The Pennsylvania Heroin Overdose Prevention Technical Assistance Center

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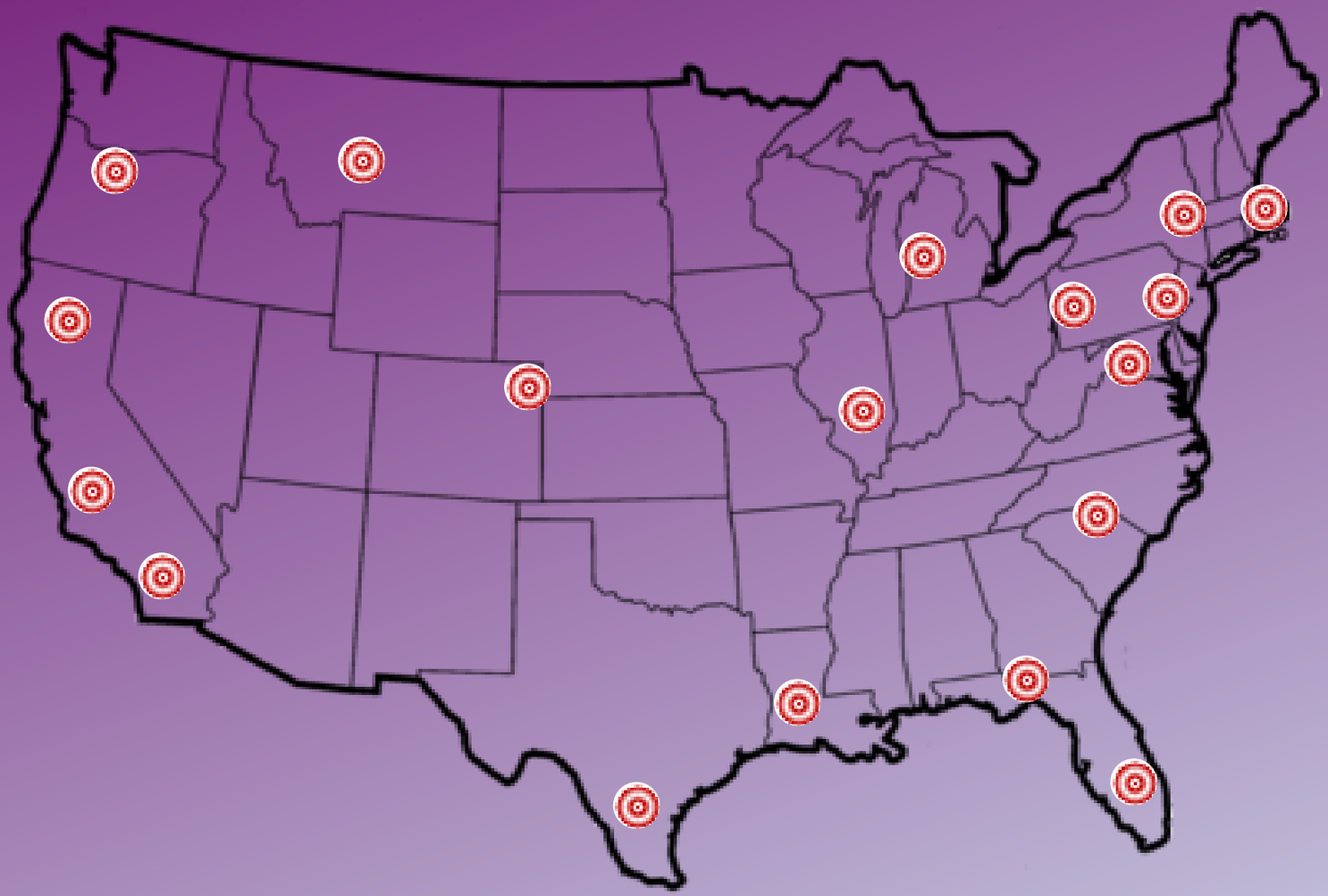
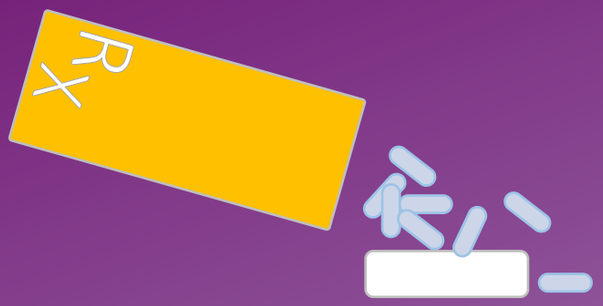
Collaborating with the community is the cornerstone for efforts to improve public health.[1]

Community efforts to reduce overdoses are emerging throughout the US.[2]



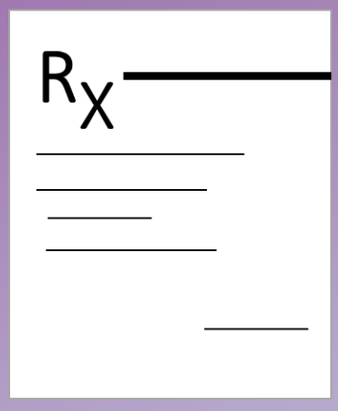
What Works:[2]



Prescription Drug Monitoring Programs

Medication Assisted Treatment

Naloxone Availability



Opioid Prescription Practices

Some community efforts have been successful.[3,4]

PROJECT LAZARUS

MassTAPP
Technical Assistance
Partnership for Prevention

What would a Community Coalition That Addresses Overdose Look Like?

