

What Impacts Lost-to-Follow Up in a Major Metropolitan City?

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ABSTRACT

Determining factors that influence loss-to-follow up after discharge from a birthing hospital can be difficult. When staff is limited, technology is challenging and funding is restricted, but there is still analysis that can be completed. Illinois manually reviewed 2015 vital records data for 419 infants lost-to-follow up in the greater Chicagoland area (Cook County). The goal was to determine if younger women, women of Latina background, or women with lower educational backgrounds represented the greatest number of mothers with infants lost-to-follow up. The results humbled the analysis team when it was determined theories were incorrect. The poster reviews our state's finding for infants lost-to-follow up and helps EHDl programs rethink future outreach goals.

Chicago and the surrounding cities make up Cook County in Illinois. The Illinois EHDl team initially hypothesized was that due to the large Hispanic population in Cook County, the data would reflect a significant lost-to-follow up in this population. While data did indicate a higher rate of loss-to-follow up in the Hispanic population, the demographics of the largest loss-to-follow up group was revealed.

OBJECTIVES

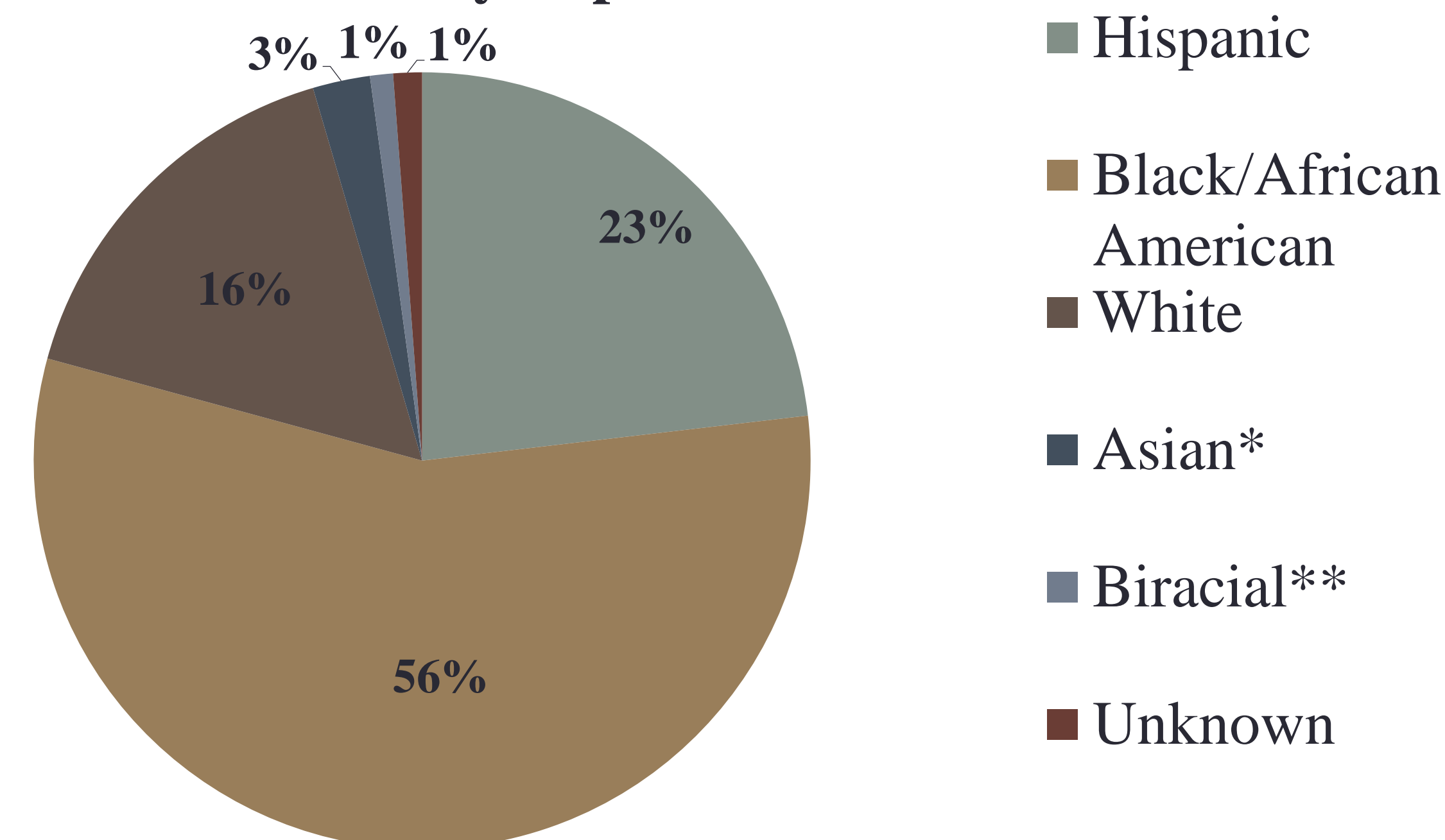
- Analyze the demographics of 2015 babies who are lost to diagnostic follow up within Cook County
- Determine how vital records can assist with the analysis of infants lost-to-follow up
- Analyze the demographics of 2015 babies who are lost to Early Intervention follow up within Cook County

