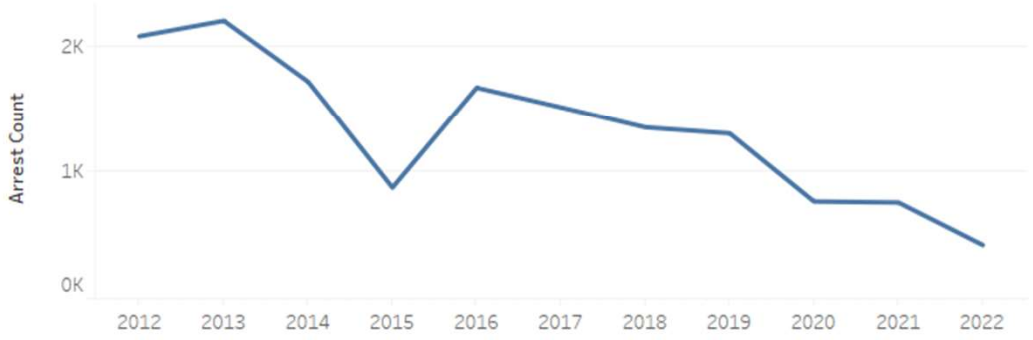
Rate per 10,000 County Residents

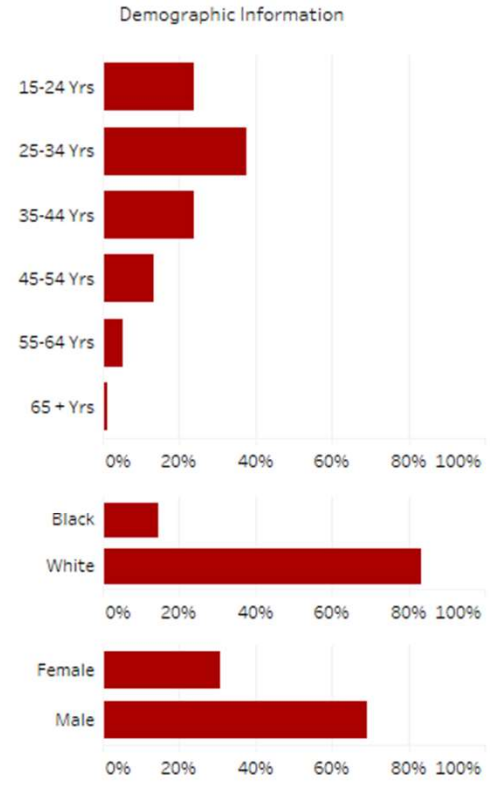


Select an Offense Category to see Subcategories









Allen County Health Department Syringe Service Program

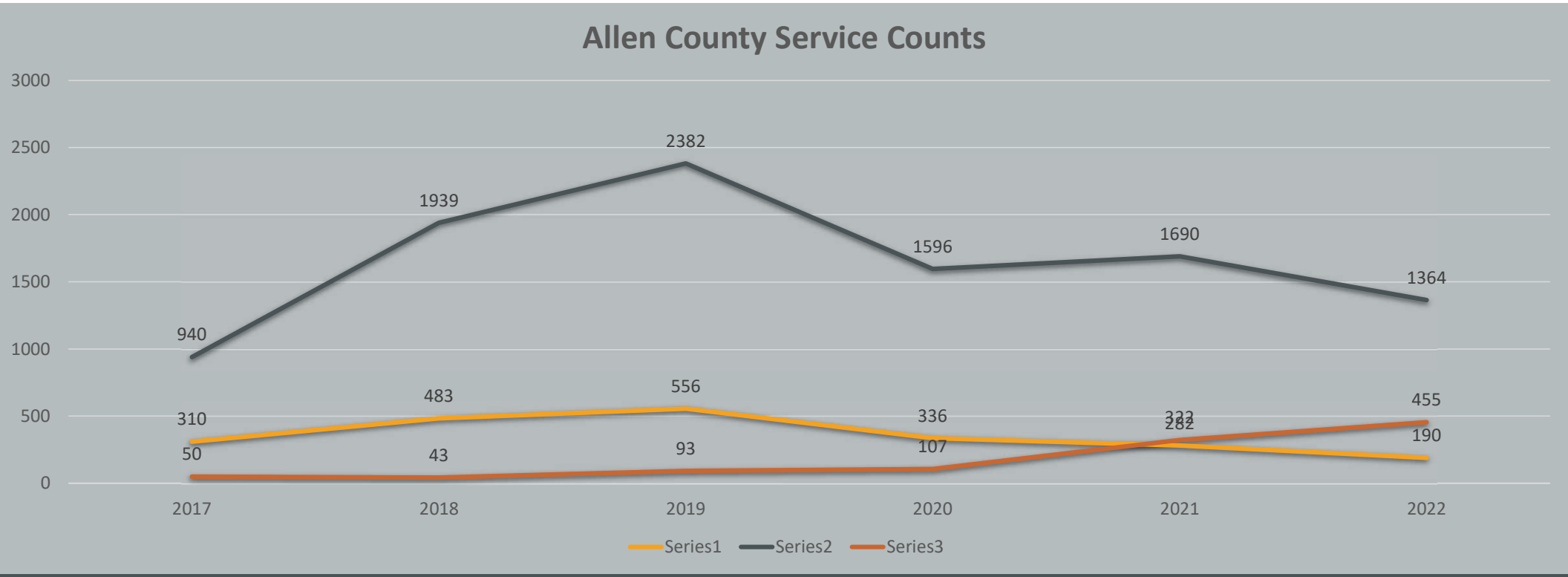
- Allen County
- 2016 (6.5 years)
- 5 employees
- No membership
- Open Tue. 1:00-3:30
- Central location
- Services other counties
- + Community support
- + Legislative support

Logistics

Allen County Health Department Syringe Service Program

- Wound care
- Tx access
- Vaccinations
- HIV, Hep-C, STI testing
- Insurance navigation*

Additional Services



Allen County Service Outcomes

Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
3,052	1.50%	343	-3.65%

1,191 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

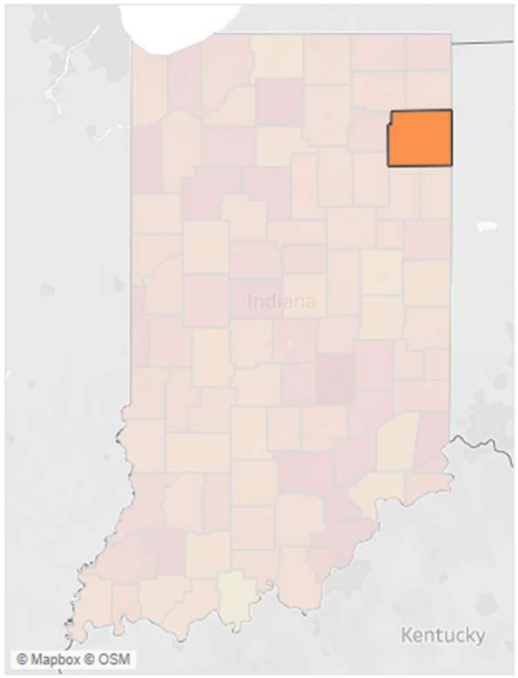
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

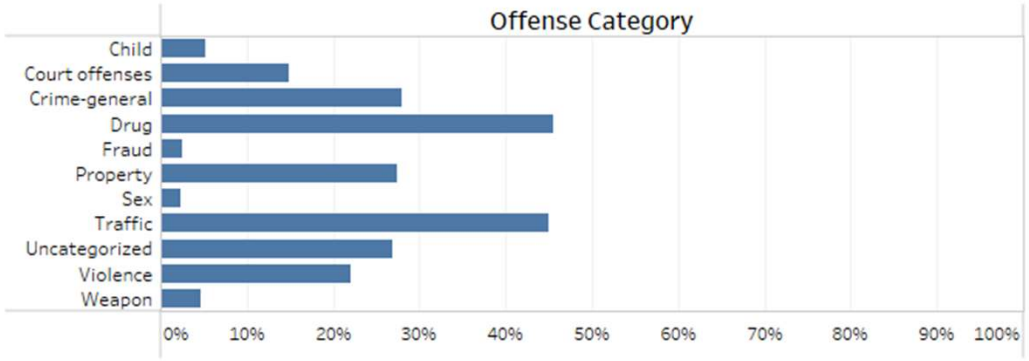
Heatmap or Line Chart: Line Chart

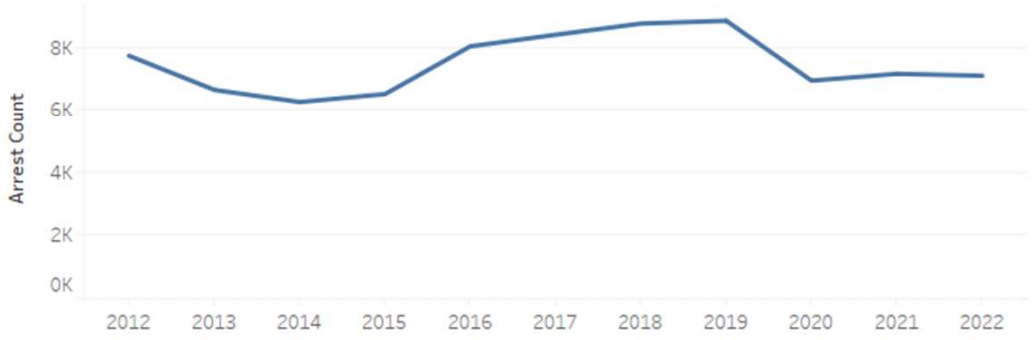
Rate or Count?
Rate per 10,000 County Residents

730 — 2,534

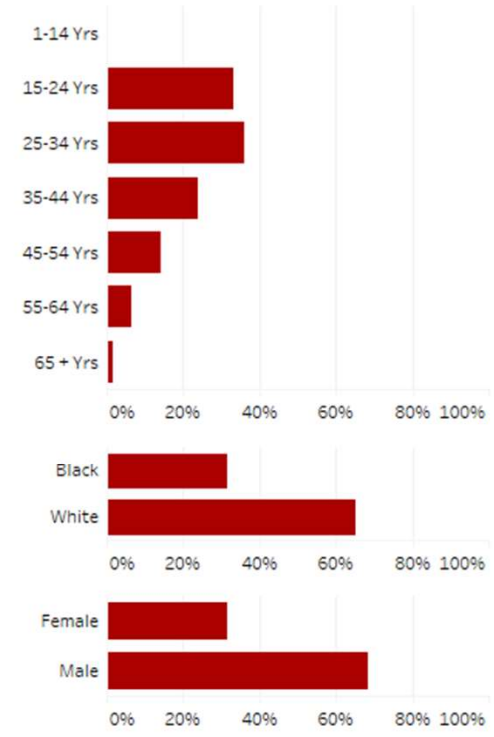


Select an Offense Category to see Subcategories





Demographic Information



Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
963	5.82%	122	11.93%

583 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

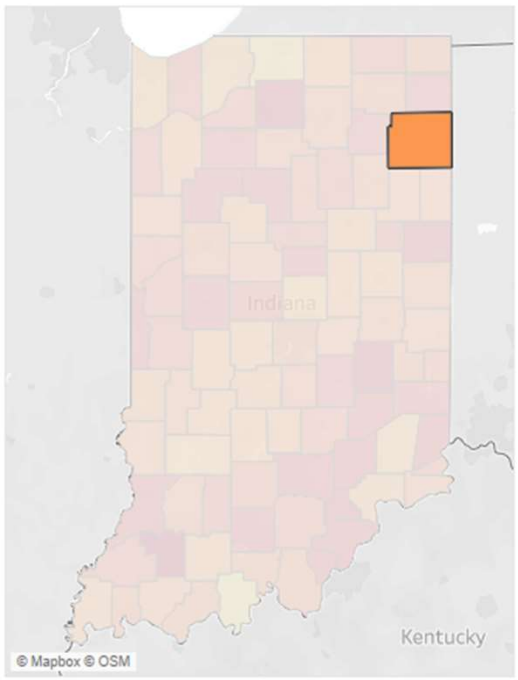
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

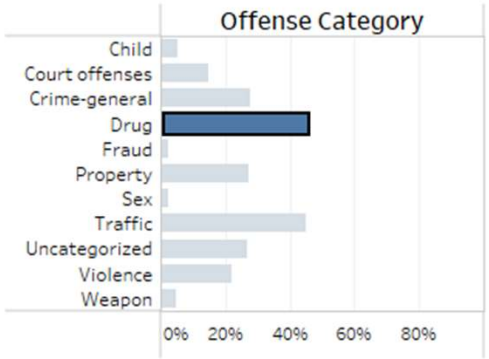
Heatmap or Line Chart: Line Chart

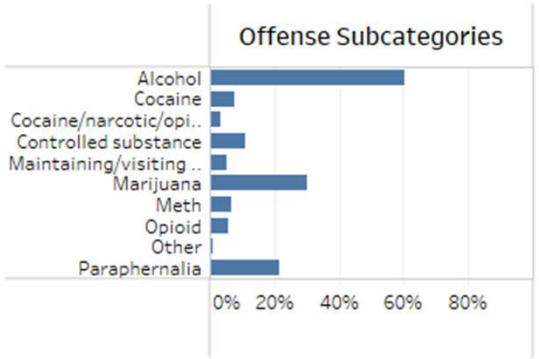
Rate or Count?

