

# IMPLEMENTATION OF A LOW BIRTH WEIGHT REVIEW FOR THE NURSE-FAMILY PARTNERSHIP

Nurse-Family Partnership  
Marion County, Indianapolis, Indiana

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# Objectives

- In this presentation:
  - What is Nurse-Family Partnership?
  - Discuss the reasons/ purpose of the LBW review
  - Why FIMR?
  - Purpose and goals of the LBWR
  - Stages of the review process
  - Process for evaluation
  - Next steps

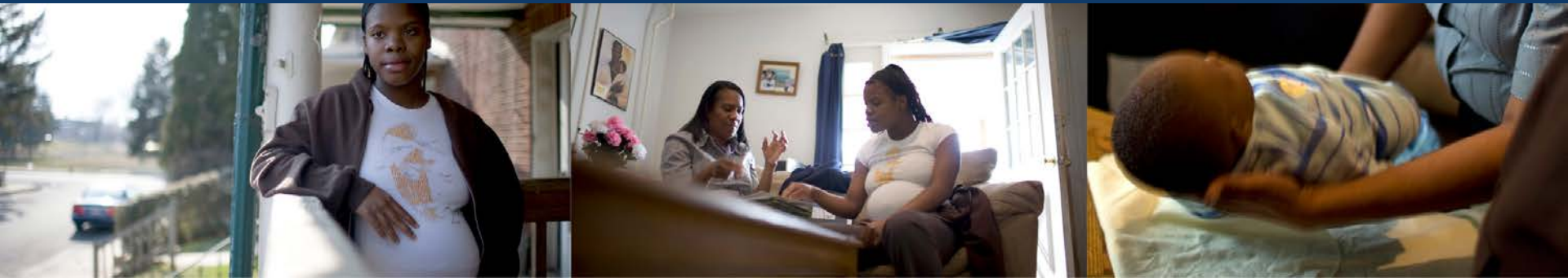


## Nurse-Family Partnership is...

- An evidence-based, community health program
- Transforming lives of vulnerable first-time mothers living in poverty
- Improving prenatal care, quality of parenting and life prospects for mothers by partnering them with a registered nurse

Every dollar invested in Nurse-Family Partnership can yield **over five dollars in return.**





## Program Goals

- Improve pregnancy outcomes
- Improve child health and development
- Improve parents' economic self-sufficiency

## Key Program Components

- Program fidelity
- First-time, at-risk mothers
- Intensive services (intensity, duration)
- Focus on behavior
- Registered nurses

## Why Nurses?

- Knowledge, judgment and skills
- High level of trust, low stigma
- Credibility and perceived authority
- Nursing theory and practice at core of model

## Trials of the Program

*Dr. Olds' research & development of NFP continues today...*



**1977**

Elmira, NY

Participants: **400**

Population: **Low-income whites**

Studied: **Semi-rural area**



**1988**

Memphis, TN

Participants: **1,139**

Population: **Low-income blacks**

Studied: **Urban area**



**1994**

Denver, CO

Participants: **735**

Population: **Large portion of Hispanics**

Studied: **Nurse and paraprofessionals**



Family outcomes that have been shown in one or more of the Nurse-Family Partnership randomized, controlled trials include:

**48%** reduction in child abuse and neglect

**56%** reduction in emergency room visits for accidents and poisonings

**59%** reduction in arrest of children at age 15

**67%** reduction in behavioral and intellectual problems in children at age six

**79%** fewer preterm deliveries



## Why is Goodwill Implementing NFP in Indiana?

### Goodwill Vision:

- We help create solutions to poverty by developing and implementing effective ways to help people become more productive, economically self-sufficient, contributing citizens.

***Clear alignment of goals:*** The values behind Nurse-Family Partnership® align perfectly with Goodwill.

***Long-term,*** the partnership helps fight generational poverty and improve the lives of multiple generations.



Vision  
Mission  
& Values





# NFP Indiana

August 2016

- **1795** mothers have been served by the NFP program
- **1201** infants have been born to NFP mothers





## 2015 Outcomes



On average, NFP moms began prenatal care at **9 weeks**.

*The American College of Obstetrics and Gynecology benchmark is 12 weeks.*



Of those who self-reported smoking, **58%** quit prior to giving birth.

*NFP objective is 20% reduction.*



**91%** of babies born at a healthy weight.

*Healthy People 2020 goal is 92%.*



**89%** of moms initiated breastfeeding; **33%** of babies still breastfeeding at 6 months; **19%** at 12 months.

*Healthy People 2020 goal for initiating breastfeeding is 82%.*



**90%** of babies born at full term.

*Healthy People 2020 goal is 89%.*



**96%** of babies had up-to-date immunizations at 6 months; **95%** at them at 24 months.



## SELF-SUFFICIENCY OF GRADUATES



22% of moms, age 18 and older, increased their employment.

