Welcome Baby Home Visiting

Findings from the 36-Month Child & Family Survey and 3-Year Longitudinal Results

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# Table of Contents

**EXECUTIVE SUMMARY**.................................................................................................................. 4  
Overview of the Evaluation of Welcome Baby in Metro LA............................................................. 5  
Key Findings........................................................................................................................................ 6  
Study Limitations................................................................................................................................. 8  
Implications for the Welcome Baby Program ..................................................................................... 8

I. **INTRODUCTION** ......................................................................................................................... 8

II. **OVERVIEW OF WELCOME BABY** ........................................................................................... Error! Bookmark not defined.

III. **PREVIOUS EVALUATION FINDINGS** ...................................................................................... Error! Bookmark not defined.

IV. **METHODS** ................................................................................................................................. Error! Bookmark not defined.  
   A. Sample Recruitment and Retention ........................................... Error! Bookmark not defined.  
      Intervention Group.................................................................................. Error! Bookmark not defined.  
      Comparison Group................................................................................... Error! Bookmark not defined.  
      Survey Retention...................................................................................... Error! Bookmark not defined.  
   
   B. Description of 36-Month Child and Family Survey ............. Error! Bookmark not defined.  

   C. Data Collection Procedures for 36-Month Child and Family Survey Error! Bookmark not defined.

   D. Research Questions and Analytic Approach ....................... Error! Bookmark not defined.  
      36-Month Cross-Sectional Research Questions and Analysis .... Error! Bookmark not defined.  
      Longitudinal Research Questions and Analysis....................... Error! Bookmark not defined.  

V. **STUDY FINDINGS** ...................................................................................................................... Error! Bookmark not defined.

   A. Cross-sectional Analysis of the 36-Month Child & Family Survey ... Error! Bookmark not defined.  
      Sample Characteristics........................................................................... Error! Bookmark not defined.  
      Findings from the 36-Month Child & Family Survey ...................... Error! Bookmark not defined.  
      Quality of Parenting and Parent Child Interactions.............. Error! Bookmark not defined.  
      Child Development .............................................................................. Error! Bookmark not defined.  
      Home Environment and Activities ................................................. Error! Bookmark not defined.  
      Child Nutrition and BMI ................................................................. Error! Bookmark not defined.  
      Maternal and Child Physical Health and Health Care Coverage... Error! Bookmark not defined.  
      Maternal Mental Health ................................................................. Error! Bookmark not defined.  
      Family Well-being and Sources of Economic Support ... Error! Bookmark not defined.
B. Timing and Dosage Effects: A Sensitivity Analysis Among Mothers Enrolled in Welcome Baby Home Visiting

C. Longitudinal Analysis of Effects of Welcome Baby

Characteristics of the Merged Sample

Longitudinal Findings from the 12-, 24-, and 36-Month Child & Family Surveys

Select Child and Family Outcomes Assessed at All Waves

Select Child and Family Outcomes Assessed at 24 and 36 Months

Robustness Check: Jackknife Resampling Procedure

D. Timing and Dosage Effects: A Sensitivity Analysis of Longitudinal Findings

VI. STUDY LIMITATIONS

VII. DISCUSSION AND IMPLICATIONS

Appendix A: Key Measures from 36-Month Child and Family Survey

Appendix B: Measures Available for Longitudinal Analysis

Appendix C: Description of Key Measures from Child and Family Survey

Appendix D: Longitudinal Data File Creation

Appendix E: 36-Month Child and Family Survey

Appendix F: Heterogeneity in the Effects of Welcome Baby by Mothers’ Characteristics

Tables

Table 1. Significant Outcomes at 36 Months Associated with Welcome Baby

Table 2. Significant Longitudinal Outcomes Associated with Welcome Baby

Table 3. Key Measures from 36-Month Child and Family Survey

Table 4. Sample Descriptive Characteristics at 36 Months by Treatment Groups

Table 5. Effects of Welcome Baby on Parenting and the Parent-Child Relationship at 36 Months

