



# Improving Implementation of the Nurse-Family Partnership

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# NURSE FAMILY PARTNERSHIP

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- Prenatal and infancy home visiting
- Activates parents' instinct to protect
  - Makes sense to parents
  - Nurses bring caring, competence, & respect
  - Program model focuses on critical influences on early development
- Rigorously tested





## **FAMILIES SERVED**

- **Low income pregnant women**
  - Usually teens
  - Usually unmarried
- **First-time parents**



# **NURSE FAMILY PARTNERSHIP'S THREE GOALS**

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- 1. Improve pregnancy outcomes**
- 2. Improve child health and development**
- 3. Improve parents' economic self-sufficiency**

# TRIALS OF PROGRAM

## Elmira, NY 1977



**N = 400**

- Low-income whites
- Semi-rural

## Memphis, TN 1987



**N = 1,138**

- Low-income blacks
- Urban

## Denver, CO 1994



**N = 735**

- Large portion of Hispanics
- Nurse versus paraprofessional visitors

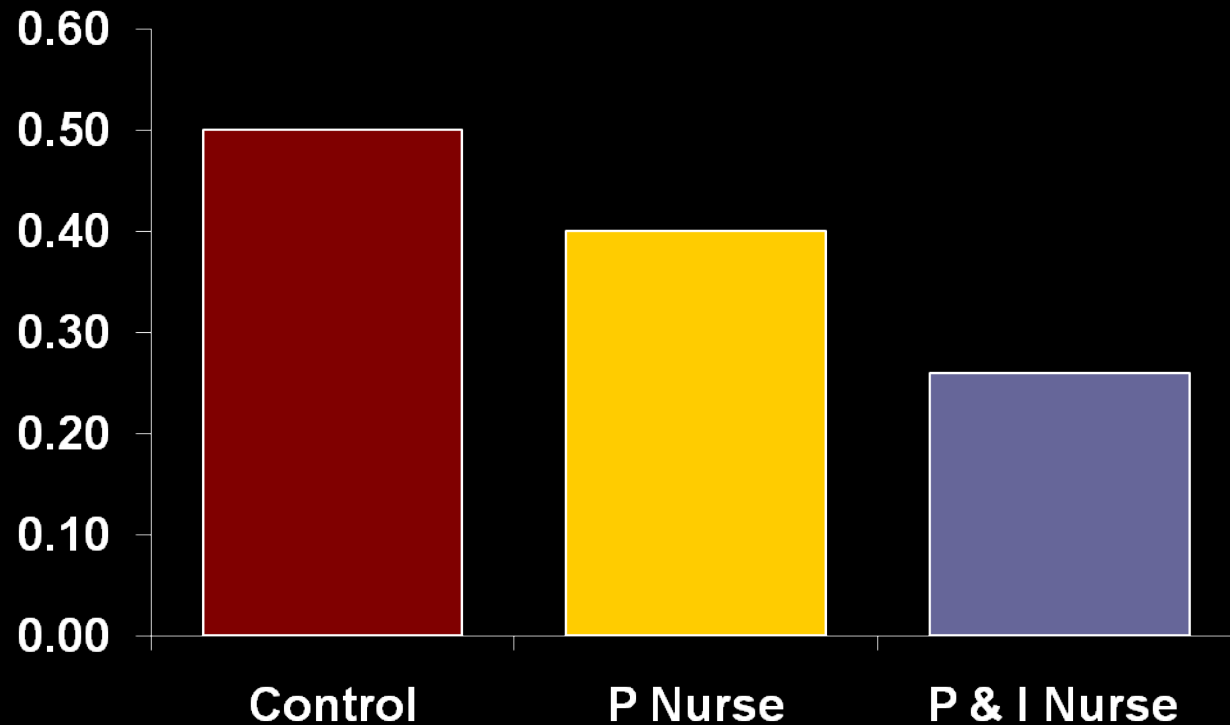
# CONSISTENT RESULTS ACROSS TRIALS

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- Improvements in women's prenatal health
- Reductions in children's injuries
- Fewer subsequent pregnancies
- Greater intervals between births
- Increases in fathers' involvement
- Increases in employment
- Reductions in welfare and food stamps
- Improvements in school readiness (low resource mothers)
- Effects greatest for most susceptible