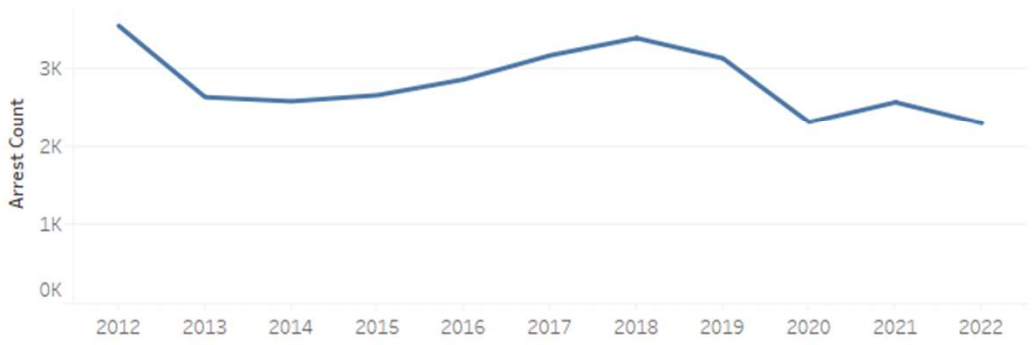
Rate per 10,000 County Residents



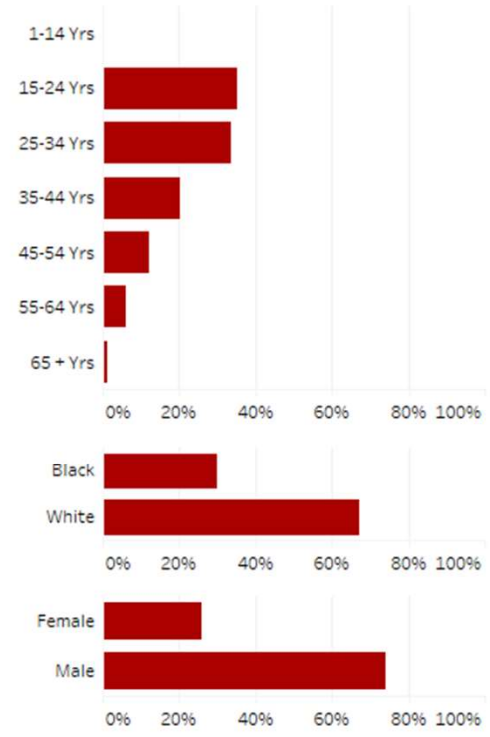
Select an Offense Category to see Subcategories







Demographic Information



Wayne County Syringe Service Program

- Wayne County
- 2016 (6.5 years)
- 3 employees
- 5 regular volunteers
- No membership
- Open T/TR with varied hours
- Central location

Logistics

Wayne County Syringe Service Program

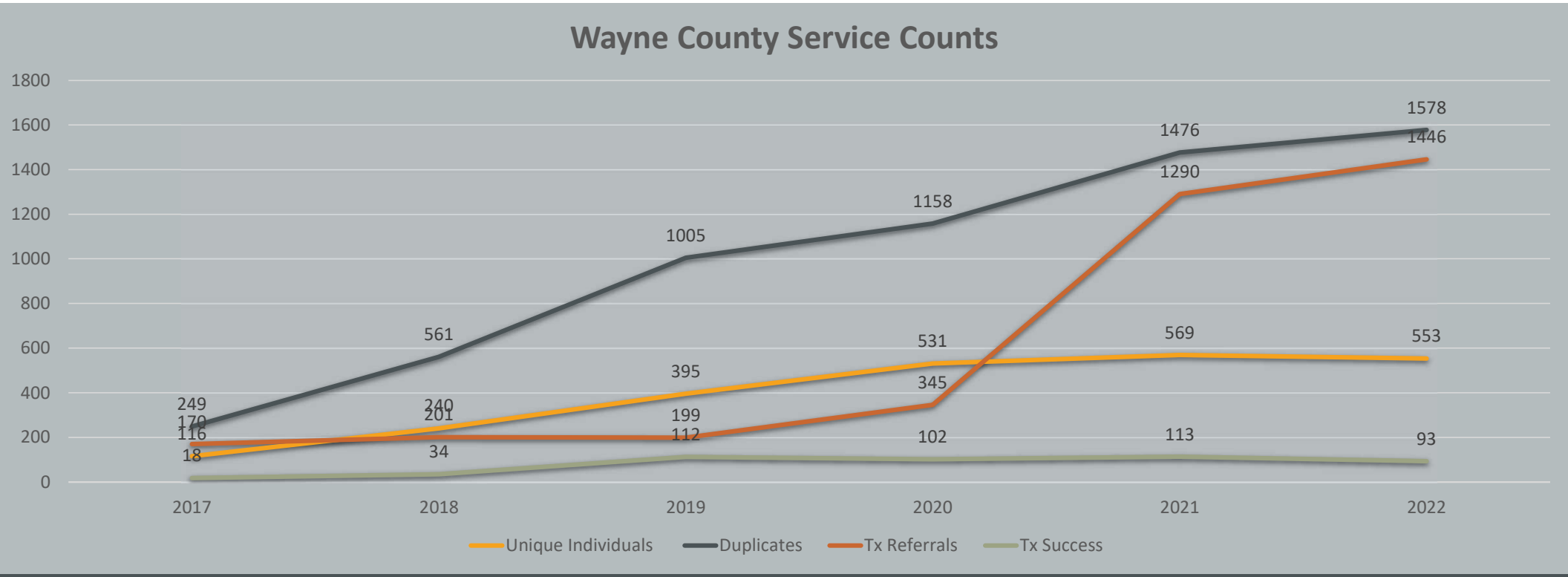
- Services other counties
- Low community support
- Neutral legislative support

Logistics

Wayne County Syringe Service Program

- Housing assistance
- Wound care
- Meals
- Access to Tx, Recovery Coaches
- Vaccinations
- HIV, Hep-C, STI testing & Tx*

Additional Services



Wayne County Service Outcomes

Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
421	-26.91%	32	-36.00%

1,191 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

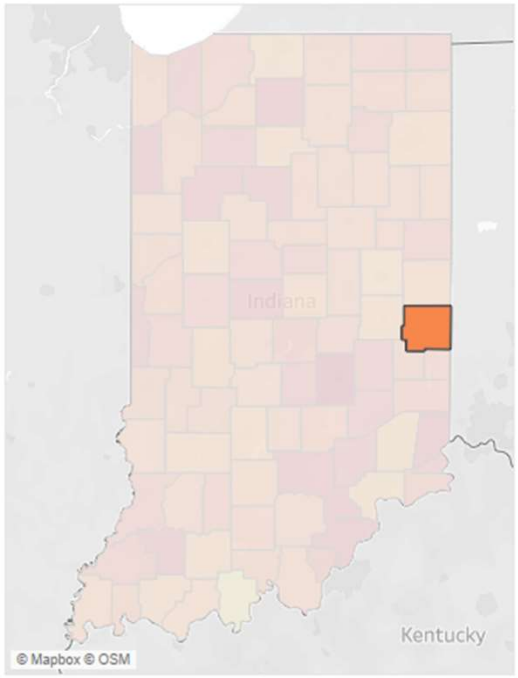
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

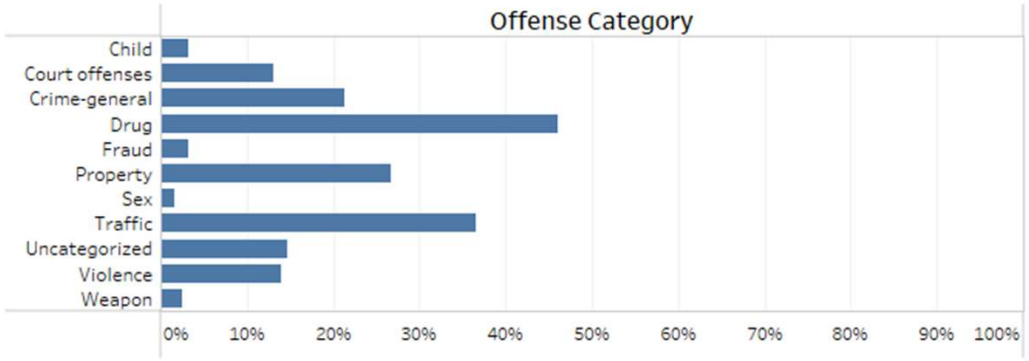
Heatmap or Line Chart: Line Chart

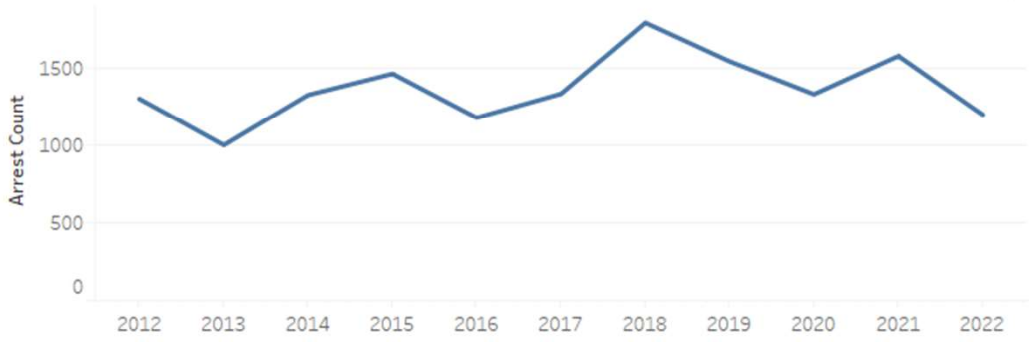
Rate or Count?
Rate per 10,000 County Residents

730 — 2,534

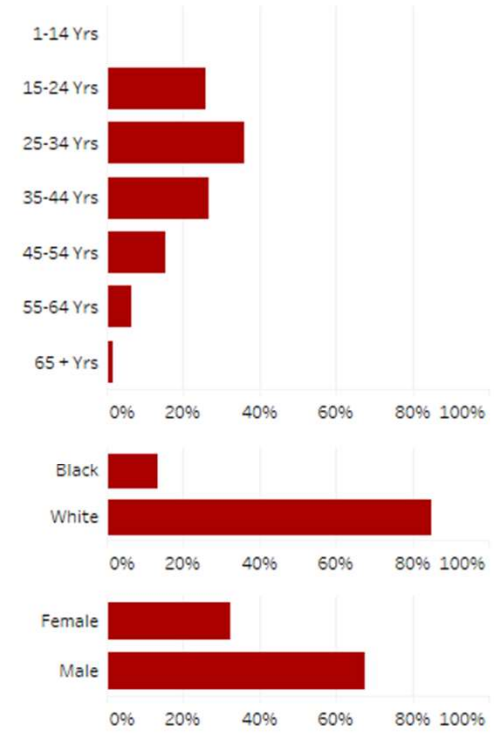


Select an Offense Category to see Subcategories





Demographic Information



Indiana Arrest Information

Use the drop down options or select a county/offense category/time period to explore the data

MANAGEMENT PERFORMANCEHUB

YTD Individuals Arrested (Beginning Jan 2023)	YTD % Difference From Previous Year	MTD Individuals Arrested (May 2023)	MTD % Difference From Previous Year
162	-35.71%	7	-66.67%

583 Arrested Individuals per 10,000 State Residents

Show... Individuals Arrested

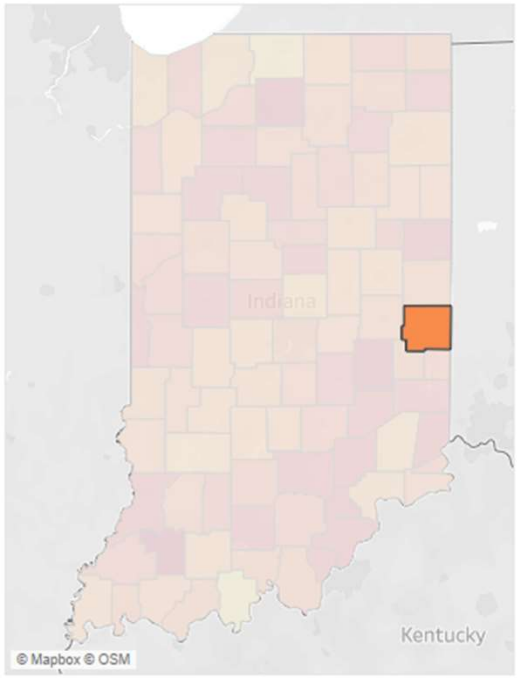
Offense Stage: Most Recent (Arrest or Disposition)

Year: Multiple values

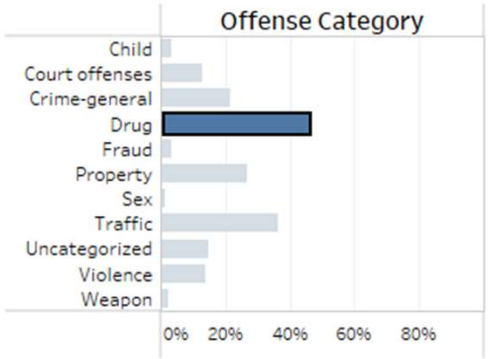
Heatmap or Line Chart: Line Chart

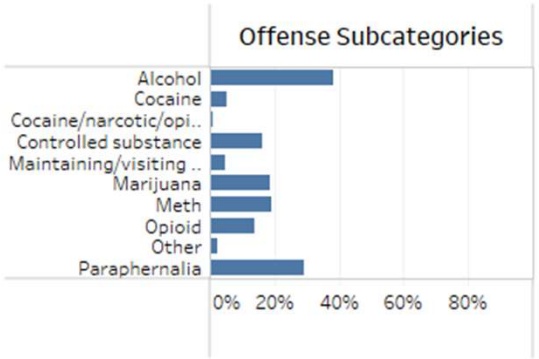
Rate or Count?

