



JCOIN Justice Community
Opioid Innovation Network

Alliances to Disseminate Addiction Prevention and Treatment (**ADAPT**):

A Statewide Learning Health System to Reduce Substance Use among Justice Involved Youth in Rural Communities

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Outline

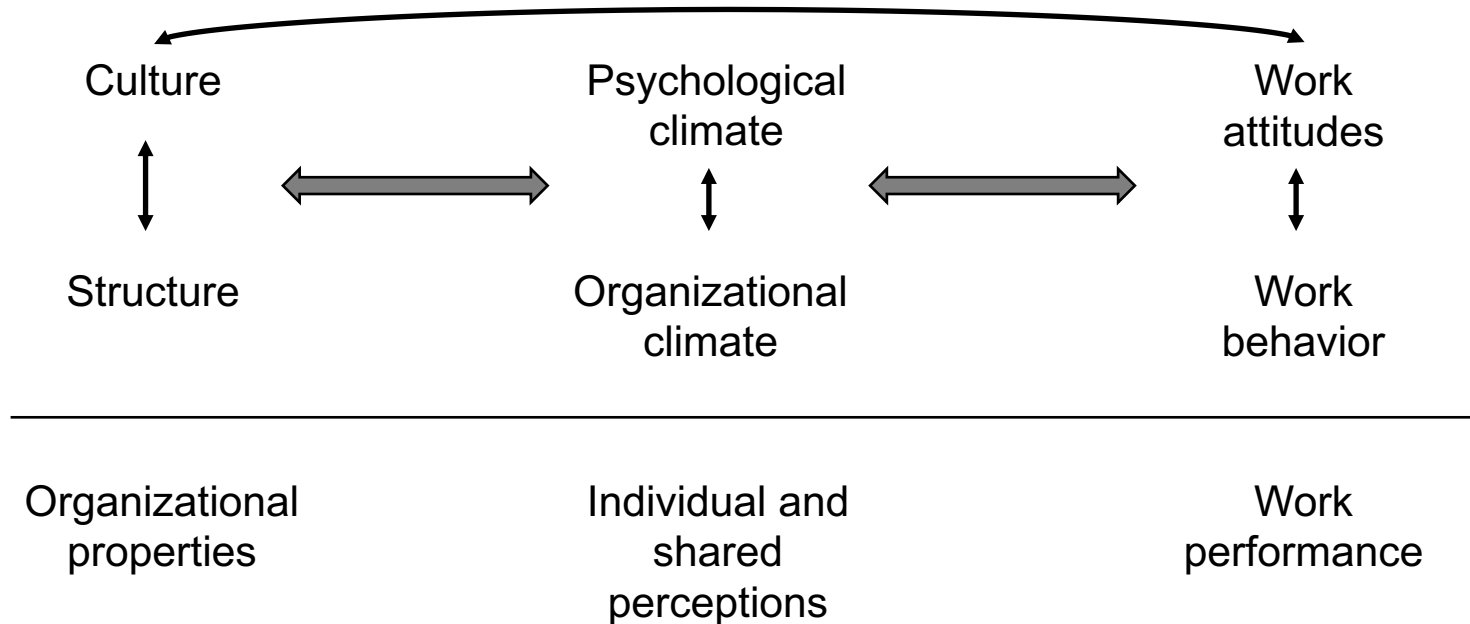
- Topic: Cross-system collaboration and implementation
- Population: Youth involved in the justice system
- NIH Effort: JCOIN initiative
- Project: ADAPT
 - Learning health system
 - Examples of linked data for Cascade improvement