METHOD

Data was manually extracted from the EHDl Information System (EHDl-IS) and the Illinois Vital Records System (IVRS). Information was placed into an Microsoft Excel document. There were 419 infants lost to diagnostic follow-up and 31 infants lost to Early Intervention follow-up in Cook County, Illinois for the birth year 2015. The two data sets were merged into one Excel document. Data was then analyzed based on demographics. The demographics examined were maternal ethnicity, country of origin, education level, and age at the time the child was born. Co-parent listing on the birth certificate was investigated. These outlooks were broken down by the top three largest ethnic backgrounds: Hispanic, Black/African American, and White.

RESULTS

Maternal Ethnicity Representation



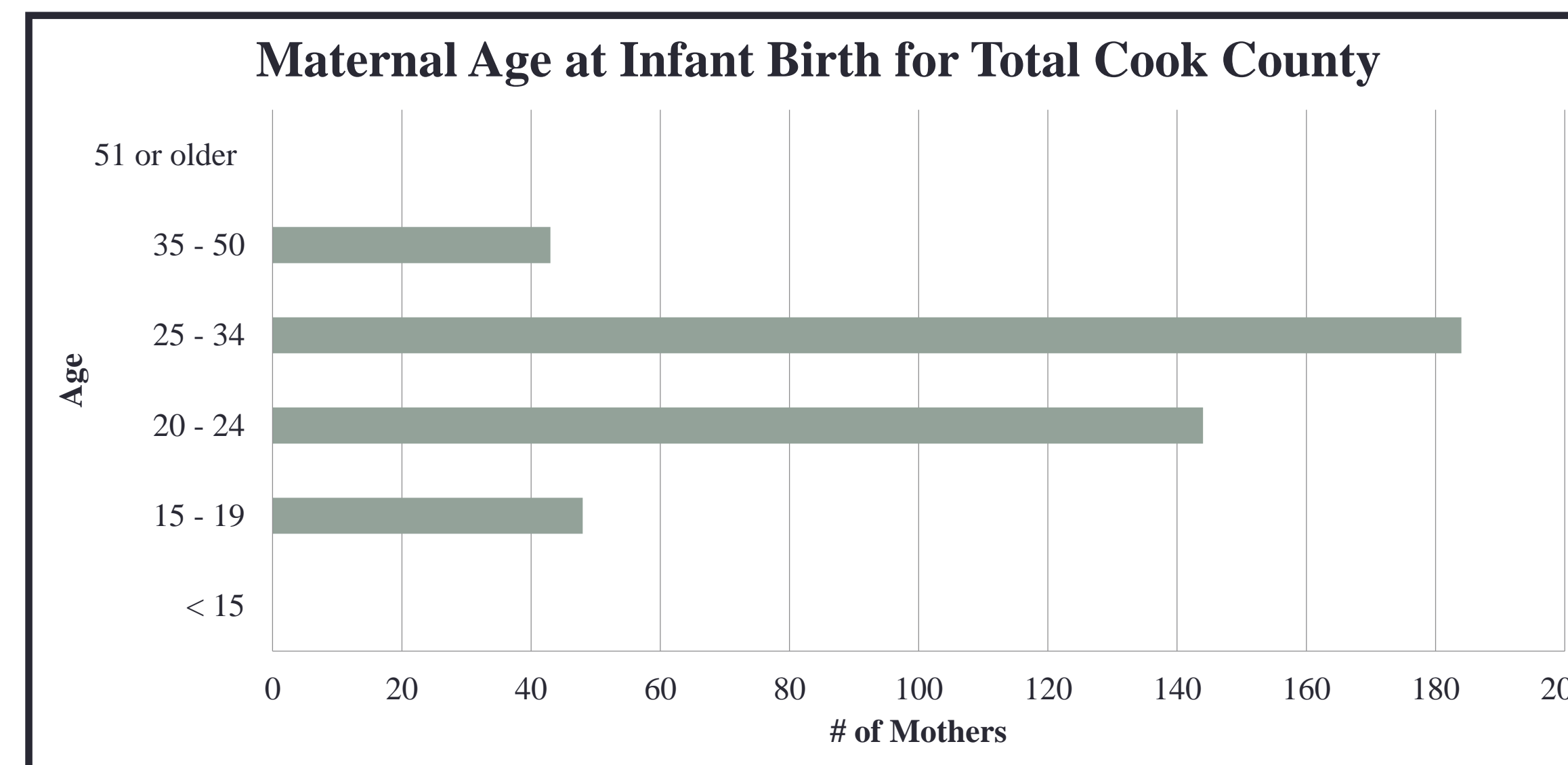
* Asian population includes: Asian, Asian Indian, Chinese, Filipino, & Other Asian

