

**State University Partnership Research Brief  
Substance Use Disorder Treatment Beyond Birth**

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**College/School:** College of Nursing  
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**What is Known on This Topic?**

Kentucky has faced a significant increase in the number of babies born with Neonatal Abstinence Syndrome (NAS) in recent years. >80% of these infants are covered by Medicaid each year. In light of this, there is a notable dearth of Substance Use Disorder (SUD) treatment for pregnant and parenting women.

**What Did this Project Do?**

This project sought to increase access to health services to mothers and their newborn children; especially related to SUD treatment. It involved: (1) development of a web-based perinatal nurse navigation & support program; (2) conducting a program evaluation of the Beyond Birth Comprehensive Recovery Center; (3) delivering a training program to healthcare providers, and; (4) developing a replicable peer-support training program to assist new mothers.

**What Could Medicaid Do with These Conclusions?**

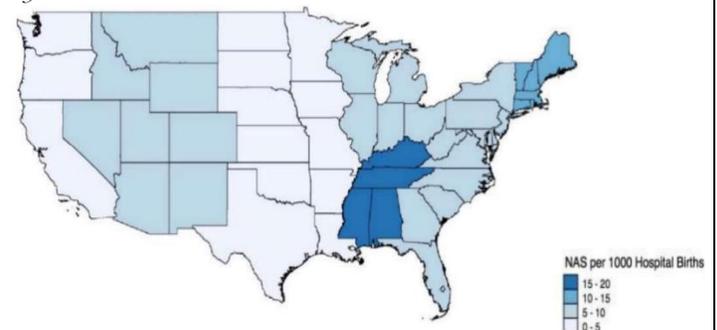
Insights on specialized training, increased access to supports and services, and community resources for mothers with SUD to prevent NAS are discussed.

**Introduction**

The number of babies born with Neonatal Abstinence Syndrome (NAS) continues to be a concern in Kentucky.<sup>1</sup> As a result, Substance Use Disorder (SUD) treatment for mothers is of great import. In 2015, the Title V needs assessment revealed substance use ranked as the top public health issue across the state.<sup>1</sup> Kentucky has one of the highest rates of drug overdose deaths nationwide, and continues to face an increase in the number of babies born with NAS (see Figures 1 & 2).<sup>1</sup> A recent report found a four-fold increase in recent years in admissions to Neonatal Intensive Care Units (NICUs) related to substance-exposed newborns.<sup>2</sup> Babies who are exposed to opioids in utero typically experience serious withdrawal following birth; a constellation of symptoms which often involves convulsions, extreme irritability, and breathing

problems. There is evidence that trends in NAS are related to the availability of prescription opioids as well as illicit drugs such as heroin. Intervention efforts and strategies aimed to prevent opioid and illicit drug use for mothers are critical for healthy child development, maternal health, and family preservation.

*Figure 1: Geographic Distribution of Neonatal Abstinence Syndrome in the US.*



**Source:** Kentucky Cabinet for Health and Family Services. Neonatal Abstinence Syndrome in Kentucky: Annual Report on 2016 Births. Frankfort, KY: KY Cabinet for Health and Family Services, Department of Public Health, Division of Maternal and Child Health, 2018.

**Project Methods and Results**

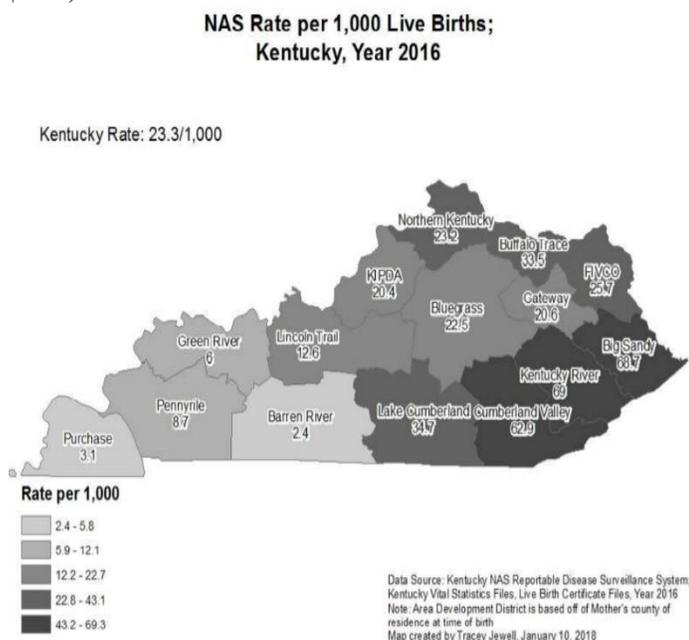
This project describes the operation of Beyond Birth<sup>3</sup>, an interdisciplinary clinic within University of Kentucky (UK) Healthcare for mothers and children affected by SUD and NAS. The Beyond Birth clinic produced several health education materials, including a web-based perinatal nurse navigation and peer-support program. Study authors also conducted a program evaluation, including analyses that tracked health outcomes for mothers and infants. The project also marketed and delivered a training program to Medicaid Managed Care Organizations and healthcare providers on care for this population. The project involved the development of a replicable peer training program to assist mothers as they transitioned to community living; and ultimately care for their children independently.