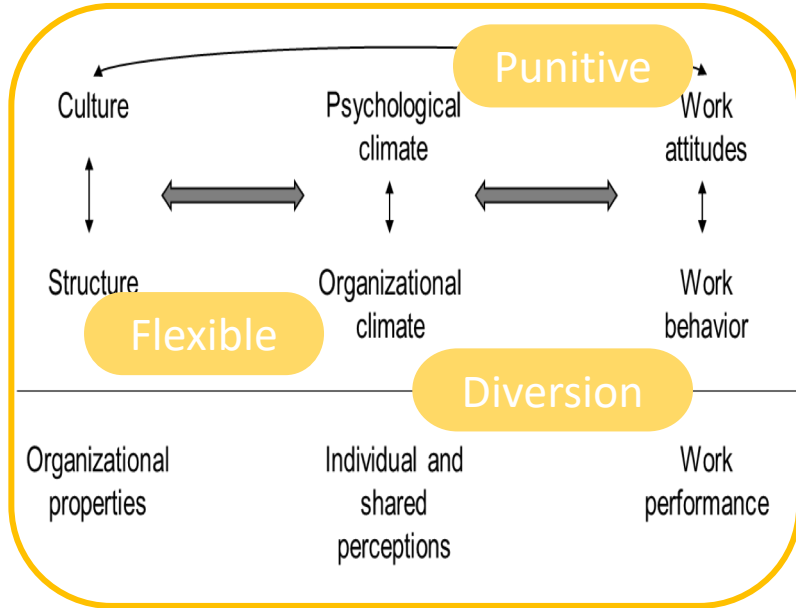




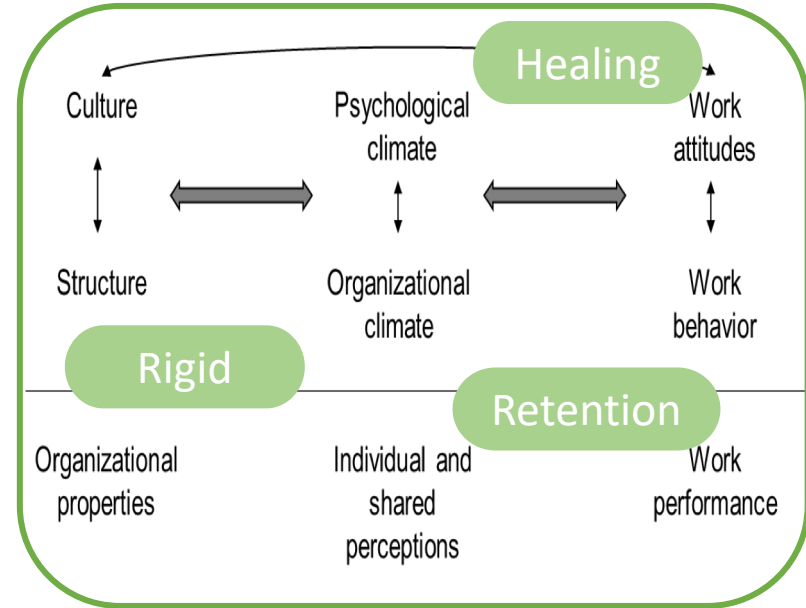
Model of Organizational Social Context



Juvenile Justice System



Behavioral Health System

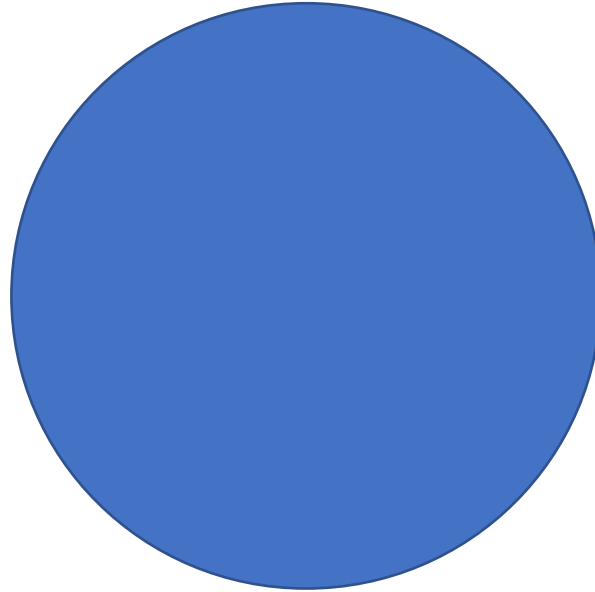


Juvenile In-Justice - Richard and Leela Cyd Ross



Juvenile Justice Structure

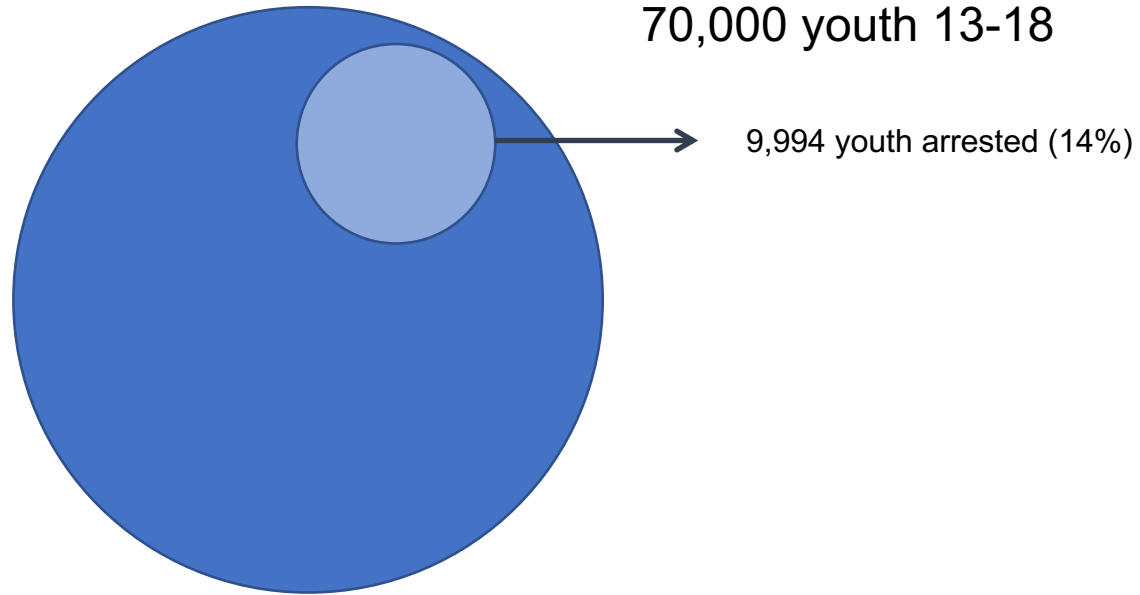
- Delinquent youth in Marion County



70,000 youth 13-18

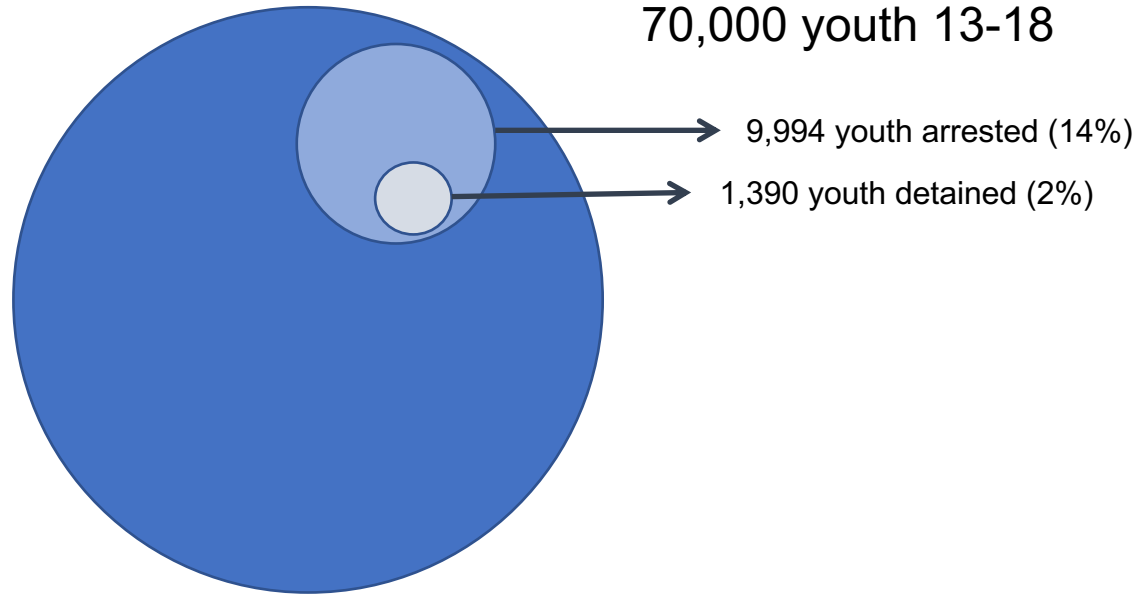
Juvenile Justice Structure

- Delinquent youth in Marion County



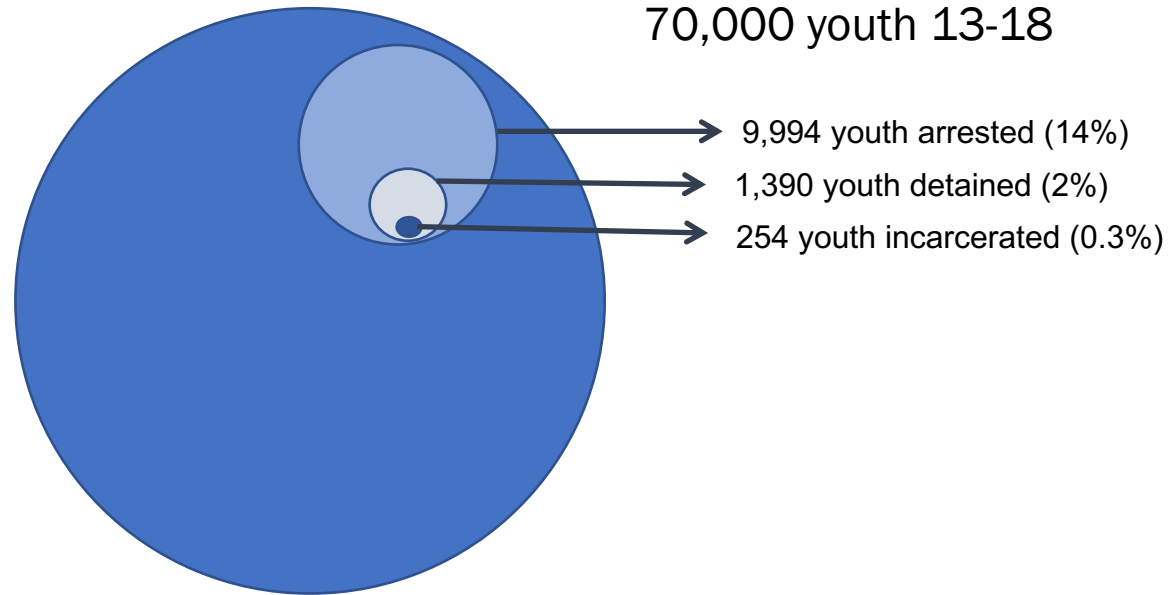
Juvenile Justice Structure

- Delinquent youth in Marion County



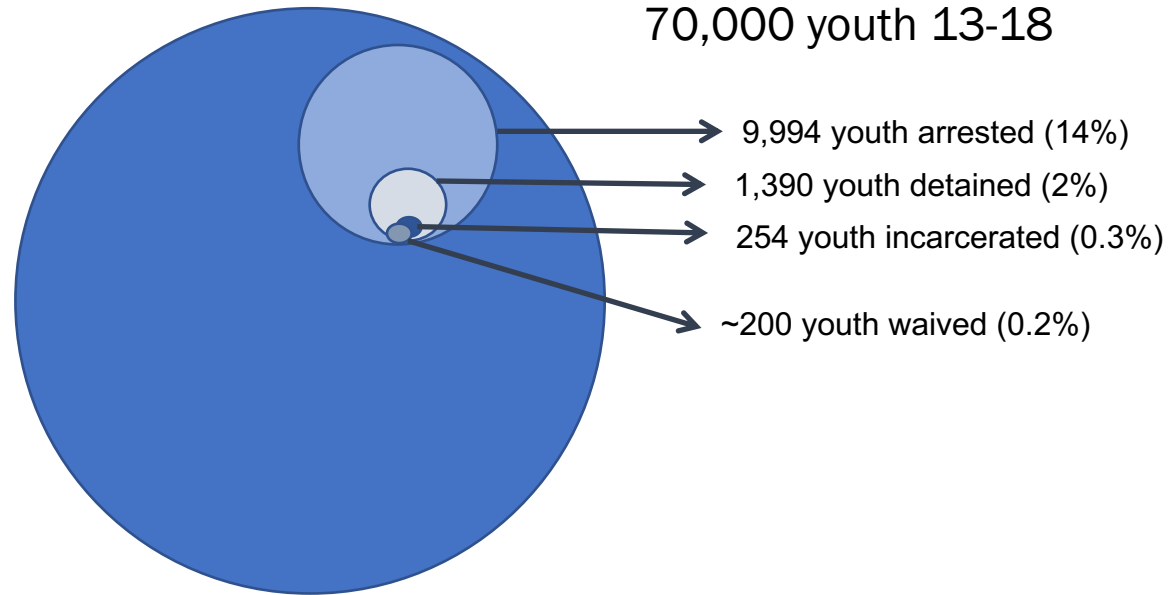
Juvenile Justice Structure

- Delinquent youth in Marion County

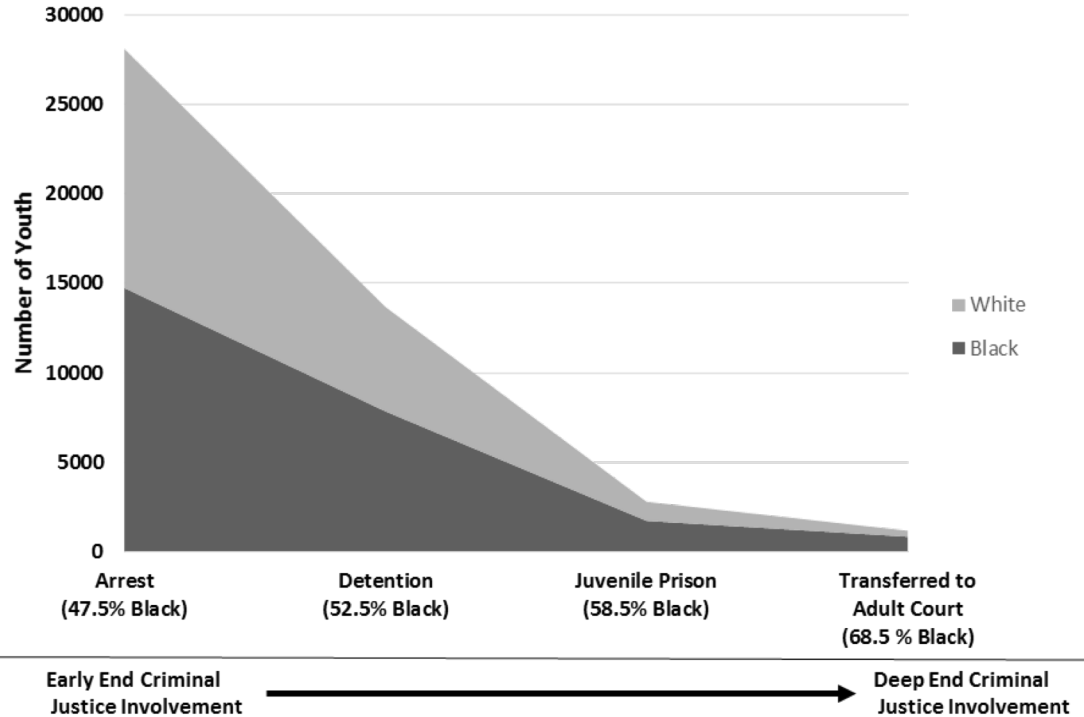


Juvenile Justice Structure

- Delinquent youth in Marion County



Disproportionate Minority Contact at Justice System Transitions



Substance Use of Detained Youth

- Detained youth
 - ~ 50% of detained youth meet criteria for a substance use disorder
 - ~10% have a comorbid mental health and substance use disorder
- Youth in general population
 - ~10% meet criteria for substance use disorder
- Generally, treatment for adolescents with SUDs has been found to be effective for reducing SU
- However, very few youth in criminal justice system utilize services
