

# BETTER LATE THAN NEVER?

MATERNAL BIOPSYCHOSOCIAL PREDICTORS OF LATE FOLLOW UP FROM NEW JERSEY'S EARLY HEARING AND INTERVENTION PROGRAM

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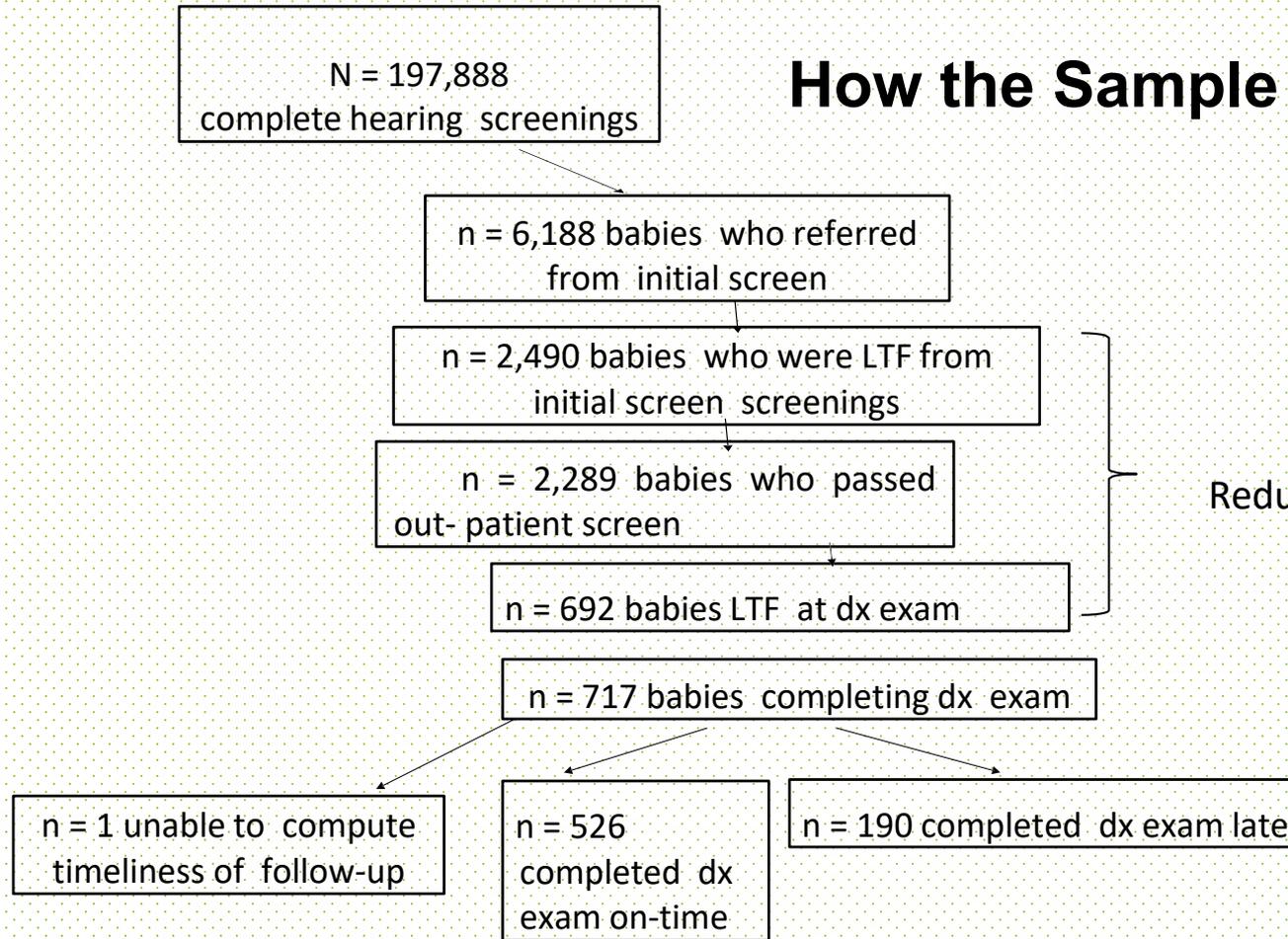
# INTRODUCTION

- Children with hearing loss who do not receive appropriate intervention are at-risk for developmental and social delays
- Factors influencing delayed follow-up care for infant hearing must be identified to provide targeted interventions for families who may be at-risk for late follow-up
- Study purpose: Determine to what degree socioeconomic status and maternal postpartum depression relate to timeliness of diagnostic follow-up in New Jersey's EHDI program while controlling for maternal education and previous testing

# METHODS

- Data Source: New Jersey's Department of Health administrative datasets
- Inclusion criteria: babies born in New Jersey between June 2015 and June 2017 who needed and completed additional diagnostic hearing exams (N= 716)
  - Sample was divided into two subgroups: exams completed on-time (n=526) and exams completed late (n=190)
- Logistic regression was completed to identify maternal factors related to late follow-up
- additional statistics were utilized to understand characteristics of babies who were late