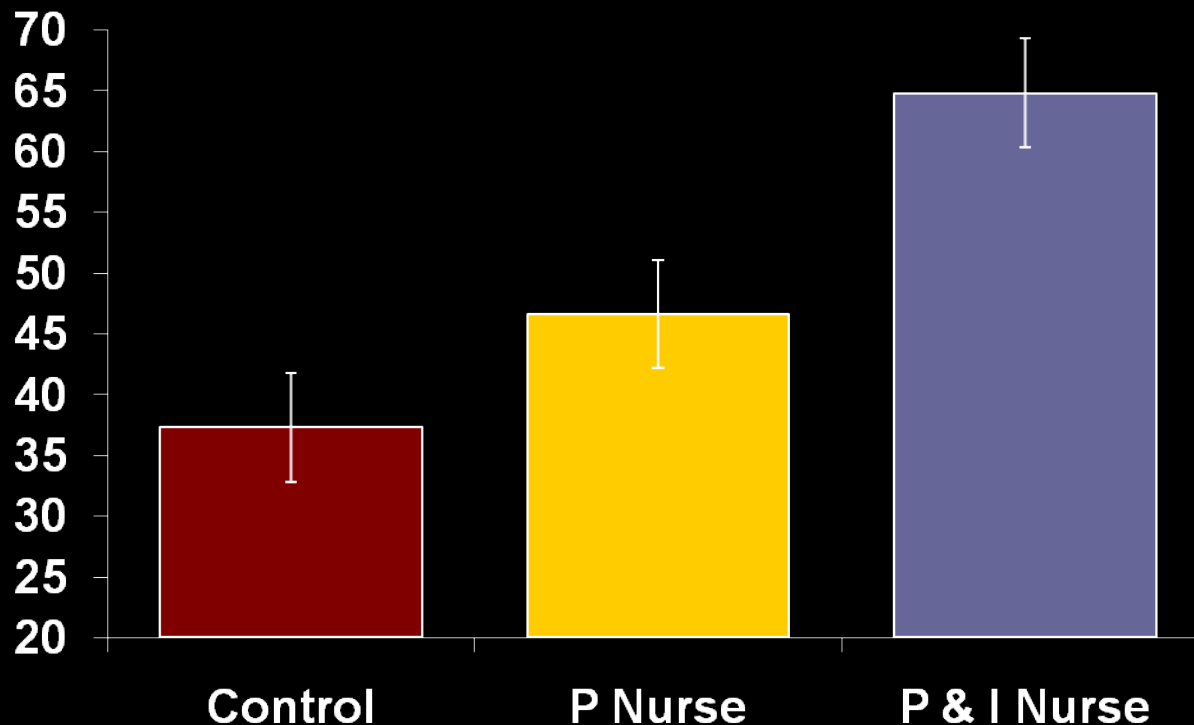
# Indicated Cases of Child Abuse and Neglect 0 to 15 Years - Elmira



