N-READY Plain English Summary

Smoking is the biggest killer in the developed world. When pregnant women smoke, babies are more likely grow slowly in the womb and experience future health problems. Smokers' children are more likely to smoke themselves, so stopping in pregnancy improves women's and infants' health and ultimately reduces numbers of future adult smokers.

Pregnant women are very motivated to stop smoking; many try but most fail or re-start after birth. The English NHS helps around 20,000 pregnant smokers each year; most are offered nicotine replacement therapy (NRT) which the NHS considers safer than smoking. NRT provides 'clean' nicotine without cancer-causing chemicals; users feed nicotine urges without smoking and can stop for good, but most pregnant smokers who are given NRT don't use this regularly or for long enough for it to work.

Although NRT contains only nicotine, many pregnant smokers have concerns about using it, which is why most use low NRT doses which do not control unpleasant 'withdrawal' feelings. Another reason for low use of NRT in pregnancy is that pregnant women's bodies break down nicotine much faster and for pregnant smokers to avoid the unpleasant feelings that come from not having enough nicotine ('withdrawal'), they need higher doses of NRT than they would have done before pregnancy. Overall, pregnant smokers are more likely to stop using NRT and re-start smoking to help reduce 'withdrawal'; this means that NRT may not be helping them to stop as much as it could.

We will develop support reinforced by text message which encourages pregnant smokers to use as much NRT as they need to control their 'withdrawal'. With this support pregnant quitters will be offered a NRT patch to provide a steady nicotine dose and a rapid-acting NRT for short term dose 'top ups' which women will learn to use when they need more nicotine. We will test whether we can train health professionals to support pregnant smokers using these methods. We want to help pregnant smokers make best use of NRT and stop smoking for good by:

- 1. Discovering from published work how NRT is best used in pregnancy and, by finding from pregnant smokers the information they need to address concerns about NRT.
- 2. Using findings from the above work to design an intervention which addresses concerns and encourages pregnant smokers to use enough NRT for this to work.
- 3. Testing whether or not women who receive the intervention use more NRT.
- 4. Testing whether or not the intervention, used within routine NHS stop smoking services, causes more pregnant smokers to stop smoking than current standard NHS support. If it works, this cheap intervention will be ready for immediate use and will probably save NHS money.