KY-Moms MATR: Maternal Assistance Towards Recovery (MATR)

2018 FINDINGS AT A GLANCE

Introduction

The overall goal of the KY-Moms MATR case management program is to increase positive birth outcomes for high risk pregnant women in Kentucky by reducing inter-related risks. These include substance abuse, mental health problems, and partner abuse and violence, which could potentially have a negative impact on the health of the pregnant mother, fetal development, and birth outcomes. KY-Moms MATR case management clients received both traditional case management assistance to meet basic needs such as safe housing, food, and childcare, as well as referrals to treatment services. Clients also received information and support to facilitate a healthy pregnancy and fetus as well as to meet needs after the baby is born.

EVALUATION METHOD

The KY-Moms MATR outcome evaluation includes a face-to-face baseline interview by program staff from eleven Community Mental Health regions to assess these risk factors. In addition, clients are offered the opportunity to be contacted for a postnatal follow-up interview approximately 6 months after the birth of their baby.

Results for this study include analysis of self-report responses on the evidence-based baseline and follow-up for 106 pregnant women who: (1) were in the program for 30 days or longer before the birth of their baby; (2) had matching information from the Kentucky Vital Statistics birth event data set in order to compare birth outcomes; (3) reported living in the state; and (4) gave permission for UK CDAR to access their birth event data.

This Findings at a Glance summarizes results from the full KY-Moms MATR 2018 Outcomes Report and is organized into four main sections: (1) changes on the three main factors targeted at prenatal baseline and postnatal follow-up; (2) changes in other factors examined at prenatal baseline and postnatal follow-up; (3) client satisfaction with the KY-Moms MATR program; and (3) birth events and outcomes compared to the general population of mothers.

DESCRIPTION OF KY-MOMS MATR CLIENTS INCLUDED IN THE FOLLOW-UP SAMPLE

One hundred and six clients completed a six-month postnatal follow-up assessment and met criteria to be included in this report. Of those clients:

- They were an average of 21 weeks pregnant and were in the program an average of 20 weeks.
- They were an average of 27 years old and predominately white (87%).
- Over one-third were not married or not currently cohabiting, 66% were married or cohabiting, and 5% were separated/divorced.
- Most were from metropolitan areas (43%) while 37% were from non-metropolitan areas and 21% were from very rural areas.
- About one-quarter had less than a high school degree, 36% were high school graduates or had their GED, 30% had some college, and 9% had a college or vocational/technical school degree.

1 Findings from the full report can be downloaded from http://cdar.uky.edu/KY-Moms%20MATR/
Factors Targeted by KY-Moms MATR

Measures compare 6 months before the client became pregnant and the past 6 months at postnatal follow-up

**Substance Use***

59% of clients reported any illegal drug use at baseline

13% of clients reported any illegal drug use at follow-up

57% of clients reported any alcohol use at baseline

16% of clients reported any alcohol use at follow-up

Trends in illegal drug use at prenatal baseline and postnatal follow-up

The percent of women who reported illegal drug use at baseline has increased since 2015. The percent of women who reported illegal drug use at postnatal follow-up has also generally increased.

<table>
<thead>
<tr>
<th>Year</th>
<th>Prenatal baseline</th>
<th>Postnatal follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 (n = 136)</td>
<td>47.8%</td>
<td>2.9%</td>
</tr>
<tr>
<td>2016 (n = 169)</td>
<td>48.5%</td>
<td>10.1%</td>
</tr>
<tr>
<td>2017 (n = 63)</td>
<td>57.1%</td>
<td>6.3%</td>
</tr>
<tr>
<td>2018 (n = 106)</td>
<td>59.4%</td>
<td>13.2%</td>
</tr>
</tbody>
</table>

Trends in alcohol use at prenatal baseline and postnatal follow-up

Each year, around half of the follow-up sample reported alcohol use at baseline. The percent of women who reported alcohol use at postnatal follow-up has generally decreased.

<table>
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<tr>
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<th>Postnatal follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 (n = 136)</td>
<td>54.4%</td>
<td>20.6%</td>
</tr>
<tr>
<td>2016 (n = 169)</td>
<td>52.1%</td>
<td>14.8%</td>
</tr>
<tr>
<td>2017 (n = 63)</td>
<td>47.6%</td>
<td>12.7%</td>
</tr>
<tr>
<td>2018 (n = 106)</td>
<td>56.6%</td>
<td>16.0%</td>
</tr>
</tbody>
</table>

Trends in cigarette use at prenatal baseline and postnatal follow-up

Cigarette use was high at prenatal baseline for each year with well over three-quarters of women reporting smoking cigarettes in the six months before pregnancy. At follow-up, a large number of women continued to smoke cigarettes.

<table>
<thead>
<tr>
<th>Year</th>
<th>Prenatal baseline</th>
<th>Postnatal follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015 (n = 136)</td>
<td>79.4%</td>
<td>58.1%</td>
</tr>
<tr>
<td>2016 (n = 169)</td>
<td>78.7%</td>
<td>65.1%</td>
</tr>
<tr>
<td>2017 (n = 63)</td>
<td>85.7%</td>
<td>77.8%</td>
</tr>
<tr>
<td>2018 (n = 181)</td>
<td>79.2%</td>
<td>64.2%</td>
</tr>
</tbody>
</table>

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2 All trend analyses present only annual report data at baseline and follow-up and do not include between-year statistical analysis.