- SUD is a consistent predictor of recidivism



Indiana and Substance Use Treatment

Opioid crisis

- Indiana has 14th highest rate of drug overdose
- More than 60% overdoses attributed to opioids
- Rural jurisdictions have highest rates

Indiana is 46th worst for access to behavioral health/addiction care

- Rural counties lack workforce development



Justice Community Opioid Innovation Network (JCOIN)

Lori Ducharme, Ph.D.
JCOIN Science Officer
National Institute on Drug Abuse

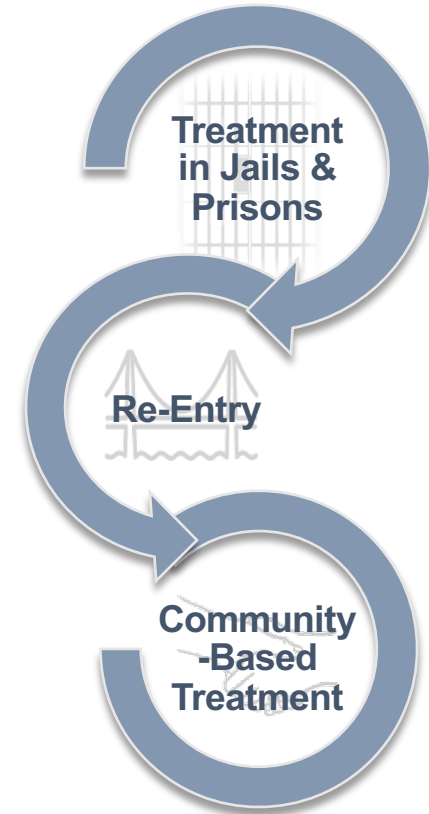
<https://heal.nih.gov/research/research-to-practice/jcoin>



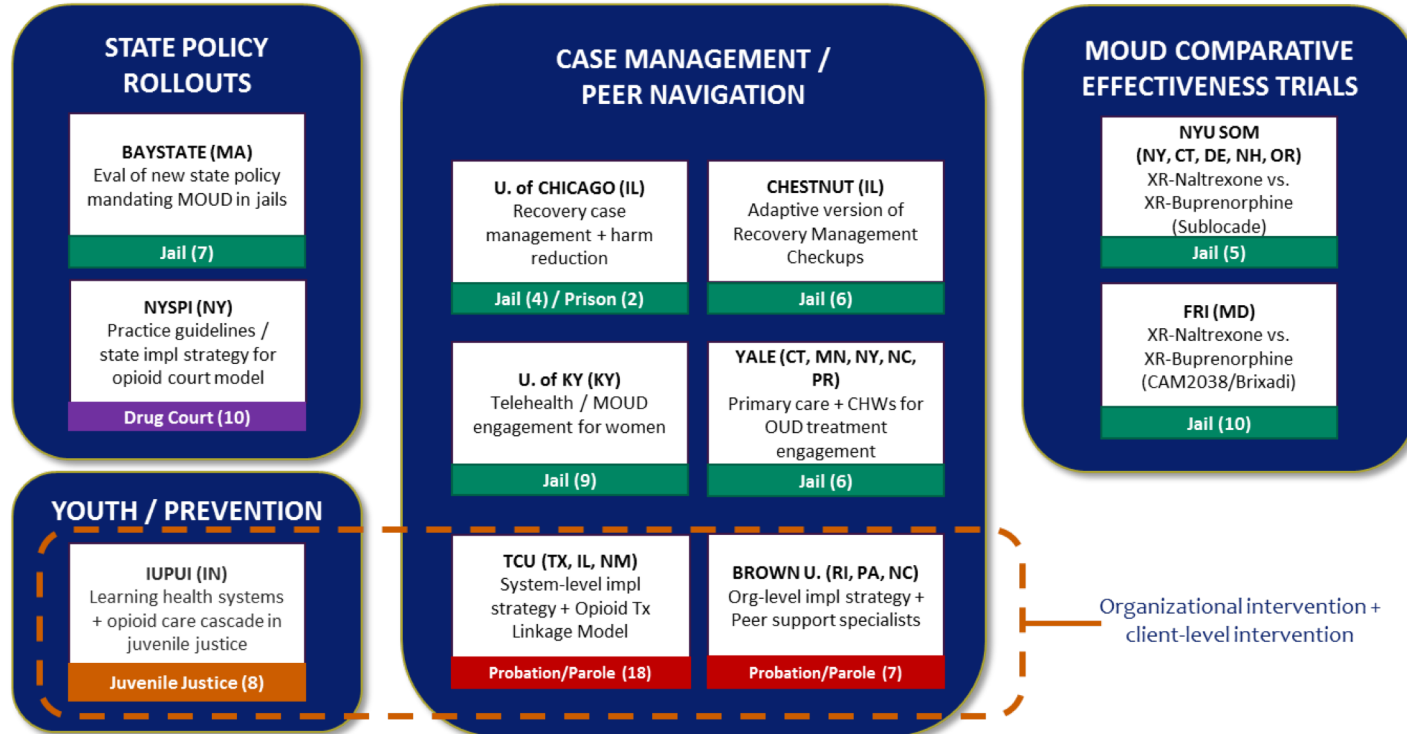
Justice System Responses to the Opioid Crisis

Missed Opportunities to Improve Public Health & Public Safety

- **>10M arrested & 2M incarcerated annually**
- **17-19%** of inmates have used opioids; **< 1%** receive MOUD
- **<5%** of jails offer MOUD to inmates
- **13x** risk of dying of a drug overdose during re-entry
- MOUD during incarceration cuts mortality by up to 75%
- **95% return to community; 4.7M on probation or parole**
- Justice-referred patients are **~1/10** as likely to receive MOUD
- Many drug courts or probation officers prohibit MOUD



JCOIN Hubs: Protocols and Themes



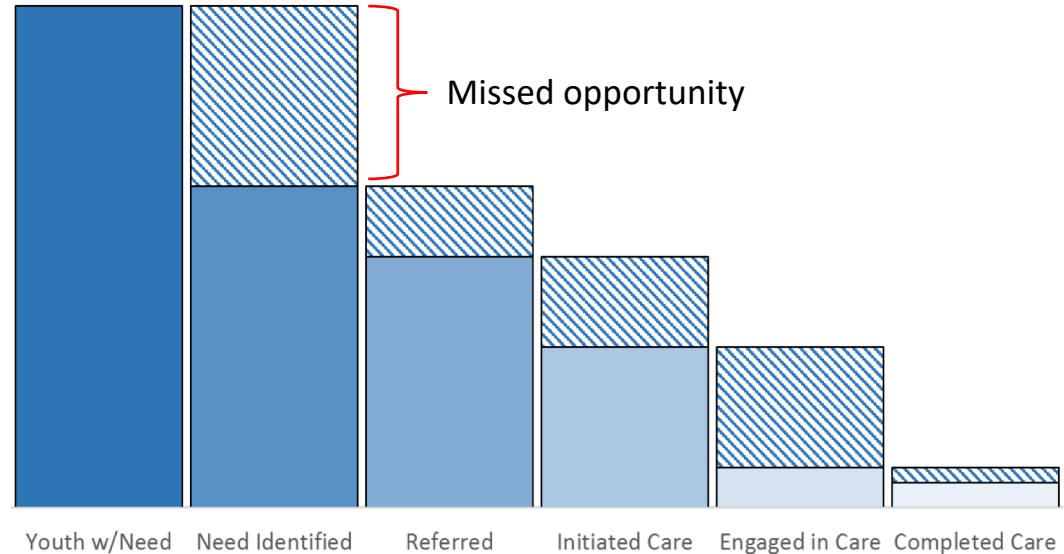
Alliances to Disseminate Addiction Prevention and Treatment (ADAPT)