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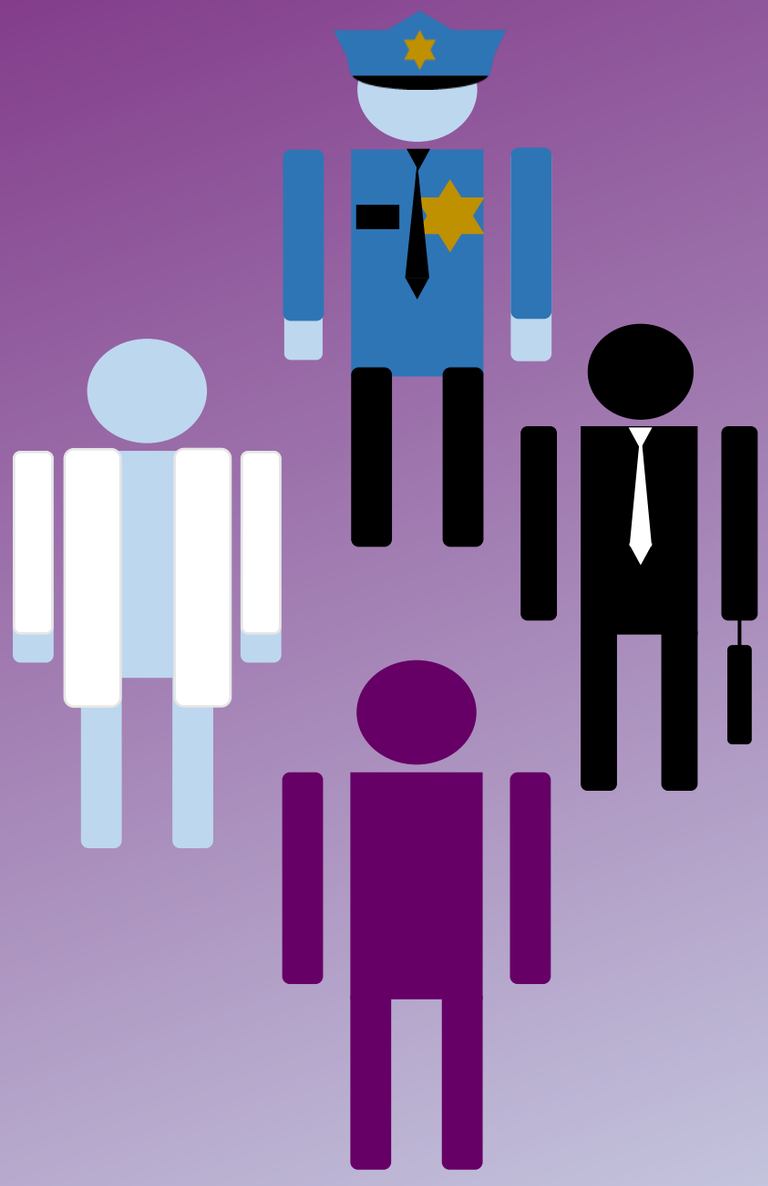
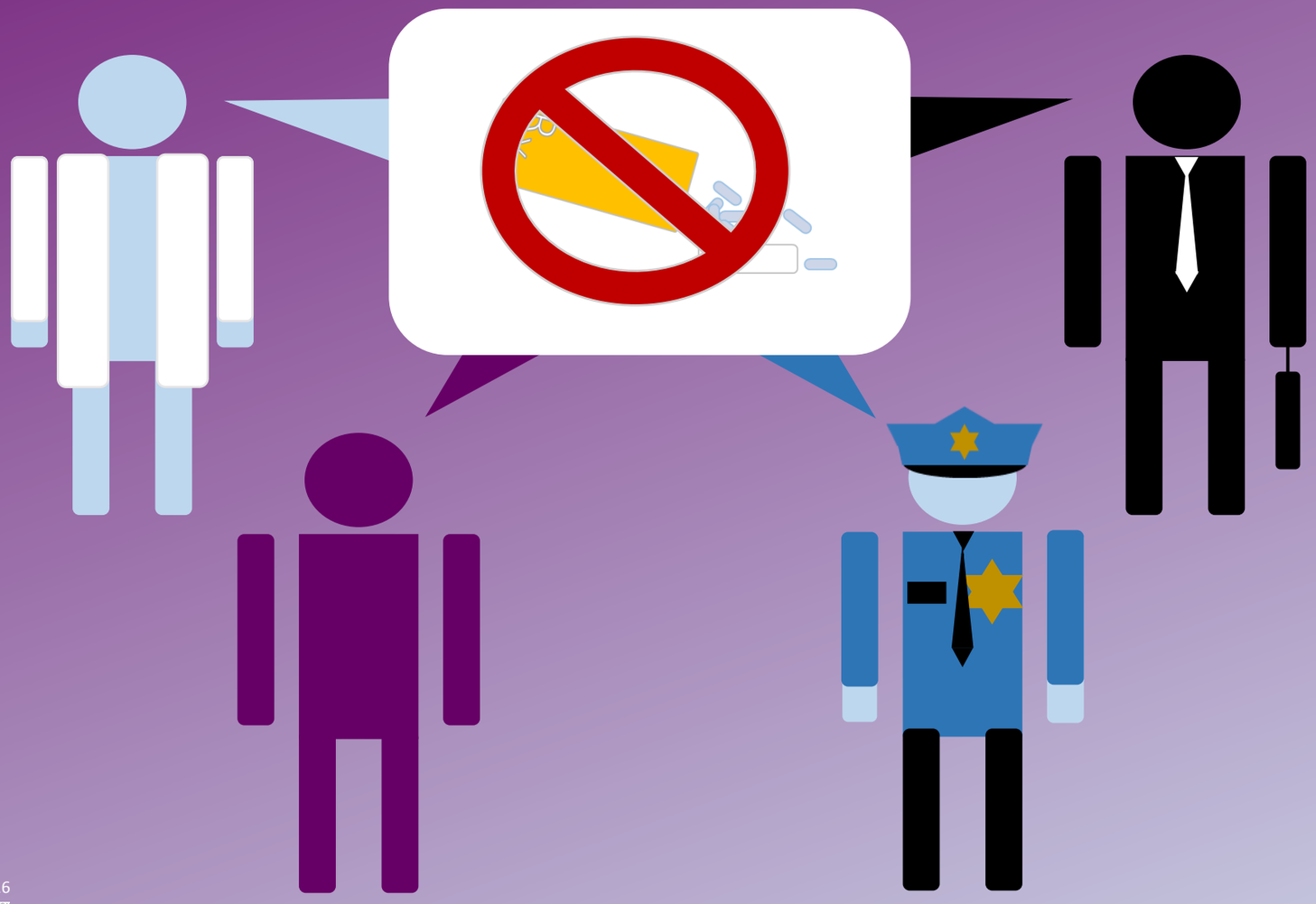
The coalition may be comprised of:

Persons who represent: the population at risk, the services the population needs, the policy entities that can change practices and the community's values.



The coalition members work together to effectively ensure that their communities are safer, healthier, and drug free.



