Because the risk of fetal Down syndrome increases with maternal age, all pregnant women 35 years or older, defined as advanced maternal age (AMA), have traditionally been offered invasive antenatal testing such as chorionic villus sampling or amniocentesis. However, utilizing AMA alone for referral for invasive testing will still miss the majority of aneuploidy cases, in addition to a very high false positive rate. It has been recognized that a reasonable option for AMA women may be screening for aneuploidy by noninvasive means before other decisions are made. The first trimester screen (FTS) has been shown to have a detection rate for Down syndrome of about 85%. With such a high detection rate, one might expect that as FTS is implemented into routine prenatal care for AMA women, a reduction in the number of invasive antenatal testing procedures may occur. Such a reduction has, in fact, been demonstrated by several studies. Our study focused on testing decisions made by women of advanced maternal age who delivered at Kelsey-Seybold Clinic in Houston, Texas in the years 1998 and 2006. Our results are in accordance with previous studies in that we found a decrease in the uptake of invasive procedures following the implementation of the first trimester screen. A 43% decline in invasive procedures was seen in 2006 when compared to 1998 and an increased rate of prenatal screening (both first and second trimester combined) was also noted in 2006 when compared to 1998. Although there were several
sociodemographic differences between the populations, our data suggest that the increased "screening" in 2006 may have reduced the rate of invasive testing. Our study has important implications for the prenatal care of AMA women which is emerging as a primary area of interest for obstetricians in light of the recent trend toward delaying or extending childbearing years throughout the United States. Newly available screening tests, such as the First Trimester Screen, which have higher detection rates for certain fetal chromosomal abnormalities may have an impact on AMA women’s prenatal testing decisions. Our study demonstrated that more AMA women appear to be choosing screening tests over invasive diagnostic testing.