A Statewide Learning Health System to Reduce Substance Use among Justice-Involved Youth in Rural Communities



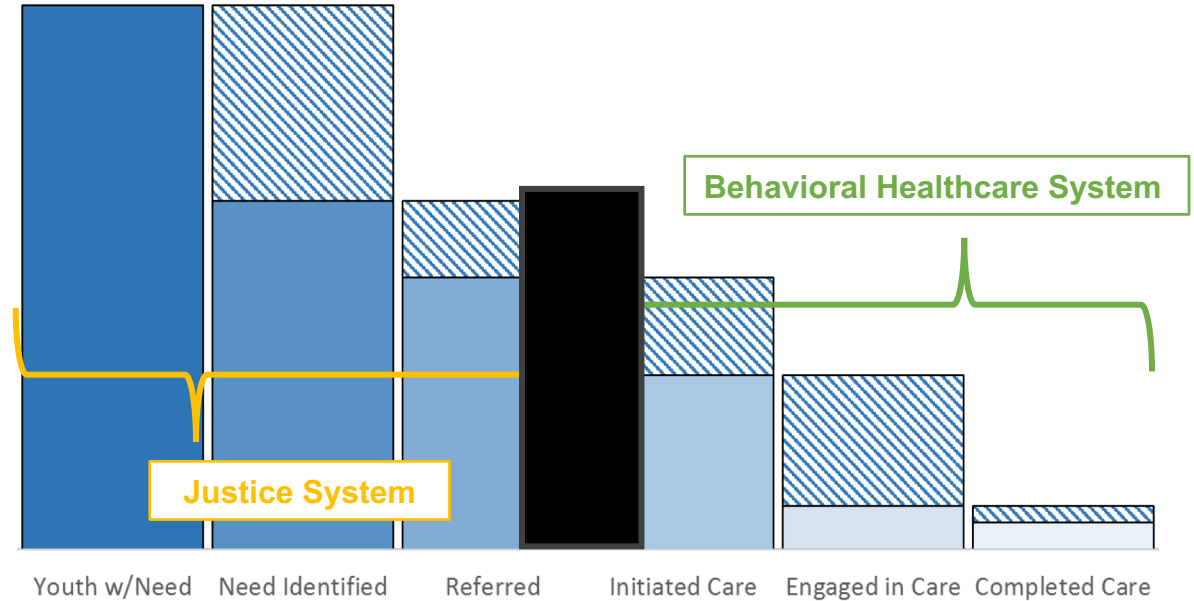
ADAPT Purpose: Improve the Substance Use Disorder Care Cascade

Justice-Involved youth who need evidence-based (i.e., quality) addiction services are not getting access to or completing care



Substance Use Disorder Care Cascade:

Justice-involved individuals navigate between two systems of care, but it is unclear which is responsible for the handoff



Existing Biases → Polarized JJ and CMHC Agencies

- JJ representatives report that CMHCs don't hold clients accountable and are too "soft" with the evidence-based recovery approach
- CMHC representatives report the JJ system is too punitive for adolescents in need of treatment, even though JJ may be trying to incorporate treatment



Pilot Data – Individual & Shared Perceptions

Juvenile Justice

- Reported readiness to implement screening practices (ORIC Mean = 4.1)
- Organization focused on providing EBP services (Focus on EBP Mean = 4.5)
- Expressed worry that CMHC would not have capacity to take referrals

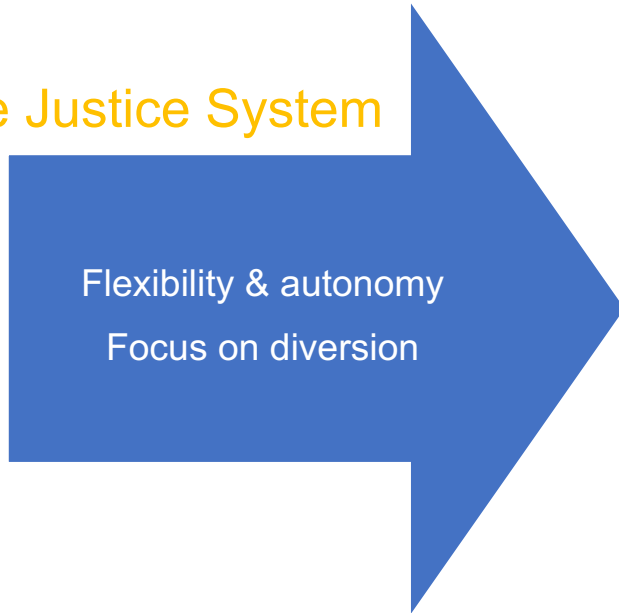
Community Mental Health

- High sense of focus on EBP (Mean = 4.1) and sense that organization was ready to implement EBP (Mean = 4.0)
- Therapist worries about time
- Case manager excitement about being involved in more clinical work, administrator excitement about utilizing case manager time

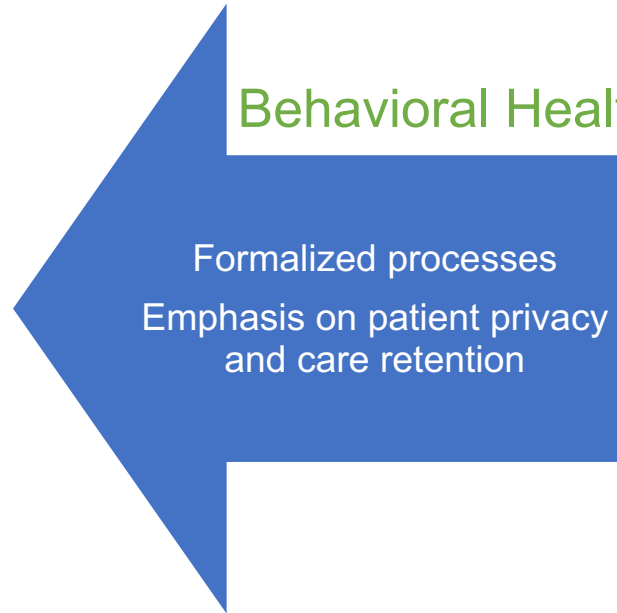


ADAPT: Depolarization to Improve the Care Cascade

Juvenile Justice System



Behavioral Healthcare System



Alliance Building:

Generate joint local solutions

Communicate and address roles and goals (see below)

Learn about “black box” of referral

Juvenile Justice

- High flexibility & autonomy
- Focus on diversion
- “CMHCs are like battle ships. The JJ system is like a speedboat, so it’s just a difference in how we move about and navigate care and treatment.”

Community Mental Health

- Formalized daily processes, little independence
- Focus on care retention
- Funding requirements for multiple agencies
- Concern about time –
- “The therapist time [is] not easy to come by ... So devoting an extra hour a week [to regular meetings] might be a challenge.”



ADAPT: Learning Health System

- “A continuously learning health system in which science, informatics, incentives, and culture are aligned for continuous improvement and innovation, which best practices seamlessly embedded in the delivery process and new knowledge captured as an integral by-product of the delivery experience.”
Institute of Medicine



ADAPT: Learning Health System

- Continuous quality improvement
- Core principles
 - Focus on systems
 - Data-driven
 - Collaborative
 - Empirical testing done locally
- Rarely employed outside of hospital/healthcare setting
- Evidence on effectiveness is lacking
- “Learning system of care” – (Blanco et al., 2020)

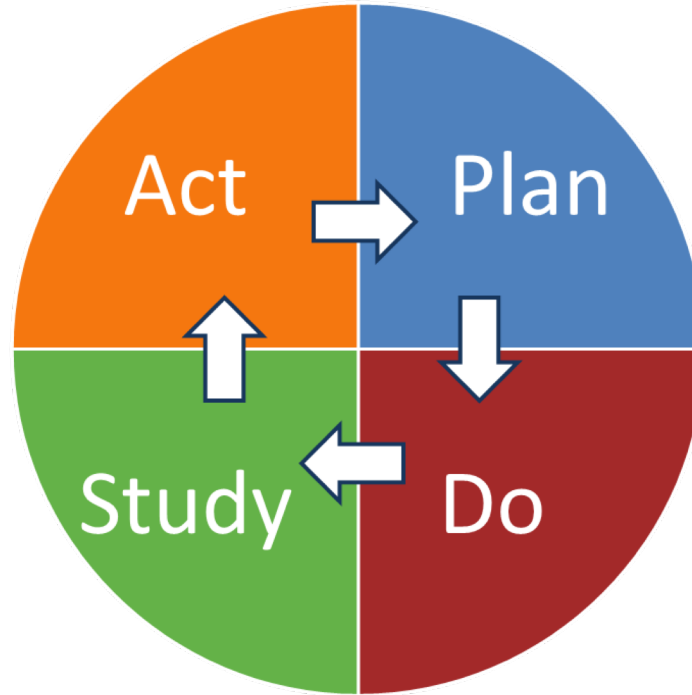


ADAPT: Learning Health System

- SUD specific
- Review local Cascade data to visualize gaps in care
- Tailor solutions to local needs
 - Screening at intake
 - Improve referral processes for diversion/informal probation
 - Connection to care (Peer recovery coaches; navigators, caseworkers, etc.)
 - Brief substance use interventions
 - Comprehensive SUD treatment



Plan/Do/Study/Act



ADAPT Specific Aims

AIM 1: *Implement LHS alliances between JJ agencies and CMHCs.*

We will establish LHS alliances: novel, collaborative partnerships between JJ agencies and CMHCs.