# How the Sample was derived



**Table 1****Description of the sample.**

Variables	Mean (sd)	N (%)
Maternal age	30.87 (6.15)	
Prior live births	1.14 (1.42)	
Age at follow-up (days)	79.17 (94.76)	
Maternal depression		28 (3.91)
Consultation for postnatal depression		41 (5.72)
High Edinburgh PPD score		39 (5.45)
Uninsured		98 (13.74)
WIC participant		164 (24.26)
Race/Ethnicity		
White		404 (56.35)
Black		106 (14.78)
Hispanic		286 (39.89)
Asian		47 (6.56)
Married		459 (64.02)
College educated		286 (40.17)
Family history of hearing loss		26 (3.14)

# RESULTS: CHARACTERISTICS OF LATE BABIES

- NO HEALTH INSURANCE
- PARTICIPATING IN WIC
- UNMARRIED MOTHERS
- YOUNGER MATERNAL AGE
- LOWER LEVELS OF EDUCATION
- HISPANIC MOTHERS
- HIGHER EDINBURGH POSTNATAL DEPRESSION SCALE SCORES
- POSTNATAL DEPRESSION CONSULTATION PRIOR TO DISCHARGE
- PREVIOUS INCOMPLETE OR INCONCLUSIVE DIAGNOSTIC EXAM

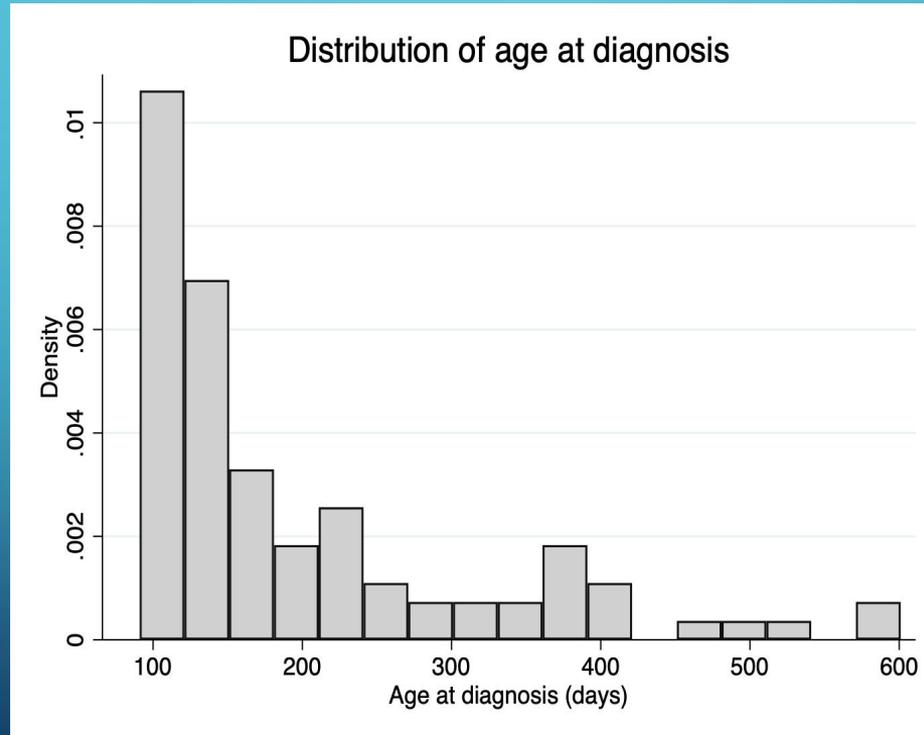
# RESULTS: PREDICTING LATE DIAGNOSIS

Predictor/Control	OR	p
Maternal Age	0.99	0.69
College Graduate	0.52	0.01
Previous diagnostic testing exam	5.32	0.00
Postnatal depression concern	1.89	0.04
WIC participant	2.11	0.00
No health insurance	2.04	0.01

# WHO IS LATE?

- 37.24% OF BABIES WHO WERE LATE WERE DIAGNOSED WITH HEARING LOSS
- MEAN AGE FOR COMPLETION WAS 197.46 DAYS (SD=119.28)
- 80% COMPLETED ON FIRST VISIT
- 77% WERE DIAGNOSED WITH MODERATE LOSSES OR MORE SEVERE
- 59% WERE DIAGNOSED WITH BILATERAL LOSSES

# *Histogram of complete diagnosis for late babies.*



# DISCUSSION

- Similar to previous studies, 26.54% of infants were late to follow up (ex. 36% late follow up in Multistate Outcomes of Children with Hearing Loss)
- Participation in WIC increased follow up rates, but WIC participants were often late to follow up
- Strongest predictor of late follow up was incomplete or inconclusive diagnostic testing
- LOW SOCIOECONOMIC STATUS MOTHERS AND THOSE WITH POSTPARTUM DEPRESSION MAY HAVE DIFFICULTY FOLLOWING UP WITH RECOMMENDED HEARING TESTS EVEN WHEN CONTROLLING FOR KNOWN FACTORS RELATED TO TIMELY FOLLOW-UP

# IMPLICATIONS FOR PRACTICE

- Identify families at-risk for late follow-up in order to provide additional support that will improve timely follow-up
  - Ex. low-income families, mothers with postpartum depression, etc.
- Need to address social determinants of health
  - Enrollment in health insurance, social services, public benefits, etc.

# FUTURE DIRECTIONS FOR RESEARCH

- Determine how the integration of child characteristics and maternal factors may influence timely follow-up
- Interventions for reducing late follow-up

# THANK YOU!

For more information please contact:

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# MATERNAL FACTORS PREDICTING LOSS TO FOLLOW- UP FROM NEWBORN HEARING SCREENINGS IN NEW JERSEY

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