**\*P= .03**

***JAMA, 1997;278:637-643***

# Months Between Birth of First and Second Child (Poor Unmarried Mothers) - 0-15 Years Elmira

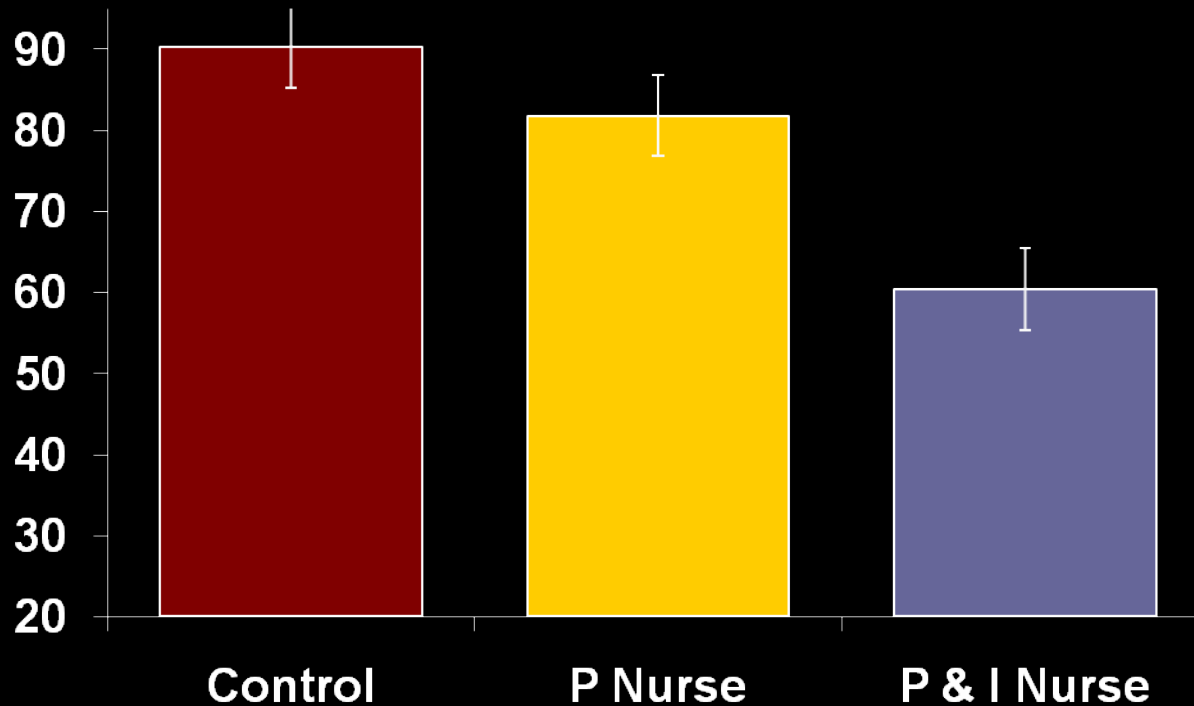


\*P= .001

*JAMA*, 1997; 278: 637-643



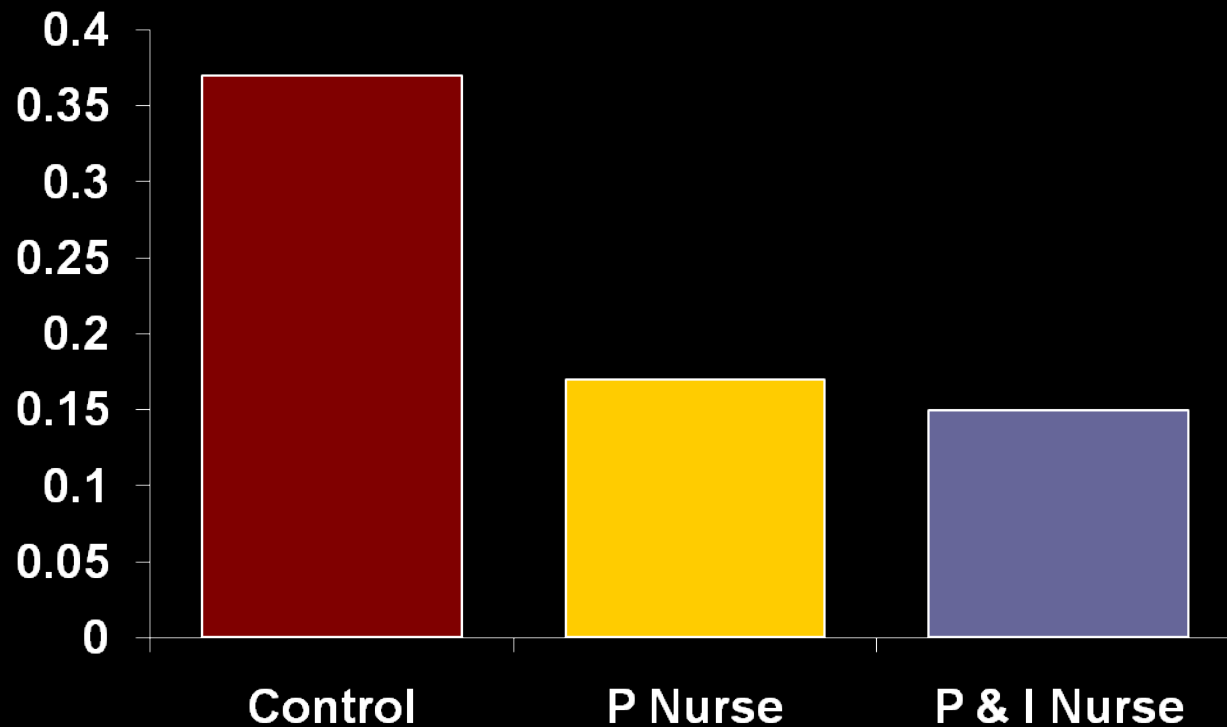
# Months of Receiving Cash Assistance Welfare (AFDC) for Poor Unmarried Mothers 0-15 Years Elmira



