membranes when any form of preventive measures are not indicated. Of the remaining 30 – 40% of idiopathic labors nearly half occur after 34 weeks gestation when treatment with tocolytics are not indicated. This leaves only 15 – 20% of all preterm births where any preventative measures may be beneficial.[245]

C. Multicomponent preterm birth prevention programs:

Multi-component programs aimed at prevention of preterm birth are undertaken in various settings. The following presents certain preterm birth prevention programs that have evaluated the impact of more than one component for prevention of preterm birth.

Armson et al[293] evaluated a population-based preterm birth prevention program in Nova Scotia, Canada. The program was implemented between 1995-97 (n=24,572) and the results were compared with a historic cohort from 1993-95 (n=26,582). The program consisted of assessment of the risk of preterm birth based on a previously developed tool. Women were classified into high risk and low risk groups. The low risk group had risk assessment, review of warning signs for preterm labor and cervical examination at 20 - 24 weeks and 28 - 32 weeks and educational material was provided at 20 - 24 weeks. The high risk group received educational material, an educational session with the project coordinator, modified bedrest at home, weekly prenatal visits between 24 - 34 weeks, weekly cervical examination between 24 - 34 weeks, uterine activity monitoring by self palpation, and weekly telephone contact with the project coordinator. There was no difference in the overall rates of preterm births during the intervention period compared to the historical cohort period (RR 1.10, 95% CI 0.97, 1.23).

A multicenter randomized controlled study was performed in the US for prevention of preterm births in a low income population.[294] Pregnant women at high risk for preterm labor were randomized to intervention and control groups. The women in the intervention group (n=1,200) received instructions from specially trained staff regarding early signs of labor, notification of medical staff regarding signs of labor, weekly pelvic examination from 20 - 24 weeks onwards, early and frequent observation of uterine activity for brief periods of 1 - 3 hours and prompt and aggressive tocolysis for all women with labor. The control group (n=1,195) received routine obstetric care. There was no difference in the observed preterm birth rates (16.2 vs 15.4% for < 37 weeks gestational age).

Hobel et al[295] randomized clinics in Los Angeles, US to experimental (n=1,774) and control groups (n=880). The control group received standard antenatal care, which included clinic visits at 4-week intervals up to 30 weeks gestation, at 2-week intervals from 30 - 35 weeks gestation and at weekly intervals through to delivery. No education for warning signs of preterm labor was provided. The high-risk women, identified based on a scoring system, from experimental group clinics were offered a number of interventions, which included 2 weekly clinic visits and 3 classes regarding preterm birth prevention. In addition they were also randomized to one of four secondary interventions (bedrest, social support, progesterone or placebo). The preterm birth rate in the control group was 9.1% and 7.4% in the experimental group. The authors