Making Your Community Coalition Successful: Preparation is KEY

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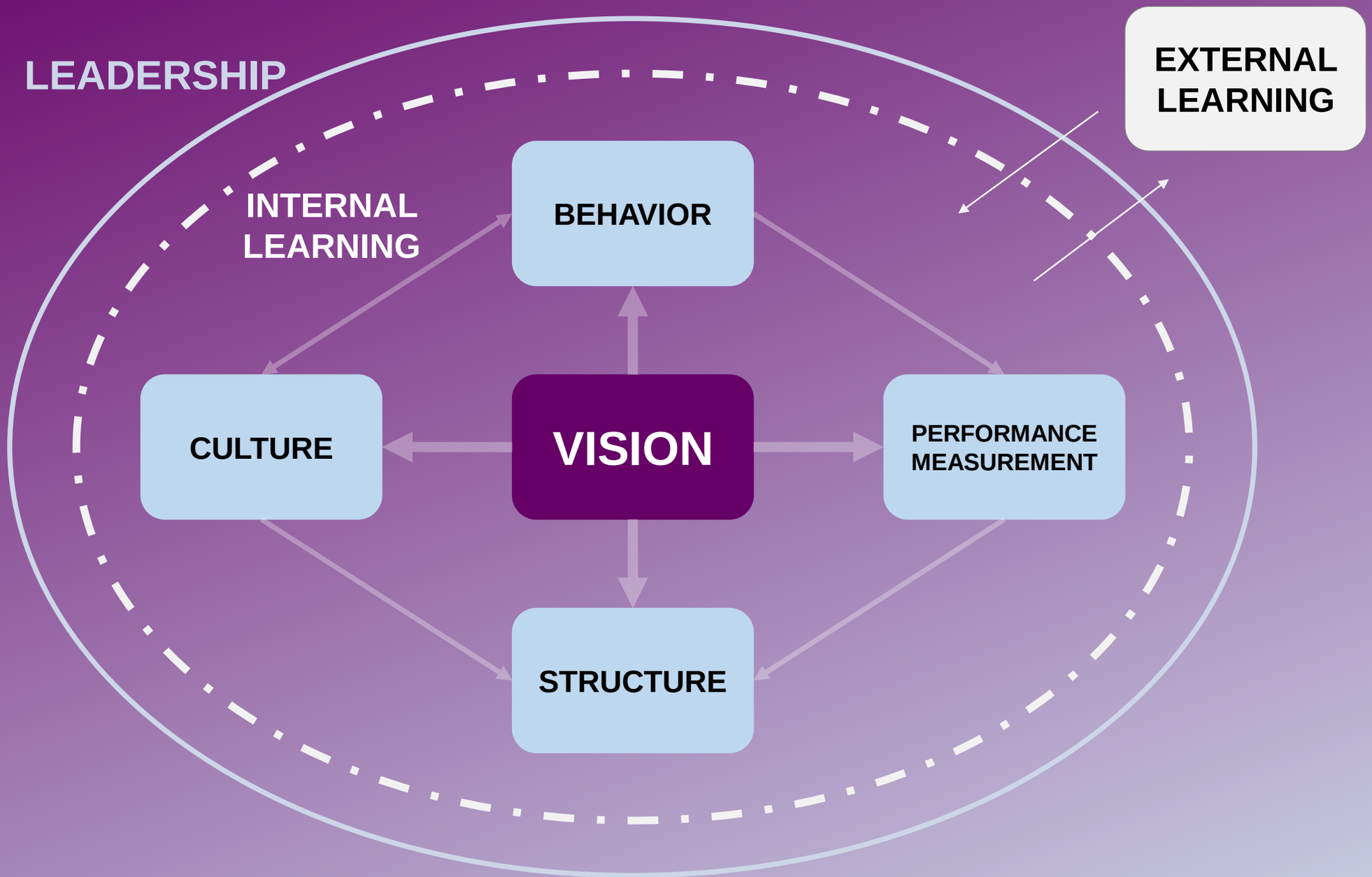
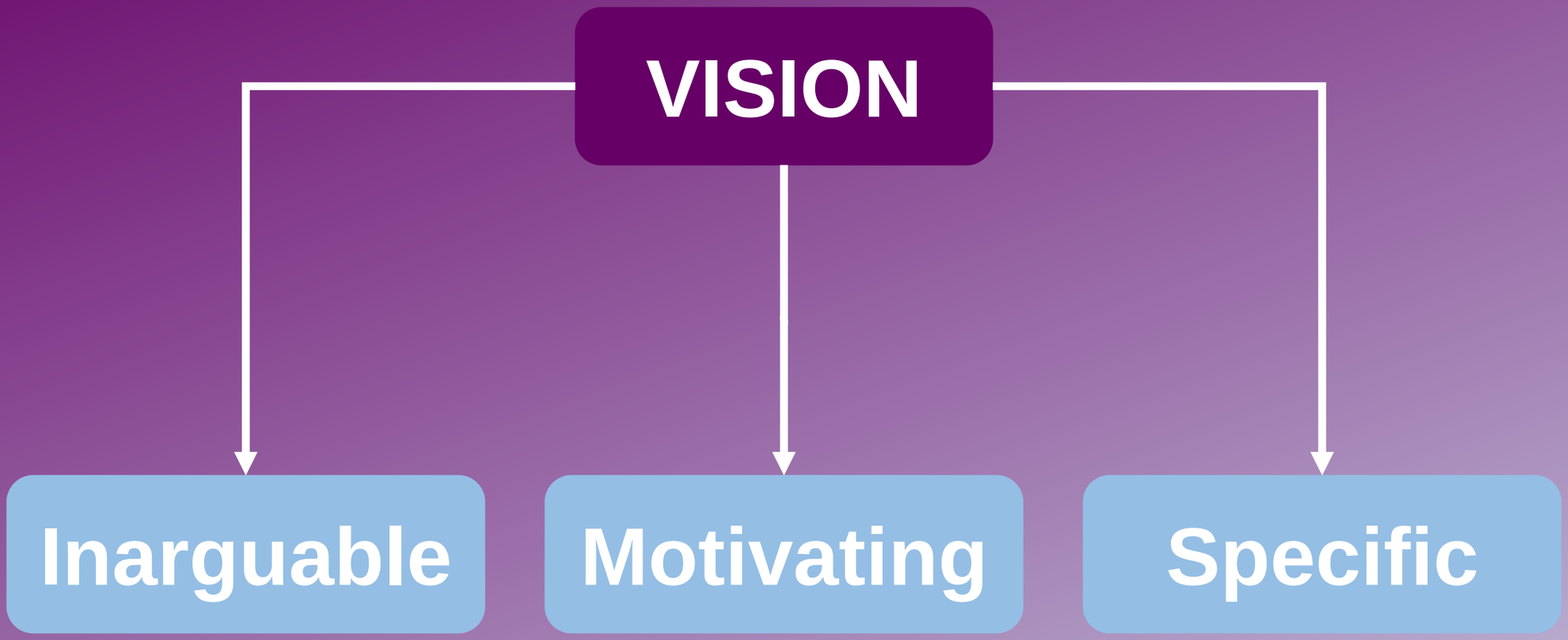
Framework

