Introduction

The overall goal of the KIDS NOW Plus 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. KIDS NOW Plus 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 receive information and support to facilitate a healthy pregnancy and fetus as well as to meet needs after the baby is born.

EVALUATION METHOD

The KIDS NOW Plus outcome evaluation includes a face-to-face baseline interview by program staff from eight 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 for 169 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 KIDS NOW Plus 2016 Outcomes Report1 and is organized into four main sections: (1) quality of life indicators; (2) changes on the three main factors targeted at prenatal baseline and postnatal follow-up; (3) birth events and outcomes compared to the general population of mothers; and, (4) client satisfaction with the KIDS NOW Plus program.

DESCRIPTION OF KIDS NOW PLUS CLIENTS INCLUDED IN THE FOLLOW-UP SAMPLE

Of these 169 clients who entered KIDS NOW Plus case management services:

- They were an average of 21 weeks pregnant and were in the program an average of 19 weeks.
- They were an average of 25 years old and predominately white (92%).
- Almost one-third were not married or not currently cohabiting, 56% were married or cohabiting, and 14% were separated/divorced.
- They were mostly from non-metropolitan areas (47%) while 37% were from metropolitan areas and 16% were from very rural areas.
- Slightly more than one-quarter had less than a high school degree, 34% were high school graduates or had their GED, 28% had some college, and 5% had a college degree.
- Over three-quarters were not currently employed.

Quality of Life Indicators

<table>
<thead>
<tr>
<th>FEELING VERY CONFIDENT ABOUT TAKING CARE OF NEWBORN</th>
<th>PERCEPTIONS ABOUT HOW DIFFICULT LIFE WOULD BE/IS WITH BABY</th>
<th>QUALITY OF LIFE PERCEPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>60% of clients felt very confident at baseline</td>
<td>20% of clients felt life with the baby would be not very difficult and very/fairly manageable at baseline</td>
<td>Ratings were from 1=’Worst imaginable’ to 5=’Good and bad parts were about equal’ to 10=’Best imaginable’.</td>
</tr>
<tr>
<td>94% of clients felt very confident at follow-up</td>
<td>54% of clients felt life with the baby would be not very difficult and very/fairly manageable at follow-up</td>
<td>6.4 Baseline 8.2 Follow-up</td>
</tr>
</tbody>
</table>

1 Findings from the full report can be downloaded from http://cdar.uky.edu/KIDSNOW/
Factors Targeted by KIDS NOW Plus

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

**SUBSTANCE USE**

- 49% of clients reported any illegal drug use at baseline
- 10% of clients reported any illegal drug use at follow-up
- 52% of clients reported any alcohol use at baseline
- 15% of clients reported any alcohol use at follow-up
- 79% of clients reported smoking cigarettes at baseline
- 65% of clients reported smoking cigarettes at follow-up

**MENTAL HEALTH**

**DEPRESSION**

- 38% of clients met criteria for depression at baseline
- 18% of clients met criteria for depression at follow-up

**GENERALIZED ANXIETY**

- 34% of clients met criteria for anxiety at baseline
- 20% of clients met criteria for anxiety at follow-up

**STRESS-RELATED HEALTH CONSEQUENCES**

- 18 average score on Stress-related Health Consequences scale at baseline
- 7 average score on Stress-related Health Consequences scale at follow-up

**INTIMATE PARTNER VIOLENCE**

- 28% of clients reported any intimate partner abuse at baseline
- 15% of clients reported any intimate partner abuse at follow-up

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2 Measure of symptoms in the past 7 days

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.
Birth Events and Outcomes

KIDS NOW PLUS CASE MANAGEMENT CLIENTS COMPARED TO THE GENERAL POPULATION OF MOTHERS

Using the Kentucky Vital Statistics data and adjusting for key demographic factors, birth events and outcomes of KIDS NOW Plus case management clients and their babies were compared to others in the state who had babies during the same period (between December 2013 and December 2014) but who did not participate in the KIDS NOW Plus Case Management study (n = 55,351).

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

<table>
<thead>
<tr>
<th>KIDS NOW Plus</th>
<th>General Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average gestational age of <strong>38.3</strong> weeks</td>
<td>Average gestational age of <strong>38.3</strong> weeks</td>
</tr>
<tr>
<td>Average birth weight of <strong>7lbs, 2oz</strong></td>
<td>Average birth weight of <strong>7lbs, 3oz</strong></td>
</tr>
<tr>
<td>Average APGAR of <strong>8.9</strong></td>
<td>Average APGAR of <strong>8.8</strong></td>
</tr>
<tr>
<td>Average of <strong>12.9</strong> prenatal visits</td>
<td>Average of <strong>11.8</strong> prenatal visits</td>
</tr>
</tbody>
</table>

### Client Satisfaction with KIDS NOW Plus

- **99%** learned about the risks of tobacco, alcohol and drugs during pregnancy
- **98%** felt better about themselves after participation
- **96%** believed they had a healthier pregnancy
- **95%** felt their mental health had improved
- **92%** felt safer from intimate partner violence

> It was helpful. My case manager helped me get the services I needed to have a better pregnancy.”

- KIDS NOW Plus Follow-up Client

### 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. Overall, evaluation results indicate that pregnant women participating in the KIDS NOW Plus case management 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. Results also indicate clients appreciate their experiences in the program and have a better quality of life after participation.

*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.*