

EVALUATION OF THE POSTPARTUM/NEWBORN HOME VISIT SERVICE: AIKEN COUNTY, HEALTH REGION 5, SCDHEC

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Background

- Home visit programs are a service strategy involving an actual visit to the client.
- Home visit programs have been shown to improve the lives of mothers economically. Fewer subsequent pregnancies and positive effects on breastfeeding have also been realized
- However, home visit programs have not resulted in increases in the utilization of preventive health services.
- The South Carolina Postpartum/Newborn Home Visit (SC PPNBHV) service targets Medicaid newborns and their mothers.
- The goals of this service are to assess the needs of the infant and mother, provide targeted education, and link the dyad to preventive health care and nutritional services such as the WIC program in order to reduce infant mortality rates.

Purpose of Study

- In the light of inconsistencies in research findings, this study was conducted to answer the following questions:
 - Is the home visit service being implemented as designed?
 - Is there a difference in outcomes between infants who receive a home visit and those who do not?

Methods

- Data was abstracted from the health records of 176 randomly selected infants who were born and enrolled in the WIC program in Fiscal Year 2004
- Process Evaluation: timeliness of home visits (within 72 hours after discharge), efforts made to address health problems at the visit, and the appropriateness of revisits
- Impact Evaluation:
 - Dependent variables:
 - Early enrollment in the WIC program (≤ 21 days)
 - Immunization Status at 6/9 months
 - Medical Provider Status at 1 year
 - Independent Variables
 - Home Visit Status
 - Birth Weight
 - Infant of WIC Mom
 - Race/Ethnicity
 - Formula use
- Data Analysis: Chi-square tests and multiple logistic regression (using SAS vs. 9.1)

Results: Study Population

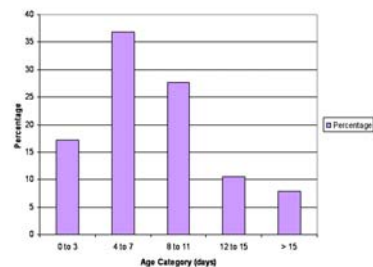
Table 1. Characteristics of Study Population

Characteristics of Infants	Frequency (%)
Total	176 (100)
Gender	
Male	89 (50.6)
Female	87 (49.4)
Race	
White	87 (49.4)
Black	76 (43.2)
Other	13 (7.4)
Birth Weight	
Normal	166 (94.3)
Low	10 (5.7)
Home Visit	
Yes	76 (43.2)
No	100 (56.8)
Infant of WIC Mom*	
Yes	131 (74.4)
No	42 (23.9)
Unknown	3 (1.7)

*Infant whose mother was enrolled in the WIC program during the prenatal period

Results: Process Evaluation

Figure 1. Home Visit by Number of Days after Discharge



Results: Process Evaluation

Table 2. Efforts made to Address Selected Health Problems

Health Problems	Frequency (%)	Appropriate Education Frequency (%)
Jaundice	14 (18)	10 (71)
Diaper Rash	6 (8)	2 (33)
Heart Murmur	4 (5)	2 (50)
Oral Thrush	2 (3)	2 (100)
Failed Hearing Test	1 (1)	1 (100)
Diarrhea	1 (1)	1 (100)

Note: These problems were found in infants at the home visit

Results: Impact Evaluation

Table 3. Multiple Logistic Regression Analysis of Factors influencing Early Enrollment in the WIC Program

Characteristics	Adjusted Odds Ratio*	95% C. I.
Home Visit		
Yes	4.00	1.92 – 8.36
No	1.00	Reference
Race		
Black	2.20	0.60 – 7.99
White	3.00	0.82 – 11.00
Other	1.00	Reference
Birth Weight		
Normal	3.06	0.75 – 12.51
Low	1.00	Reference
Formula use**		
Yes	3.41	1.05 – 11.07
No	1.00	Reference
Infant of WIC Mom***		
Yes	1.82	0.83 – 3.98
No	1.00	Reference

Note: Dependent variable is early enrollment in the WIC program (≤ 21 days after birth)
*Each independent variable was adjusted for all other independent variables. There was no adjustment for WIC enrollment status at the time of the home visit
**Whether the infant was being fed with infant formula at the time of enrollment in the WIC program
***Infant whose mother was enrolled in the WIC program during the prenatal period

Results: Impact Evaluation

- Immunization Status at 6/9 months:
 - Data was available for 101 infants
 - 98 (97%) had up-to-date immunization
 - No significant difference was found between infants who received a home visit and those who did not.
- Medical Provider Status at 1 year
 - Data was available for 110 infants
 - 108 (98%) had a medical provider for well care
 - No significant difference was found between infants who received a home visit and those who did not.

Summary

- Less than 20% of infants received a timely home visit
- A positive association was found between home visit status and early enrollment in the WIC program
- No significant difference was found in the utilization of preventive health services by both groups (infants who received a home visit and those who did not)

Implications

- Periodic program monitoring (county/state level) is necessary to ensure program fidelity, determine impact, and provide feedback for continuous quality improvement
- For a Postpartum/Newborn Home Visit (PPNBHV) service, timeliness is important because the key physiologic events in the dyad occur in the third or fourth postpartum day.
- A home visit program of this nature is important as an entrée into other service programs