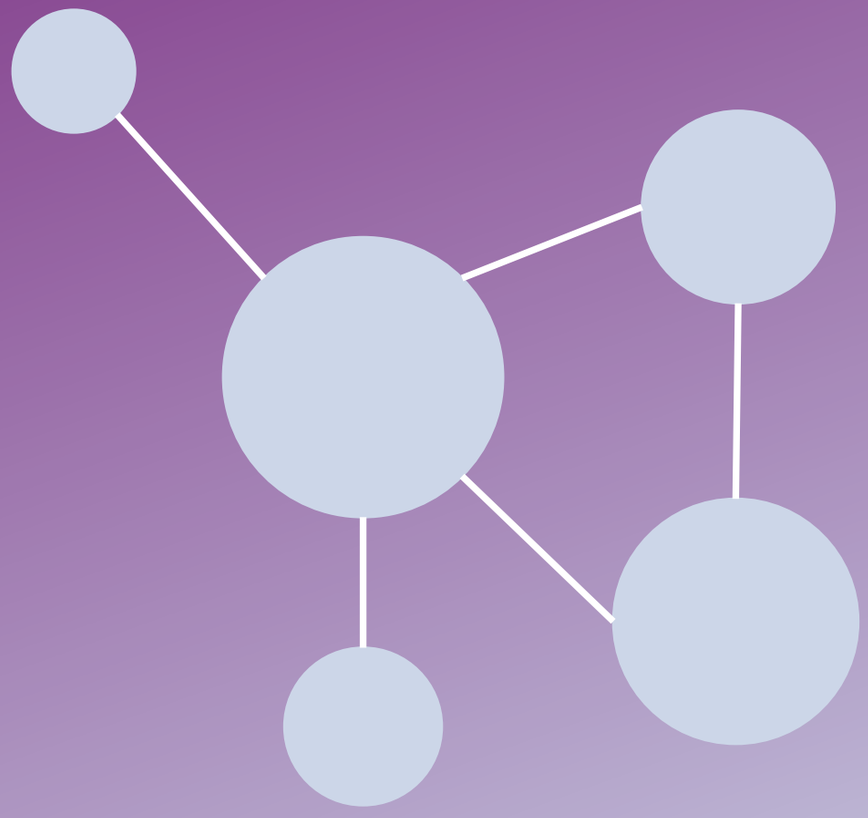


Clearly define your VISION/GREATER PURPOSE

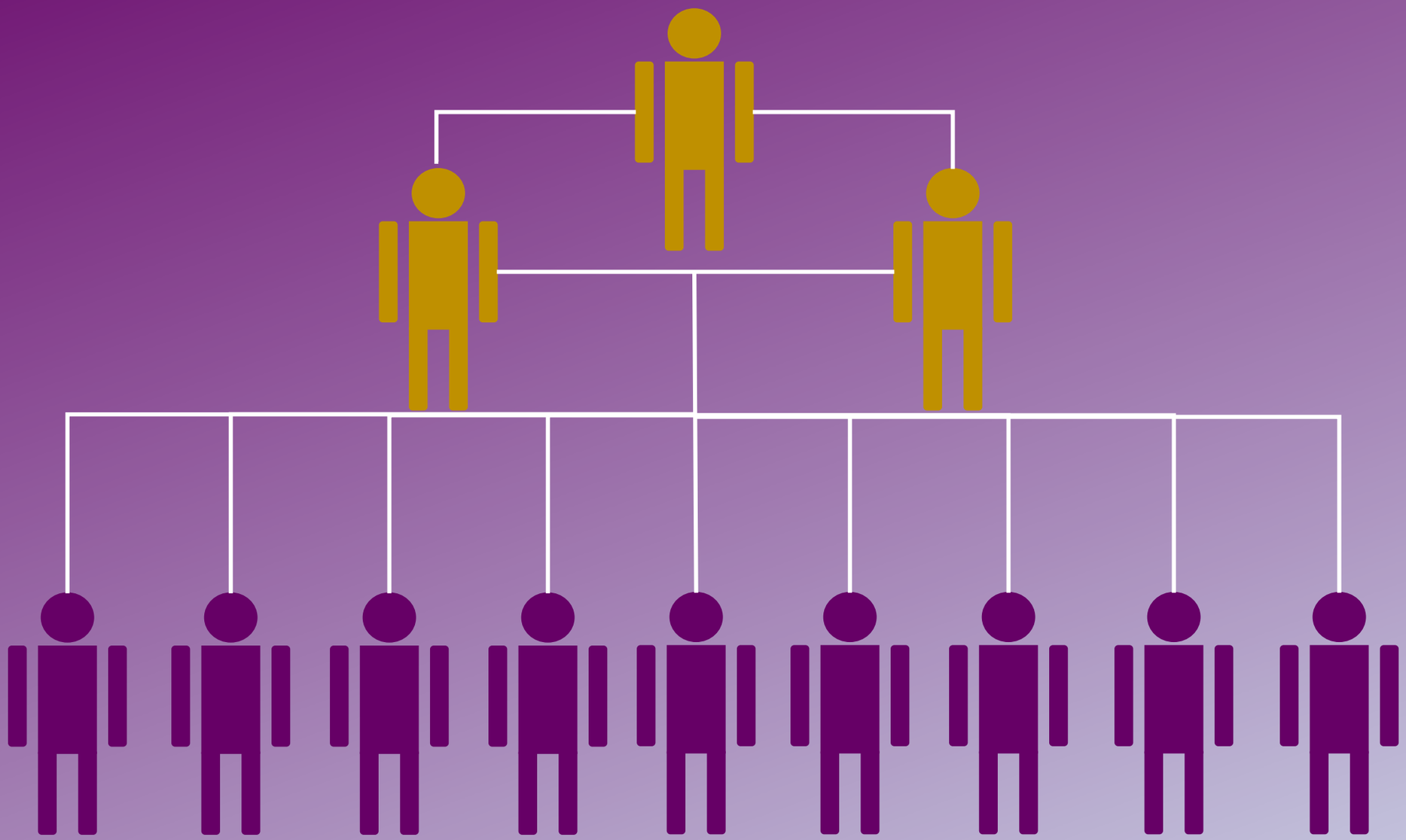


Understand your community's CURRENT CONDITION

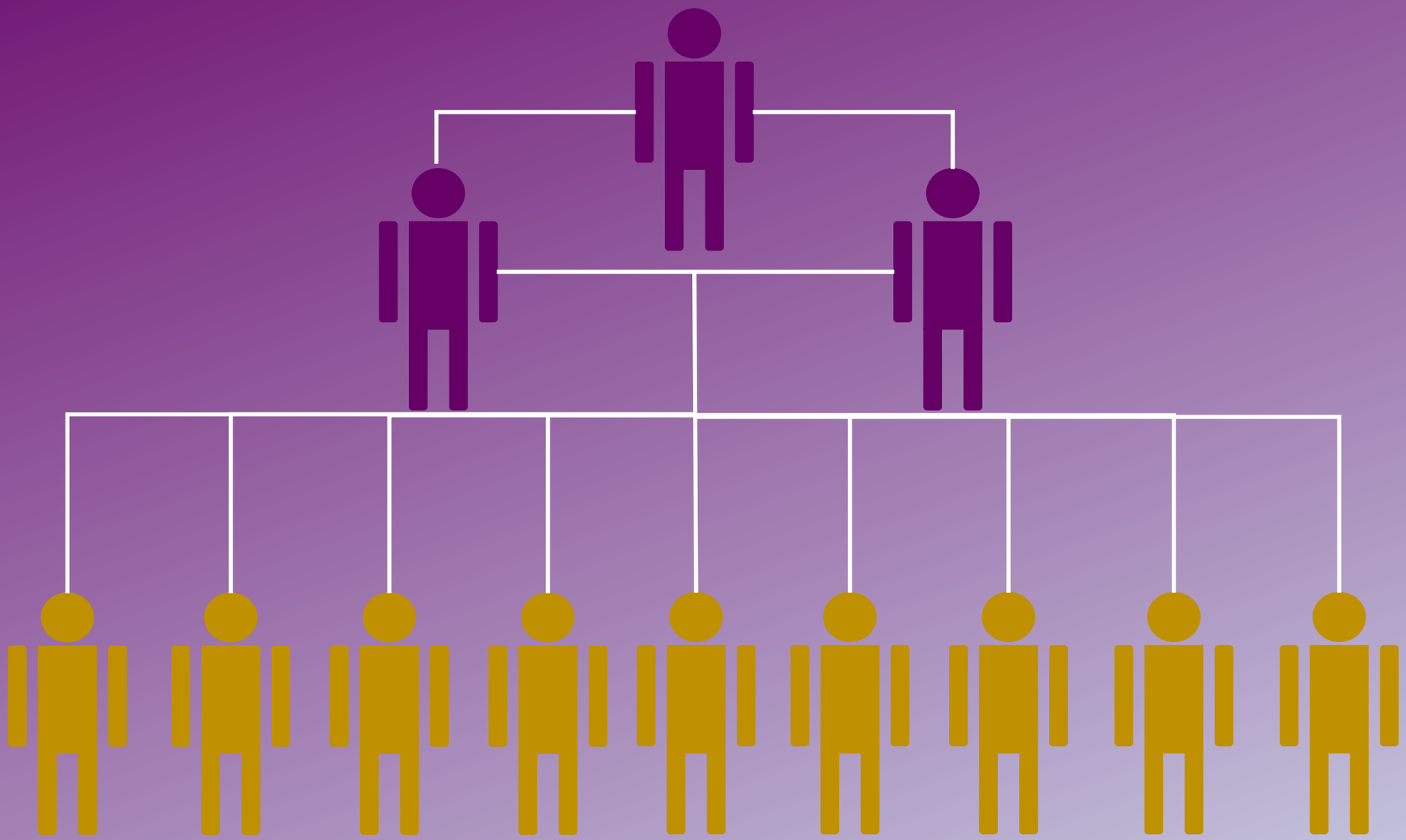
- Culture
- Economy
- Social Networks
- Power Structures
- Norms and Values
- History
- Current or Previous Overdose Experience



Identify the best LEADERSHIP for your coalition.

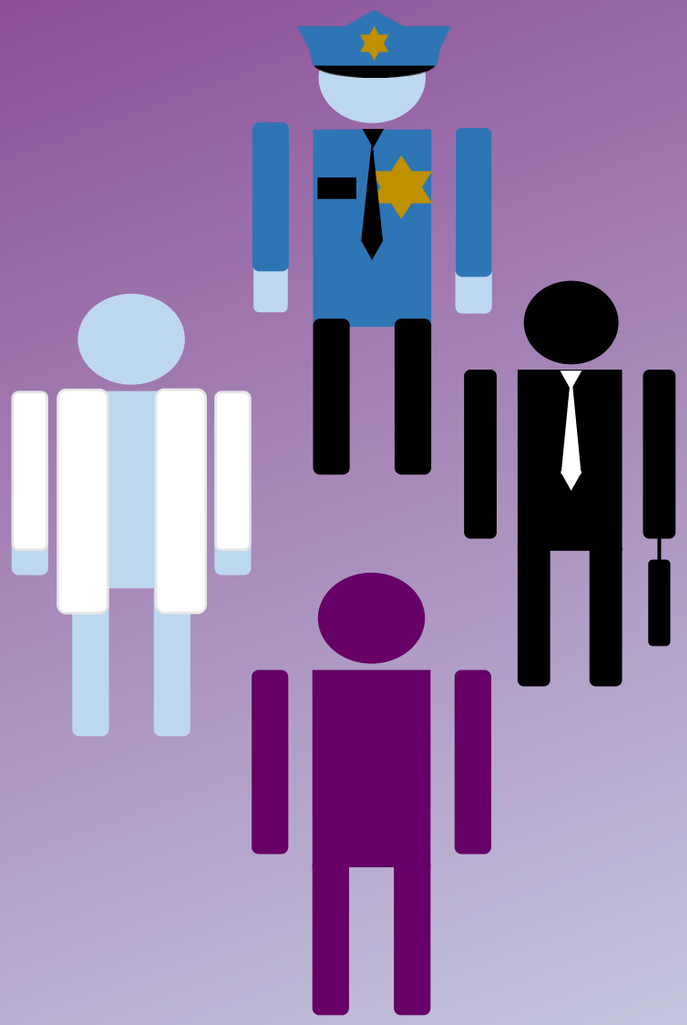


Identify the best coalition MEMBERS needed to achieve your Vision based on your community's Current Condition.