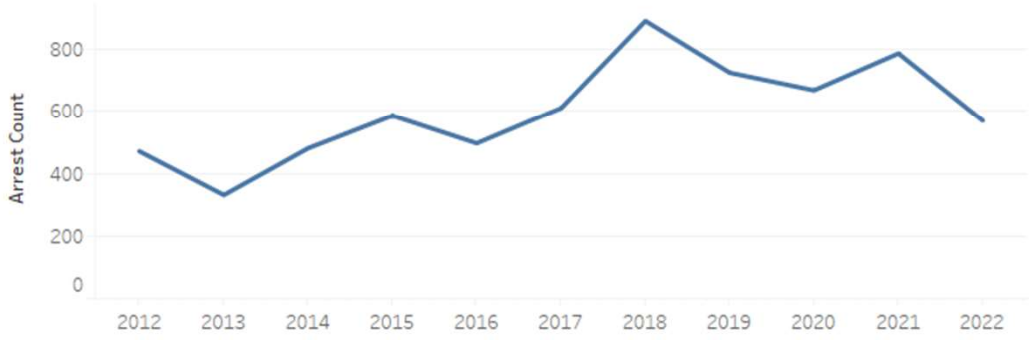
Rate per 10,000 County Residents



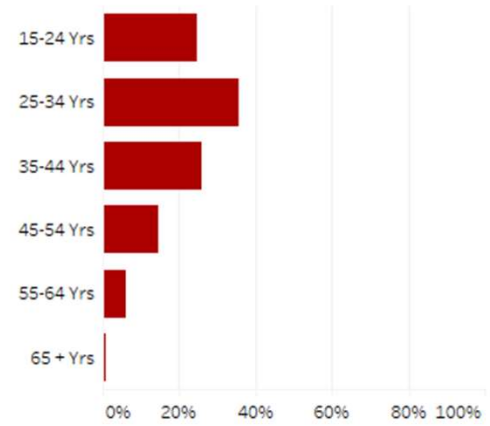
Select an Offense Category to see Subcategories