28% of graduates increased educational level during the program.

33% of moms without a high school diploma earned it while in NFP.

A third of this group also obtained post-secondary education or certification.

### AT ONE YEAR POST-ENROLLMENT:

24% of households had an increase in income and benefits

53% of clients with 12 or fewer years of education had an increase in educational attainment



# NFP Indiana LBW Review Background

- Goal - To identify areas we can improve to ensure a healthier mother and a healthier baby
- LBW is a precursor to Infant Mortality
- 2013 – NFP Indiana’s LBW rate was 13.9%
- NFP’s National LBW rate is 10.3%
- Healthy People 2020 Goal is 7.8%

# NFP Statistics

	<b>Premature Birth (&lt;37 wk)</b>	<b>Low Birth Weight (&lt;2500 grams)</b>
2014	13.7%	12.7%
2015	10.4%	8.7%
HP 2020	11.4%	7.8%

## 2015 PARTICIPANT SNAPSHOT

MEDIAN AGE **20**



56%

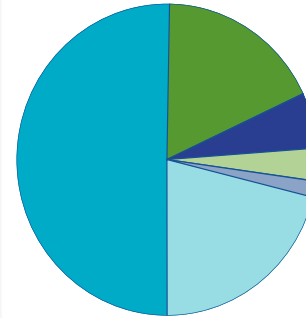
COMPLETED  
HIGH  
SCHOOL  
OR GED

20%

HISPANIC

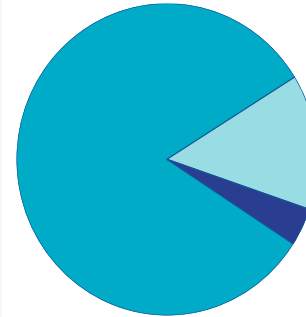
13%

MARRIED



### RACE

- African-American: 51%
- White: 22%
- Multiracial: 7%
- Asian: 3%
- American Indian: 2%
- Remainder declined to self-identify



### PRIMARY LANGUAGE

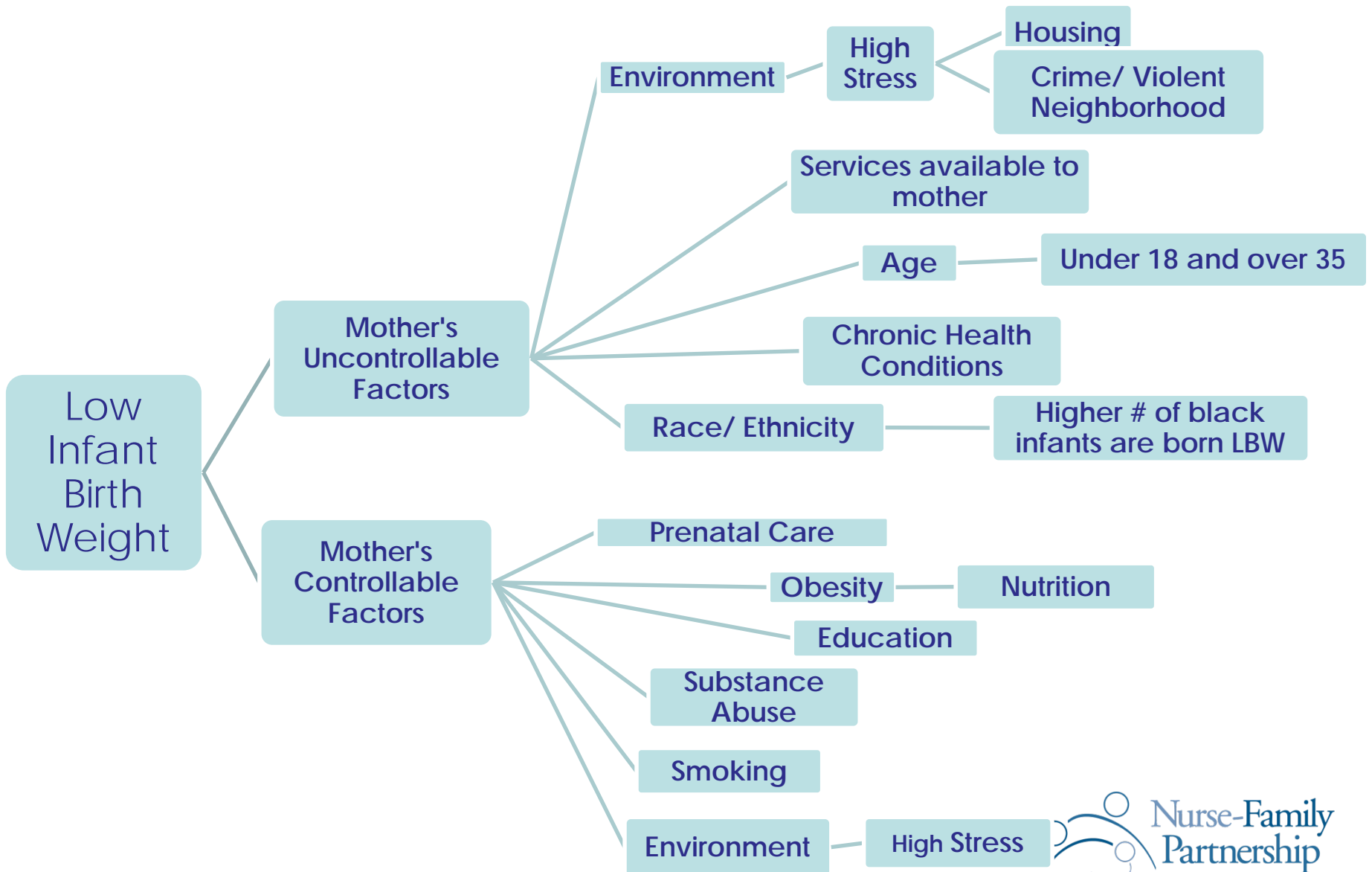
- English: 81%
- Spanish: 14%
- Other: 5%\*