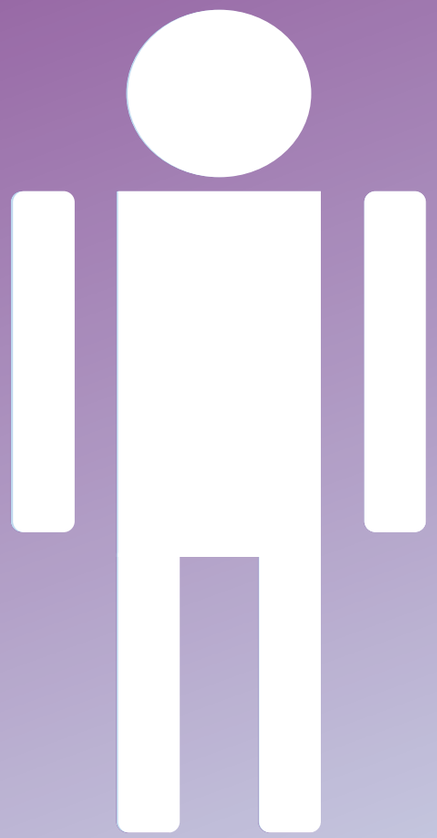
Examples of COALITION MEMBERS

- Representatives from Criminal Justice
- Police
- Healthcare Providers
- Single County Authorities
- Community Organizations
- Family Members
- Recovery Organizations
- Others



COALITION MEMBERS can change based on:

- **Participation**
- **Funding**
- **Healthcare Providers**



Role of the TECHNICAL ASSISTANCE CENTER – Assist Your Community to:

- Develop Vision
- Identify Leaders
- Develop Coalition
- Help Review Data
- Develop a Strategic Plan
- Identify Evidence-Based Practices
- Develop an Evaluation Plan
- Obtain Additional Resources
- Maintain a Healthy Coalition Culture

Additionally, the Technical Assistance Center will further develop OverdoseFreePA.org to provide more shared and individualized resources.

REFERENCES

1. Agency for Toxic Substance and Disease Registry. *Principles of Community Engagement.* Second Edition. June 2011. NIH. http://www.atsdr.cdc.gov/communityengagement/pdf/PCE_Report_508_FINAL.pdf

2. U.S. Department of Health and Human Services. *Opioid Abuse in the US and HHS Actions to Address Opioid-Drug R Overdoses and Deaths.* https://aspe.hhs.gov/basic-report/opioid-abuse-us-and-hhs-actions-address-opioid-drug-related-overdoses-and-deaths

3. Substance Abuse and Mental Health Services Administration. *Massachusetts Prevention Efforts Target Opioid Overdoses.* September 2015. http://www.samhsa.gov/capt/tools-learning-resources/massachusetts-prevention-targets-opioid-overdose

4. Project Lazarus. *Community-based Overdose Prevention and Opioid Safety with Community Care of North Carolina*

Thank You!

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Gathering Your Community Overdose Death Data

Dr. Karl Williams

Misconception #1

We know why people are dying today.

Reality

- About the fastest turnaround time for toxicology is a week.
- Complex cases can take months.
- Resolution of overdose cases often require knowledge of what was present at the scene of the death.

We know why people died yesterday, last month or last year.

A Question on Opioid Overdoses…

does the presence of morphine alone mean heroin contributed to death?

- **YES,** if morphine is present in the blood.

- **YES,** if morphine is present in urine **with** 6-MAM present in blood.

- **NO,** if morphine is **only** present in urine.

Case #1

Straight Forward

Case #1
What We Know About the Death

- 43 year old white male with known history of **“drug abuse”**
- Known to use **heroin** daily
- Found “down at home” by 21 year old daughter
- Daughter directs police to **syringe** in garbage
- Daughter states that **stamp bag for “Oxyclean”** was seen
- Down time: 1-30 minutes
- EMS transports patient to hospital; **resuscitation fails**

Case #1

What We Learn From the Toxicology Report

Positive for Fentanyl

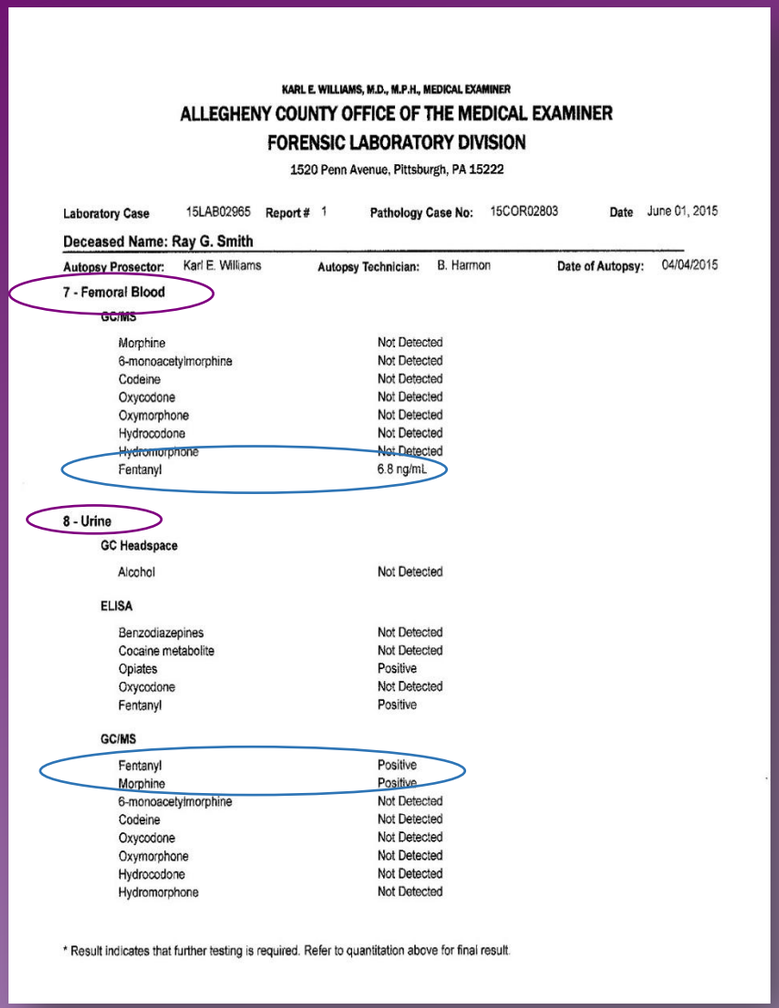
Femoral Blood

6.8 ng/ml

Positive for Fentanyl

Urine

Positive for Morphine



KARL E. WILLIAMS, M.D., M.P.H., MEDICAL EXAMINER

ALLEGHENY COUNTY OFFICE OF THE MEDICAL EXAMINER

FORENSIC LABORATORY DIVISION

1520 Penn Avenue, Pittsburgh, PA 15222

Laboratory Case 15LAB02965 **Report #** 1 **Pathology Case No:** 15COR02803 **Date** June 01, 2015

Deceased Name: Ray G. Smith

Autopsy Prosector: Karl E. Williams **Autopsy Technician:** B. Harmon **Date of Autopsy:** 04/04/2015

7 - Femoral Blood

GC/MS

Morphine	Not Detected
6-monoacetylmorphine	Not Detected
Codeine	Not Detected
Oxycodone	Not Detected
Oxymorphone	Not Detected
Hydrocodone	Not Detected
Hydromorphone	Not Detected
Fentanyl	6.8 ng/mL

8 - Urine

GC Headspace

Alcohol	Not Detected

ELISA

Benzodiazepines	Not Detected
Cocaine metabolite	Not Detected
Opiates	Positive
Oxycodone	Not Detected
Fentanyl	Positive

GC/MS

Fentanyl	Positive
Morphine	Positive
6-monoacetylmorphine	Not Detected
Codeine	Not Detected
Oxycodone	Not Detected
Oxymorphone	Not Detected
Hydrocodone	Not Detected
Hydromorphone	Not Detected

* Result indicates that further testing is required. Refer to quantitation above for final result.