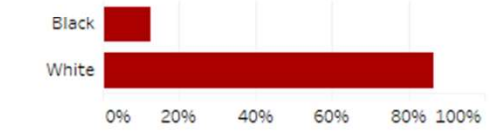


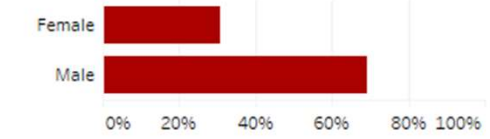




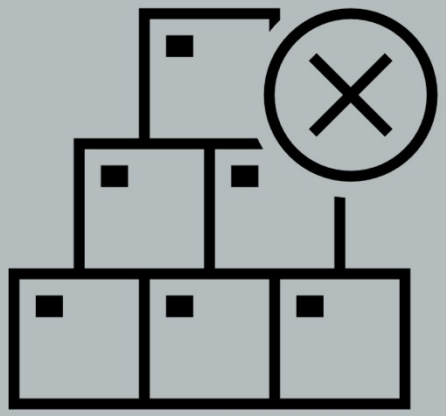
Demographic Information



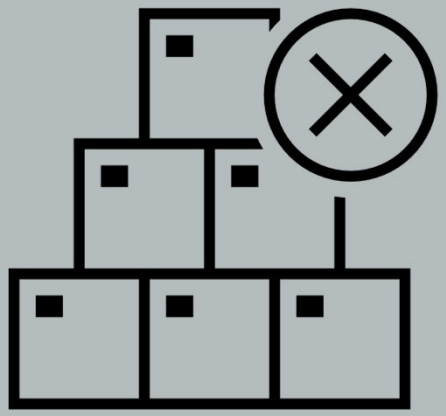




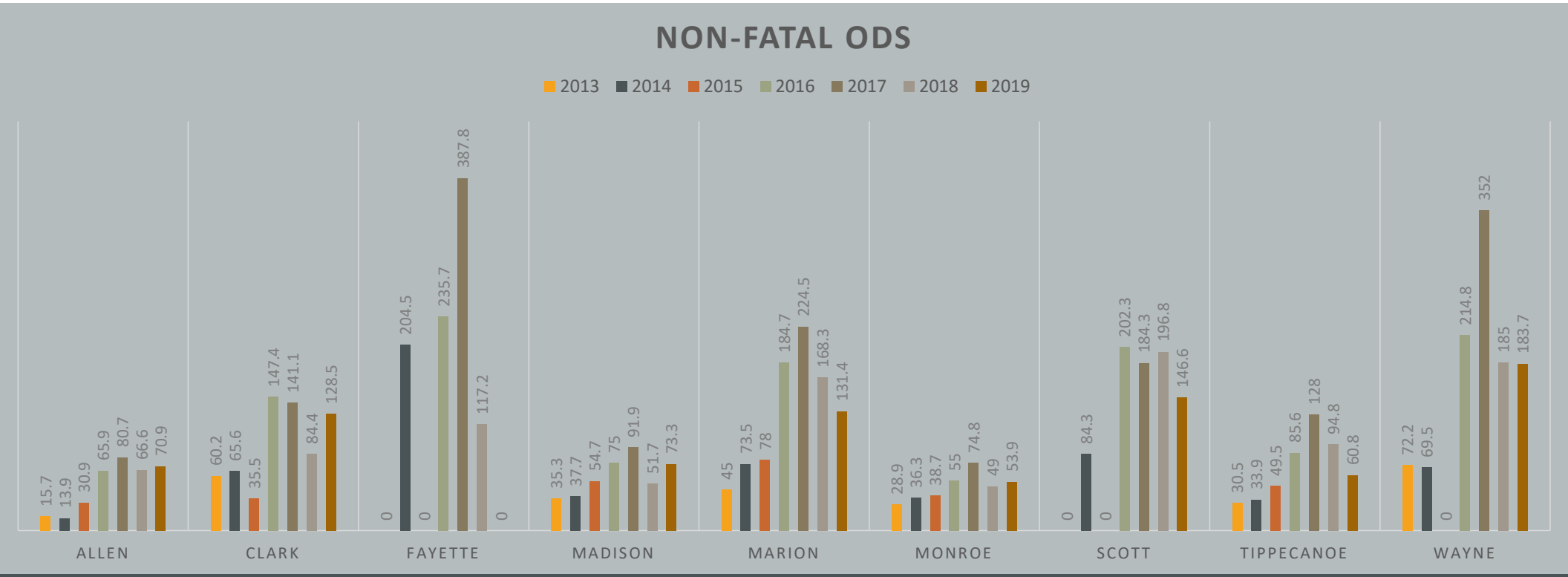
County Health Outcomes



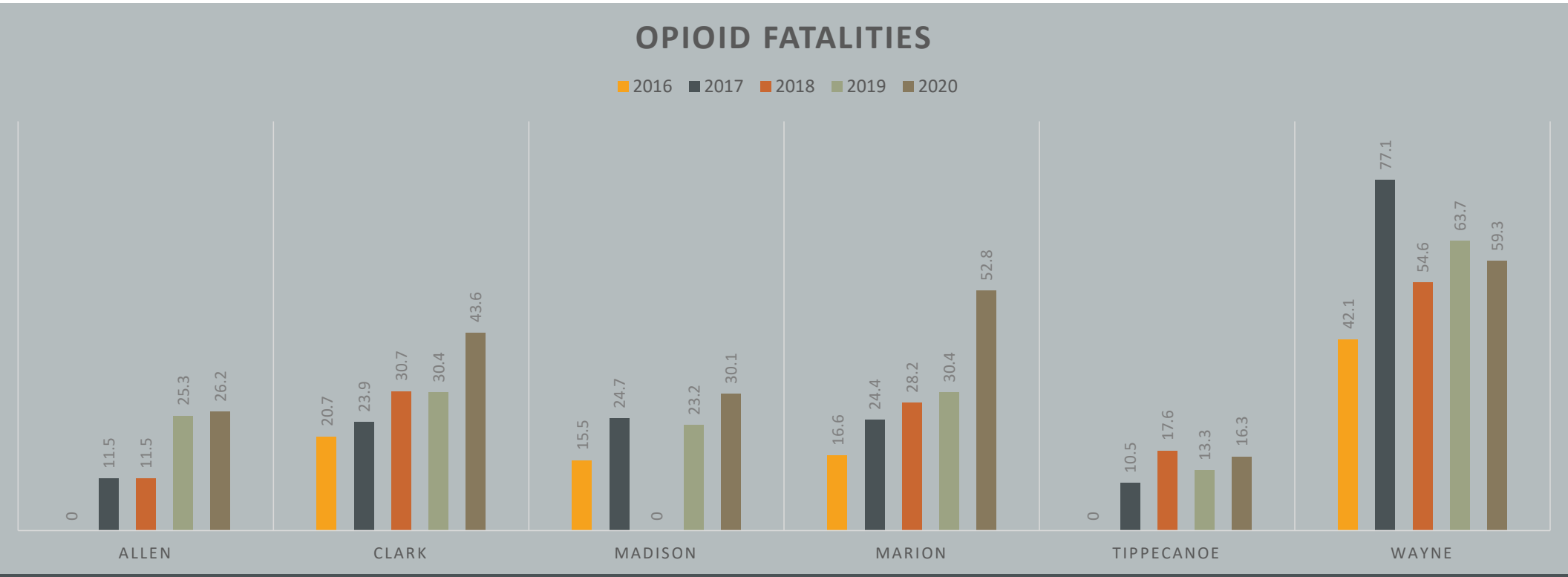
Outcomes: Hepatitis-C



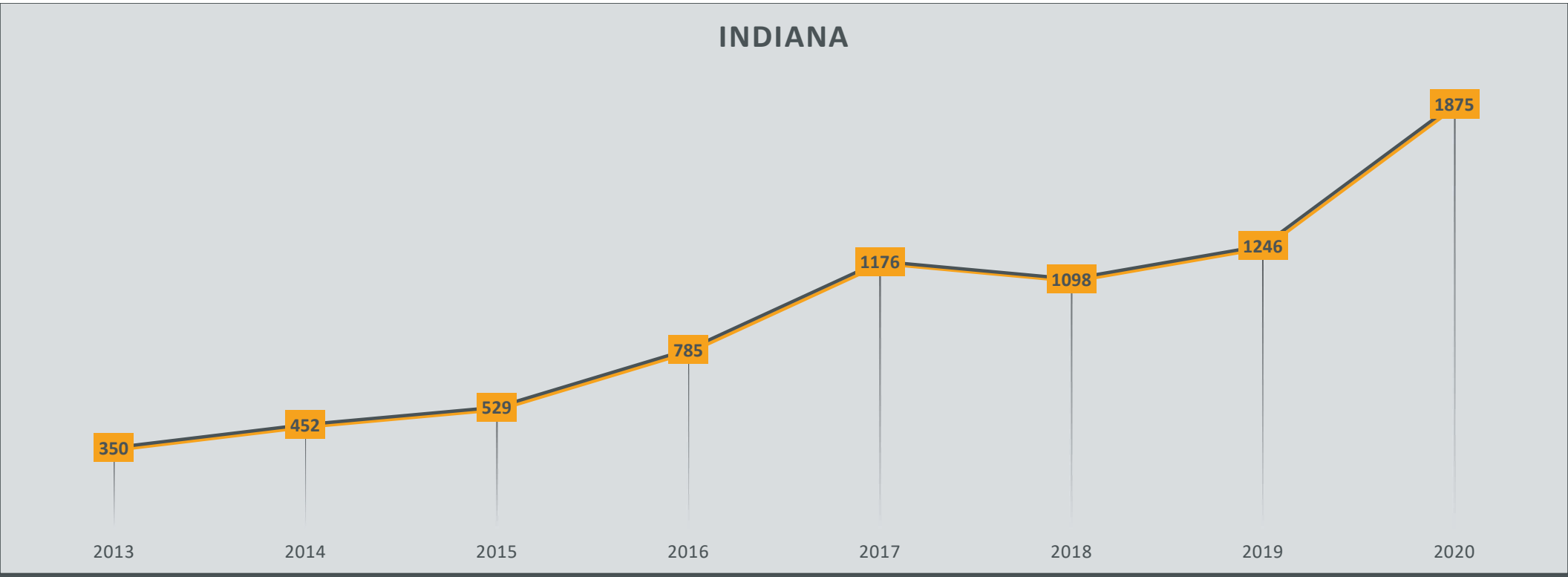
Outcomes: HIV



Outcomes: Non-fatal Opioid O.D. per 100k

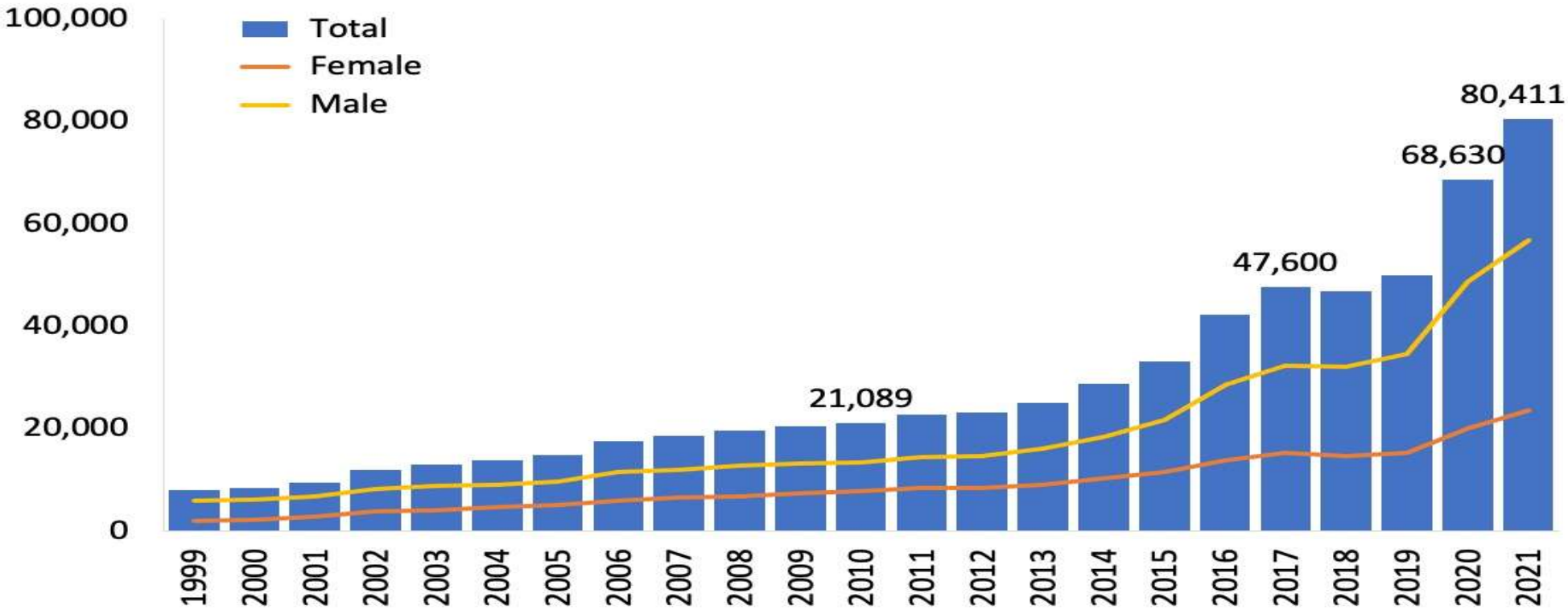


Outcomes: Opioid O.D. Fatalities per 100k

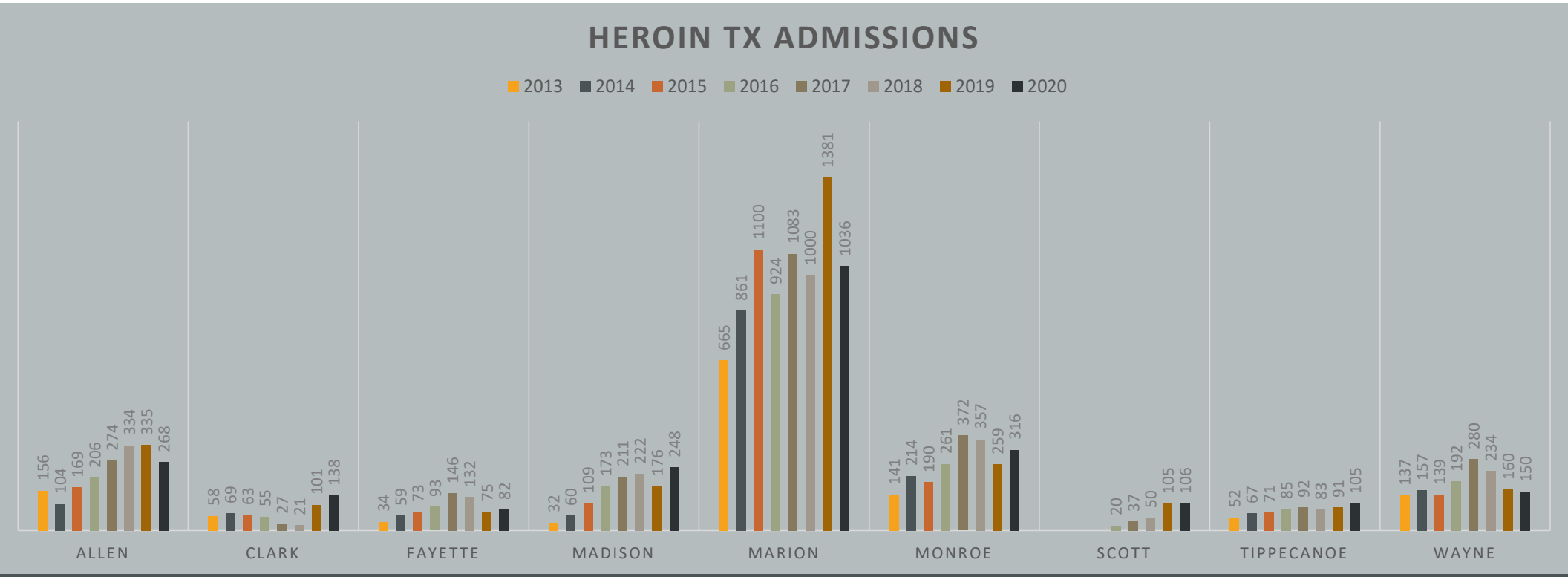


Indiana Opioid O.D. Fatalities

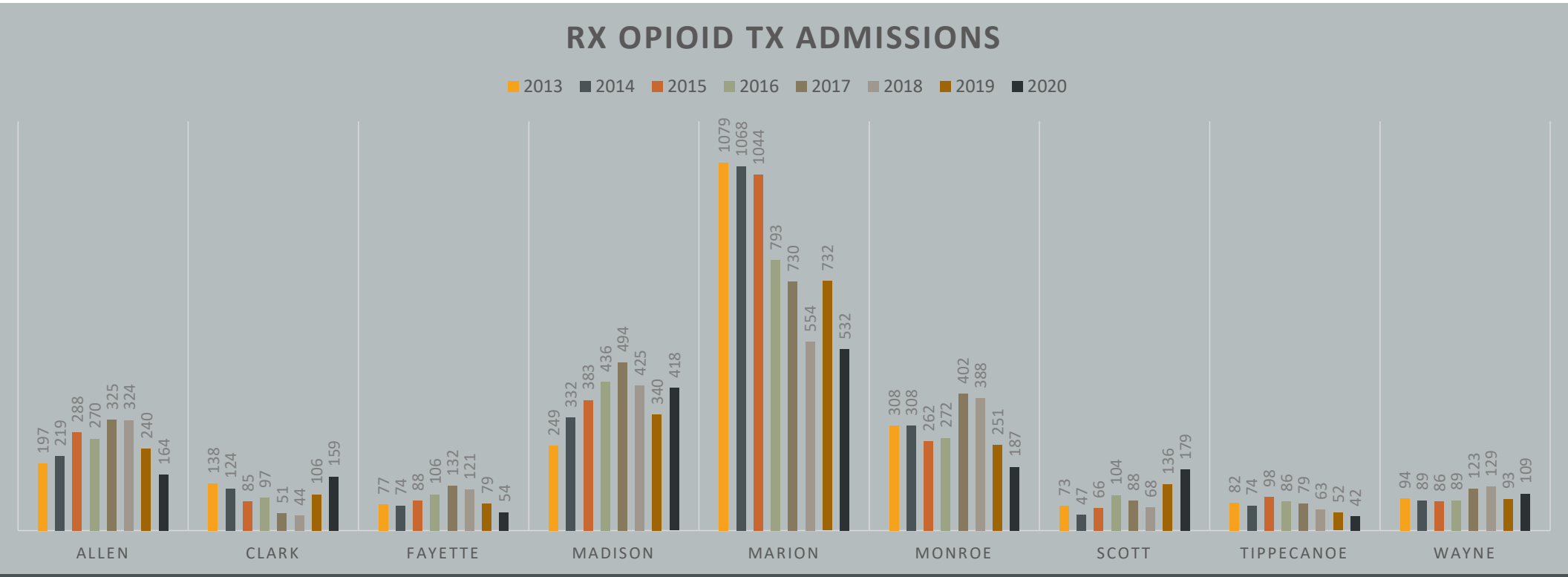
Figure 3. National Overdose Deaths Involving Any Opioid*, Number Among All Ages, by Gender, 1999-2021



*Among deaths with drug overdose as the underlying cause, the "any opioid" subcategory was determined by the following ICD-10 multiple cause-of-death codes: natural and semi-synthetic opioids (T40.2), methadone (T40.3), other synthetic opioids (other than methadone) (T40.4), or heroin (T40.1). Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2021 on CDC WONDER Online Database, released 1/2023.



Outcomes: Treatment Admissions (Heroin)



Outcomes: Tx Admissions Rx Opioid Misuse

Key Findings

1. Hepatitis-C rates decreased by 60% in Marion County since the implementation of the Marion County SSP in 2019.
2. Hepatitis-C rates decreased by 49% statewide from 2019.
3. HIV rates have remained stable statewide since 2016.
4. 31% decrease in annual drug arrests statewide since 2019.
5. Crime has decreased in six of eight counties where an SSP has been implemented.
6. 1000s of at-risk Hoosiers have been served by Indiana SSP programs.

SURCI

Key Findings

Questions

Dr. Dane Minnick

Up Next

Name

Kaitlin Rupp, MA

Position

Director of Program Evaluation: Tobacco Prevention and Cessation for the Indiana Dept. of Health

3:30pm – 4:00pm

Indiana Department of Health

EVALUATING INDIANA'S COMMERCIAL TOBACCO CONTROL MOVEMENT

KATELIN RUPP

PROGRAM EVALUATION DIRECTOR

5/19/2023

OUR MISSION:

To promote, protect, and improve the health and safety of all Hoosiers.

OUR VISION:

Every Hoosier reaches optimal health regardless of where they live, learn, work, or play.