**Aim 1: Increase NICU Mothers' Access to Beyond Birth Services**

In collaboration with UK Healthcare, Beyond Birth enabled NICU patients to have direct access with staff and support services. In addition, social workers were provided with program information to help ensure mothers continued their existing recovery services. Patients gained access to transportation services from the NICU to the program site. A social worker was positioned at Kentucky Children's Hospital to conduct full assessments and complete referrals to treatment.

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Figure 2: NAS Rates in Kentucky by Area Development District (2016)



### **Aim 2:** Develop Perinatal Nurse Navigation/Peer-Support Program

A peer support curriculum recommended by the Beyond Birth clinic was created for patients and made available on the 'Recovery' YouTube channel. In addition, live sessions offered via virtual methods were archived to the YouTube channel. Currently, access to all modules are available on [recoveryforallky.com](http://recoveryforallky.com).

### **Aim 3:** Conduct Evaluation of Key Programmatic Characteristics

Beyond Birth continues to grow, and has had more than 4,900 patient encounters related to this project. A long-acting, reversible contraception (LARCs) program was implemented, and was provided to a total of 5 patients. There were a total of 4 short-interval pregnancies (< 18 month subsequent substance-exposed pregnancy) in the cohort. All patients were screened for Hepatitis C, and 3 received antiviral therapy by participating in the clinic's programming. Access to treatment groups to prevent SUD relapse were broadly successful, with return-to-use rates of less than 5%.

### **Aim 4:** Market/Deliver Training Program to MCOs & Healthcare Providers

Online training modules created by experts in perinatal counseling and SUD treatment were developed to support UK Healthcare facilities aiding women with SUD. Currently, the training is under review by additional healthcare experts for public dissemination online.

### **Aim 5:** Develop Peer Training Program for Transitioning Mothers

The Peer Support Program at Beyond Birth focuses on workplace and healthcare environment supports, boundaries, and peer support in recovery. In addition, the YouTube channel provided information on becoming a peer mentor for the Beyond Birth peer support specialist program. A special recovery meeting has been developed using both a 12-step design and use of medications for opioid use disorders (e.g., Methadone, Buprenorphine), with the intent to make the meeting available to the broader community in Lexington, KY.

### **Conclusions & Health Policy Implications for Medicaid**

Recent estimates suggest that the rate of NAS amongst Medicaid beneficiaries in 28.7 times greater than what it is in the commercially insured population.<sup>6</sup> Kentucky continues to struggle with providing adequate healthcare for these families. Statewide intervention efforts and strategies aimed to prevent opioid use for mothers are critical to ensure healthy child development, optimal maternal health, and promote family preservation.

Public health efforts and targeted clinical services can provide a foundation for preventing future NAS cases.<sup>4,5</sup> Study authors mentioned that special recovery meetings – especially those similar to the clinic's, that are accommodating to both 12-step approaches as well as medication-oriented methods – can serve as a beneficial strategy to support this population.<sup>4,5</sup> Services such as Beyond Birth are a valuable component of a statewide effort to promote healthy homes for children and families.

### References

- <sup>1</sup>Kentucky Cabinet for Health and Family Services. Neonatal Abstinence Syndrome in Kentucky: Annual Report on 2016 Births. Frankfort, KY: KY Cabinet for Health and Family Services, Department of Public Health, Division of Maternal and Child Health, 2018.
- <sup>2</sup>Toila, V. N., Patrick, S. W., Bennett, M. M., Murthy, K., Sousa, J., Smith, P. B., ... & Spitzer, A. R. (2015). Increasing incidence of the neonatal abstinence syndrome in US neonatal ICUs. *New England Journal of Medicine*, 372(22), 2118-2126.
- <sup>3</sup><https://ukhealthcare.uky.edu/office-opioid-safety/find-help/beyond-birth>
- <sup>4</sup>Krans, E. E., & Patrick, S. W. (2016). Opioid use disorder in pregnancy: health policy and practice in the midst of an epidemic. *Obstetrics and Gynecology*, 128(1), 4.
- <sup>5</sup>McQueen, K., & Murphy-Oikonen, J. (2016). Neonatal abstinence syndrome. *New England Journal of Medicine*, 375(25), 2468-2479.
- <sup>6</sup>Conner, K. L., Meadows, A. L., Delcher, C., & Talbert, J. C. (2020). Neonatal Abstinence Syndrome and Childhood Mental Health Conditions, 2009–2015: Commercial Versus Medicaid Populations. *Psychiatric Services*, 71(2), 184-187.