**\*P=.005**

***JAMA, 1997; 278: 637-643***

# Counts of Children's Arrests 0-15 Years Elmira



**\*P=.03**

***JAMA, 1998;280(14), 1238-1244***

# Memphis Design

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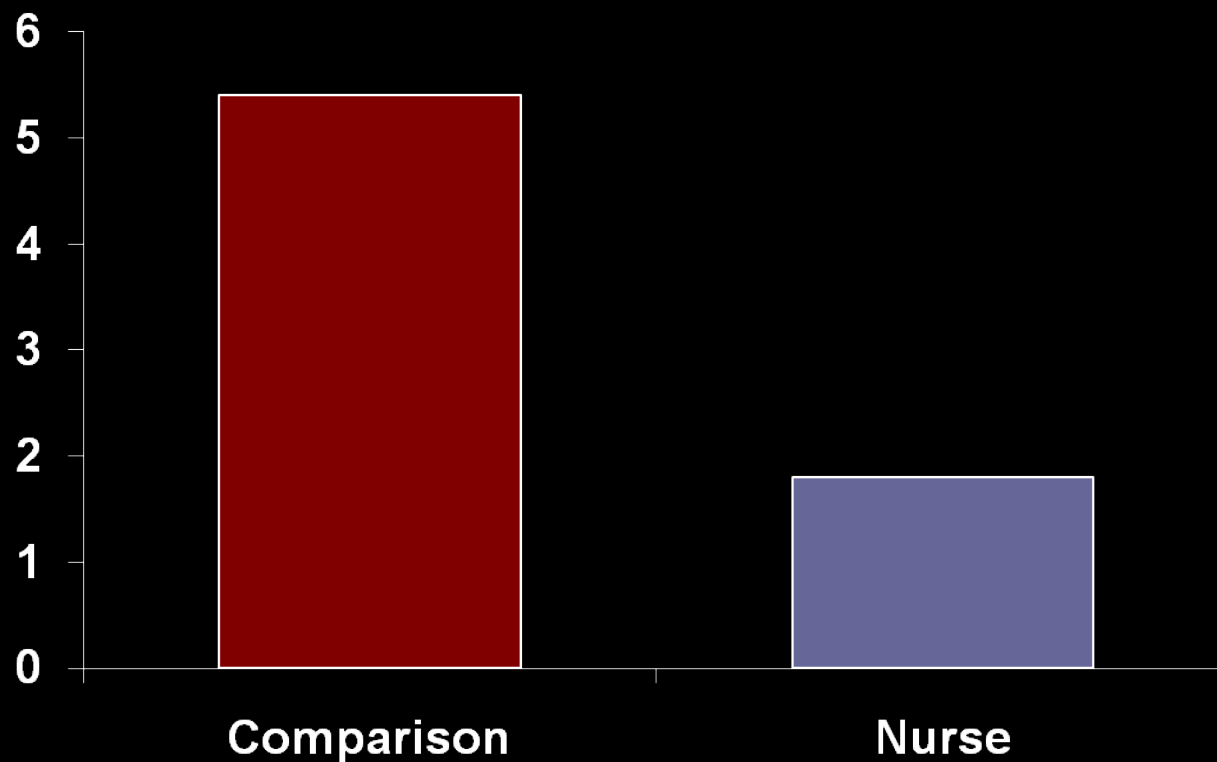
- **Urban Setting**
- **Sample (N = 1138 for prenatal and N = 743 for postnatal)**
  - **92% African American**
  - **98% Unmarried**
  - **85% < Federal Poverty Index**
  - **64% < 19 years at intake**
  - **2.4 SD above mean neighborhood adversity**

# Memphis Program

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- **Registered nearly entire population (88%)**
- **Memphis/Shelby County Health Department**
- **Conducted at height of nursing shortage**