Outline

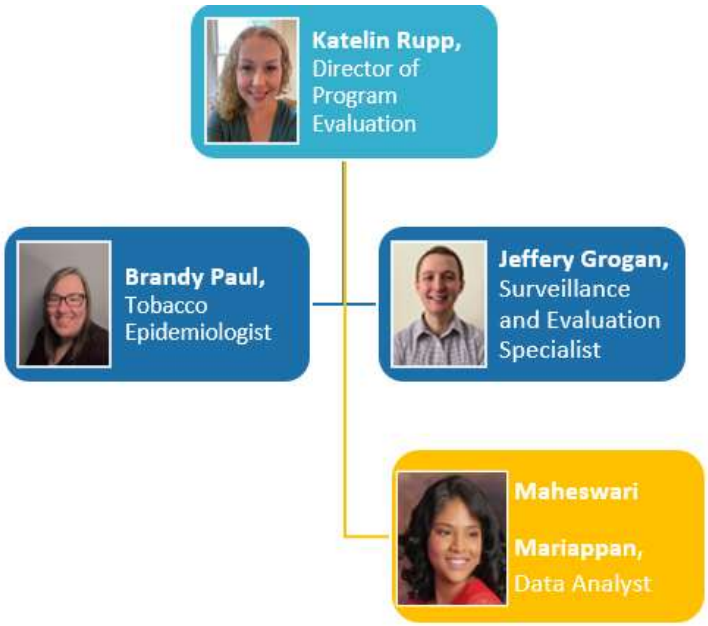
- Overview of ongoing surveillance and evaluation
  - 2025 Indiana Commercial Tobacco Control Strategic Plan
- Adult tobacco survey
- Evaluation of community partnerships
- Youth and young adults programming
- Future plans

Ongoing surveillance and evaluation

Indiana Department of Health

IDOH - Tobacco Prevention and Cessation Evaluation team

- **Katelin Rupp**
  Director of Program Evaluation
- **Brandy Paul**
  Tobacco Epidemiologist
- **Maheswari (Mahe) Mariappan**
  Data Analyst embedded in IDOH-ODA
- **Jeffery Grogan**
  Surveillance and Evaluation Specialist



Indiana Department of Health

Ongoing surveillance and evaluation work

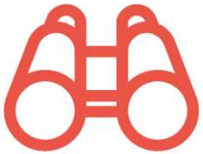
- Population-level surveillance to assess tobacco use prevalence and other indicators
- Evaluation of community programs and statewide grantees
- Assessing the impact of smoke-free air laws and other tobacco control policies
- Evaluation of CDC five-year cooperative agreement work plan
- Data management and analysis
  - Surveillance systems
  - Other data from different sources
- Dissemination

External evaluator

Professional data analysts:

- Provide outside/impartial perspective
- Intended to support, compliment and improve our (state level) work
- One contractor managing multiple surveillance & evaluation projects

Indiana tobacco control 2025 strategic plan



Our Vision

An Indiana where all are free from tobacco addiction and exposure to commercial tobacco products.*

Our Mission

Indiana Tobacco Prevention and Cessation seeks to achieve health equity by eliminating the disease and economic burden associated with tobacco addiction and exposure to commercial tobacco products.

Our Values

We recognize that all Hoosiers are affected differently across racial, ethnic, and socioeconomic groups, and these disparities must be addressed.

Indiana Department of Health

*Commercial tobacco is manufactured by companies for recreational and habitual use in cigarettes, e-cigarettes, smokeless tobacco, pipe tobacco, cigars, hookahs, and other products.

Indiana tobacco control 2025 strategic plan

Indiana Department of Health

Indiana adult tobacco survey

Indiana Department of Health

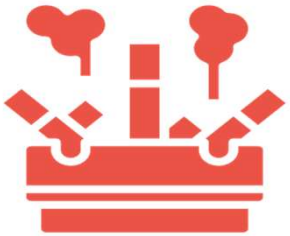
How does the ATS compare to other surveillance and data sources?

	ATS	BRFSS	YRBS	YTS	Quitline	Vital statistics
Conducted biennially	√		√	√		
Telephone survey	√	√			√	
Adults	√	√			√	√
Data represent the population	√	√	√	√		√
In-depth information about tobacco	√			√		

Adult tobacco use

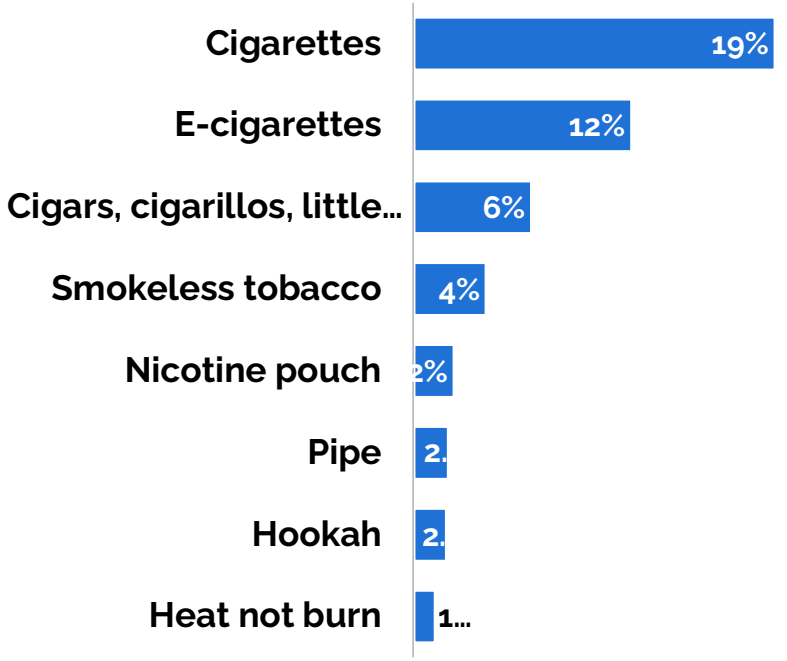
Nearly three in 10 adults currently use tobacco

35% of adults who currently use tobacco use multiple types



Created by nareerat jaika

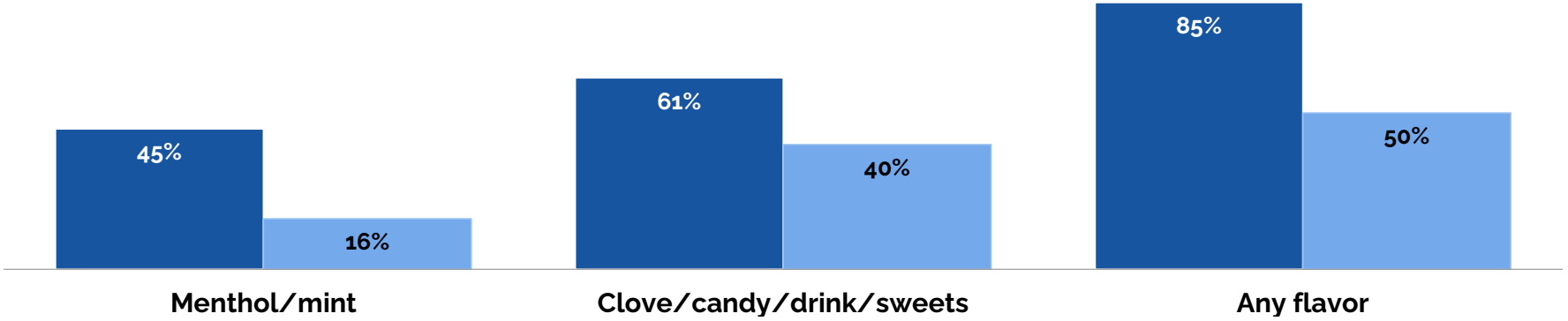
Current use of tobacco products



Indiana Department of Health

Use of flavored tobacco products

Use of flavored e-cigarettes and cigars is common among adults who currently use tobacco



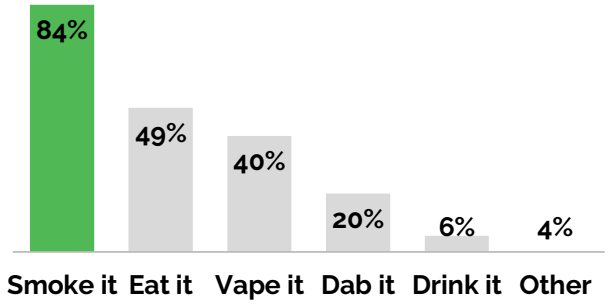
80% of Black/African American adults who currently smoke or used to smoke report menthol cigarettes as their usual product (compared to 20-48% among other groups).

Indiana Department of Health

Marijuana use among Indiana adults

About one in seven Indiana adults currently use marijuana; most use marijuana by smoking it and many use it in multiple ways.

Most adults who currently use marijuana ingest

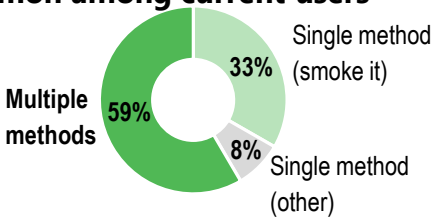


50% of Indiana adults have tried marijuana.

15% of Indiana adults currently use marijuana.

75% of adults who currently use marijuana also use tobacco

Using marijuana in multiple ways is common among current users

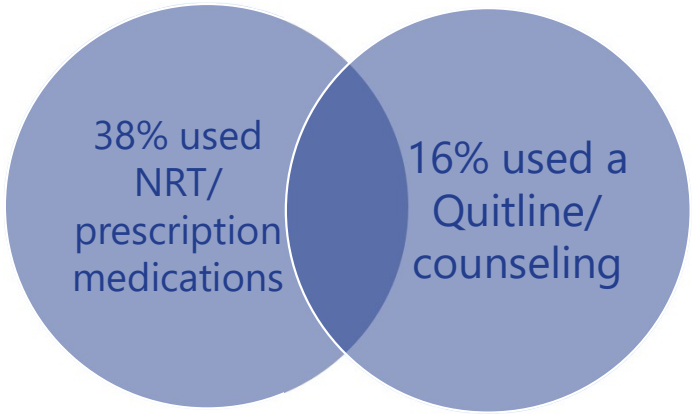


Indiana Department of Health

Adults who use tobacco want to quit

	Tried to quit in the past year	Intend to quit in the next 30 days
Cigarettes	39%	16%
E-cigarettes	52%	35%
Other tobacco	34%	15%

43% of those who use tobacco and who tried to quit in the past year, **used some form of assistance**



Indiana Department of Health

Quitline awareness & provider interventions

Among those who saw a health professional …

86% were **asked** if they use tobacco

59% were **advised** to quit

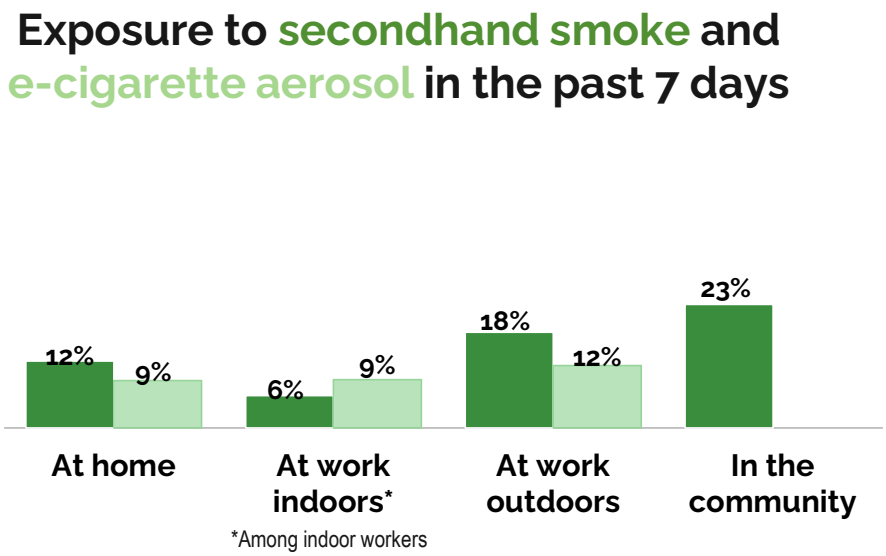
31% were **referred** to Quitline/ counseling

29% were prescribed cessation medications

Awareness of the Indiana Tobacco Quitline is relatively high (71%) among adults who currently use tobacco

Indiana Department of Health

Exposure to secondhand smoke and e-cigarette aerosol



Most common secondhand smoke exposure locations in the community:

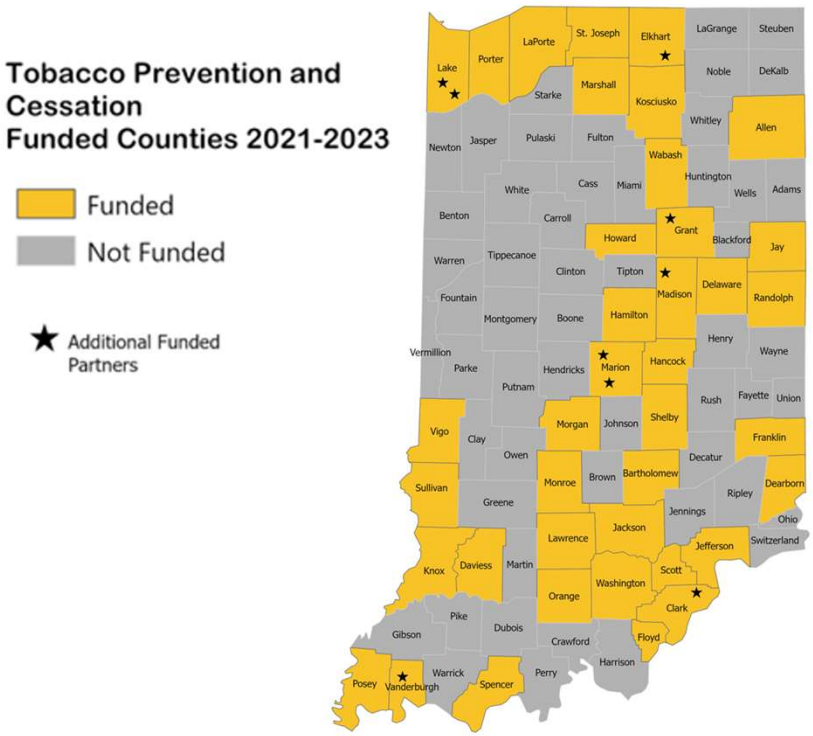
- Outdoor public place like a park, stadium, bus stop, or outdoor shopping center (24%)
- Building entrance (14%)
- Indoor bar or tavern (14%)