** Biracial population includes: Hispanic & Black/African American, White & Black/African American, and White & Japanese

The results showed that the largest lost-to-follow up maternal population was within the Black/African American population at over half the total number results or 56% of the studied community. The Hispanic population was almost a quarter (23%) of the lost-to-follow up status. The White population consisted of 16% of the group, while the Asian population was composed of 3%. Within the Asian category were several subsets of ethnicities including Asian, Asian Indian, Chinese, Filipino, and other Asian. The biracial population comprised of only 1% of the demographics and included Hispanic and Black/African American, White and Black/African American, and White and Japanese ethnicities. Lastly, 1% of the maternal data collected had unknown ethnic backgrounds.

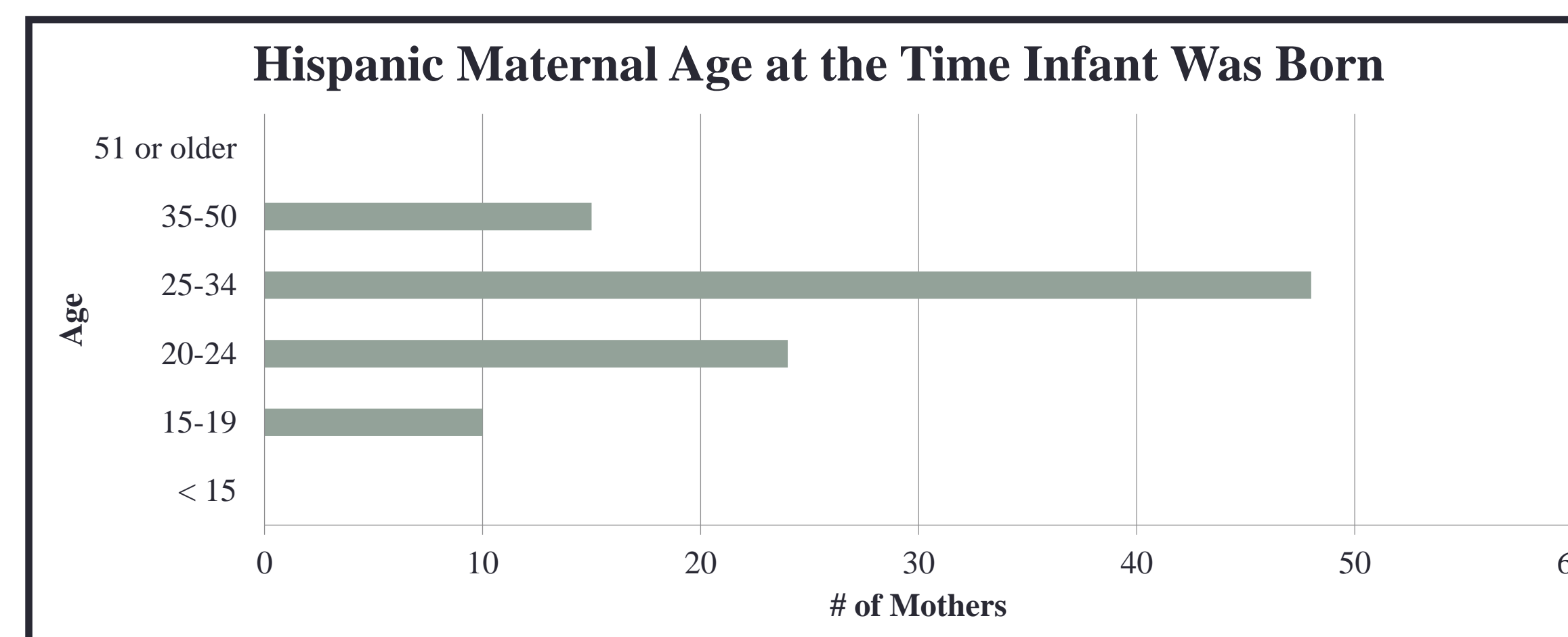
RESULTS - DIAGNOSTICS

Maternal Age at Infant Birth for Total Cook County



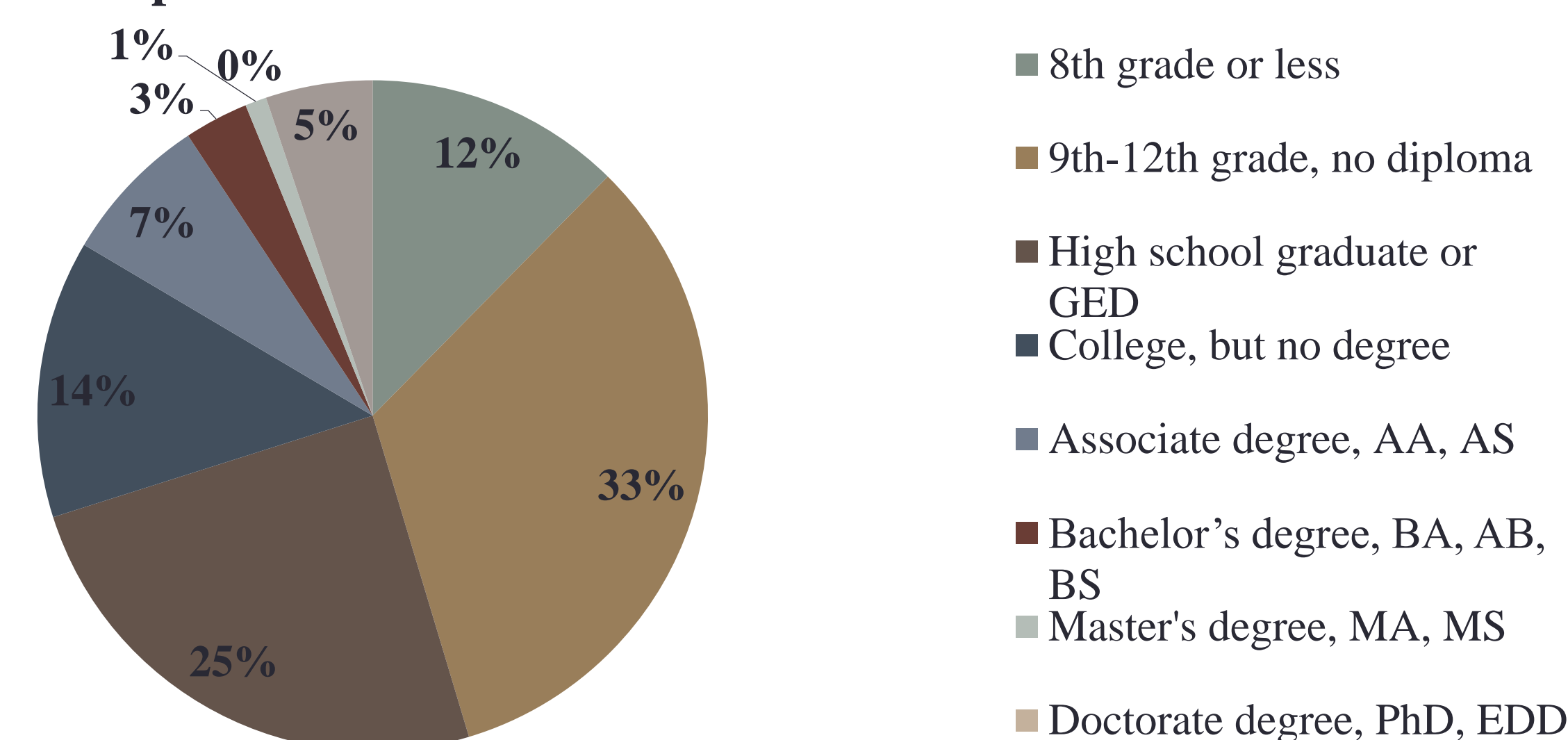
Within the entire Cook County population, the majority of mothers who gave birth to babies that were lost-to-follow up were between the ages of 25 and 34 years old (similar trend to be found in Hispanic and Black/African American population). Women between the ages of 20 and 24 years old were the second highest category, followed by mothers between the ages of 15 and 19 years old. Women between the ages of 35 and 50 years were the lowest (represented) age group to give birth to babies who were lost-to-follow up. Both under 15 and 51 or older age groups had no representation in Cook County.

