Logic Model Analysis of Health System Response to Opioid Use Disorder in Three Indiana Counties: Bartholomew, Jefferson, and **Johnson**

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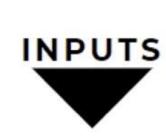
Introduction

Nearly 2.5 million people are battling Opioid Use Disorder (OUD) in the United States alone (NHRA, 2019). Indiana is a state that understands the consequences of the epidemic, having lost over 1,600 people to opioids in 2017 alone (ISDH, 2020). The economic impact of OUD cannot be understated, having cost the state nearly \$43.3 billion dollars so far (Brewer & Freeman, 2018). detoxification facilities, and medication assisted treatment (MAT) vary widely. Indiana has continued to rank among states disproportionately affected. In the last 20 years, opioid overdose deaths have increased by 500% (Indiana State Department of Health, 2019).

This research focuses on a subset of counties in southern Indiana. These counties, including Bartholomew, Jefferson, and Johnson, lie off an area of I-65 and I-74 (Jefferson) known as the "Heroin Highway" due to the amount of drugs which travel these roads from Chicago. Seven of the counties in this region are among the top 220 counties in the US which are labeled as high risk for an HIV outbreak by the CDC (Gonsalves & Crawford, 2018; Peters, et al., 2016).

Methodology

We are focused on six best practice domains which encompass the OUD response at the state and county level, including state regulation of opioid prescribing, medical and behavioral health practice, OUD prevention and education initiatives, and state emergency response statutes. Using these evidence based domains, the team created a logic model to evaluate the health system response of the counties, to the OUD epidemic. The logic model graphically represents the programs created to respond to OUD at the state and local levels, allowing for a more comprehensive understanding of OUD health system response.



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BARRIERS **BEST PRACTICE** OUTPUTS TO EBP DOMAINS Each county has a Local Coordinating Council (LCC) which facilitates The state of Indiana does not require EMR state OUD prevention, education, treatment intervention, and law documentation or have disciplinary action for enforcement and criminal justice initiatives at the county level. The **Opioid Prescribing** noncompliance. LCCS also create a comprehensive community plan to address SUD. Regulation, Guidelines, Limited resources inhibit LCC ability to Limits, and Monitoring The region is in compliance with legislation regarding pill mills, support evidence-based practice. prescription drug monitoring, and prescribing regulations. Non-opioid chronic pain management is available in Bartholomew, No standard informed consent across counties, although prescribers are in compliance with Jefferson, and Johnson Counties. Medical and state legislation. No access to syringe service Medication for OUD (MOUD) is available, however access is variable across IMPACT SIS, TREATMENT, programs. Varied access to residential or Behavioral Health counties. detoxification treatment. HRSA designated as **Practice** primary care provider and mental health professional shortages areas. Social stigma creates barriers to evidence-LCCs heavily involved in prevention and education programming for based education. public schools and youth serving organizations. Prevention and **Education Initiatives** No continuing education requirements for Indiana University provides free interprofessional education general clinicians regarding OUD. Higher regarding OUD through Extension for Community Healthcare education curriculum does not include OUD Outcomes (ECHO). All counties had participants in 2019. Across the region, naloxone access and distribution has either stabilized OUD stigmatization and fear of criminal and/or **Emergency Response** or improved; and limited criminal liability protection, prohibits charges civil penalties. related to drug possession. Region reduced mortality due to opioid overdose, however difficulty No state of Indiana NAS data reporting laws or Data Collection and accessing and maintaining OUD treatment and chronic care contributes to regulations. Use higher rates of opioid poisoning; and limited data influences infant and

maternal mortality, and NAS treatment.

for low-income rural residents.

Dramatic increases to Medicaid enrollment and access to OUD treatment



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State of Indiana legislation regarding opioid prescribing aligns with evidence-based practice.

Communities understand evidence-based practice and are working on expanding access nonopioid chronic pain management and OUD treatment and aftercare.

Efforts to reduce stigma have yet to mitigate community held beliefs regarding OUD.

Increased access to naloxone has reduced overdose deaths regionally and has provided OUD education to first responders and community members.

Mean 52.67% increase in Medicaid coverage in

References

State legislative attempts to mandate work

activities or demonstration of an exemption for

Indiana State Department of Health. (2019). Drug overdose epidemic in Indiana: Behind the numbers. http://www.state.in.us/isdh/files/85 Drug%20Overdose%20Data%20Brief 2019.pdf

Medicaid coverage.

Medicaid Expansion

and Utilization

Gonsalves, G., & Crawford, F. W. (2018). Dynamics of the HIV outbreak and response in Scott County, IN, USA, 2011-15: A modelling study. *The Lancet*, 5(10), PE569-E577. http://dx.doi.10.1016/S2352-3018(18)30176-0