\*Primary language is a language other than English or Spanish, including Burmese, French, Swahili and others



# Low Birth Weight

- Low Birth Weight is defined as less than 5lb 8oz or 2500 grams at birth
- Multiple contributing factors to LBW



# Why FIMR?

- FIMR – Fetal Infant Mortality Review
- Established FIMR projects have created increased awareness of the need for continual quality improvement initiatives
- Laid the groundwork for NFP's LBW Review



# Establishing the LBWR

- Nurse-Family Partnership worked closely with the Marion County Public Health Department to develop and adapt the Low Birth Weight Review from the FIMR
- The FIMR model is meant to be adaptable and flexible to fit other models of review
- Necessary information for a case review are already gathered with the NFP charting forms and can be adapted into LBW format
- Nurse-client relationship brings richness to review

# Purpose of the LBWR

- FIMR

- "The purpose of the FIMR program is to understand how a wide array of social, economic, health, educational, environmental, & safety issues relate to infant loss on a local level. The goal is to enhance the health and well-being of women, infants, and their families through improved community resources and service delivery systems."

- LBWR

- The purpose of the LBWR is to understand how a wide variety of social, economic, health, educational, environmental, & safety issues relate to LBW. NFP intends to utilize this information in our practice and in linkage with community resources to improve the system of care that will lead to the reduction of the low infant birth weight rate.

# LBWR Goals

- Identify all LBW infants to women enrolled in Indiana's NFP program
- Focus will initially be on term (>37 weeks) LBW infants to establish trends; then pre-term LBW infants. Twins will be excluded
- Perform thorough health record abstraction, in order to obtain details of events and issues leading up to LBW
- Perform a multidisciplinary review of cases to gain a holistic understanding of the issues surrounding LBW
- Promote the translation of findings and recommendations into quality improvement actions at all levels
- Recommend improvements to care at all levels with the potential for reducing LBW births

# Stages of the LBWR Process

- Stage 1- Case Selection & Data Gathering
- Stage 2- Case Review
- Stage 3- Program/ Community Action
- Stage 4-Changes in System

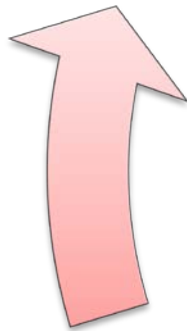
**-Important changes in the community are made when the recommendations are implemented**

**Changes in Community Systems**



**Data Gathering**

**- Choose case**  
**- Collect data & review records/ charts from hospital/clinic & NFP**  
**-Case summary written**

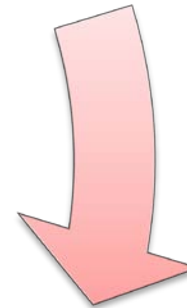


**Program/Community Action**

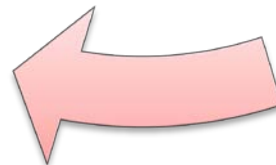
**- Translate recommendations into actions (actions for mothers & actions for nurses)**  
**- Participate in implementing interventions to address the identified problems**



