# Introduction

Preterm birth defined as delivery before 37 completed weeks **(Cunningham,et al., 2005 ).**

Preterm birth are among the greatest health problems in the world today , and contribute to about 85% of all perinatal deaths. Preterm infants with birth weights less than 2500 grams represent about 10% of the total number of babies born each year **( Garfield and Manned,2007 ).**

In United States more than a third of dollars expended for infant health care during the first year oh life is spend on 10% of neonates who weight less than 2500 grams **( Lewit, et al.,1995 ).**

Selected risk factors to predict spontaneous preterm birth are twins, prior preterm birth, incompetent cervix and asymptomatic cervical dilatation after midpregnancy **( ACOG.,2001 ).**

One of the markers showing the highest sensitivity to predict preterm labor seems to be fetal fIbronectin ( FFN ) determined in cervicovaginal secretion **( Alonso, et al.,2004 ).**

Fetal fibronectin a high molecular weight protein is produced in 20 different molecular forms by a variety of cell types, including hepatocytas, fibroblasts, and endothelial cells, and by fetal amnion . present in high concentrations in maternal blood and in amniotic fluid, it

thought to play a role in intracellular adhesion during implantation and in the maintenance of placental adhesion to the decidua **( Lesson, et al.,1996 ).**

Fetal fibronectin ( FFN ) is typically absent from cervicovaginal secretions between 24 and 36 weeks gestation, becoming detectable again as term approaches. Elevated levels of FFN (typically>50 ng / ml) in cervicovaginal secretions between 24 and 36 weeks gestation are associated with an increased risk of preterm birth**(Schmitz,Maillard,et al.,2006** )**.**

High fetal fibronectin levels in the vagina or cervix late in the second trimester are the strongest predictors of preterm birth and this thought to be as a result of a sub-clinical intrauterine infection that disrupts the choriodecidual spaces and allows fetal fibronectin to leak into the lower genital tract **(Robert, et al.,2001).**