

## FINAL PROJECT REPORT

*Date: 26/01/2010*

*Name:*

Dr Ruth Hughes

*Project Title:*

A pilot of HbA1c at booking to detect undiagnosed diabetes  
Now renamed: **STEP** 'Screening for Type 2 diabetes in Early Pregnancy'

**Please copy the "Outcome(s)" statement, entered on your application form, in the space below.**

1. Sensitivity and specificity of an HbA1c measurement taken at the time of the first antenatal (booking) bloods in detecting undiagnosed pre-gestational diabetes.
2. Whether selective screening of women with one risk factor for diabetes improves the sensitivity and specificity of an HbA1c screening test, and whether selective screening is feasible (are risk factors recognized by the lead maternity carers)

**Will your work contribute to this outcome(s) in the manner you envisaged? If not, what has changed?**

Yes, we are on target with both recruitment numbers and financially to complete the study. As stated in the original application, the study will need to run for three years to ensure adequate numbers to test our hypothesis and we will finish recruitment at the end of 2010. We were awarded funding to cover laboratory costs by Lottery Health grants, HRC, NZSSD and the Local Diabetes Trust.

**Please copy the "Specific Objective(s)" statement, entered on your application form, in the space below.**

This is a pilot study to assess whether measurement of glycosylated haemoglobin (HbA1c) at booking (in the first or early second trimester) will identify pregnant women with undiagnosed pregestational diabetes who would not otherwise be identified until the Polycose test at 24-28 weeks gestation. The results of this study will have important relevance to the way we screen for undiagnosed pre-GDM in Canterbury and New Zealand as a whole. If we can detect women with undiagnosed Type 2 diabetes early in pregnancy we can offer early treatment and improve pregnancy outcomes such as a reduction in pre-term delivery and perinatal mortality, thus improving the quality of medical and health care in Canterbury, and ultimately reducing costs to the health service.

**Briefly describe how successful you were in achieving the stated objective(s). If the objective(s) was not achieved, explain why that is the case and describe what you did manage to achieve.**

As a direct result of the study we have identified many women with pre-existing diabetes and pre-diabetes that would otherwise have been missed until the current 28 week gestational diabetes screen, thus allowing early intervention. In the last financial year to the end of June 2009 168 women with gestational diabetes attended Christchurch Women's Hospital antenatal diabetes clinic, 40% of whom were identified early via the study.

**Please confirm delivery of the outputs listed on your application form. If these outputs were not to be delivered, please explain why.**

The study will be complete by the end of 2010. The outputs are expected to be delivered in early 2011.