**Epidemiology/Genetics Abstracts**

**Title:** A COST-EFFECTIVENESS ANALYSIS OF PRENATAL SCREENING STRATEGIES FOR NEURAL TUBE DEFECTS IN AN ISLAMIC COUNTRY, IRAN

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**Background:** Recently, there has been some changes in islamic pregnancy termination rules in Iran allowing for early terminating pregnancied with sever anomalies. So, we are assessing which Neural Tube Defect (NTD) screening strategy is the most cost-effective to be incorporated into the health system.

**Method:** Using decision-analysis modeling, we compared the cost-effectiveness of 3 screening strategies for NTD: 1) no screening, 2) serial maternal serum Î±-fetoprotein at week 16 and ultrasonography (US) at week 20, 3) US at week 20 only. Costs included cost of tests and resources used for raising a child with NTD. One-way and multiway sensitivity analyses were performed for all model variables. The main outcome measures were cost per NTD case detected, rate of delivering a liveborn neonate with NTD, and rate of diagnostic procedure-related pregnancy loss for each strategy.

**Results:** Only US screening detected more NTD cases compared with the other strategies, but it had a higher procedure-related loss rate. Serial serum and US screening was the most cost-effective strategy. Sensitivity analyses revealed the model to be robust over a wide range of values for the variables.

**Conclusion:** Based on the regulations of Iran as an Islamic country, pregnancy termination is just allowed for fetuses affected by severely debilitating diseases and prior to the 24th week of the gestation. Considering this time limitation and within our baseline assumptions, serial serum and US screening was the most cost-effective screening strategy for NTD.