Breastfeeding Initiation:
- 77% of prenatal WIC participants initiated breastfeeding.
- 64% of prenatal WIC participants who initiated breastfeeding received breastfeeding peer counseling services.
- After adjusting for factors known to be associated with breastfeeding, prenatal WIC participants who received breastfeeding peer counseling services prenatally were 27% more likely to initiate breastfeeding compared to those who did not receive breastfeeding peer counseling services.

Breastfeeding Duration (6 months or more):
- 22% of prenatal WIC participants who initiated breastfeeding continued to breastfeed for 6 months or more.
- After adjusting for factors known to be associated with breastfeeding:
  - Prenatal WIC Participants who received only postnatal peer counseling services were 18% more likely to breastfeed 6 months or more compared to those who did not receive breastfeeding peer counseling services.
  - Prenatal WIC Participants who received prenatal and postnatal peer counseling services were 16% more likely to breastfeed 6 months or more compared to those who did not receive peer counseling services.

Data Source: Florida WIC Administrative Data Set

Introduction

Research has shown the benefits of breastfeeding increase with duration of breastfeeding. The American Academy of Pediatrics recommends exclusive breastfeeding without supplementation as the ideal nutrition for the first 6 months and continued breastfeeding for at least the first year of life.

Benefits of breastfeeding for the infant include:
- Enhanced cognitive development
- Reduced risk of obesity, diabetes, and asthma
- Reduced risk of death in postneonatal infants
- Increased immunity against infectious diseases such as respiratory infections, diarrhea, bacterial meningitis, bacteremia, and otitis media.

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is a national public health nutrition program that provides nutritious supplemental foods, nutrition education, breastfeeding support, and referrals for health care. Research has shown that the Loving Support® through Peer Counseling Program, a breastfeeding peer counseling model, increases breastfeeding initiation and duration rates. In 2010, the Florida WIC Program implemented the Loving Support® through Peer Counseling Program in all 43 local WIC agencies.

This data brief provides post-statewide implementation analysis findings for prenatal Florida WIC participants who were certified for the Florida WIC Program between January 2011 and May 2013 who delivered an infant between January 2011 and June 2013.

Characteristics of Prenatal Participants

Between 2011 and 2013, 205,641 prenatal Florida WIC participants were certified for Florida WIC and delivered an infant as shown in Table 1. The largest groups proportionally among prenatal Florida WIC participants:
- Were of Hispanic ethnicity (36%)
- Were born in the United States (69%)
- Were 20 to 29 years of age (60%)
- Had 12 years of education (53%)
- Were unmarried (73%)
- Did not smoke (89%)
- Delivered an infant greater than 2,500 grams/5.5 pounds or not a low birthweight infant (92%)
- Initiated breastfeeding (77%)
- Initiated breastfeeding and received one or more breastfeeding peer counseling services (64%)

With the exception of race/Hispanic ethnicity, prenatal Florida WIC participants were similar to the prenatal WIC participants nationally in 2011. The largest proportional groups in the National Pregnancy Nutrition Surveillance System (PNSS):  
- Were of Non-Hispanic White race (42%)
- Were 20 to 29 years of age (60%)
- Had 12 years of education (46%)
- Delivered an infant greater than 2,500 grams or not a low birthweight infant (92%)
- Initiated breastfeeding (70%)
Breastfeeding Initiation

Of the 77% of prenatal Florida WIC participants who initiated breastfeeding between January 2011 and June 2013, 64% received one or more peer counseling services. After adjusting for factors that influence breastfeeding, prenatal participants who received breastfeeding peer counseling services during the prenatal period were 27% more likely to initiate breastfeeding compared to participants who did not receive breastfeeding peer counseling services.

Additionally, the following participants were significantly more likely to initiate breastfeeding:

- Foreign-born participants were 26% more likely to initiate breastfeeding compared to U.S.-born participants.
- Participants with more than 12 years education were 15% more likely to initiate breastfeeding compared to participants with 12 years education.
- Hispanic participants were 8% more likely to initiate breastfeeding compared to Non-Hispanic White participants.
- Participants 35 years of age or older were 3% more likely to initiate breastfeeding compared to participants 20 to 34 years of age.

In contrast, the following participants were significantly less likely to initiate breastfeeding:

- Participants who smoked were 18% less likely to initiate breastfeeding compared to participants who did not smoke.
- Non-Hispanic Black participants were 9% less likely to initiate breastfeeding compared to Non-Hispanic White participants.
- Unmarried participants were 9% less likely to initiate breastfeeding compared to married participants.
- Participants with less than 12 years education were 9% less likely to initiate breastfeeding compared to participants with 12 years education.
- Multiparous participants were 8% less likely to initiate breastfeeding compared to primiparous participants.
- Participants less than 20 years of age were 5% less likely to initiate breastfeeding compared to participants 20 to 34 years of age.

Breastfeeding Duration

Among the prenatal Florida WIC participants who initiated breastfeeding, 22% breastfed for 6 months or more. After adjusting for factors that influence breastfeeding:

- Participants who received only prenatal breastfeeding peer counseling services were no more likely to breastfeed for 6 months or more than participants who did not receive any breastfeeding peer counseling services.
- Participants who received only postnatal breastfeeding peer counseling services were 18% more likely to breastfeed for 6 months or more compared to participants who did not receive any breastfeeding peer counseling services.
- Participants who received prenatal and postnatal breastfeeding peer counseling services were 16% more likely to breastfeed for 6 months or more compared to participants who did not receive any breastfeeding peer counseling services, as shown in Table 2.