# % Behavioral / Mental Health Problems Age 6 - CBCL

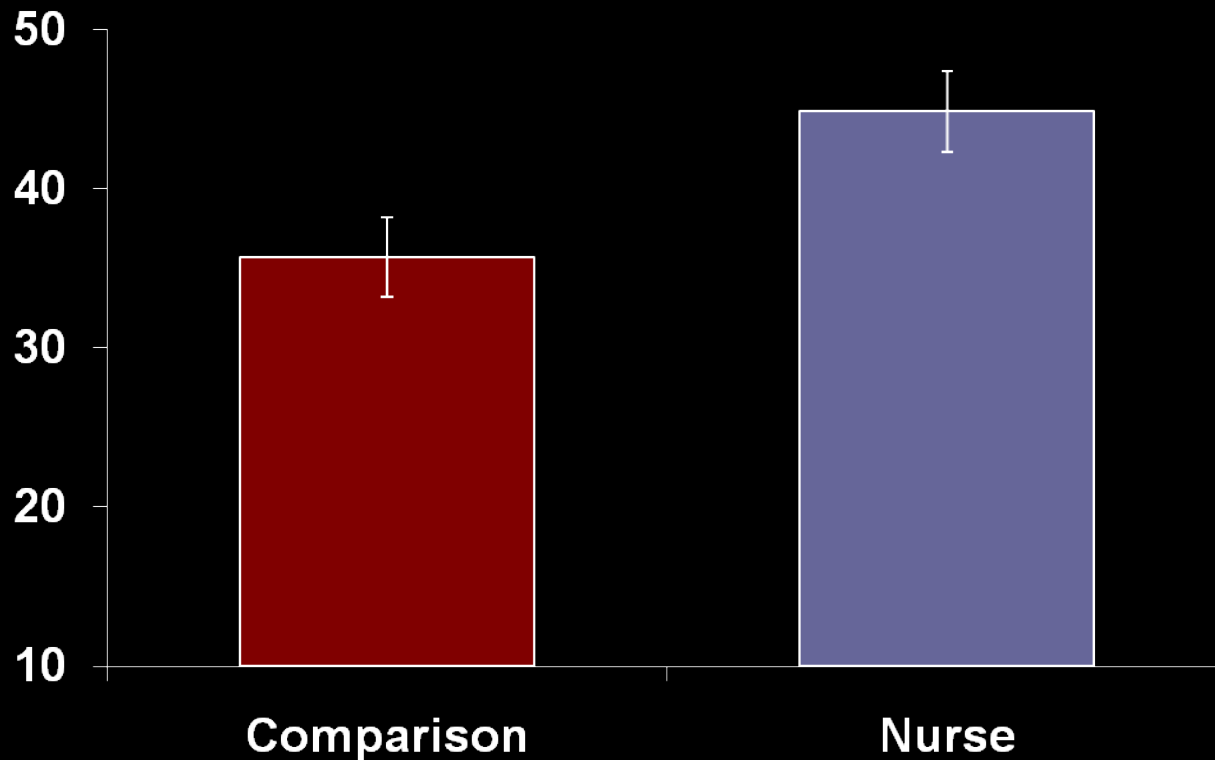


**P = .04, OR = .32**

***Pediatrics*, 2004;114; 1550-1559.**

# Percentiles of Reading & Math Achievement Test Scores - Grades 1-3

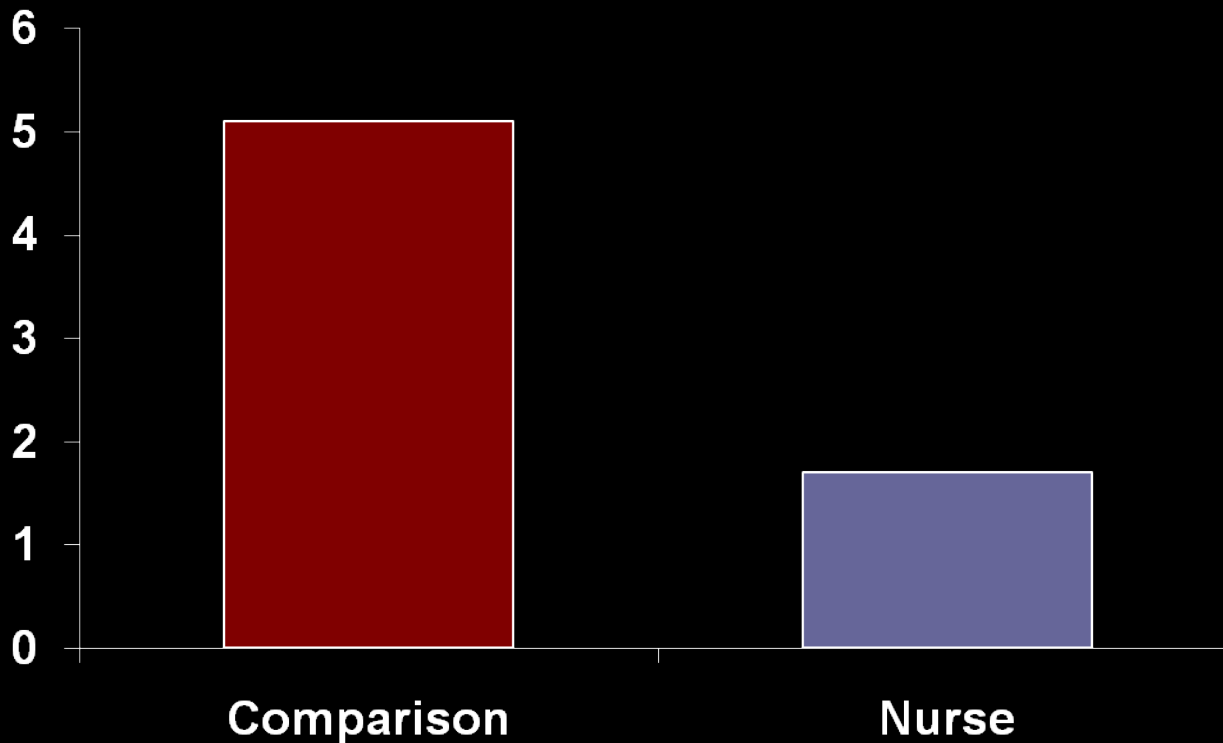
## (Born to Low-Resource Mothers)



$p=.002$ , Effect Size = 0.33

*Pediatrics*, 2007;120(4):e832-45.