Case #1

Daily **“heroin”** use

Day before death dealer provided him with his usual heroin

Day of death dealer supplied **different** stamp bag

Morphine in urine most likely represents end of metabolism from day before

Fentanyl in blood is the drug that resulted in death

Case #2
Complex

Case #2

Cannabinoids a contributor?

Not now if it represents smoked marijuana, but possible in the future with synthetics.

Westmoreland County Coroner's Office
Attn: Kenneth A. Bacha
2503 S. Grande Blvd
Greensburg, PA 15601

Positive Findings:

Compound	Result	Units	Matrix Source
Ethanol	315	mg/dL	001 - Blood
Blood Alcohol Concentration (BAC)	0.315	g/100 mL	001 - Blood
Cotinine	Positive	ng/mL	001 - Blood
Alprazolam	20	ng/mL	001 - Blood
Delta-9 THC	4.2	ng/mL	001 - Blood
Delta-9 Carboxy THC	13	ng/mL	001 - Blood
Clozapine	610	ng/mL	001 - Blood
Norclozapine	860	ng/mL	001 - Blood
Tramadol	500	ng/mL	001 - Blood
O-Desmethyltramadol	160	ng/mL	001 - Blood
Trazodone	0.15	mcg/mL	001 - Blood
Benzodiazepines	Presump Pos	ng/mL	003 - Urine
Cannabinoids	Presump Pos	ng/mL	003 - Urine

See Detailed Findings section for additional information

Testing Requested:

Analysis Code	Description
8050U	Postmortem Toxicology - Urine Screen Add-on (6-MAM Quantification only)
8052B	Postmortem Toxicology - Expanded, Blood (Forensic)

Tests Not Performed:

Part or all of the requested testing was unable to be performed. Refer to the **Analysis Summary and Reporting Limits** section for details.

Specimens Received:

ID	Tube/Container	Volume/ Mass	Collection Date/Time	Matrix Source	Miscellaneous Information
001	Gray Top Tube	9.5 mL	10/11/2014 13:00	Blood	
002	Gray Top Tube	9.25 mL	10/11/2014 13:00	Blood	
003	Red Top Tube	9 mL	10/11/2014 13:00	Urine	
004	Red Top Tube	8.75 mL	10/11/2014 13:00	Bile	

Case #2

Positive Findings:

Compound	Result	Units	Matrix Source
Lorazepam	71	ng/mL	001 - Peripheral Blood
Clonazepam	4.1	ng/mL	001 - Peripheral Blood
7-Amino Clonazepam	76	ng/mL	001 - Peripheral Blood
Oxycodone - Free	600	ng/mL	001 - Peripheral Blood
Oxymorphone - Free	1.5	ng/mL	001 - Peripheral Blood
Quetiapine	190	ng/mL	001 - Peripheral Blood
Fluoxetine	270	ng/mL	001 - Peripheral Blood
Norfluoxetine	530	ng/mL	001 - Peripheral Blood
Trazodone	0.10	mcg/mL	001 - Peripheral Blood
Opiates	Presump Pos	ng/mL	003 - Urine
Benzodiazepines	Presump Pos	ng/mL	003 - Urine
Oxycodone	Presump Pos	ng/mL	003 - Urine

See Detailed Findings section for additional information

Testing Requested:

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Tests Not Performed:

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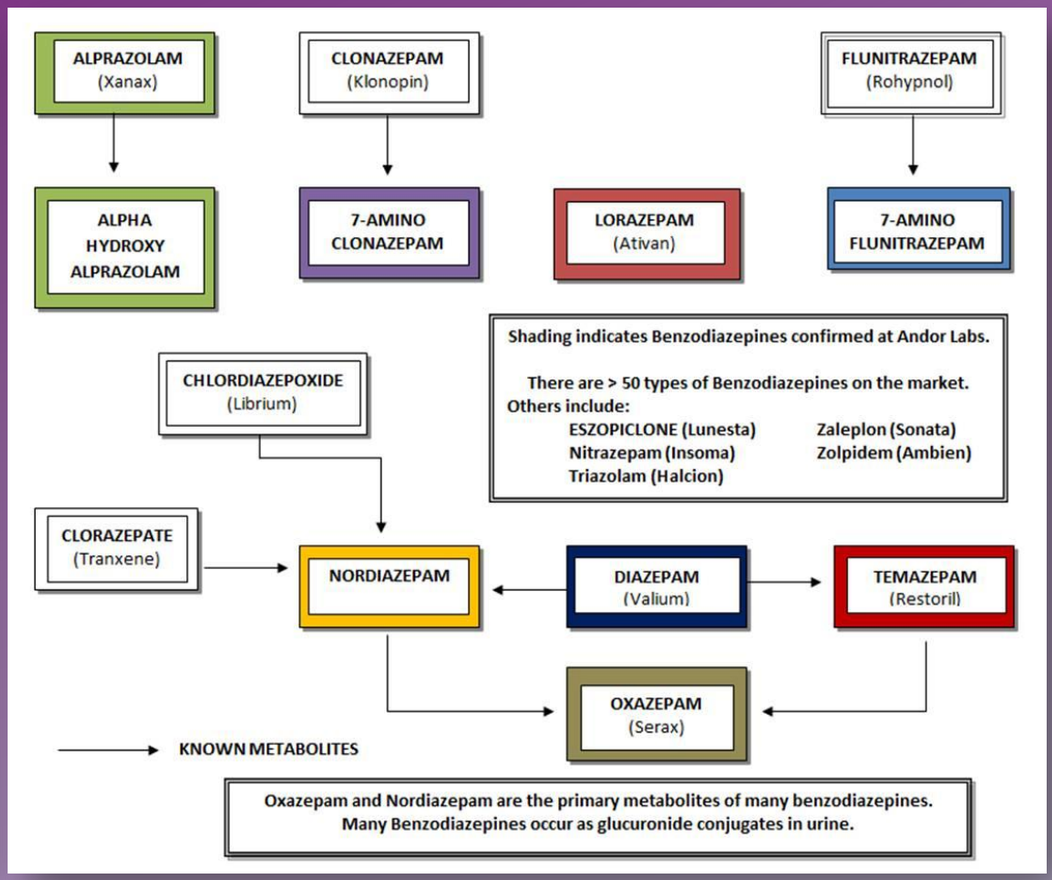
Specimens Received:

ID	Tube/Container	Volume/ Mass	Collection Date/Time	Matrix Source	Miscellaneous Information
001	Gray Top Tube	8 mL	11/17/2014 16:00	Peripheral Blood	
002	Gray Top Tube	7 mL	11/17/2014 16:00	Peripheral Blood	
003	Red Top Tube	9.75 mL	11/17/2014 16:00	Urine	
004	Red Top Tube	5 mL	11/17/2014 16:00	Bile	

v.13



Misconception #2

We can rely on some high degree of uniform reporting between various agencies (Coroner/ME) dealing with drug overdose death.

Reality

- There is enormous variation in training between coroners (especially elected) and medical examiners on drug effects, metabolism and re-distribution.
- There can even be significant variation between Medical Examiner offices.

There is no "Gold Standard" or even Standard Operating Procedure for analyzing and reporting drug overdoses.

Reality

The arena of drug overdoses is evolving rapidly.

- Consider the **cannabinoids** – rapidly changing molecular configuration with increasing toxic side effects.
- Few were evaluated as primary overdose drug.
- New configurations of **stimulants** are discovered daily.

Misconception #3

We can rely on some high degree of uniform reporting with overdose **survivors.**

Reality

- Few hospital labs have the capabilities of forensic laboratories.
- Until recently, most hospitals would screen blood and urine and treat symptomatically.
- Full forensic toxicology is complex and expensive.

"Overdoses that survive wind up in Emergency Departments.

Misconception #4

This is only a concern at the national level.

Reality

The overdose crisis happens at a local level.