Evaluation of community partnerships

Indiana Department of Health

Community partners

- There are 48 local TPC coalition partners serving 38 counties
- Approximately 75% of the population covered



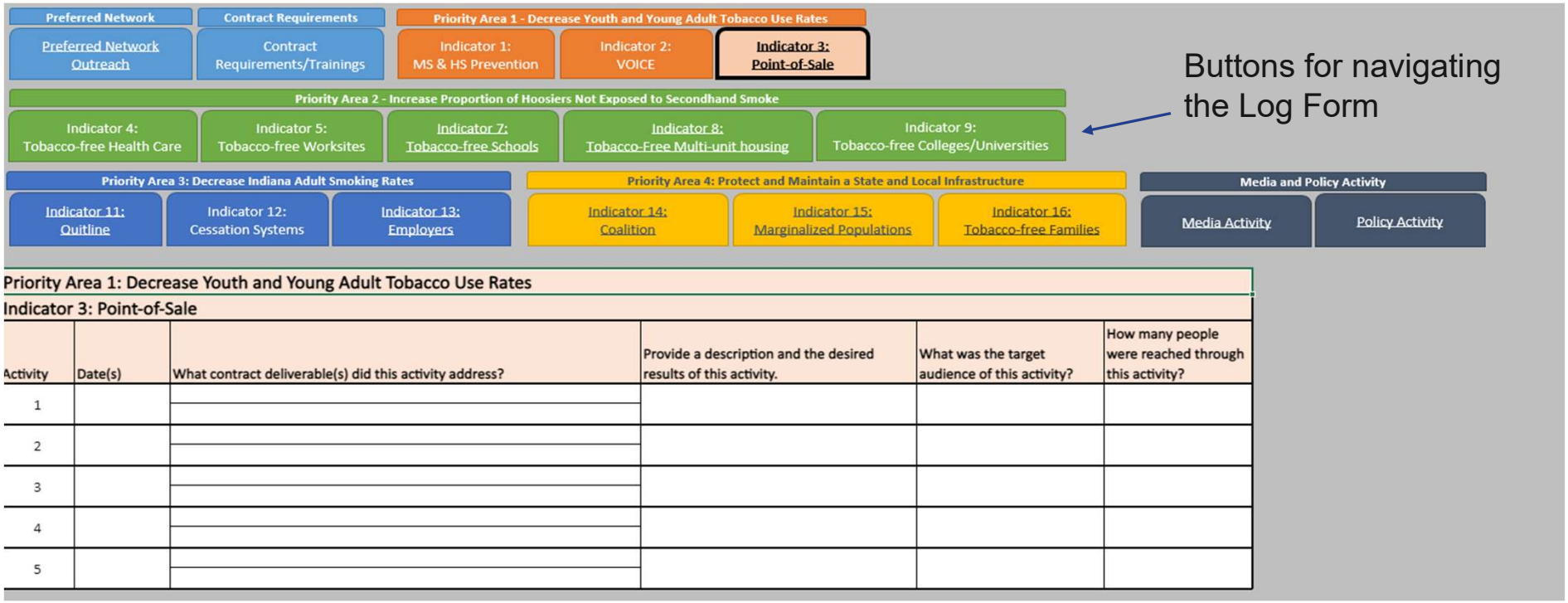
Indiana Department of Health

Community grants

Community Indicator	2021-2023 TPC Community Grants
Priority Area: Decrease youth and young adult tobacco use rates	
Middle and High School Prevention (1) *optional*	Increase the proportion of Indiana middle and high schools that support and implement a comprehensive school strategy against all tobacco use
Youth Empowerment/VOICE (2) *optional*	Extent of community activism among youth to support community change that includes youth involved in the VOICE movement
Point-of-Sale (3)	Extent of broad-based community support for commercial tobacco Point-of-Sale (POS) strategies at the local level
Priority Area: Increase proportion of Hoosiers not exposed to secondhand smoke	
Tobacco-Free Health Care Facilities (4) *optional*	Proportion of comprehensive tobacco-free campus policies for health systems, including community health centers, mental health centers and clinics, addiction treatment centers, facilities for people with disabilities, and senior living facilities
Tobacco-Free Worksites (5)	Proportion of local smoke-free air ordinances for all worksites, including restaurants, bars, membership clubs, and gaming facilities
Tobacco-Free Schools (7)	Proportion of school districts with comprehensive tobacco-free campuses
Multi-Unit Housing (8)	Proportion of comprehensive smoke-free policies in multi-unit housing
Tobacco-Free Colleges and Universities (9) *optional*	Proportion of college and university campuses with comprehensive tobacco-free campus policies that includes the usage, sales, marketing, and sampling in indoor and outdoor spaces such as student housing, classroom buildings, and athletic facilities of all tobacco products including e-cigarettes
Priority Area: Decrease adult smoking rates	
Quitline (11)	Extent of utilization of the Indiana Tobacco Quitline (ITQL) throughout the community
Cessation Systems (12) *optional*	Extent of health system implementation of the Clinical Practice Guidelines for Treating Tobacco Use and Dependence including integration of electronic referrals to the Indiana Tobacco Quitline
Employers (13)	Extent of tobacco cessation benefits provided by employers
Priority Area: Protect and maintain a state and local infrastructure necessary to lower commercial tobacco use rates	
Coalition (14)	Extent of intersectional partnerships within the broad-based coalition
Marginalized Populations (15)	Extent of participation by groups serving marginalized populations in the community
Tobacco-Free Families (16)	Extent of organizations serving marginalized populations that have received training on the Breathe: Healthy Steps to Living Tobacco Free education program

Indiana Department of Health

Monthly program reports



Indiana Department of Health

Monthly program reports

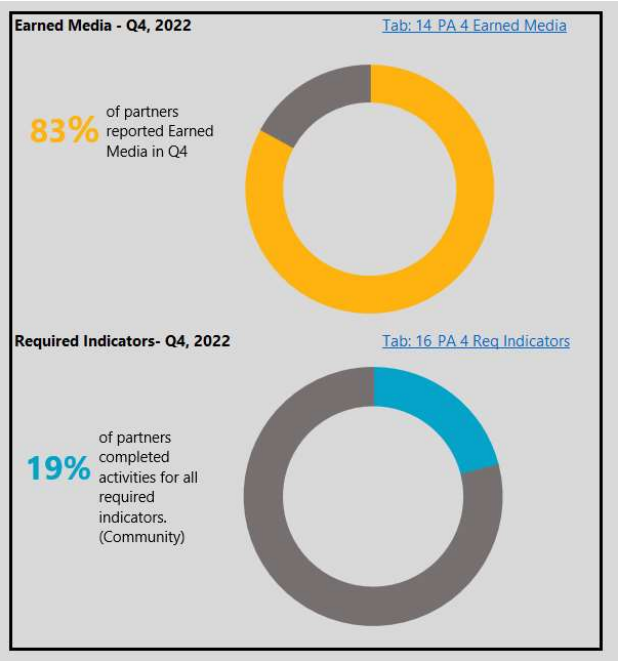
The monthly program report consists of:

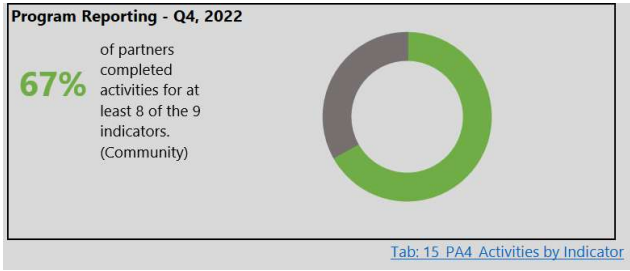
- Outreach related to Quit Now Indiana (HC providers, employers, organizations)
- Contract requirements (optional)
- Training (optional)
- **Activity reports**
- Policy activity
- Media
- Coalition/infrastructure

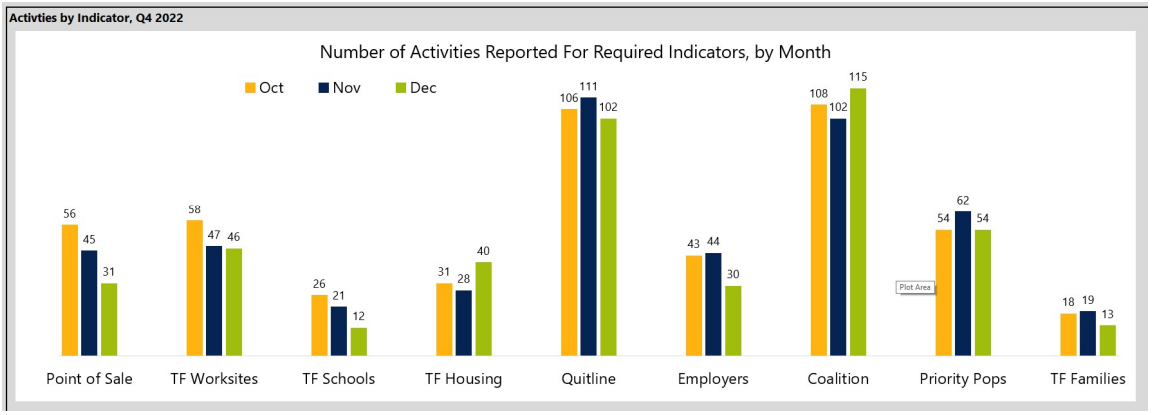
Quarterly dashboard report

- The quarterly dashboard report describes key measures that TPC monitors quarterly which focus on the performance of the state program, and state and local partners
- It is organized by priority areas -> community indicators
- There is a summary tab for each of the four priority areas with high-level visuals
- A TPC staff version is shared with all staff quarterly – reviewed during a monthly staff meeting
- A TPC partner version, more succinct and paired down with all county-level reporting data removed, is shared with TPC local and state partners one to two weeks later, after staff have reviewed and provided feedback
- Data come from a variety of sources: monthly program reports, Quitline service reports, and internal policy tracking, among others