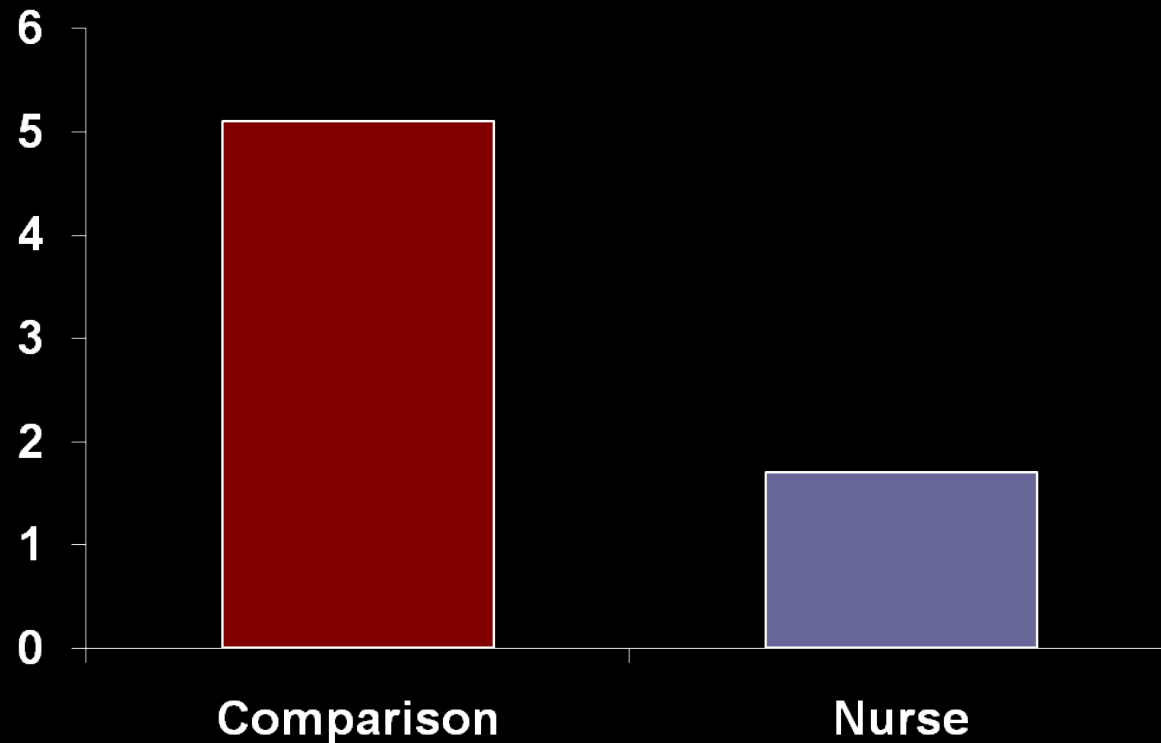
# Percent of Children Who Used Tobacco, Alcohol, or Marijuana (Last 30 Days) Memphis – Child Age 12