Table 6. Effects of Welcome Baby on Child Development at 36 Months
Table 7. Effects of Welcome Baby on Home Environment and Activities at 36 Months... Error! Bookmark not defined.
Table 8. Effects of Welcome Baby on Child Nutrition at 36 Months .......... Error! Bookmark not defined.
Table 9. Effects of Welcome Baby on Child BMI at 36 Months .. Error! Bookmark not defined.
Table 10. Effects of Welcome Baby on Maternal and Child Physical Health at 36 Months Error! Bookmark not defined.
Table 11. Effects of Welcome Baby on Maternal Mental Health at 36 Months ................. Error! Bookmark not defined.
Table 12. Effects of Welcome Baby on Family Well-Being and Sources of Economic Support at 36 Months ................................................. Error! Bookmark not defined.
Table 13. Welcome Baby Initiation and Duration (N=446) .......... Error! Bookmark not defined.
Table 15. Child and Family Outcomes, by Completion of Welcome Baby 9-Month Visit... Error! Bookmark not defined.
Table 17. Longitudinal Effects of Welcome Baby on Select Child and Family Outcomes Collected at All Waves ......................................................... Error! Bookmark not defined.
Table 18. Longitudinal Effects of Welcome Baby on Select Child and Family Outcomes Collected at 24 and 36 Months ................................................. Error! Bookmark not defined.
Table 19. Longitudinal Child and Family Outcomes, by Welcome Baby Initiation ........ Error! Bookmark not defined.
Table 20. Longitudinal Child and Family Outcomes, by Completion of Welcome Baby 9-Month Visit ................................................................. Error! Bookmark not defined.

Figures

Figure 1. Welcome Baby Client Flow Chart ...................... Error! Bookmark not defined.
Figure 2: Logic Model for the Effects of Welcome Baby Home Visiting Intervention on Child and Family Outcomes ........................................ Error! Bookmark not defined.
Figure 3. Adjusted Group Means on PICCOLO Subscales........ Error! Bookmark not defined.
Figure 4. Adjusted Group Means on ASQ-3 Subscales .......... Error! Bookmark not defined.
Figure 5. Adjusted Probability of Being on Track and Not At-Risk According to BITSEA Subscales ................................................................. Error! Bookmark not defined.
Figure 6. Adjusted Percent of Children Overweight or Obese.... Error! Bookmark not defined.
Figure 7. Percent of Study Participants who Completed Each Welcome Baby Engagement Point ................................................................. Error! Bookmark not defined.
Figure 8. Adjusted Group Means on ASQ Communication Subscale between 12 and 36 Months ................................................................. Error! Bookmark not defined.

Figure 9. Adjusted Group Means on Engagement in Home Learning Activities (Standardized) between 12 and 36 Months ................................................................. Error! Bookmark not defined.

Figure 10. Adjusted Group Means on PICCOLO Teaching Subscale between 12 and 36 Months Error! Bookmark not defined.
EXECUTIVE SUMMARY

Welcome Baby is a free and voluntary home visiting program recently established at fourteen hospitals in communities throughout Los Angeles County. This locally designed program—funded by First 5 LA—provides education and support for pregnant women and mothers of newborns, who are recruited either prenatally or in the hospital after giving birth. The model has been piloted in one downtown Los Angeles community—designated as Metro LA—since 2009, offering services to women who give birth at California Hospital Medical Center (CHMC) and live within a five-mile radius of the hospital. Services in Metro LA are administered by Maternal and Child Health Access (MCH Access) through an agreement with CHMC.

The Welcome Baby protocol, as implemented by MCH Access, includes up to nine contacts (or “engagement points”) for women who enter prenatally, and up to six engagement points for women who enter postpartum, including:

1. A prenatal home visit at any point up to 27 weeks gestation;
2. A prenatal phone call between 20 and 28 weeks gestation;
3. A prenatal home visit between 28 and 38 weeks gestation;
4. A hospital visit, following delivery, administered by the CHMC hospital liaison;
5. A nurse home visit within 72 hours of discharge from the hospital;
6. A home visit between two and four weeks postpartum;
7. A phone call between at two months postpartum;
8. A home visit between three and four months postpartum; and
9. A final home visit at nine months postpartum.

Mothers are assigned a parent coach for the duration of their participation, up to nine months postpartum. Besides the hospital and nurse visits, all engagement points are conducted by parent coaches with different levels of experience ranging from paraprofessionals to Master’s level supervisors. All parent coaches are certified lactation educators, with breastfeeding education and support being a critical component of the home visiting model.