Quarterly dashboard report

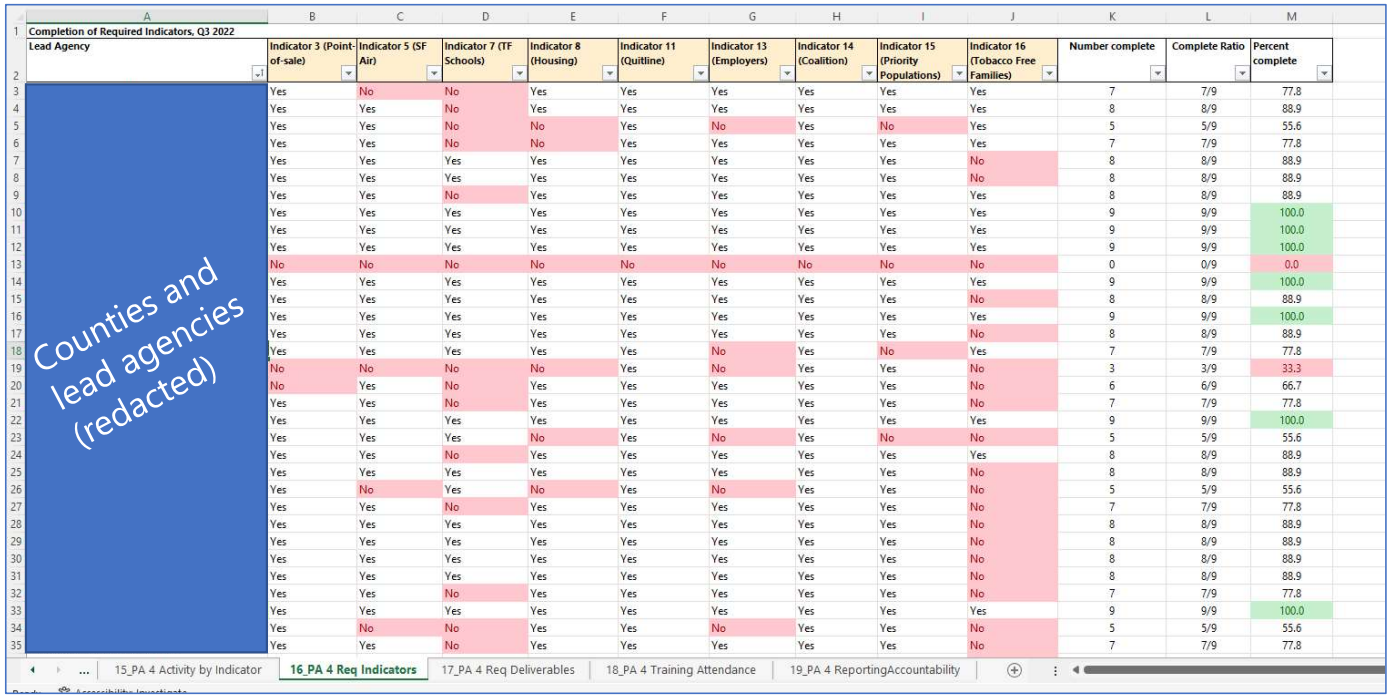






Indiana Department of Health

Quarterly dashboard report



Completion of Required Indicators, Q3 2022

Lead Agency	Indicator 3 (Point-of-sale)	Indicator 5 (SF Air)	Indicator 7 (TF Schools)	Indicator 8 (Housing)	Indicator 11 (Quitline)	Indicator 13 (Employers)	Indicator 14 (Coalition)	Indicator 15 (Priority Populations)	Indicator 16 (Tobacco Free Families)	Number complete	Complete Ratio	Percent complete
Counties and lead agencies (redacted)	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	7	7/9	77.8
	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	8	8/9	88.9
	Yes	Yes	No	No	Yes	No	Yes	No	Yes	5	5/9	55.6
	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	7	7/9	77.8
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	8	8/9	88.9
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	8	8/9	88.9
	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	8	8/9	88.9
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9	9/9	100.0
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9	9/9	100.0
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9	9/9	100.0
	No	No	No	No	No	No	No	No	No	0	0/9	0.0
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9	9/9	100.0
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	8	8/9	88.9
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9	9/9	100.0
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	8	8/9	88.9
	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	7	7/9	77.8
	No	No	No	No	Yes	No	Yes	Yes	No	3	3/9	33.3
	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	6	6/9	66.7
	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	7	7/9	77.8
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9	9/9	100.0
	Yes	Yes	Yes	No	Yes	No	Yes	No	No	5	5/9	55.6
	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	8	8/9	88.9
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	8	8/9	88.9
	Yes	No	Yes	No	Yes	No	Yes	Yes	No	5	5/9	55.6
	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	7	7/9	77.8
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	8	8/9	88.9
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	8	8/9	88.9
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	8	8/9	88.9
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	8	8/9	88.9
	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	7	7/9	77.8
	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9	9/9	100.0
	Yes	No	No	Yes	Yes	No	Yes	Yes	No	5	5/9	55.6
	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	7	7/9	77.8

15_PA 4 Activity by Indicator | 16_PA 4 Req Indicators | 17_PA 4 Req Deliverables | 18_PA 4 Training Attendance | 19_PA 4 ReportingAccountability

Indiana Department of Health

Deliverable completion reports

Monthly* and Quarterly Deliverable Completion – Quarter 4, 2022

Lead Agency: Allen: Parkview Health System

Indicator and Deliverable	Due	Completed?	# of Activities
Indicator 3 – Point-of-Sale			
Conduct youth and adult-focused educational activities on how tobacco products are priced and marketed to target teens and marginalized populations at the point-of-sale.	Quarterly	Yes	5
Indicator 5 – Tobacco-Free Worksites			
Conduct at least one adult-focused community education activity on the need for a local comprehensive ordinance, *or* the status and benefits of the community's comprehensive local law. Focus should be on those who are most impacted by secondhand smoke exposure.	Quarterly	No	0
Conduct ongoing activities to fill identified gaps in Community Readiness Profile.	Monthly	No	0
Indicator 8 – Multi-Unit Housing			
Assist public housing authority and market rate housing management with: • implementation by providing resources including Indiana Tobacco Quitline materials and other assistance • enforcement and strengthening of current policy to include e-cigarettes and smoke-free grounds	Quarterly	Yes	3
Maintain a database of all public and market rate multi-unit housing in your community and complete the following activities: • Outreach with all new multi-unit housing properties that open within your community • Track and monitor outreach to the database obtained through assessment	Quarterly	No	0
Indicator 11 – Quitline			
Conduct ongoing outreach with **healthcare providers** (such as hospital systems, primary care providers, pediatric offices, outpatient centers, dentists, and pharmacists) to promote the Indiana Tobacco Quitline and to develop.	Monthly	Yes	4
Conduct ongoing outreach with **health care providers that serve marginalized populations** (such as Community Health Clinics, Federally Qualified Heath Centers, mental health centers, opioid treatment/addiction providers, and recovery centers) to promote the Indiana Tobacco Quitline and to develop relationships.	Monthly	Yes	4
Conduct ongoing outreach with **organizations that serve marginalized populations** (such as organizations serving pregnant women, Lesbian, Gay, Bisexual, and Transgender (LGBTQ+) people, veterans and members of the military, Medicaid members, uninsured residents, people with low income and low education, people experiencing homelessness or domestic violence, people with disabilities, and vocational training programs and faith-based organizations)	Monthly	Yes	3
Indicator 13 – Employers			
Conduct outreach to employers: Outreach to new contacts, Intense Outreach to QNI Preferred Employer Network, Track outreach, Educate leadership of local businesses, Conduct a presentation and/or face-to-face meeting for employers, Assist with promotion cessation benefits, and Assist with implementing TF grounds policy.	Quarterly	Yes	3
Indicator 14 – Coalition			
Conduct ongoing coalition development and maintenance activities to involve participation from all sectors of the community. (Reference the Recommended Coalition Maintenance Activities)	Monthly	Yes	3
Complete at least one earned media submission (letter to the editor, op-ed, or news release) to a local media outlet. (Reference the Recommended Communications Outreach in the Resource Guide)	Monthly	No	1
Conduct at least one face-to-face meeting or key informant interview with a prospective coalition member or partner in order to recruit from sectors of the community not well represented on the coalition.	Quarterly	Yes	2
Educate state and local policy makers about your program and tobacco control, and the burden of tobacco use on Indiana.	Quarterly	Yes	1
Indicator 15 – Priority Populations			
Conduct at least one face-to-face or key informant interview each quarter with an organization, key individual, or stakeholder from a marginalized population, and identify a contact person for coalition recruitment.	Quarterly	Yes	1
Engage and work in partnership with organizations serving marginalized populations to ensure activities are co-created and welcomed by the community.	Quarterly	Yes	4

Number and percentage of monthly or quarterly deliverables completed:
11 of 15 deliverables (73.3%)
Note: The above table includes 15 deliverables that all TPC partners are required to complete on a monthly or quarterly basis. It is not a complete list of all deliverables included in the partner's work plan. The data presented here are based on the partner's program reports submitted for October through December, 2022.

A "Yes" response for the **Monthly completion status indicates a partner completed at least 3 activities for that specific deliverable within the quarter.*

Indiana Department of Health

Partner success stories

Building a Healthier Vanderburgh County
Local Successes in Commercial Tobacco Control

Preventing Youth and Young Adults from Using Tobacco

Conducted **25** educational presentations for local youth, adults, and youth-serving organizations on youth tobacco use and tobacco industry marketing to kids, reaching **2,958** students and community leaders.

96 youth are registered with Vanderburgh County VOICE Action Squad

Helping Hoosiers Quit Tobacco

Coalition outreach has connected people to access to cessation resources, reaching over **8,000** people in fiscal year 2022.

Over **8,900** tobacco users statewide registered for Indiana Tobacco Quitline services in state fiscal year 2022.

268 participants in Vanderburgh County

Protecting Hoosiers from Secondhand Smoke

100% of Vanderburgh County public school students are protected by a school tobacco-free policy that includes e-cigarettes.

Provided education and assistance to **56** multi-unit housing facilities on steps to protect residents from secondhand smoke.

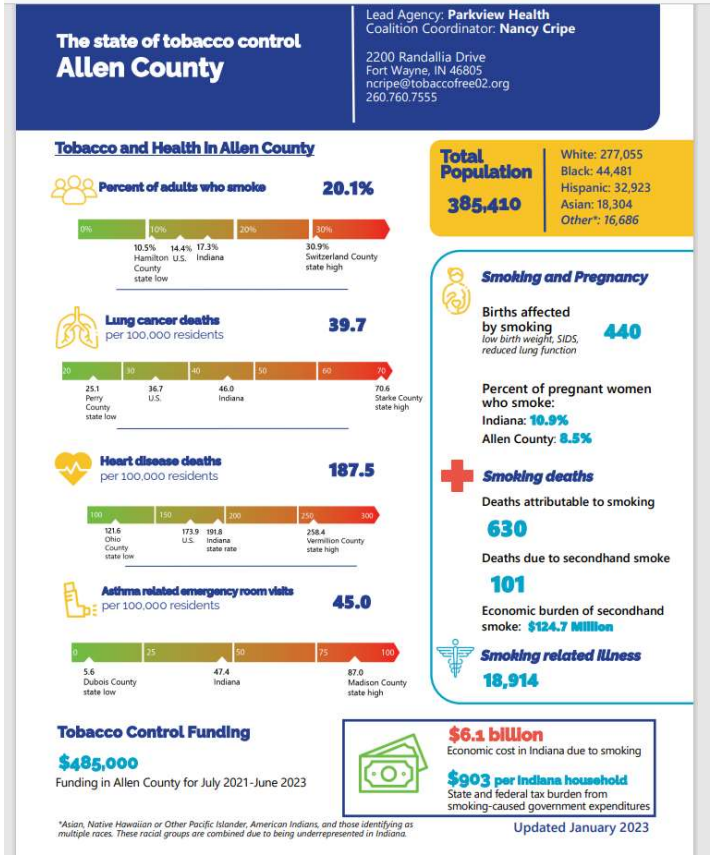
Engaging the Community

- **14** community members participate in Vanderburgh County's local tobacco prevention coalition on a monthly basis.
- Vanderburgh County's tobacco prevention efforts are supported by **111** local, regional, state, and national organizations.

Updated August 2022

Indiana Department of Health

County data pages



The state of tobacco control
Allen County

Lead Agency: **Parkview Health**
Coalition Coordinator: **Nancy Cripe**

2200 Randallia Drive
Fort Wayne, IN 46805
ncripe@tobaccofree02.org
260.760.7555

Tobacco and Health in Allen County

Percent of adults who smoke 20.1%
10.5% Hamilton County state low; 14.4% U.S.; 17.3% Indiana; 30.9% Switzerland County state high

Lung cancer deaths per 100,000 residents 39.7
25.1 Perry County state low; 36.7 U.S.; 46.0 Indiana; 70.6 Starke County state high

Heart disease deaths per 100,000 residents 187.5
121.6 Ohio County state low; 173.9 U.S.; 191.8 Indiana state rate; 258.4 Vermillion County state high

Asthma related emergency room visits per 100,000 residents 45.0
5.6 Dubois County state low; 47.4 Indiana; 87.0 Madison County state high

Total Population 385,410
White: 277,055
Black: 44,481
Hispanic: 32,923
Asian: 18,304
Other: 16,686*

Smoking and Pregnancy
Births affected by smoking 440
low birth weight, SIDS, reduced lung function
Percent of pregnant women who smoke:
Indiana: **10.9%**
Allen County: **8.5%**

Smoking deaths
Deaths attributable to smoking **630**
Deaths due to secondhand smoke **101**
Economic burden of secondhand smoke: **$124.7 Million**

Smoking related illness **18,914**

Tobacco Control Funding
$485,000
Funding in Allen County for July 2021-June 2023

$6.1 billion
Economic cost in Indiana due to smoking
$903 per Indiana household
State and federal tax burden from smoking-caused government expenditures

**Asian, Native Hawaiian or Other Pacific Islander, American Indians, and those identifying as multiple races. These racial groups are combined due to being underrepresented in Indiana.*

