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Participation in Self-Collection of Maternal and Infant DNA in a Case-Control Study on Clubfoot
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Background
• An essential component in undertaking genetic studies is getting DNA samples from participants
• It can be especially challenging in large-scale epidemiologic studies to get participants to give their DNA samples

Objective
• To examine whether rates of providing a DNA sample differed by sociodemographic factors or maternal smoking status
• To assess the effect of changes in recruitment methods on participation

Data
• From an ongoing population-based case-control study of clubfoot that began in 2007
• Cases ascertained through birth defects registry in Massachusetts, New York and North Carolina. Controls come from either birth certificates or hospital medical records
• Telephone interviews are conducted with mothers of cases and controls within 1 year after delivery
• $20 compensation for completed interviews

Saliva Collection
• 1st Method
  0 Kit are mailed within 1 week after the interview
  0 $20 compensation for returned kits
• 2nd Method
  0 Added a card that emphasized altruism and the importance of the study
  0 Postcard reminders were sent out after the kit
  0 A systematic routine was implemented to ensure that each participant received follow-up calls to see if they had any questions or needed assistance completing the kits
• 3rd Method
  0 Added a $2 bill to the kit

Results
• Of the 1666 study subjects interviewed
  0 282 (17%) refused the kit at the end of the interview
  0 149 (9%) refused participation after receiving the kit
  0 377 (23%) still pending
  0 838 (52%) returned their kits
  • Cases: 260 (59%)
  • Controls: 578 (49%)

Discussion
Saliva kit return rates were higher for cases than controls. Among case mothers, rates were highest for White or Hispanics, non-English speakers, non-smokers, ≥ 20 year olds, and those with family incomes > $60,000/year. Among mothers of controls, rates were highest for Whites and those with high-school education and 30-39 years of age. Twenty percent more mothers provided saliva samples after implementation of motivating tools (altruistic card and $2 bill) and attentive follow-up.

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Saliva Kit Returns by Maternal Age, Education and Income, According to Case/Control Status

Saliva Kit Returns by Maternal Race/Ethnicity and Interview Language, According to Case/Control Status

Saliva Kit Returns by Center and Smoking Status, According to Case/Control Status