Black Infant Health Evaluation

Important Findings:

- A larger proportion of BIH clients had babies born without birth defects, compared to African American mothers in L.A. County.
- The infant mortality rate for the BIH sample was lower than that of African American mothers in L.A. County and nationally.
- Rates of low birthweight are higher for BIH mothers than those for African American mothers in L.A. County.
- Preterm birth rates were lower for BIH clients than for African American women in L.A. County and nationally.

Background

The Black Infant Health (BIH) Program was created in 1989 in California to address the high infant mortality rates among African Americans. The program offers health education, health promotion, empowerment, social support, referrals and tracking among pregnant and parenting African American women. It raises awareness among the clients about birth outcomes, such as infant mortality, low birthweight and preterm birth, and promotes understanding and management of stress and the importance taking care of one’s health.

In Los Angeles County, there are three local health jurisdictions or BIH provider agencies implementing the BIH Program:

1. Long Beach Department of Health
2. Los Angeles County Public Health Department
3. Pasadena Department of Health

The original BIH model was designed to be flexible enough to adapt to each community’s needs and capacities. It initially consisted of six modules: 1) prenatal care outreach and care coordination, 2) comprehensive case management, 3) social support and empowerment, 4) the role of men, 5) health behavior modification and 6) prevention — with the latter two being discontinued due to lack of resources. All agencies were required to implement the prenatal care outreach and care coordination module. In 2010, the BIH Program was revised to be more standardized and to allow for tracking of child outcomes. This model includes two features: 1) group intervention emphasizing empowerment and social support and 2) enhanced social service case management to follow through on clients who are referred for additional services. Only Pasadena and Long Beach began implementing the revised model in July 2011, while L.A. County is slated to begin implementing the new model in 2013.

In 2011, First 5 LA contracted with Clarus Research to conduct an evaluation of the program. One primary objective of the evaluation is to understand the extent to which the BIH Program is achieving the desired goals of improving pregnancy and birth outcomes for African American women and infants. Due to the timeframe of the evaluation period, outcome data collected from all three agencies were based on the original BIH model. Results are presented in aggregate, which must be interpreted with caution due to the differences in model implementation across agencies, as well as separately.
Study Methods

To determine if there were program influences on pregnancy, birth and breastfeeding outcomes among BIH clients, data were compared between BIH and comparison samples. The primary data source for the BIH sample was the Black Infant Health Management Information System (BIH-MIS) aggregated reports. The BIH sample comprised 2,348 clients across all three provider agencies (Pasadena, Long Beach and L.A. County) who participated in the program between 2008 and 2011. A comparative sample of 17,543 African American mothers was obtained from the Los Angeles County Vital Statistics birth records. This sample was matched to the BIH programs’ client population using zip code, mother’s age and education. Also, whenever available, national rates for birth outcomes to African American mothers were included here for additional comparison.

OUTCOME EVALUATION

Overall, the evaluation suggests that BIH clients have achieved outcomes that are comparable to, and in some cases better than, comparison samples. The following is a summary of the findings on the outcomes.

Type of Delivery

• The proportion of Cesarean births was lower for the BIH sample (42 percent) than that for African American women in the Vital Statistics sample (40 percent).
• Both rates were higher than the national rate of Cesarean births for African American women (34.4 percent).
• The rates of Cesarean births varied across BIH agencies (Pasadena 33.1 percent, Long Beach 44.3 percent, L.A. County 43.1 percent).

Gestational Age

• Mothers in the BIH sample had lower rates of preterm delivery than African American mothers in the Los Angeles County Vital Statistics sample and nationally (see Figure 1).
• Within the BIH sample, preterm birth rates varied across the three agencies, with rates of 6.7% percentin Pasadena, 26.7 percent in Long Beach and 12.8 percent in L.A. County.
Birthweight

- Mothers in the BIH sample have more babies born with very low birthweight (3.6 percent), defined as less than 1,500 grams or 3 pounds, 8 ounces, compared to African American mothers in the Vital Statistics sample (2.7 percent).
- Mothers in the BIH sample have more babies born with low birthweight (12.8% percent), defined as less than 2,500 grams or 5 pounds, 8 ounces, compared to African American mothers in the Vital Statistics sample (9.9 percent).
- Low birthweight rates varied across the BIH agencies (Pasadena 5.1 percent, Long Beach 10.9 percent, L.A. County 13.9 percent).

Infant Mortality

- The BIH sample had fewer neonatal deaths (0.6 percent) compared to the rate among African American women in the Vital Statistics sample (1.9 percent), and in the nation (1.3%).
- There were 1,355 live births out of 1,363 births recorded for the BIH sample.
- The proportion of live births were fairly similar across all BIH agencies (Pasadena 100 percent, Long Beach 98.0 percent, L.A. County 99.5 percent)

Birth Defects

- The proportion of babies born without birth defects was higher for the BIH women (96.4 percent) than that of African American women in the Vital Statistics sample (91.1 percent).
- The proportions of babies born without birth defects were similar across BIH agencies (Pasadena 97.8 percent, Long Beach 96.2 percent, L.A. County 96.2 percent).

Breastfeeding Outcomes

Breastfeeding Initiation

- Mothers in the BIH sample (69.1 percent) had lower rates of breastfeeding initiation compared to African American mothers in the Vital Statistics sample (79.4 percent).
- The breastfeeding initiation rate for the BIH sample was slightly higher than those for African American mothers statewide (66.7 percent) and nationally (54.4 percent).1
- Breastfeeding initiation rates varied across the BIH agencies (Pasadena 85.4 percent, Long Beach 81.0 percent and L.A. County 86 percent).
- Common reasons for not breastfeeding include preference for bottle feeding (48.2 percent), followed by mother’s medical/physical difficulties (15.3 percent).

### Table 1
**Babies Born With No Birth Defects**

<table>
<thead>
<tr>
<th></th>
<th>Pasadena</th>
<th>Long Beach</th>
<th>Los Angeles</th>
<th>Total BIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBI (N=1,341)</td>
<td>132 (97.8%)</td>
<td>76 (96.2%)</td>
<td>855 (96.2%)</td>
<td>1,063 (96.4%)</td>
</tr>
<tr>
<td>Vital Statistics</td>
<td></td>
<td></td>
<td></td>
<td>161,776 (93.2%)</td>
</tr>
</tbody>
</table>

![Fig 2. Low and Very Low Birthweight Rates of Babies Born to Mothers in the BIH and Comparison Samples](image-url)
Limitations

Because of the nature of the aggregated reports utilized for the outcome evaluation, outcome comparisons were limited to descriptive analyses. Program fidelity was also not measured across the BIH agencies since the original BIH model allowed for tailoring of the program according to the community’s needs, which may explain the differences in findings across the agencies.

References


Endnotes

1. Centers for Disease Control and Prevention, 2010