To determine the evolution of invasive diagnostic procedures: chorionic villus sampling (CVS) versus amniocentesis for the detection of aneuploidy, in the era of combined serum screening, cell-free DNA (cf-DNA) and first trimester detailed anatomy screening, we conducted a retrospective cohort study of all deliveries from 2010-2018 in Sardinia, (Italy), where diagnostic procedures are conducted at a single regional perinatal referral center (Microcitemico Hospital, Cagliari). Descriptive statistics were used to compare data between groups and inter-correlations among variables were investigated by Pearson’s correlation coefficient.

Conclusion
Our perinatal center experience demonstrates decreasing birthrates consistent with international data. However, the percentage of women that opt for invasive diagnostic testing has not changed. There has been a significant increase in the rate of early diagnostic testing with CVS compared to amniocentesis. The ratio of women who receive earlier definitive diagnosis has increased. The higher rate of earlier diagnostic testing is possibly related to increasing maternal age and to the diffusion of cf-DNA testing and first trimester detailed ultrasound screening for anomalies in our practice, among others.

Our results demonstrate an increasing prevalence of TA-CVS for diagnostic testing in the current era of prenatal testing and underline the importance of hands-on training of specialists in CVS.