Table 1: Characteristics of Prenatal Florida WIC Participants, Calendar Years 2011-2013

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity</td>
<td>Non-Hispanic White</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>Non-Hispanic Black</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>Non-Hispanic Other</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>36%</td>
</tr>
<tr>
<td>Origin of Birth</td>
<td>Foreign-born</td>
<td>31%</td>
</tr>
<tr>
<td></td>
<td>U.S.-born</td>
<td>69%</td>
</tr>
<tr>
<td>Age Groups</td>
<td>&lt; 15</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>15-17 years</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>18-19 years</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>20-29 years</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>30-39 years</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>40 years and older</td>
<td>2%</td>
</tr>
<tr>
<td>Education Status</td>
<td>&lt; 12 years</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>12 years</td>
<td>53%</td>
</tr>
<tr>
<td></td>
<td>&gt; 12 years</td>
<td>22%</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Unmarried</td>
<td>73%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>11%</td>
</tr>
<tr>
<td>Infant Birthweight</td>
<td>&lt; 2,500 grams</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>&gt; 2,500 grams</td>
<td>92%</td>
</tr>
<tr>
<td>Parity</td>
<td>0</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>2-4</td>
<td>26%</td>
</tr>
<tr>
<td></td>
<td>5 or more</td>
<td>2%</td>
</tr>
<tr>
<td>Initiated Breastfeeding</td>
<td>Yes</td>
<td>77%</td>
</tr>
<tr>
<td>Initiated Breastfeeding and Received One or More Breastfeeding Peer Counseling Services</td>
<td>Yes</td>
<td>64%</td>
</tr>
</tbody>
</table>
Table 2: Breastfeeding Duration Adjusted Risk Ratios (ARR) by Breastfeeding Peer Counseling Service (PCS)

<table>
<thead>
<tr>
<th>Type of Counseling</th>
<th>ARR</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postnatal PCS Only (Reference: No PCS)</td>
<td>↑ 18%</td>
<td>1.18-1.21</td>
</tr>
<tr>
<td>Prenatal and Postnatal PCS (Reference: No PCS)</td>
<td>↑ 16%</td>
<td>1.14-1.19</td>
</tr>
</tbody>
</table>

*Adjusted for factors associated with breastfeeding duration.

Furthermore, of the participants who initiated breastfeeding, the following participants were significantly more likely to breastfeed 6 months or more:

- Foreign-born participants were 28% more likely to breastfeed 6 months or more compared to U.S.-born participants
- Participants 35 years and older were 15% more likely to breastfeed 6 months or more compared to participants 20 to 34 years of age
- Participants with less than 12 years of education were 12% more likely to breastfeed 6 months or more compared to participants with 12 years education
- Participants with more than 12 years of education were 13% more likely to breastfeed 6 months or more compared to participants with 12 years education
- Multiparous participants were 17% more likely to breastfeed 6 months or more compared to primiparous participants

Conversely, of those who initiated breastfeeding, the following participants were significantly less likely to breastfeed 6 months or more:

- Non-Hispanic Black (5%), Non-Hispanic Other (9%), and Hispanic (6%) participants were less likely to breastfeed 6 months or more compared to Non-Hispanic White participants
- Participants who smoked were 33% less likely to breastfeed 6 months or more compared to participants who did not smoke
- Participants who were less than 20 years of age were 26% less likely to breastfeed 6 months or more compared to participants 20 to 34 years of age
- Unmarried participants were 17% less likely to breastfeed 6 months or more compared to married participants
- Participants with infants weighing less than 2,500 grams were 20% less likely to breastfeed 6 months or more compared to participants with infants weighing more than 2,500 grams

Conclusions

The findings of this brief are comparable with other studies that show that receipt of breastfeeding peer counseling services are associated with increased breastfeeding initiation and duration. Additionally, other studies have shown that Non-Hispanic Black participants are less likely to initiate breastfeeding and continue to breastfeed at 6 months. To address this issue the Florida WIC Program should consider personal, social, and cultural factors when developing breastfeeding peer counseling program improvements.

Data Source: Florida WIC Program administrative data files.

Definitions:
- Breastfeeding initiation: infant ever breastfed.
- Breastfeeding duration: the reported or calculated length of time the infant was breastfed among participants who reported initiating breastfeeding. Duration was calculated when the participant reported still breastfeeding at the last WIC visit. Calculated duration = date of last visit - infant date of birth.
-Non-Hispanic Other race: included women who were Non-Hispanic and not of Black or White race.
- Peer Counseling Service: received one or more breastfeeding service code 8165 (individual) or 8170 (group).

Adjustment Factors: race/ethnicity, age, education, marital status, smoking, parity, birthweight, nativity, and receipt of breastfeeding peer counseling service.

References:
14. Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity, and Obesity. 2011 Pregnancy Nutrition Surveillance System Report. Page 1. Table 1D.

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