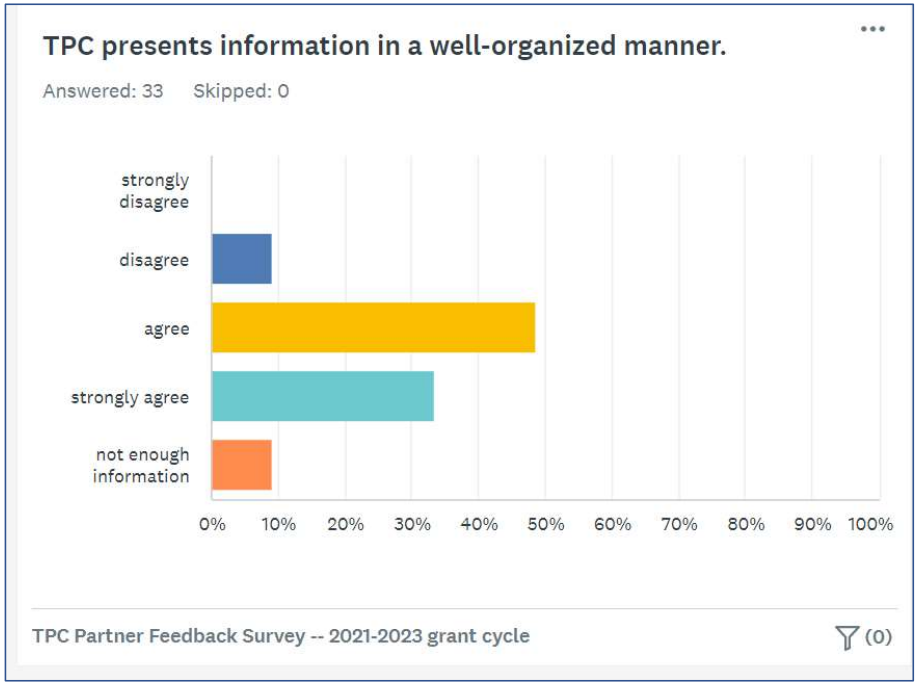
Updated January 2023

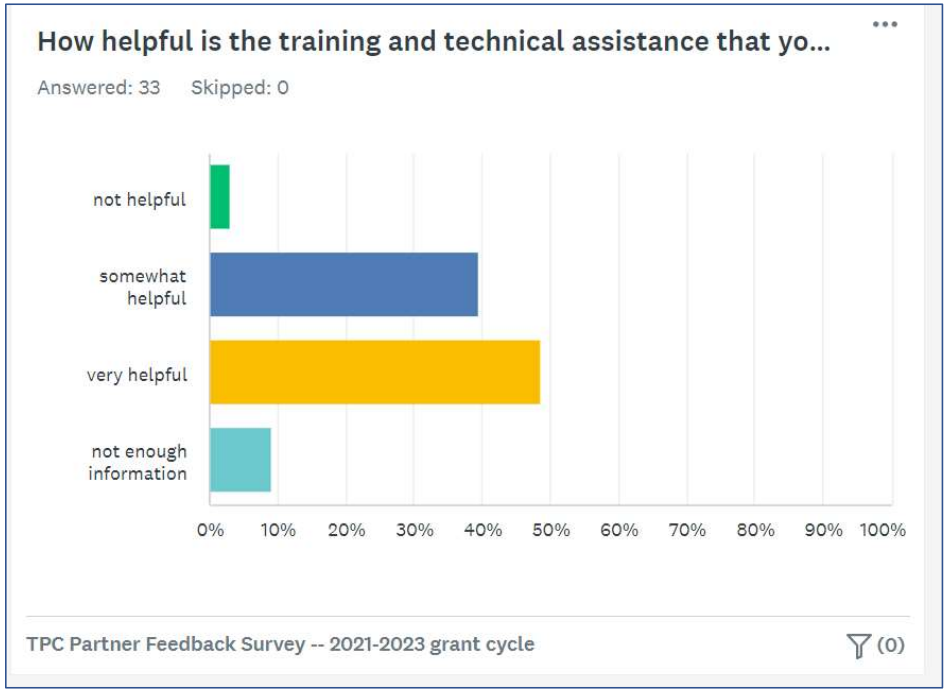
Indiana Department of Health

Partner feedback survey

- Web-based survey administered biennially around the midpoint of the two-year grant cycle
- Quantitative (multiple choice/Likert scale questions) and qualitative (comment fields and free response questions)
- Opportunity for community, statewide, and health systems change partners to provide anonymous feedback on…
  - How information is presented
  - Training and TA provided
  - Relationship with primary contact
  - Communications
  - Facilitation of collaboration among partners… and more

Partner feedback survey

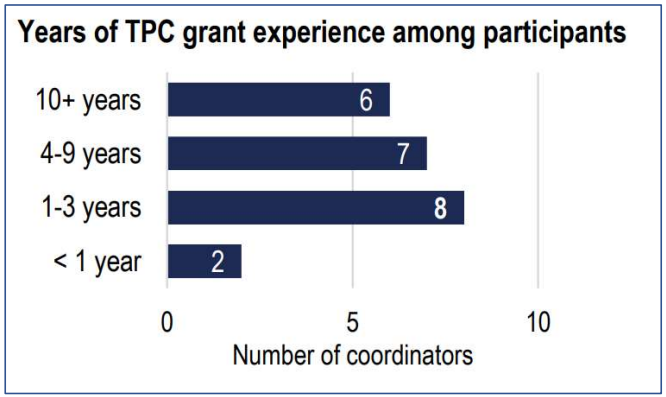




Indiana Department of Health

Community partner focus group

- Conducted by Professional Data Analysts and Bingle Research Group, Inc. in spring 2022
- Purpose was to discuss grant work plans, deliverables, and training with community partners
- 27 local coordinators were invited, 23 participated representing 21 counties in Indiana, and a range of lead agencies and years of experience



Professional Data Analysts

Indiana Department of Health

Youth and Young Adult Strategy

Indiana Department of Health

Key Factors Contributing to Youth Tobacco Use

- New products
- Tobacco company marketing
- Availability of cheap tobacco products
- Flavored products
- Regulation

Flavored tobacco product use

Flavored Tobacco Use among Hoosier Youth, 2018

53.4% ***of middle school students who reported using tobacco***

64.6% ***of high school students who reported using tobacco products***

Indiana Department of Health

VAPE-FREE INDIANA

Indiana's ***Three-Pronged Approach*** to addressing the youth vaping epidemic

https://www.in.gov/vapefreeindiana/

PREVENTION

School Programming

CATCH® MY BREATH
YOUTH E-CIGARETTE PREVENTION PROGRAM

PUBLIC EDUCATION

Mass-Media Campaigns

Behind the Haze
Youth Campaign

@BehindtheHaze1N
BehindtheHaze.com

CESSATION

Quitting Services

This is Quitting:

Text **DITCHVAPE** to 88709

SmokefreeTXT for Teens:

Text **QUIT** to 47848

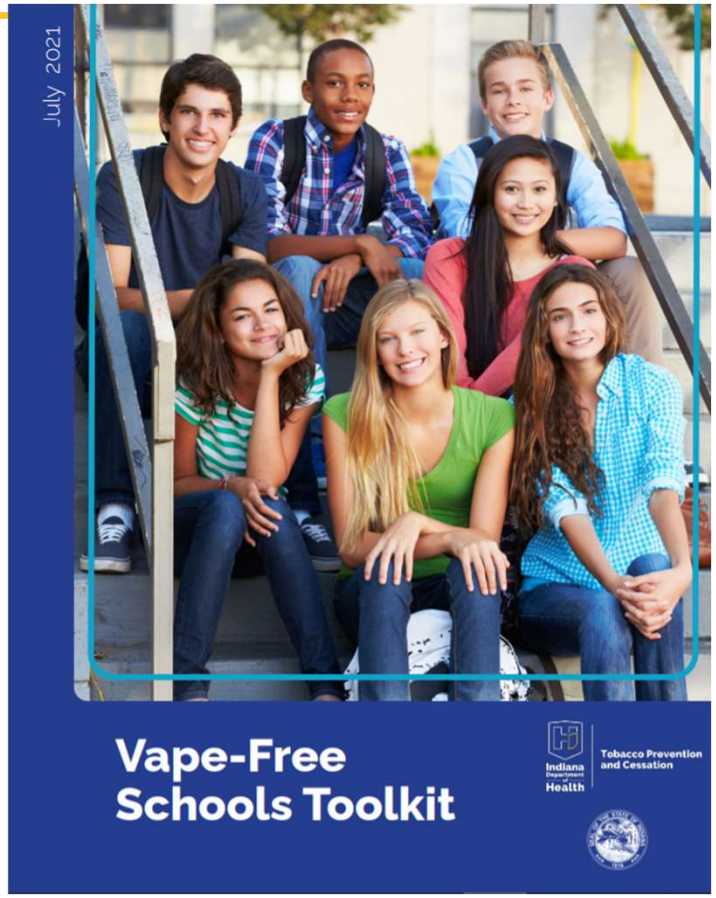
QuitNowIndiana.com/teens

RK0

Vape-Free Schools Toolkit

- Policy
  - Model policy
  - Policy checklist
- Prevention resources
- Parent resources
- Cessation support
- Youth engagement
- Alternatives to suspension

https://www.in.gov/vapefreeindiana/files/Vape-Free-School-Toolkit_10.2022.pdf



Indiana Department of Health

Slide 249

RK0 provide a link to where toolkit can be found
Rupp, Katelin, 2022-05-26T17:59:46.561

Prevention Resources

truth initiative
INSPIRING LIVES FREE FROM SMOKING, VAPING & NICOTINE

CATCH®
MY BREATH
E-CIGARETTE & JUUL PREVENTION PROGRAM

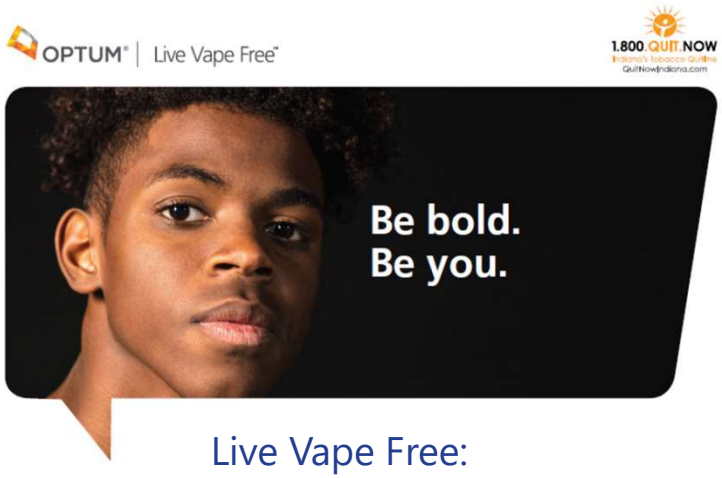
SWEET DECEPTION

Stanford MEDICINE | Tobacco Prevention Toolkit
Modules for tobacco and nicotine education

AMERICAN LUNG ASSOCIATION®

Cessation Resources

QUIT NOW INDIANA
1.800.Quit.Now



NIH NATIONAL CANCER INSTITUTE

teen.smokefree.gov

Live Vape Free:

Youth Program:
Text INDIANA to 873373

Parent Program:
RallyHealth.com/Live-Vape-Free

This is Quitting:
Text 'DITCHVAPE' to 88709

Parents can text "QUIT" to (202) 899-7550

Indiana Department of Health

Future plans and wish list

Indiana Department of Health

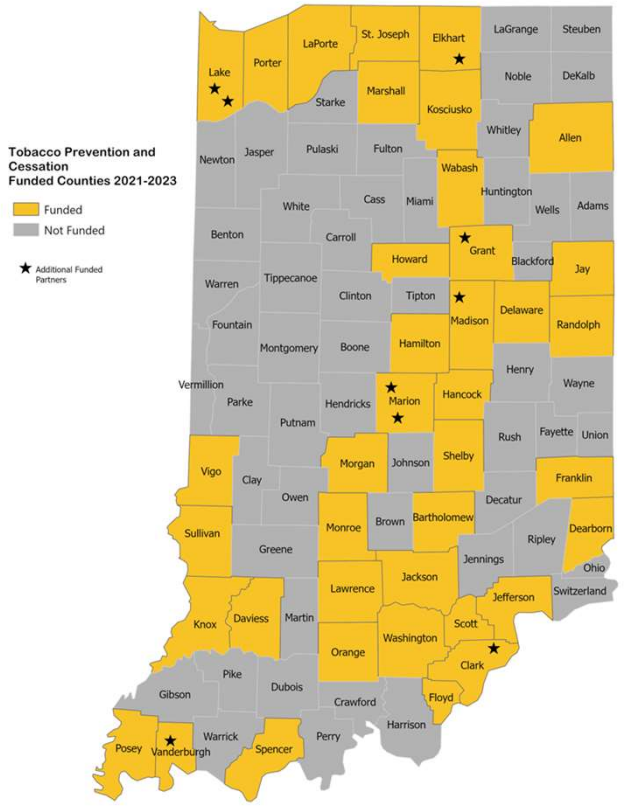
Health outcomes in funded counties

Hope to utilize hospitalization data to assess longer term outcomes in communities with long-standing (10+ years) partnerships.

Variables to include:

- Lung/bronchus cancers
- Cardiovascular disease
- Asthma

Research question: Are counties with long-standing partnerships/established tobacco coalitions associated with better health outcomes?



Indiana Department of Health

Focus groups – phase II

- Conduct focus groups with all types of funded partners
- Include coalition members and/or other stakeholders and community members at large
- Participants weigh in on what is working and what could change; challenges and wins

Final thoughts

- Progress or success often looks different for local partnerships
- Process and outcomes are important, but outcome measures are harder to generalize across communities
- Qualitative insights pair well with quantitative data
- Communicate regularly and include partners whenever possible

Questions?

CONTACT:

Katelin Rupp

KaRupp@health.in.gov

Closing Remarks

Name

Kelly Welker

Position

Deputy of Addiction Services/Division of Mental Health and Addiction

4:15pm

THANK YOU

Improve Your Health Outcomes


www.syrahealth.com


srikantd@syrahealth.com


317-597-5736


1119 Keystone Way N #201 Carmel, IN 46032

SyraHealth