**P = .04 OR = 0.31**

*Arch Pediatr Adolesc Med, 164(5) 412-418*

# Percent of Children with Depression-Anxiety – Child Age 12

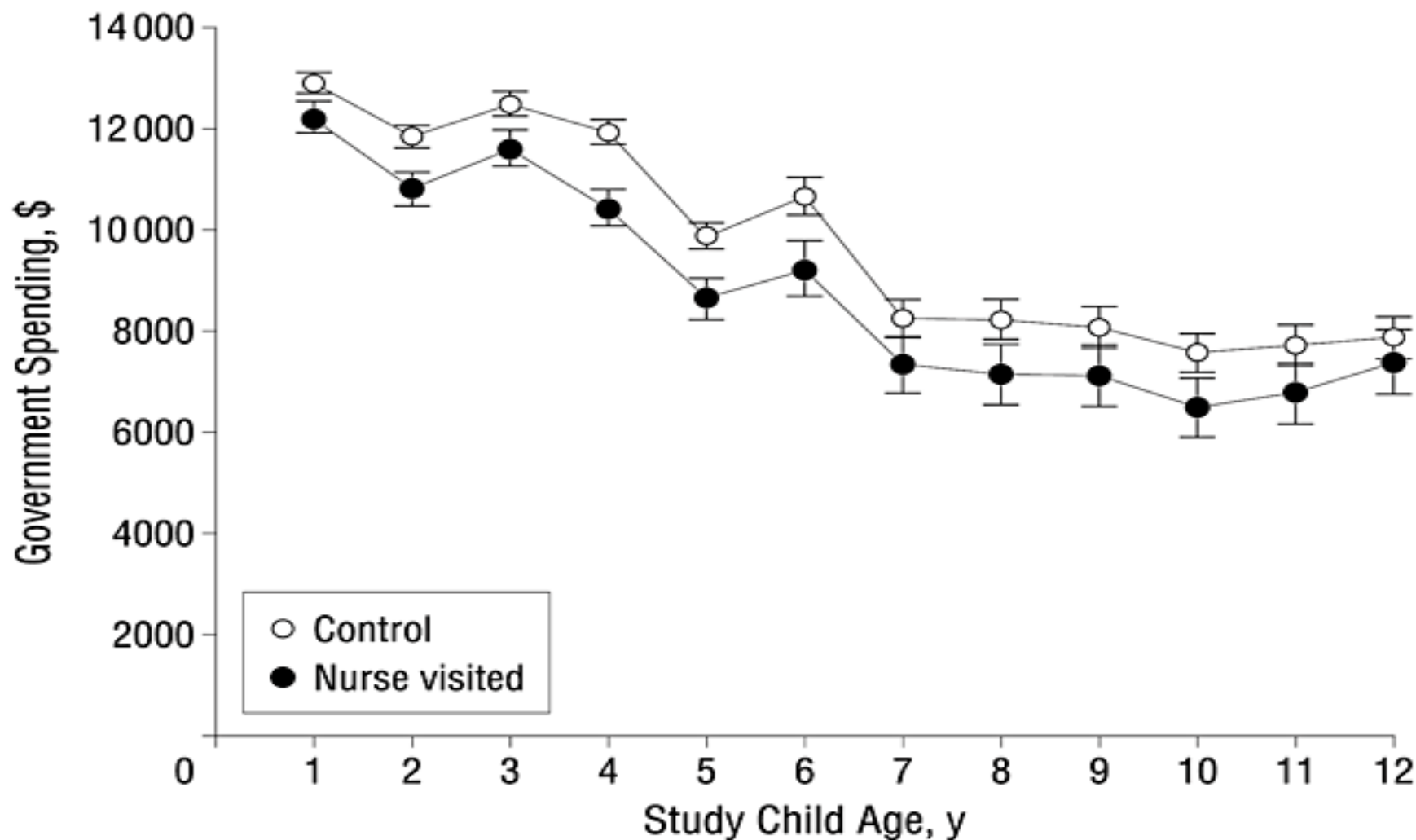


**P = .04 OR = 0.31**

***Arch Pediatr Adolesc Med, 164(5) 412-418***

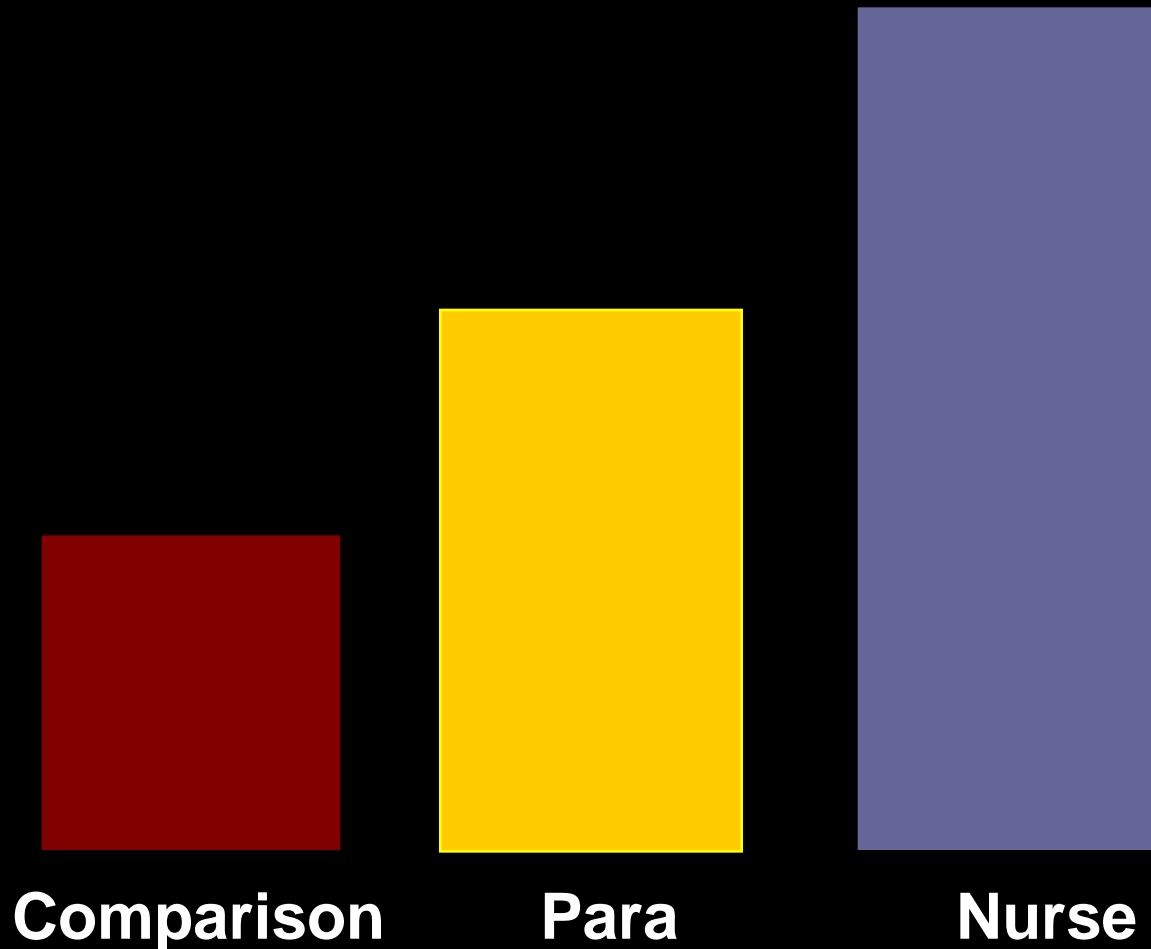


# Total Discounted Government Spending (2006 US dollars) after Birth of First Child for Food Stamps, Medicaid, & AFDC/TANF



# Pattern of Denver Program Effects

Maternal  
and  
Child  
Functioning



# Washington State Institute for Public Policy Economic Analysis

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**Nurse Family Partnership produced large return on investment:**

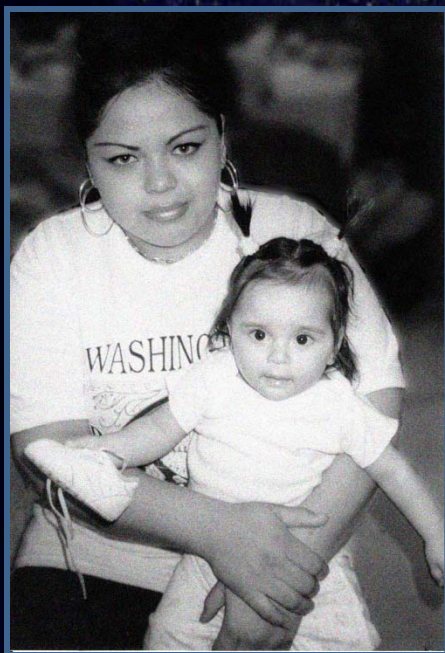
<b>– Implementation costs</b>	<b>\$9, 118</b>
<b>– Benefits</b>	<b>\$26, 298</b>
<b>– Return on investment</b>	<b>\$17, 180</b>

*\*Benefits and Costs of Prevention and Early Intervention Programs for Youth, S. Aos, et al.. Washington State Institute for Public Policy: Olympia, WA, 2004.*



# NATIONAL REPLICATION

**Now operating in over 380 counties in 32 states, serving over 22,000 families per day.**



# FROM SCIENCE TO PRACTICE

- **Nurturing Community, Organizational, and State Development**
- **Training and Technical Assistance**
- **Program Guidelines**
- **Clinical Information System**
- **Assessing Program Performance**
- **Continuous Improvement**



# **Implementation Standards – Structural Requirements for Sites**

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- **Target correct population**
- **Hire right staff**
- **Enroll participants within gestational age limits**
- **Nurses complete training**
- **Employ visit-by-visit guidelines**
- **Meet nurse-to-participant ratios**
- **Meet supervisor-to-nurse ratios**
- **Hold supervision and case conferences at required intervals**
- **Use web-based information system to monitor implementation and outcomes**

# **Sites Can Download Performance Reports – Continuous Quality Improvement**

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- **All of above +**
- **Completed visits**
- **Nurses allocation of time during visits on program domains**
- **Participant retention**
- **Maternal and child health indicators**
  - **Changes in prenatal tobacco use**
  - **Birth weight by race and ethnicity**
  - **Rapid successive pregnancies**
  - **Maternal employment**
  - **Language development**
  - **Immunizations**

# **Research to Improve NFP Program Model and Implementation**

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- **Develop and test model to improve participant attrition**
- **Develop and test model for nurses to use in addressing intimate partner violence**
- **Develop and test new method for nurses to use in observing caregiver-child interaction**
- **Develop new methods for nurses to use in promoting competent care-giving**