The content of each visit is designed to focus on topics relevant to a client’s prenatal or postpartum needs. For instance, prenatal Welcome Baby visits focus on strategies for a healthy pregnancy (including prenatal care, nutrition, health education, preparation for child birth, labor and delivery, and warning signs of pre-term labor). At the hospital, breastfeeding instruction and support continues, as well as teaching the importance of mother/infant bonding. The 72-hour nurse visit focuses primarily on the health of the mother and infant, post-delivery. Postpartum visits then continue to provide education, guidance, and support on a broad range of issues, such as health and dental care, breastfeeding, parent-child attachment, child health and development, home safety, baby sleeping positions and maternal depression.
An important component throughout is that parent coaches make referrals to community resources when appropriate and available, to link families with services for which they may be eligible.

**Overview of the Evaluation of Welcome Baby in Metro LA**

The Urban Institute, along with its partner—the University of California, Los Angeles (UCLA)—was hired by First 5 LA to conduct a mixed methods evaluation of the implementation and impacts of Welcome Baby in pilot community of Metro LA from 2010 to 2015. The impact study component of the evaluation employs a quasi-experimental design to examine outcomes for women who received Welcome Baby home visiting compared to women who lived in Metro LA but were not offered the service.

To test for associations between program participation and child and family outcomes over time, the research team developed and administered a set of in-home survey instruments at 12, 24, and 36 months postpartum. This longitudinal Child and Family Survey is the primary data source used to examine whether and how Welcome Baby in Metro LA improves the health, development, and well-being of very young children and their families.

The surveys are composed of four parts:

1. A 90-minute parent interview that draws upon several validated scales designed to measure key aspects of parental well-being, the home environment, and children’s health and development;
2. A 10-minute observational assessment of a semi-structured, parent-child play session designed to measure the quality of parent-child interactions;
3. A home observation checklist that assesses the quality of the home environment and immediate neighborhood; and
4. A direct assessment of child height and weight, at 24 and 36 months only.

Together the measures examine seven key outcome domains: quality of the home environment; parenting and the parent-child relationship; child development; child nutrition; maternal and child health care and coverage; maternal mental health; and family well-being.

This report presents the findings from the 36-Month Child and Family Survey conducted between January 2013 and August 2014, as well as the results of longitudinal analyses utilizing data across multiple survey waves.
**Key Findings**

Previous analyses of survey data collected at 12 and 24 months postpartum reveal some small yet statistically significant associations between participation in the Welcome Baby home visiting program and targeted child and family outcomes. These results tell a compelling story about Welcome Baby home visiting, and improved parenting quality and child development (Benatar et al. 2013; Benatar et al. 2014). Subsequent analyses of survey data collected at 36 months postpartum indicate that effects related to parenting quality and child development continue to be maintained more than two years after the home visiting services were delivered. In particular, Welcome Baby participants are observed to be significantly more responsive and encouraging in their interactions with their three-year-old children than mothers in the comparison group, and their children have greater social competence and communication skills.

In addition to these sustained effects on repeated measures, a few significant positive findings emerge for the first time at 36 months. When playing with their mothers, children who participated in Welcome Baby exhibit significantly more positive behaviors, such as a high level of engagement and sustained attention, than do comparison group children. They also demonstrate greater personal-social skills (as reported by their mothers), lower body mass index (BMI), and higher rates of dental insurance. Meanwhile, mothers who participated in Welcome Baby display stronger teaching skills and affection towards their children, and lower parenting stress. Although more than two years had passed since mothers participated in Welcome Baby home visiting, these outcomes appear significantly associated with program participation. Table 1 summarizes all significant findings at 36 months.

**Table 1. Significant Outcomes at 36 Months Associated with Welcome Baby**

<table>
<thead>
<tr>
<th>Parent Outcomes</th>
<th>Child Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stronger maternal responsiveness</td>
<td>Greater communication skills</td>
</tr>
<tr>
<td>Stronger maternal encouragement</td>
<td>Greater social competence</td>
</tr>
<tr>
<td>Stronger maternal affection</td>
<td>Greater engagement and attention</td>
</tr>
<tr>
<td>Stronger maternal teaching</td>
<td>Greater personal-social skills</td>
</tr>
<tr>
<td>Lower parenting stress</td>
<td>Lower body mass index</td>
</tr>
<tr>
<td></td>
<td>Higher rates of dental insurance</td>
</tr>
</tbody>
</table>