**Case Review**



**- Case summary presented to LBW committee**  
**- Review board asks questions:**  
**- Issues/ factors contributing to LBW?**  
**- What was done to prevent?**  
**- What could have been done?**



**- Form recommendations**



# Stage 1 – Choose Case for Review

- Identify client
  - 37+ weeks gestation initially
  - Birth weight below 5.5 lbs (or 2500 grams)
- Data
  - Case Review Form - NFP documentation
  - Data Abstraction From - medical/hospital records

# Stage 2 – Case Review Team

- The Case Review will be presented objectively & subjectively to ensure a holistic understanding of the case and client
- Organized by NFP domains
  - Personal Health
  - Maternal Role (includes child health)
  - Environmental Health
  - My Life (Life course – includes education and employment)
  - Family & Friends (includes support system)
  - Health & Human Services (resources)
- Client's nurse presents case
- De-identified

# Stage 2 – Case Review Team

- LBWR Team
  - Reviews the summaries
  - Examines the circumstances related to each case
  - Identifies social, economic, health, educational, environmental, and safety factors associated with these cases
  - Identifies strengths, information source issues, and contributing factors from each case
  - Makes recommendations to improve maternal child health services and resources



# Stage 2- Case Review

- LBW Review Team - multidisciplinary
  - OB/GYN physician & CNM
  - Pediatrician – inpatient & outpatient
  - Social Work
  - IU School of Public Health
  - FIMR
  - MCPHD
  - NFP Staff
    - Nurse Home Visitor
    - Supervisor
    - Researcher

## Stage 2 – Case Review

- Quarterly reviews
- 6 completed
- Reviewed 14 cases total
- Cases sent out prior to session via secure email
- Members sign confidentiality agreement
- Goal to review 2-4 per session
- Outcomes
  - Process improvement
  - Obtaining medical records
  - Team members

# Stage 2 – Case Review

- Guide for LBW Review Team Discussion
  - What strengths helped this family?
  - Were there any services or resources that were unavailable to meet the family's needs?
  - Were there any services or resources that were available, but not utilized?
  - Were there any services or resources that were inadequate to meet the family's needs?
  - What maternal or family education was needed? What healthcare worker or provider education was needed?
  - How was communication between provider and family? How was communication amongst providers?

# Stage 2 – Case Review

- Issues associated with cases
  - Smoking
  - Depression – need for more mental health care options
  - Abuse
  - Poverty
  - Food Scarcity/poor nutrition
  - Insufficient weight gain and obesity
  - Late entry into prenatal care
  - + substance abuse
- Compounding of issues – emotional & psychological stressors

# Stage 3- Program/Community Action

- First two steps are fairly routine, while these last two steps are subject to change by how they will work best for our program
- Turns Case Review Team recommendations into actions
- Community Action Team (CAT) –
  - Specific task groups may be assembled to implement interventions
  - Develop new & creative solutions
  - Enhance visibility of issues
  - Can include members of the LBW Review Team

## Stage 4- Changes in System

- Result of the CAT's implementations brought forward by the CRT
- Empowers communities to create local solutions
- Identifies opportunities for interagency partnerships
- Enhances understanding of community needs by presenting the whole picture
- Reduces gaps in care

# Evaluation

- The LBWR process for evaluation will be focused on two things:
  1. Current improvements for both the mother and the baby
    - Infant growth and development
  2. Preventative LBW measures for the mother
    - Care for chronic health conditions
    - Improve/assess living conditions
    - Improved nutrition and resources

# Where are we now?

- Continue quarterly reviews
- Finishing review of cases greater than 37 weeks
- March of Dimes grant – analyzing data and moving towards CAT
- Mapping of LBW cases



# Resources

- The Nurse-Family Partnership ETO Database
- NFP Indiana DMCN Database
- National Fetal Infant Mortality Review website  
[www.nfimr.org](http://www.nfimr.org)
- A Guide for Communities: Fetal and Infant Mortality Review Manual. 2<sup>nd</sup> Edition. National Fetal-Infant Mortality Review Program. American College of Obstetricians and Gynecologist: Washington, DC, 2008.
- Marion County Health Department

# Thank you

- Thank you to Ellen DeBard, Nursing Student and 2014 Summer Intern for starting this project
- Special thanks to the Marion County Health Department for their encouragement in adapting to the LBWR
- Thank you to Jimmy Sedam, LBW Grant Coordinator