Hispanic Maternal Age at the Time Infant Was Born



Within Cook County, the Hispanic population comprises 29% of all birth mothers. In our subset of loss to follow up, 23% of the population was Hispanic. For the Hispanic population, the majority of mother's were between ages 25 and 34 years, consisting at about half the Hispanic demographics in Cook County. This bracket was found to be the largest maternal age in the Black/African American population as well. Women between ages 20-24 years of age were the second highest Hispanic category, followed by mothers between ages 35 to 50 years. There were not any Hispanic women studied that were younger than 15 or older than 51. This data did not correlate to our hypothesis. We theorized that the 15-19 years of age and 20-24 years of age would be the two largest categories for mothers who had lost-to-follow up babies.

Hispanic Maternal Education at Time Infant Was Born

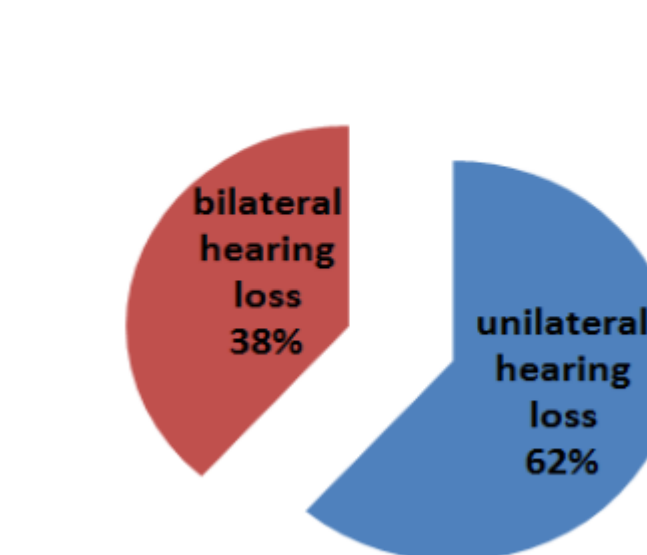


Among the Hispanic maternal population of the lost-to-follow up babies, the largest level of education completed at the time the infant was born was high school (no diploma) which represents 33% of the population. Second and third highest categories fell in the high school graduate or GED and college, but no degree at 25% and 14%, respectively. Women who received their associate's degree made up 7% of the population, followed by the unknown education level at 5%. Mothers who received their bachelor's degree and master's degree made up the smallest categories at 3% and 1%. No women were found to have completed their doctorate in this population. This data collection proved the theory to be incorrect, which suggested that lost-to-follow babies would have mother's whom had at least completed lower levels of education since the majority of this population did not finish the high school level.