Welcome Baby participation is associated with having higher quality home environments at both 12 and 24 months, but by 36 months, this effect fades. Additionally, children were more likely to have a doctor or professional recommend monitoring of their speech and language development at 24 months, suggesting a higher rate of early identification; these effects do not appear significant at 36 months.
In sum, while some findings fade over time, and still others appear significant for the first time at 36 months, the parenting quality and child development findings are strong and persistent across all three waves of the survey. Table 2 provides detail on the progression of the findings that have achieved significance more than once over the three waves of data collection.¹

Table 2. Significant Outcomes Associated with Welcome Baby at Various Survey Waves

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Significant at 12 Months</th>
<th>Significant at 24 Months</th>
<th>Significant at 36 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater child social competence</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Greater child communication skills</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Higher quality home environments</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>More frequent engagement in home learning activities</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Stronger maternal responsiveness</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Stronger maternal encouragement</td>
<td>n/a</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

¹Outcome was measured at 12, 24, and 36 months.
²Outcome was measured at only 24 and 36 months.

As a final step, with all three rounds of data collected, longitudinal analyses were conducted using data merged from all three survey waves to test the effect of Welcome Baby on repeated measures. A set of survey weights was also constructed and used to adjust for sample attrition over time. Only a limited number of effects are upheld in the longitudinal analyses, but those that are provide additional evidence of the effect of Welcome Baby on key parenting and child outcomes. Specifically, longitudinal analyses demonstrate significant effects on engagement in home learning activities, maternal responsiveness, and maternal teaching, as well as marginally significant effects on maternal encouragement. Additionally, children’s communication skills emerge as significant, and child social competence and monitoring of speech and language delays are marginally significant in the longitudinal analyses.

Completing the entire Welcome Baby curriculum through the nine-month visit, as opposed to dropping out earlier, is also associated with several positive outcomes, including greater observed maternal responsiveness, encouragement, and affection; more positive observed child behavior when engaging in play; and a greater likelihood of child dental coverage at 36 months.

Further sensitivity analyses designed to test the robustness of the cross-sectional and longitudinal results show significant variation in effects by maternal education level, partnership status, and whether a woman was a first-time mother. Specifically, mothers with

¹ Twenty-three outcome measures were repeated across all three waves. Ten measures were repeated at 24 and 36 months.
less than a high school degree or GED demonstrate greater increases in engagement in home learning activities and observed interactions with children compared with more educated mothers. Similarly, their children demonstrate significantly higher quality behavior during parent-child play than children of more educated mothers. Mothers who do not have a spouse or partner also benefit more from the intervention in overall stress reduction.

Overall, these findings support the wisdom of First 5 LA’s investment in Welcome Baby, and suggest that program participation leads to many important outcomes that the program was designed to target—with strong and consistent effects on parenting quality and child-development measures.

Study Limitations

There are some limitations to these analyses that should be considered. First, this work is based on a quasi-experimental design, which is not as rigorous as other evaluation methods, including random assignment. In addition, baseline data to evaluate changes pre- and post-intervention were not available. As a result, this study can only report associations between program participation up to nine months postpartum and subsequent child and family outcomes assessed at 12, 24, and 36 months postpartum. Importantly, this intent-to-treat study included women who did not receive the full program, and therefore provides a potentially conservative estimation of the effects that could be realized by families who complete all home visits and for teenage mothers who might be expected to derive additional benefit from the support provided by parent coaches. Lastly, while this evaluation does consider how effects may vary by Welcome Baby timing and dosage, there is no comparison group available for those analyses—which are purely descriptive.

Implications for the Welcome Baby Program

In light of the recent scale-up of Welcome Baby in 13 additional Los Angeles County communities, findings from this evaluation of the pilot program in Metro LA suggest prenatal engagement and completion of the full program would be beneficial to participants and merits additional examination in future studies. Furthermore, findings from the 36-month survey indicate that the program is having sustained effects on parenting practices, child social competence, child communication skills, and may have implications for certain measures of child health, specifically as it relates to breastfeeding, overweight and obesity. These results should be useful to consider in the context of ongoing discussions of program sustainability, protocol refinement, and program intensity.

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2 Women eligible for the study had to have completed at least the 72-hour visit (or another post-partum home visit) and be at least 18 years old.