- Documenting overdoses needs to happen at the most granular level possible.
- Efforts to combat overdoses need to happen locally and depend on this up-to-date granular data.
- Recognizing the importance of the local level allows for optimal cooperation between law enforcement and community groups.

Other Issues

- The advantage of having a Toxicology Laboratory and Drug Chemistry section under the same roof and part of the same Laboratory Information System – ACOME

- The independent Forensic Laboratory

Developing a Strategic Plan to Address Overdoses Within Your Community

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Steps to Developing your Strategic Plan

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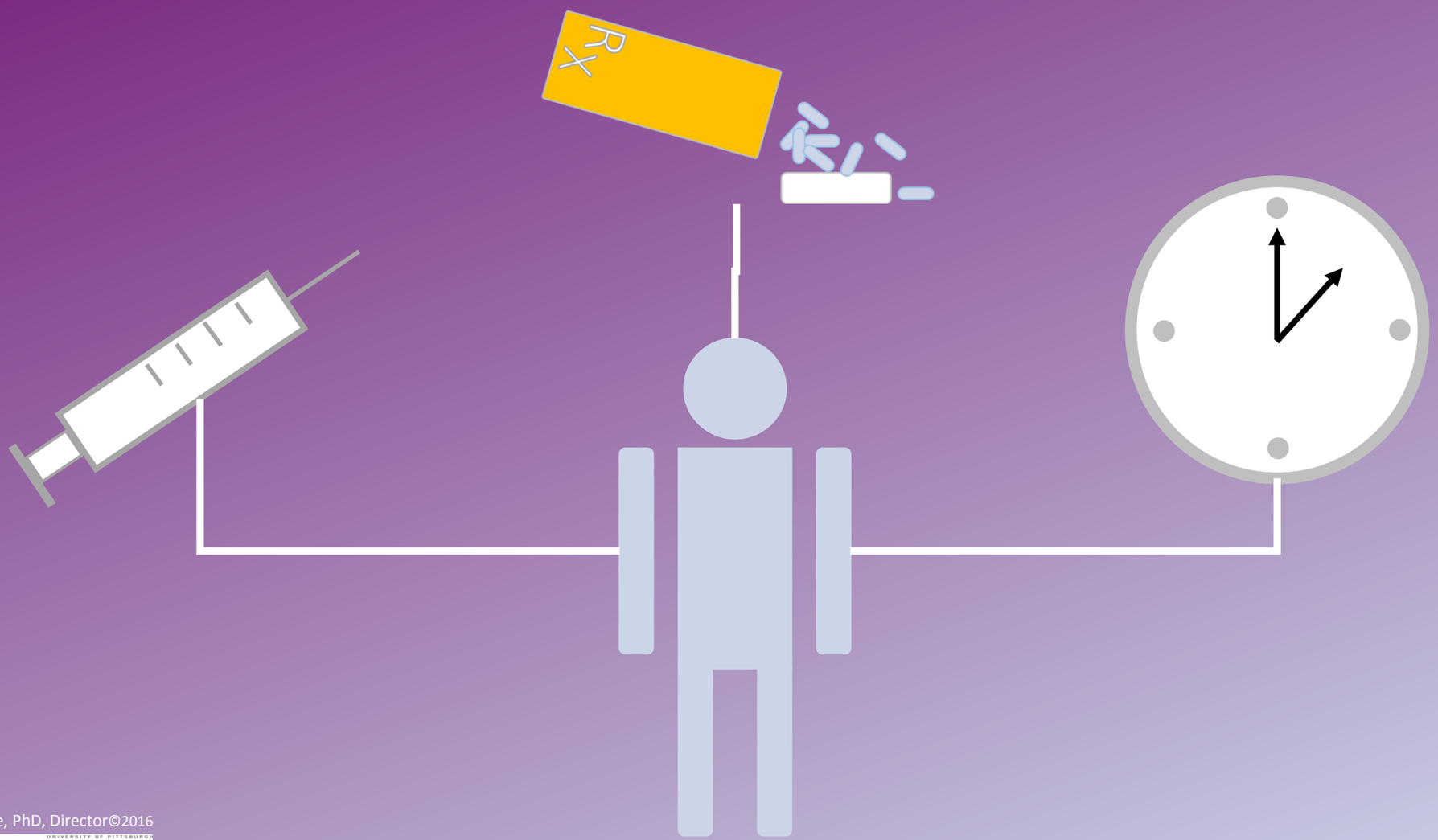
FIRST: Define the outcome you want to impact as specifically as possible based on your data.

SECOND: Use your data or literature to describe the HOW, WHERE, WHAT and WHEN your target population uses opioids associated with overdose.



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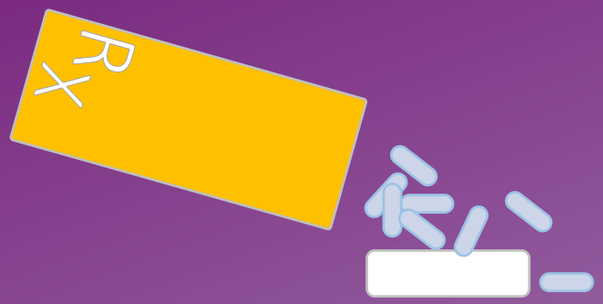
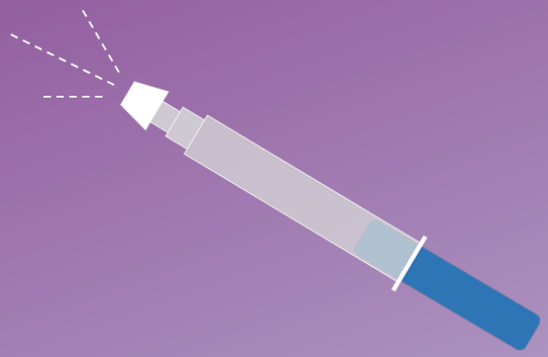
THIRD: Use your data or literature to determine the FACTORS that are associated with increasing or reducing the target population's opioid use or death.

FOURTH: Determine the Evidence-Based Practices that could theoretically reduce your targets opioid associated outcome.

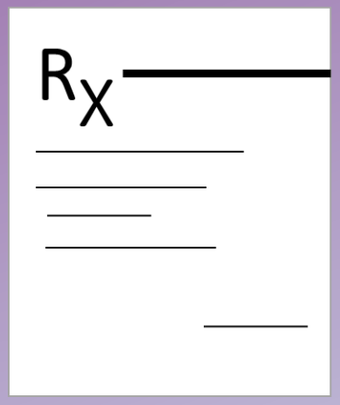


Prescription Drug Monitoring Programs (PDMPs)

Medication Assisted Treatment



Naloxone Availability

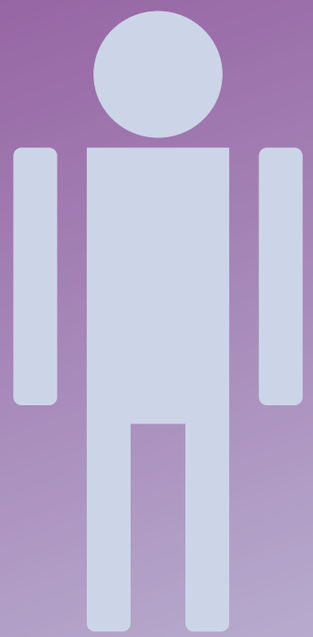


Opioid Prescription Practices

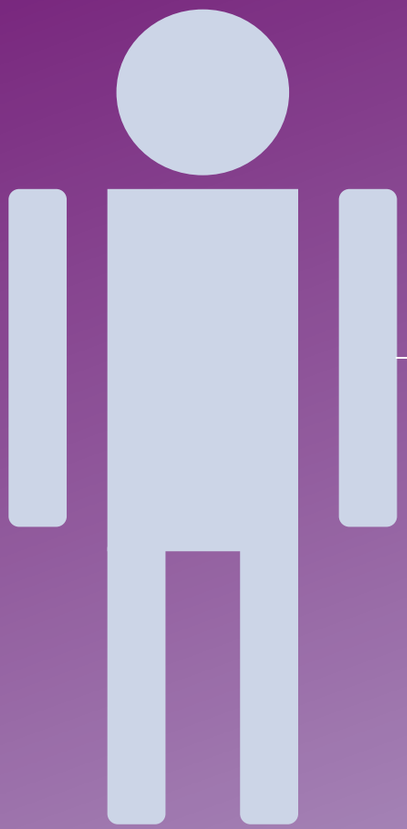
EXAMPLE

OUTCOME

Reduce overdoses and overdose deaths among people aged 18-24.