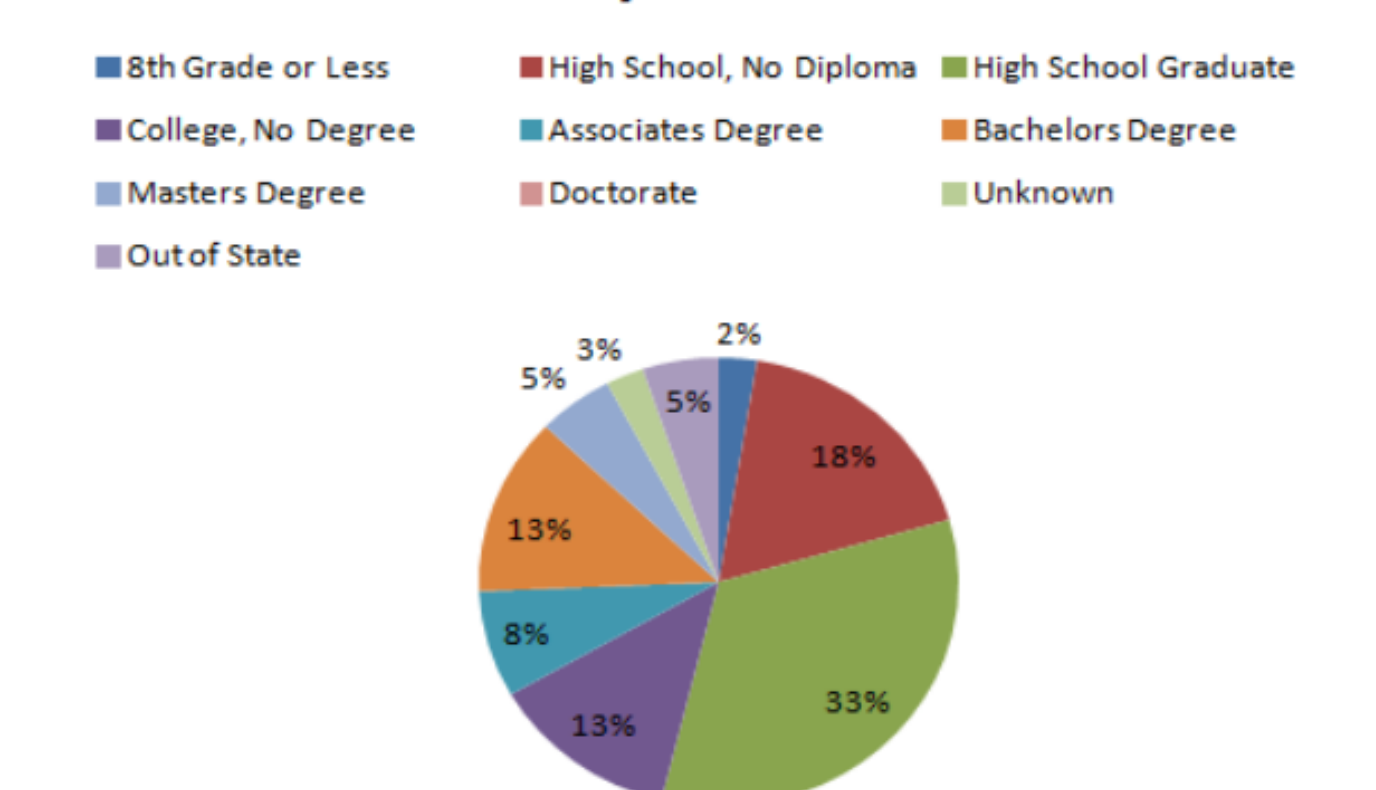
- The data presented that over half of the lost-to-follow up babies had a co-parent listed on their birth certificate. This does not suggest a strong correlation between lack of co-parent involvement and receiving hearing follow-up testing. The overall results show that having a co-parent identified does not necessarily lead to further testing for a child or lack of testing either.
- From the co-parents listed on the birth certificates, the largest population was within the Black/African American population at 37%, though Hispanic was not much less at 29%. Both races comprise about two thirds of the total population reported. The White population consisted of 26% followed by both Asian and unknown races at 4% each. The hypothesis did not correlate with the data. Results showed that the Black/African American population dominated in co-parent lost-to-follow up babies in Cook County. The division between Black/African American's and Hispanics is more even between co-parents than within the maternal ethnicity demographics. This may be because there is a significant missing portion of co-parents as compared to mothers. Had each child had a co-parent listed along with the mother on their birth certificate, the demographics for ethnicity between mother and co-parent may have been similar.
- In the Hispanic maternal population, 81% of the women had a co-parent listed on the birth certificate of their child. These findings are against our theory that having a lack of co-parent hinders lost-to-follow up results.

