

# **An Evaluation of the Utility of First Trimester Screening at Boston Medical Center: The Influences of Demographic Factors on Subsequent Uptake of Invasive Testing**

Christina Choi, Seema Jamal, Jodi Abbott, MaryAnn Whalen  
Boston University School of Medicine, Boston, Massachusetts

First trimester screening (FTS) for aneuploidy is ideally performed in pregnancies where amniocentesis is an option that subsequently may be taken. Our study aimed to demonstrate how uptake of amniocentesis subsequent to receiving FTS results differs among women of various cultural and socioeconomic groups and to discuss possible reasons for the differences observed. Medical charts of 122 culturally and socioeconomically diverse women who pursued FTS and subsequently had the choice of pursuing amniocentesis at Boston Medical Center were reviewed. Multiple logistic regression analyses were performed. Multivariable analysis revealed that Black women were 25 (95% CI: 0.003-0.63) times less likely than Caucasian women to pursue amniocentesis, women with a positive FTS result were 7.4 (95% CI: 2.2-24.5) times more likely than women who screened negative to pursue amniocentesis, and that women  $\geq 35$  years are 5.8 (95% CI: 1.3-29.9) times more likely than women  $< 35$  years to pursue amniocentesis. We also demonstrated that women born outside of the United States were more likely than women born in the United States to undergo amniocentesis while women who do not speak English as their primary language were more likely than English-speaking women to undergo amniocentesis and that women who identified with a particular religion were more likely than women who did not identify with a particular religion to undergo invasive testing. Our study did not demonstrate any significant differences between uptake of amniocentesis for women of different insurance coverage, marital status or employment status. Although this pilot study was limited by its small sample size and generalizations, the results will benefit the health care community to better care for the prenatal patient population at Boston Medical Center. We believe that future research assessing specifically *how* socioeconomic and cultural factors contribute to uptake of amniocentesis will provide additional guidance on this topic.