AIM 2: *Generate and track local solutions to address gaps in the Cascade for YJJ in rural Indiana counties.*

Quantifying local Cascade data will enable JJ agencies and CMHCs to suggest and implement tailored, evidenced-based interventions, which will be tracked through LHS quality improvement cycles.

AIM 3: *Assess implementation outcomes and processes.*

We will assess implementation outcomes, such as system alliance, among JJ and CHMC personnel using mixed methods.

AIM 4: *Assess the impact of ADAPT.*

Conduct a stepped wedge cluster randomized controlled trial to assess the impact of LHS alliances on the Cascade for YJJ. We will analyze administrative data linked across JJ and health systems to assess the long-term, community-wide effects of ADAPT on public health and safety outcomes (e.g., lower rates of SU-related outcomes and criminal recidivism).

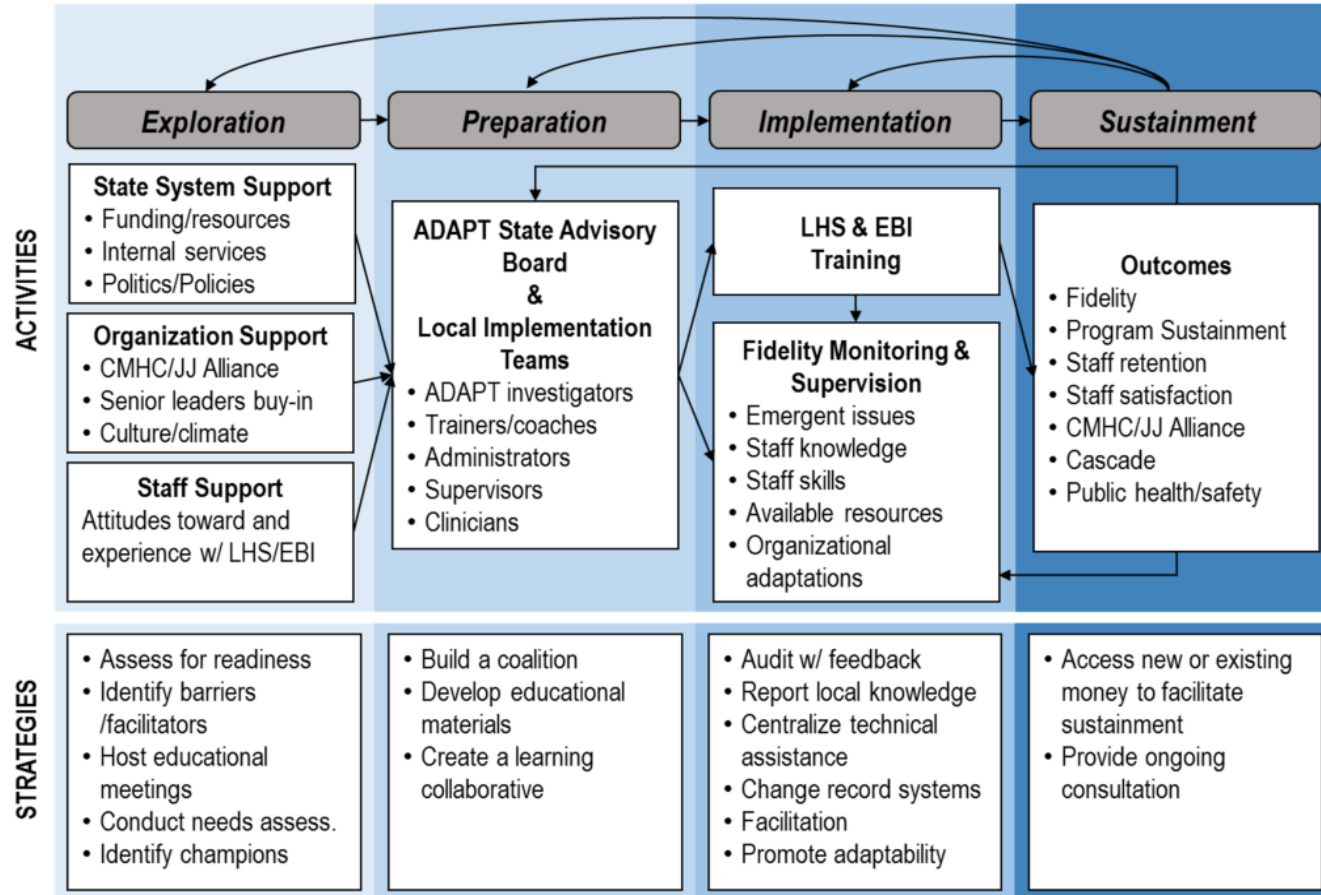


LHS Fidelity & Adherence Monitoring

- Coaching sessions (monthly and tapers off)
 - Clarify PDSA steps
 - Share EBP expertise
- LHS process survey (monthly)
 - Identify key activities by PDSA cycle step
 - Self-rating, 5-point Likert scale
 - Inform study team of process issues



Implementation Activities and Strategies by EPIS Stage



ADAPT Outcomes

| | | Definition | Data Source | | |
|----------------------|--------------------------|--|-----------------|----------------------|----|
| | | | Medicaid / INPC | Addict. Data Commons | JJ |
| Public Health | | | | | |
| SUD Care Cascade | YJJ intake cohort | All arrested youth 11-17 | | | X |
| | % Screened for SU | Screened in JJ intake / YJJ intake cohort | | | X |
| | % In Need of SUD tx | Screened positive / YJJ screened | | | X |
| | % Referred to SUD tx | 1. JPO or court-ordered SU tx / YJJ in need of tx 2. JPO or court-ordered SU tx / YJJ intake cohort | | | X |
| | % Initiated SUD tx | 1. BH visit with ICD-10 SU dx / YJJ referred 2. BH visit with ICD-10 SU dx / YJJ intake cohort | X | | |
| | % Engaged in SUD tx | 2+ BH visits w/in 30 days post initiation w/ ICD-10 SU dx / YJJ initiated | X | | |
| Opioid outcomes | OUD prevalence | ICD-10 OUD dx / YJJ intake cohort | X | | |
| | Opioid-related overdoses | ED/EMS visit, ICD-10 overdose dx / YJJ intake cohort | X | X | |
| | Opioid-related inpatient | ED/Hospital visit with ICD-10 OUD dx / YJJ intake cohort | X | X | |
| Public Safety | | | | | |
| | Recidivism | Arrest associated with new charge / YJJ intake cohort | | | X |



Stages of Implementation Completion (SIC)

- Track completion of implementation activities
 - County Specific
 - JJ vs. CMHC variables
- Universal SIC modified for ADAPT
 - Using project-specific language (i.e., "Alliance", PDSA cycles)



Stages of Implementation Completion (SIC)

| Stage | Events |
|---|---|
| Engagement | Initial communication with study sites , Agencies first learning that ADAPT is in their community, interest is first indicated, & more |
| Consideration of Feasibility | Discussing the feasibility of joining the ADAPT project, discussions of information sharing, identifying potential AI champions from agencies, & more |
| Readiness Planning | Alliance Team Members are identified, Alliance Team Readiness meeting, First Data Meeting, date JJ Champion is trained, & more |
| Staff Hired & Trained | AI fidelity trainings are held, dates when first data trials are completed, & more |
| Fidelity Monitoring and Processes in Place | Agency Information System Administrative calls, data transfer trials completed, data linking trials completed, & more |
| Services and Consultation to Services Begin | LHS Data Meetings, Coaching Calls, Alliance Performance fidelity reviews, First Care Cascade gaps identified, & more |
| Model Fidelity and Staff Competence & Adherence Tracked | Counties decide implementation sprints; identifying gaps and solutions; completing minimal standard operating procedures, evaluation plans, sustainability plans, and termination plans; & more |
| Competency | Developed a Sustainability Plan, Leadership Individual is Identified, & more |



Indiana's Juvenile Detention Alternative Initiative (JDAI)

- Developed by the Annie E. Casey Foundation
 - A model for youth justice system improvement
 - Elements of JDAI Counties:
 - use data-driven decision making
 - have strong data quality
 - have funds available for local interventions
 - are supported by a state infrastructure that increases sustainment

- 8 Moderate/Rural JDAI Counties Chosen for ADAPT
 - Each with a JJ & CMHC system
 - Eligibility Criteria:
 - 1) rate of drug/opioid overdose/prescriptions above the state average **and/or**
 - 2) fewer than the state average number of behavioral healthcare providers per individuals suffering addictions



ADAPT Sites: & Intervention Dates

Cohort 1, 01/01/21:

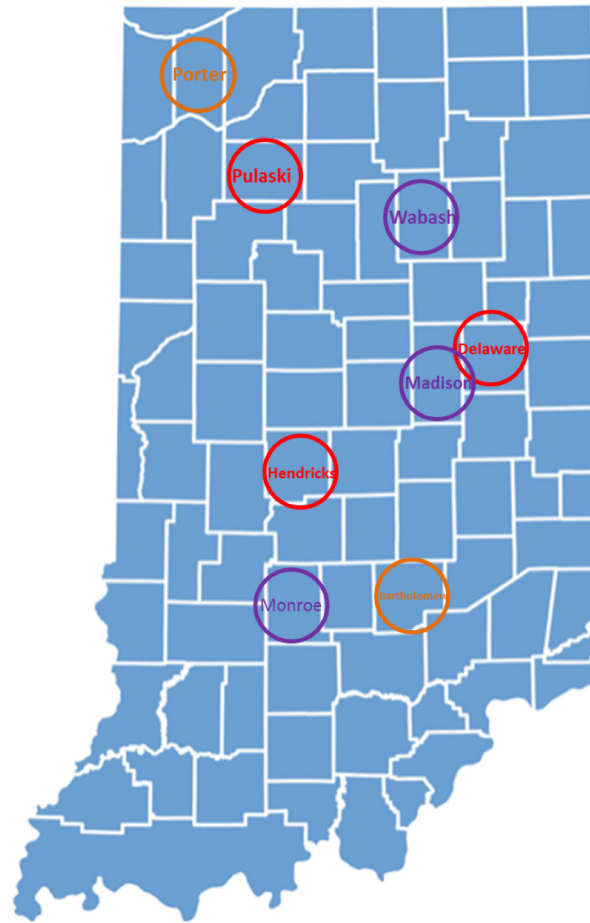
County A
County B

Cohort 2, 07/31/21:

County C
County D
County E

Group 3, 01/31/22:

County F
County G
County H



CMHC Partners

Centerstone

Bartholomew, Delaware, Monroe, &
Madison Counties

Porter Starke Services

Porter County

Cummins Behavioral Health

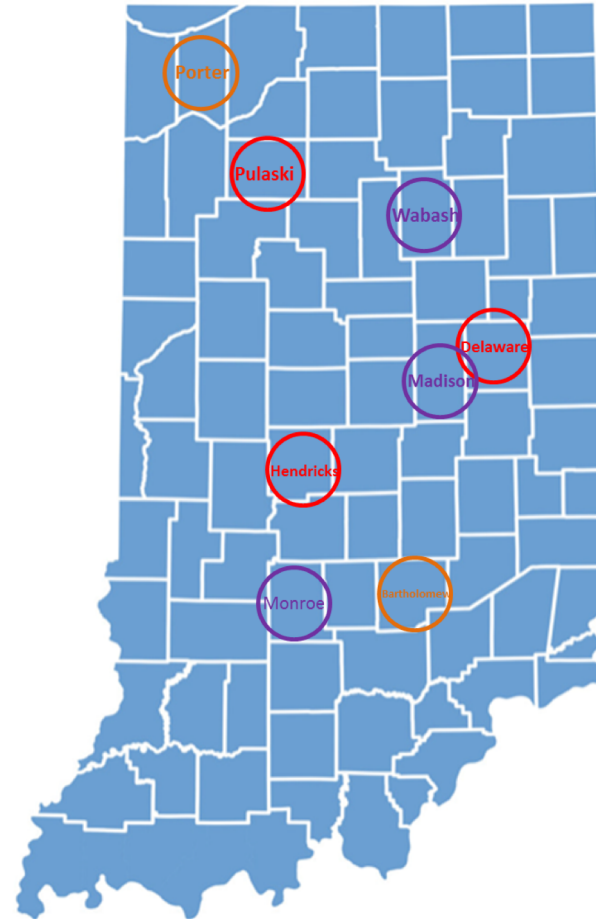
Hendricks County

Four County Counseling Center

Pulaski County

Bowen Center

Wabash County



Focus Groups and Needs Assessments: Overview

Setting:

- JJ and CMHC Key Personnel
- Virtual over Zoom for Cohort 1; in person at site visit for Cohort 2

Strategies adapted from:

- JJ-TRIALS System Mapping (Belenko)
- NIATx Walk Throughs

Areas of focus:

- Cascade-related processes
- Need identification, screening, assessment, referrals
- Current relationship with CMHC or JJ personnel
- Parent engagement



Pre-Implementation Focus Groups: Takeaways

Overall

- Varying levels of communication & pre-existing partnership
- Parent engagement can be a barrier

JJ

- Not using screening tools consistently
- Working virtual changed probation practices (i.e., fewer cases)
- Inconsistent data entry practices

CMHC

- Limited treatment options for youth
- Often youth are on a waitlist – limited staff capacity



Surveys with Justice System and CMHC Personnel

- Achieved < 80% participation from all agencies
- 28 Juvenile justice personnel (i.e., probation officers, intake staff)
- 85 CMHC staff (i.e., case managers, therapists, administrators)
- Surveys focused on:
 - Readiness for organizational change (Organizational Readiness to Implement Change Scale)
 - Openness to evidence-based practice (Implementation Climate Scale)
 - Assessment of organization leadership (Implementation Leadership Scale)



Survey Sample:

| | CMHC (N = 85) | JJ (N = 28) | All (N = 113) |
|---|---------------|-------------|---------------|
| Gender (female) | 68 (80.0%) | 25 (89.3%) | 93 (82.3%) |
| Race (white) | 72 (84.7%) | 26 (92.8%) | 98 (86.7%) |
| Ethnicity (Hispanic/Latino) | 3 (3.5%) | 1 (3.6%) | 4 (3.5%) |
| Age (between 26 – 35) | 35 (41.2%) | 8 (28.6%) | 43 (38.1%) |
| Time in current position (< 1 year) | 26 (30.6%) | 7 (25%) | 33 (29.2%) |
| Time at current agency (<1 year) | 21 (24.7%) | 4 (14.3%) | 25 (22.1%) |
| Education level (≥ bachelor's) | 67 (78.8%) | 19 (67.9%) | 86 (76.1%) |
| Job satisfaction (≥ satisfied) | 71 (83.5%) | 27 (96.4%) | 98 (86.7%) |



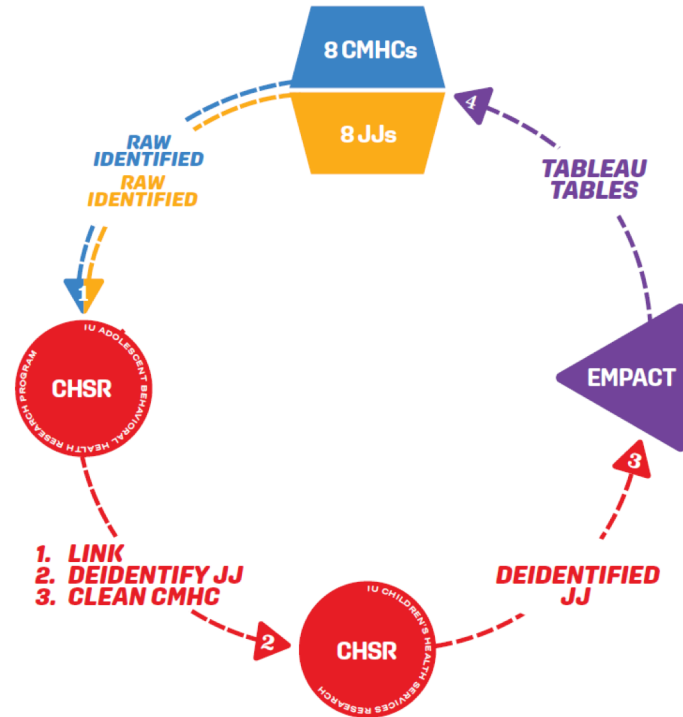
Survey Results

| | CMHC M (SD) | JJ M (SD) | t(df) | p |
|--|----------------|--------------|------------|--------|
| Organizational Readiness for Implementation Change (ORIC) | | | | |
| ORIC - Commit | 3.5 (0.9) | 3.8 (0.9) | -1.2 (166) | 0.22 |
| ORIC - Efficacy | 3.6 (0.9) | 3.8 (0.9) | -1.2 (166) | 0.21 |
| TCU Stress Scale | 3.7 (0.9) | 3.0 (0.9) | 4.50 (165) | < .001 |
| Cultural Exchange Inventory (CEI) | | | | |
| CEI - Outcomes | 3.6 (1.6) | 3.8 (1.8) | -0.7 (111) | 0.47 |
| CEI - Process | 3.9 (1.4) | 2.9 (1.6) | 3.2 (111) | 0.002 |



Data Processing

- Multi-step process with many key individuals
- Data collection systems vary across county and system
- Three justice information systems and four CMHC electronic health record systems