RESULTS - EARLY INTERVENTION

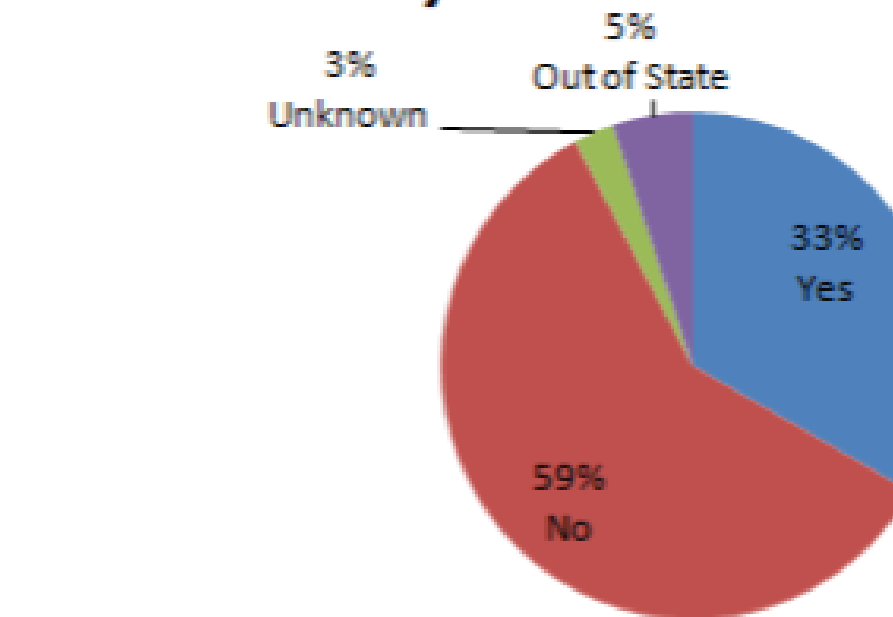
Lost to Follow-up for Early Intervention



Maternal's Education for Children LTF at Level of Early Intervention



Was Maternal Ethnicity for Children LTF to Early Intervention Latina?



There were 39 children born in 2015 who were lost to Early Intervention follow-up. In Illinois, both unilateral and bilateral hearing loss are eligible for services. For 2015 Early Intervention lost-to-follow up infants:

- Bilateral hearing loss accounted for 38%; unilateral hearing loss accounted for 62%
- 53% of the mothers achieved an educational level of high school graduate, high school (no diploma), or 8th grade or less
- 59% of the maternal ethnicity was not Hispanic

SUMMARY & NEXT STEPS

- There was a greater lost-to-follow up at the Early Intervention stage for the Hispanic population. However, this was not true at the diagnostic stage
- The greatest lost-to-follow up at time of diagnosis across the analysis was the Black/African American maternal population in the age range of 25 to 34 years
- For the overall population, 40% of infants lost to diagnostic follow-up did not have a co-parent listed on the birth certificate
 - 19% Hispanic; 59% Black/African American; 15% White
- The project showed that the assumptions made by the program could not be supported by the data. Therefore, it is critical to take the time to analyze the data prior to program planning. Illinois' next steps includes:
 - Collaboration with the Cook County health departments to provide targeted outreach for home visits and DPOAE hearing screenings
 - Ensuring that Illinois Guide By Your Side has access to resources for the Hispanic population to increase Early Intervention follow-up
 - Learning communities in Cook County centered in areas with the greatest lost-to-follow up
 - Sharing of the data analysis and on-going standardized data reports with the perinatal network administrators who help quality assurance and quality improvement in the birth facilities