

## **Behavioral intervention for prevention of gestational diabetes**

### **Plain English summary of results**

The study aimed to evaluate if behavioral intervention provided via smartphone (LINE® application) can prevent development of gestational diabetes (GDM) during 24-28 weeks of gestation in women with normal initial GDM screening before 20 weeks of gestation. After enrollment, the participants in intervention group received individual counseling on nutrition and physical activity together with weekly information about behavioral modification via smartphone until the second GDM screening at 24-28 weeks of gestation. Participants in control group received routine counseling during standard antenatal care.

A total of 920 women were included (460 in each group). Baseline characteristics were comparable between the 2 groups, including age, parity, BMI, GDM risk factors, time of first screening, and results of initial GDM screening. During follow up, outcomes of 19 and 24 women in intervention and control group were not be able to evaluated, leaving 441 and 436 women in the study. The results showed that women in the intervention group had significantly lower rate of GDM during 24-28 weeks of gestation (6.9% vs. 10.9%).

In conclusion, additional information about behavioral modification via smartphone after normal early GDM screening can reduce the rate of GDM at 24-28 weeks of gestation.