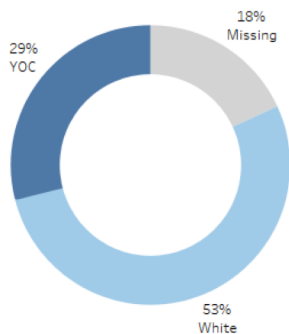
Sample LHS Process



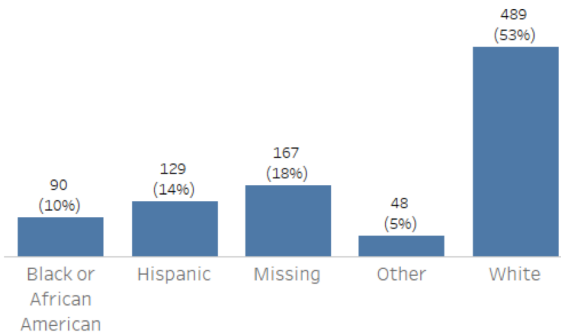
923

Youth in Sample

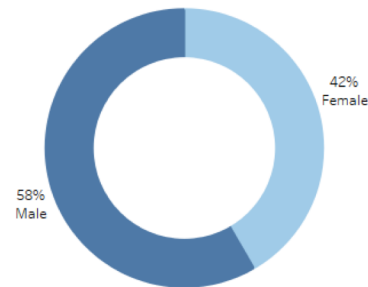
Race/Ethnicity - Youth of Color



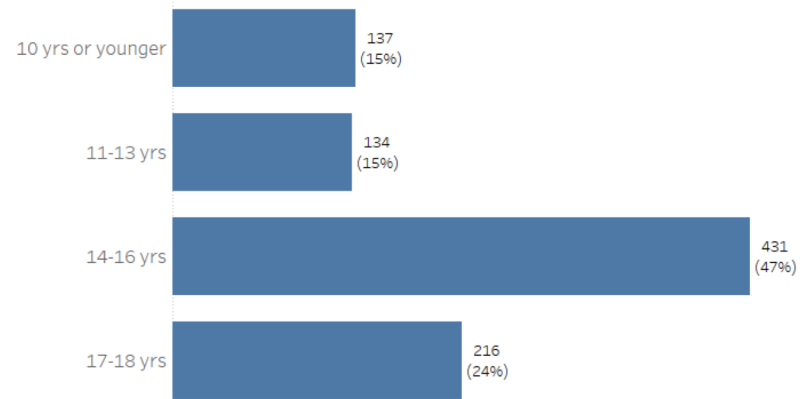
Race/Ethnicity



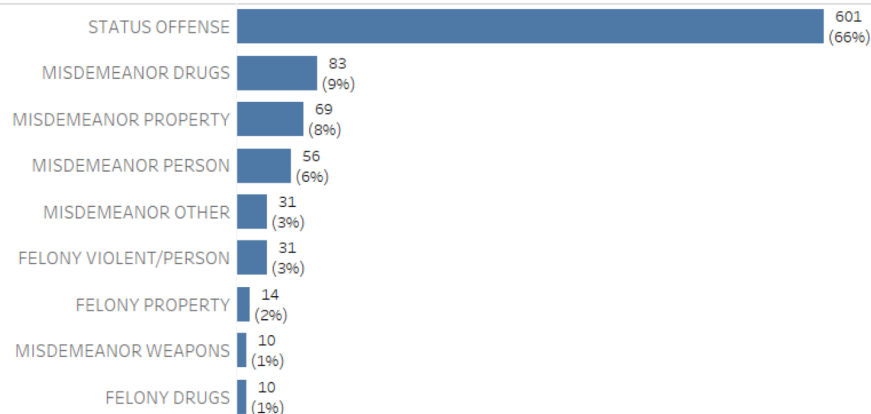
Gender



Age



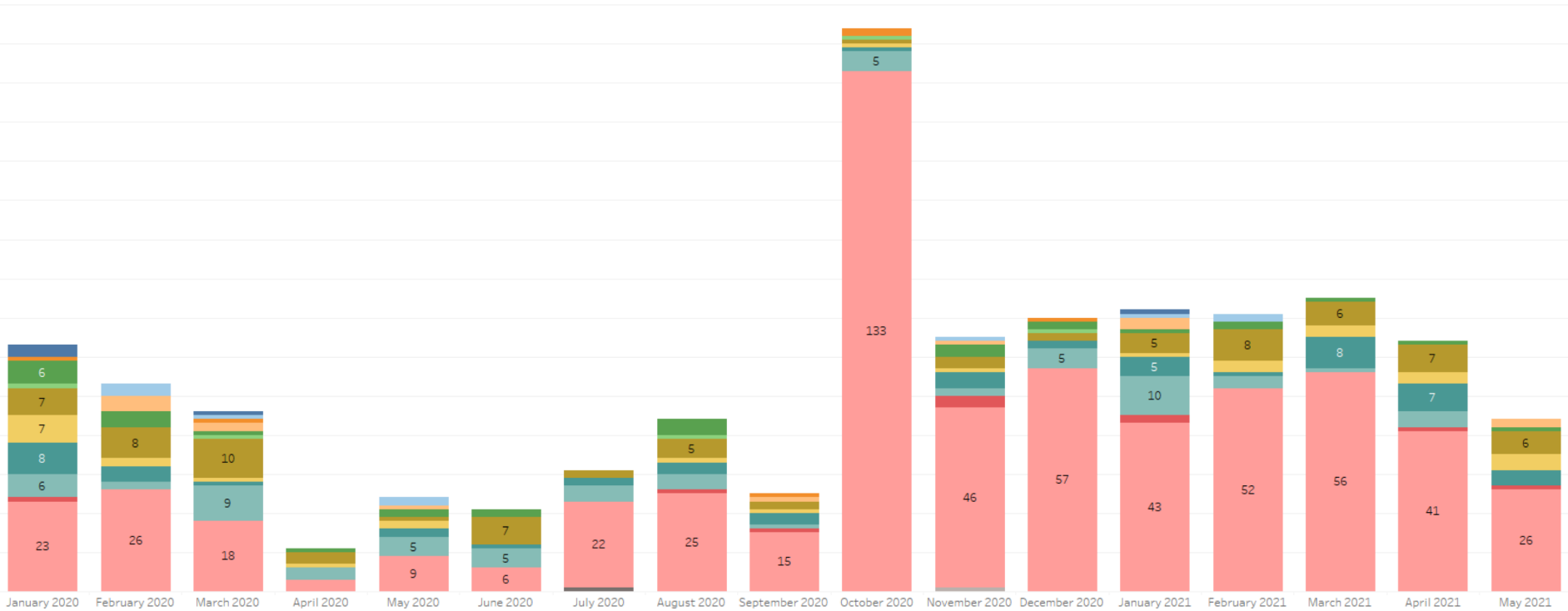
TopCharge



ADAPT CASCADE: Trends in Charges

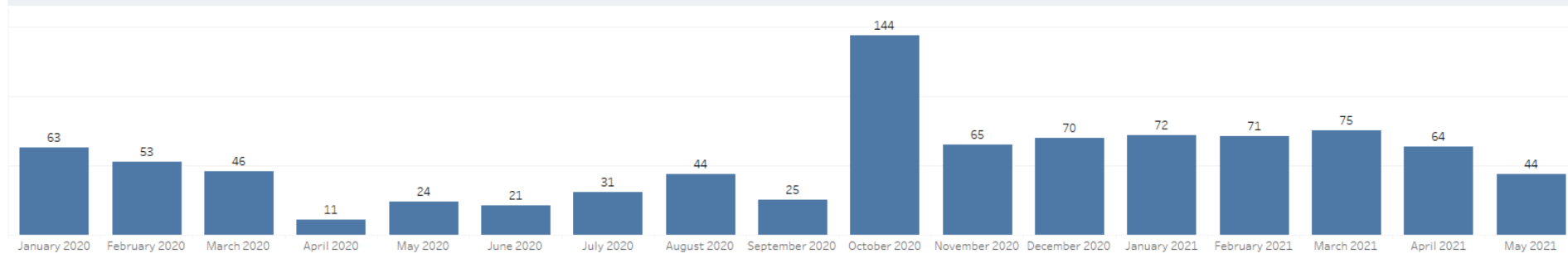
January 2020 - May 2021

| | | | | | | | |
|--|------------------------------|------------------------------------|----------------------|-------------------------|-----------------------------------|--------------------------|--|
| Choose Arrest Date Range January 6, 2020 to May 25, 2021 | Race/Ethnicity All | Race/Ethnicity - YOC All | Gender All | Age Group All | Top Charge Category All | # of Cases All | |
|--|------------------------------|------------------------------------|----------------------|-------------------------|-----------------------------------|--------------------------|--|

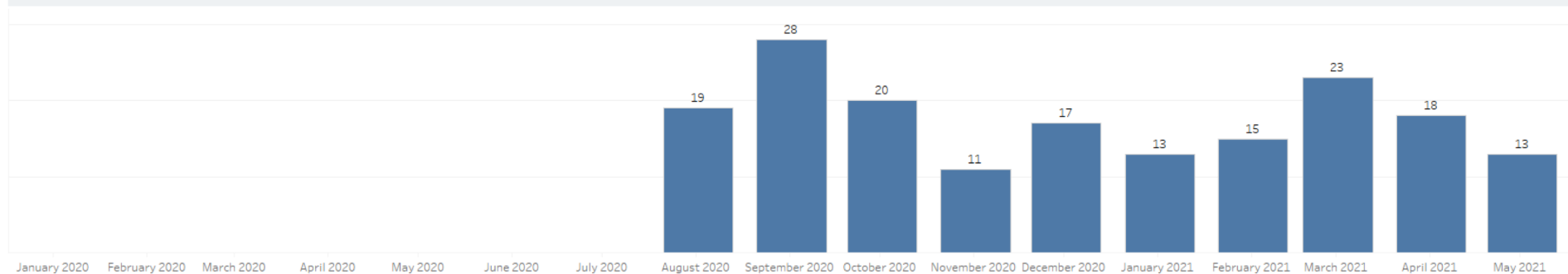


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| Race/Ethnicity All | Race/Ethnicity - YOC All | # of Cases All | Gender All | Age Group All | Top Charge Category All | |
|------------------------------|------------------------------------|--------------------------|----------------------|-------------------------|-----------------------------------|--|