***p < .001

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Mental Health

**DEPRESSION***
- Average number of symptoms at intake: 6.5
- Average number of symptoms at follow-up: 2.5

**ANXIETY***
- Average number of symptoms at intake: 4.7
- Average number of symptoms at follow-up: 2.8

**SUBSTANCE USE**
- Clients reporting to manage stress: 16% at intake
- Clients reporting at follow-up: 4%

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**Trends in depression and/or anxiety at prenatal baseline and postnatal follow-up**

Clients who met study criteria for depression and/or anxiety at prenatal baseline was fairly constant over the past 4 years. At follow-up, however, while the number of women who met study criteria for depression and/or anxiety decreased compared to baseline, the degree to which the number decreases fluctuates from year to year when looking at trends.

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**Intimate Partner Abuse***

- 33% of clients reported any intimate partner abuse at baseline
- 12% of clients reported any intimate partner abuse at follow-up

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**Trends In Any Partner Abuse At Prenatal Baseline And Postnatal Follow-Up**

The number of clients who reported any partner abuse at prenatal baseline was fairly consistent over the past 4 years. Overall, the number of clients who reported partner abuse at follow-up was also fairly consistent with 14.7% to 12.4% of clients reporting partner abuse in the 6 months since the birth of the baby (with the exception of 2017).

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3 Any abuse was defined in this study as a client indicating "yes" to any of the partner abuse questions asked in the survey (e.g., verbal and psychological abuse, extreme jealousy and control, threats of violence towards client and others close to them, physical violence, stalking, partner purposely damaging or destroying property, sexual assault/threats of assault) at each period.

** p .01, *** p <.001
Other factors examined at postnatal follow-up

Economic Hardship

Clients reporting difficulty MEETING BASIC LIVING NEEDS

- 48% at intake
- 47% at follow-up

Clients reporting difficulty MEETING HEALTH CARE NEEDS

- 34% at intake
- 11% at follow-up

“It helped a lot emotionally. Anything you needed to talk about they were there to talk to you.”

- KY-MOMS MATR FOLLOW-UP CLIENT

Trends in difficulty meeting household needs at prenatal baseline and postnatal follow-up

From 2015 to 2017, the number of clients who reported difficulty meeting basic living needs at follow-up significantly decreased from baseline. In 2018, however, the number of clients who reported difficulty sharply increased from 2017 and there was very little change from baseline to follow-up.

Trends in difficulty meeting basic health care needs at prenatal baseline and postnatal follow-up

From 2015 to 2017, the number of clients who reported difficulty meeting basic healthcare needs in the six months before pregnancy and in the past 6 months at follow-up decreased. In 2018, however, the number of clients reporting difficulty increased at both baseline and follow-up compared to the prior years.

Ratings of experience with KY-Moms MATR program

At follow-up, clients were asked to rate their level of satisfaction with the treatment program on a scale from 1 (worst treatment imaginable) to 10 (best treatment).

Almost all clients in the postnatal follow-up sample indicated they would recommend KY-Moms MATR case management to a friend.
Even with risk factors for negative birth outcomes before coming into the program (including alcohol and illegal drug use, high rates of smoking, depression or anxiety symptoms, and intimate partner abuse), their birth outcomes were very positive overall, and were nearly identical to the general population of mothers and babies.

### Birth Events and Outcomes

**KY-MOMS MATR PROGRAM CLIENTS COMPARED TO THE GENERAL POPULATION OF MOTHERS**

Using the Kentucky Vital Statistics data and adjusting for key demographic factors⁴, birth events and outcomes of KY-Moms MATR program clients (n = 106) and their babies were compared to others in the state who had babies during the same period (between November 2014 and December 2015) but who did not participate in the KY-Moms MATR program study (n = 57,375).

Even with risk factors for negative birth outcomes before coming into the program (including alcohol and illegal drug use, high rates of smoking, depression or anxiety symptoms, and intimate partner abuse), their birth outcomes were very positive overall, and were nearly identical to the general population of mothers and babies.

| Positive birth outcomes for KY-Moms MATR clients compared to the general population of mothers |
|---------------------------------|---------------------------------|-----------------|-----------------|
| **KY-Moms MATR** | **General Population** | **AVERAGE GESTATIONAL AGE** | **AVERAGE BIRTH WEIGHT** | **AVERAGE APGAR SCORE** | **AVERAGE NUMBER OF PRENATAL VISITS** |
| 38.2 weeks | 38.3 weeks | 7lbs, 4oz | 7lbs, 3oz | 8.8 | 8.8 | 11.7 | 11.7 |

### Conclusion

This study provides support of the efforts by the Kentucky Division of Behavioral Health to address the rising statewide and national problem of drug-exposed pregnancies, given the positive changes in the women’s substance-using behavior once interventions were initiated. Trend reports provided throughout this report reflect the importance of annual data collection. These data trends over time can show consistency, improvement, or highlight an area which may need further attention in the KY-Moms MATR program. Overall, evaluation results indicate that pregnant women participating in the KY-Moms MATR program significantly improved on a variety of inter-related risk factors including substance use, mental health symptoms, and intimate partner violence and had birth outcomes similar to the general population of mothers.

"It was very helpful for me. It educated me about substance abuse. I accomplished goals while I was there like getting my driver license."

- KY-MOMS MATR FOLLOW-UP CLIENT

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⁴ Each birth outcome was entered as the dependent variable in a separate binary logistic regression model with KIDS NOW Plus participation as the predictor variable and the covariates of mother’s age, education (i.e., high school diploma or higher), area of residence (metropolitan vs. non-metropolitan county), marital status, and smoking at the time of the birth. The alpha level was set at p < .01.