COST BENEFIT ANALYSIS OF UNIVERSAL NEWBORN SCREENING FOR MATERNAL
ALCOHOL USE DURING PREGNANCY.
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The objective of this research is to estimate the cost-benefit ratio of universal meconium screening for maternal drinking. Fetal alcohol spectrum disorder (FASD) and its subset fetal alcohol syndrome (FAS) are preventable and remain a public health tragedy. The incidence of FAS and FASD have been conservatively estimated to be 0.97 per 1000 and 10 per 1000 births, respectively. Meconium testing has been demonstrated a promising at-birth detection method of drinking during pregnancy. Method/Design: The current costs of FAS and FASD, alcohol treatment programs, and meconium screening were estimated by literature review. Monetary values were converted roughly to equal dollars in 2006. Costs of meconium analysis as an additional part of the current newborn screening program and treatment for the identified mothers were estimated and compared to the potential averted costs that may result from identification and intervention for mothers. Three potential maternal treatment strategies, residential, pharmacologic and brief telephone interview, are analyzed. Results: Depending on the treatment type, the savings may range from $5 to $115 for every $1 spent on screening and treatment. Conclusion: We suggest that a universal meconium screening at birth to identify high-risk women and prevent the future costs of FASD be considered. Future research should be directed at improving detection and interventions as well as considering the ethical issues involved in such a screening program.