HOW, WHAT, WHERE, WHEN



- Opioid use starts in high school.
- Heroin users tend to use opioids first.
- Most overdoses involve heroin, opioids, alcohol and marijuana.
- Youth overdoses end in Emergency Departments.
- Probable previous experience with SUD or mental health treatment.
- Probable previous experience in juvenile justice system.
- Unstable living or housing situation; usually have children.

INTERVENING FACTORS

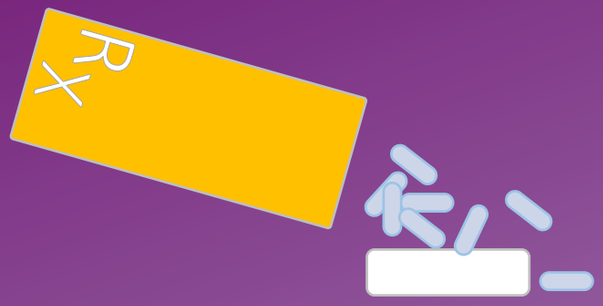
- Prescribers not using PDMPs

- Low Naloxone Availability

- Youth not identified by systems (school, criminal justice, physicians, etc.)

- Little to no access to MAT, SUD treatment and recovery services

EVIDENCE-BASED PRACTICES



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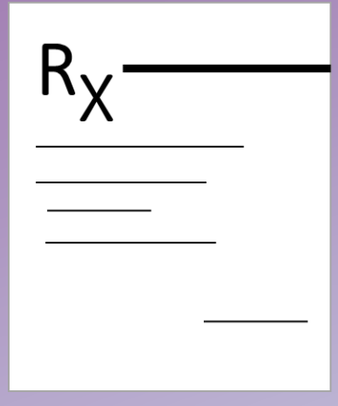

Opioid Prescription Practices

How do you choose your Evidence-Based Practices and Implementation Time Frames?

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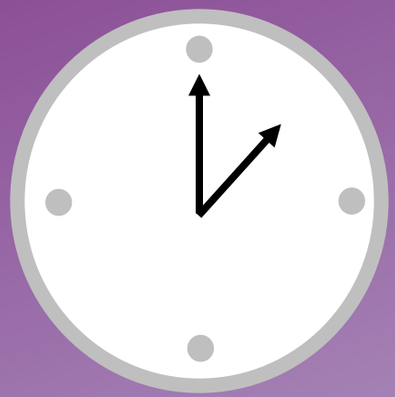
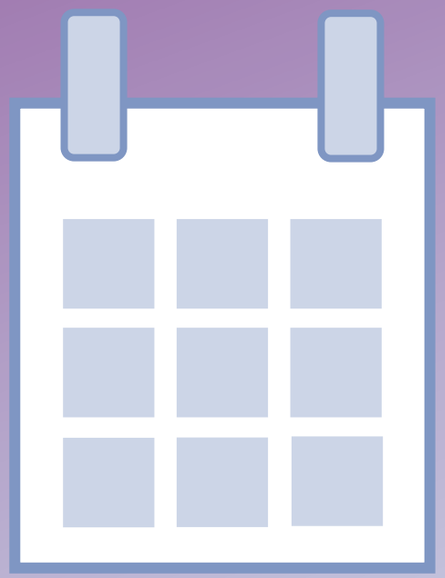
Match selected EVIDENCE-BASED PRACTICES with TIME FRAMES that allow quick implementation and high effectiveness.

- This Year?



- Within Two Years?

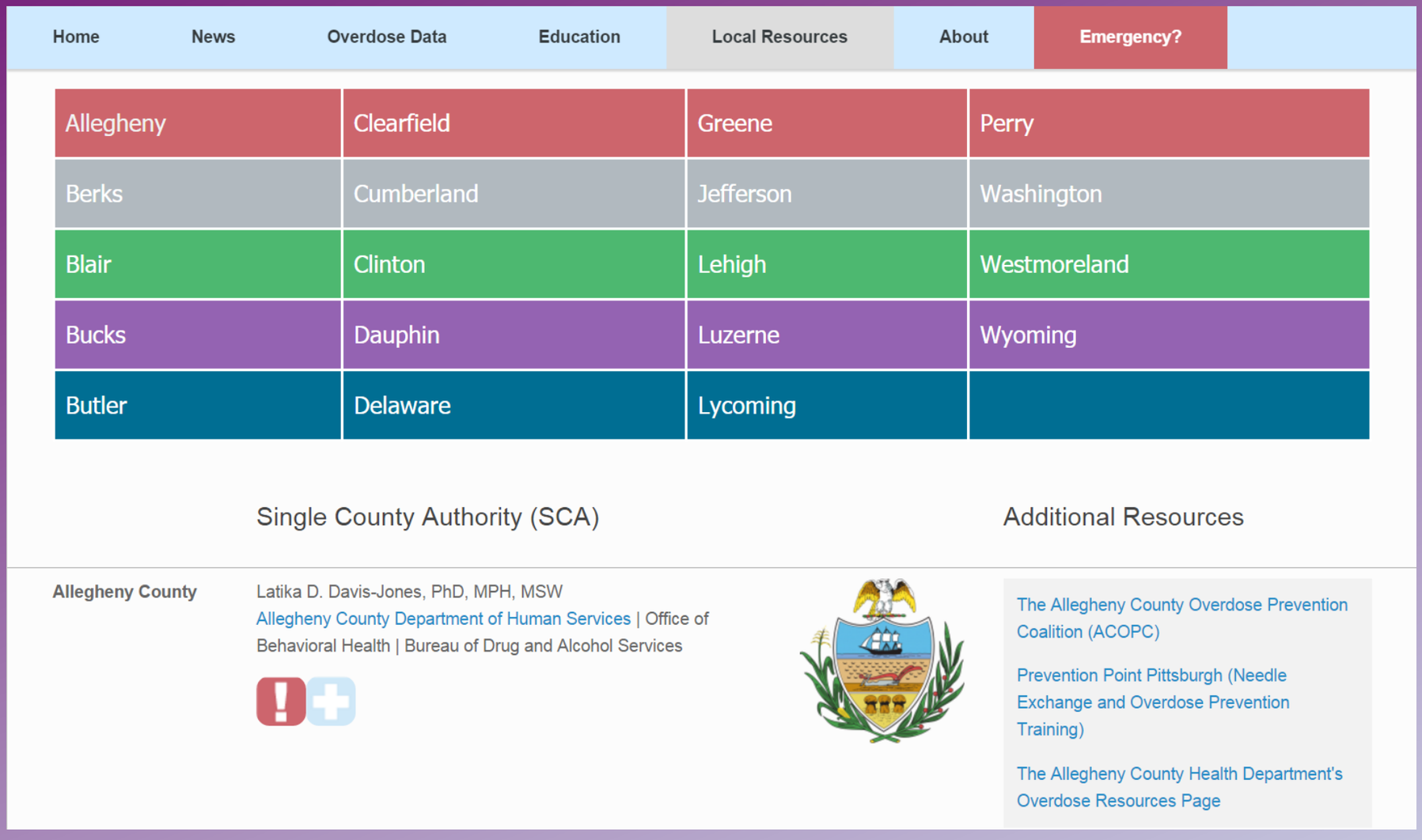


- Longer?

Determine how you will EVALUATE your plan once implemented.

The Technical Assistance Center will help you develop your strategic and evaluation plans via an individualized concierge service.

OverdoseFreePA.org will contain a list of potential practices, relevant resources, strategic plans, and evaluation results reflecting the work of participating communities.



Thank You!

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