Arrests Trended



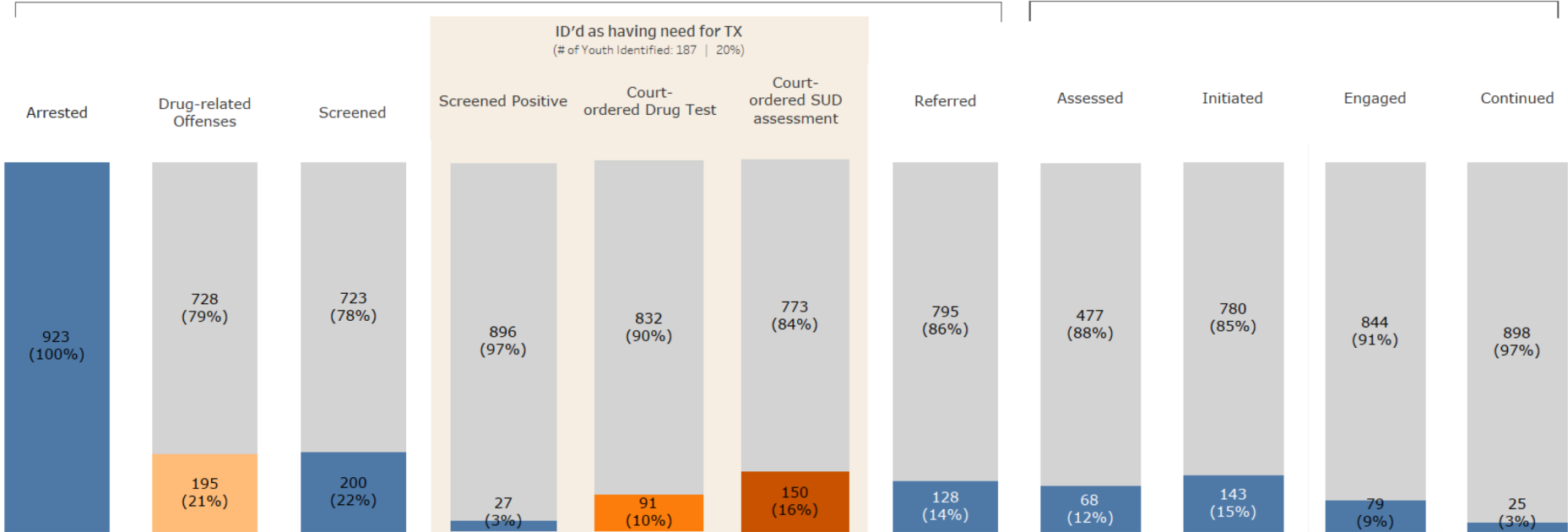
Screens Trended



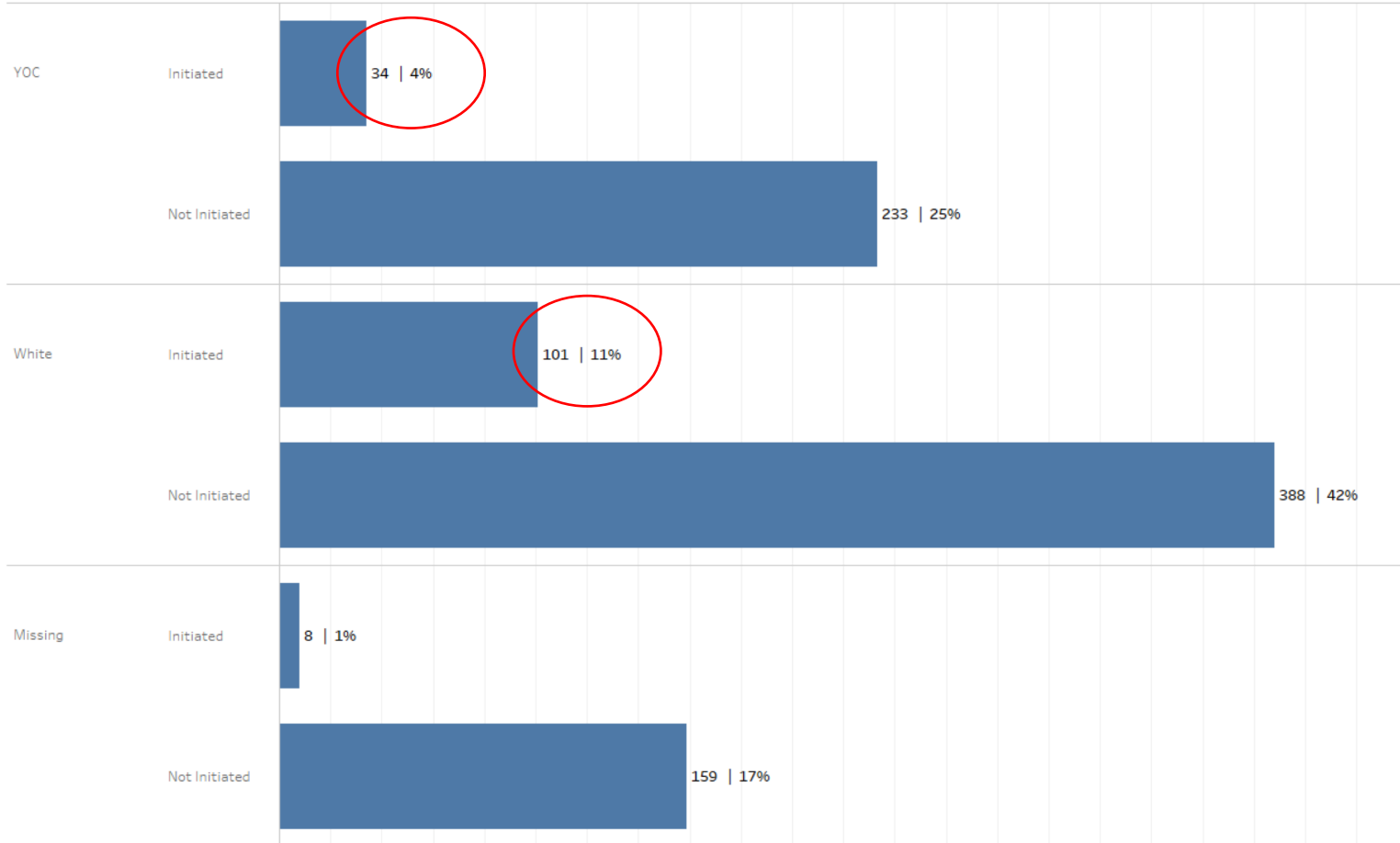
| | | | | | | | |
|--|------------------------------|------------------------------------|----------------------|-------------------------|--------------------------|--------------------------|---------------------------------|
| Choose Arrest Date Range 1/6/2020 to 5/25/2021 | Race/Ethnicity All | Race/Ethnicity - YOC All | Gender All | Age Group All | Top Charge All | # of Cases All | Referral Provider All |
|--|------------------------------|------------------------------------|----------------------|-------------------------|--------------------------|--------------------------|---------------------------------|

Juvenile Justice System

CMHC System



ADAPT CASCADE: Engagement by REGGO Factors



Map filter
 Indiana Only
 Include all states

Arrest Date Range
1/6/2020 to 5/25/2021

Select REGGO Characteristic
Race/Ethnicity/YOC

Select CASCADE Step
Initiated

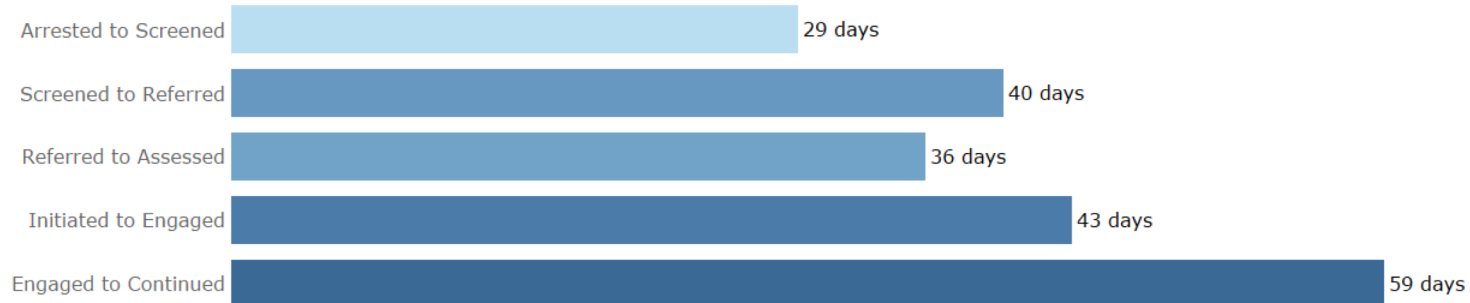
of Cases
All

Referred Provider
All

ADAPT CASCADE: Time Lapse in the CASCADE

| | | | | | | | |
|--|------------------------------|------------------------------------|----------------------|-------------------------|--------------------------|--------------------------|---------------------------------|
| Choose Arrested Date Range 1/6/2020 to 5/25/2021 | Race/Ethnicity All | Race/Ethnicity - YOC All | Gender All | Age Group All | Top Charge All | # of Cases All | Referred Provider All |
|--|------------------------------|------------------------------------|----------------------|-------------------------|--------------------------|--------------------------|---------------------------------|

Median Length of Time for All Possible Youth



Summary

- Cross-system collaboration
- Data can take the emotion out of tense interactions
 - If data is not accurate. . .
 - If data is not timely. . .
 - If data source is not responsive. . .
- Automate linking process

