Start2quit: a randomised trial to encourage smokers to use the Stop Smoking Services

Hazel Gilbert
Department of Primary Care and Population Health
University College London
The Problem

• Smoking remains one of the most significant public health challenges
• 19% of the adult population in Great Britain still smoke
• Many smokers say they want to quit but programmes of support consistently under-used
• Less than 5% of smokers in England use the NHS Stop Smoking Service

Research Question

How can we persuade and motivate more smokers to seek or accept help to quit?
The Start2quit randomised trial

Built on: 
*Lichtenstein and Hollis, 1992*
• used proactive method of recruitment and referral
• offered no commitment introductory session
*Murray et al, 2008*
• employed proactive recruitment strategy using mass mailing to inform smokers about local SSS

Two-component intervention
1) Computer-tailored personal risk information letter
2) Offer of a no-commitment introductory session
Dear Mr Rubble
You recently filled in a questionnaire for the start2quit project. This letter is based on your answers in the questionnaire and on your medical records. It is written for you personally and gives you advice about smoking. We are also inviting you to a Taster Session to help you to become smokefree and improve your health.

Your personal risk

Based on your smoking habits and your personal health, your current risk of developing a further serious illness and suffering an early death is very high compared to a non-smoker or ex-smoker of your age.

Your records show that you also have diabetes, and even by smoking only 10 cigarettes a day you are seriously increasing your risk of high blood pressure leading to heart attack and kidney disease. By going smokefree now, you can prevent further decline and begin to heal.

Take control and change your life

Stopping smoking is the single most important thing that you can do to improve your health and quality of life. The good news is that if you quit now, at 37, you have greater chance of preventing any further complications and can halve your additional risk of contracting other diseases. By stopping smoking you will slow the progress of your existing condition and live with better health for longer. We recommend that you consider quitting without delay. It could be the best thing you will ever do for yourself.
Don't do it alone

You might think it is hard to stop but you don’t have to do it alone. Help and support is available. The NHS Stop Smoking Service offers free personal support to help you. You have previously quit for a few days. Joining a stop smoking group or getting one-to-one support will increase your chances of staying quit and becoming smokefree. You will also feel less alone and gain the support of other people who are quitting.

A place is reserved for you

So that you can find out more about the Stop Smoking Service, we are inviting you to a 'Come and Try it' session at Camden Town Hall on Wednesday 10th January 2011 at 7pm. Please bring the Invitation Card enclosed with you. If you cannot attend this session, please contact Sally Jones on ********. We can offer you an alternative time or an immediate appointment with an advisor.

With very best wishes
<name>
Invitation to a

‘Come and Try it’
Stop Smoking Session

at <place>
on <day> <date> at <time>.

Please bring this card with you to the session.

If you are unable to attend, please contact <name> on <tel number>
'Come and Try it' Taster Sessions

Goal:
• to offer information about the SSS
• to build awareness of and comfort with the services
• encourage sign up to a course

Not intended to replicate the first session of a course.

Run by advisors, already trained to give smoking cessation advice, trained to lead sessions according to a standard protocol

Lasted approximately 1 hour

5-min DVD showing testimonials and sessions in progress
Hypothesis:

Smokers, identified from general practice records, sent a brief personal tailored letter and invited to a ‘Come and Try it’ taster session, were more likely to attend the services than those who received a standard generic letter advertising the service.
Target Population

Current Smokers
- aged 16 years and over
- not attended the SSS in the previous 12 months
- motivated to quit:
  - thinking of quitting in the next six months
  - would think of quitting if appropriate help were offered

Targeted areas of high deprivation and ethnic minorities

Recruitment

- Primary Care Research Networks (PCRN) recruited SSSs ($n=18$) and General Practices ($n=99$)
- smokers identified from medical records in participating practices
- list screened by GP
- computer program screened out all but one person from same address
- invitation to participate sent from GP (included assessment questionnaire and consent form)
- questionnaires returned to the practice
Total list size = 962,548 (practice list size (range=2,205 to 26,000)

Total Smokers identified = 141,488 (14.7%)

Excluded = 29,272
   By GP = 4,186
   Duplicate address = 25,086

Sent invitation to participate = 112,216 (11.7%)

Smokers enrolled in trial and randomised (ratio 3:2 within practice, stratified by gender) = 4,384 (4.1%)

Intervention Group = 2636
1) brief personal risk letter from GP
2) invitation and appointment to attend a ‘Come and Try it’ taster session

Withdrawn = 1

Control Group = 1748
Standard generic letter advertising the local SSS asking the smoker to contact the service to make an appointment

N analysed = 4,383
Follow-up
6-months post randomisation
Response rate = 76.9%
Intervention group = 76.7%
Control group = 77.3%

Main outcomes
1) The proportion of people attending the first session of a 6-week SSS course over a period of 6 months from the receipt of the invitation letter, measured by records of attendance at the SSSs
2) Validated 7-day pp abstinence

Secondary outcomes
1) the number completing the 6-week SSS course
2) validated 7-day pp abstinence at the 6-month follow-up
3) validated 3-month prolonged abstinence measured
4) additional periods of abstinence measured by self-report (24hr and 7 day pp, 1-month and 3-month prolonged)
## Demographic and Smoking characteristics

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>2231 (50.9%)</td>
</tr>
<tr>
<td>Mean Age</td>
<td>49.3 (range 16–89)</td>
</tr>
<tr>
<td>Deprivation (IMD score):</td>
<td></td>
</tr>
<tr>
<td>quintile 1</td>
<td>549 (12.5%)</td>
</tr>
<tr>
<td>quintile 2</td>
<td>622 (14.2%)</td>
</tr>
<tr>
<td>quintile 3</td>
<td>966 (22.0%)</td>
</tr>
<tr>
<td>quintile 4</td>
<td>1130 (25.8%)</td>
</tr>
<tr>
<td>quintile 5</td>
<td>1089 (24.9%)</td>
</tr>
<tr>
<td>Live with another smoker</td>
<td>1402 (32.0%)</td>
</tr>
<tr>
<td>Dependence score (0-6):</td>
<td></td>
</tr>
<tr>
<td>low (0-2)</td>
<td>1763 (40.2%)</td>
</tr>
<tr>
<td>medium (3)</td>
<td>1431 (32.7%)</td>
</tr>
<tr>
<td>high (4-6)</td>
<td>1160 (26.5%)</td>
</tr>
<tr>
<td>Planning to quit:</td>
<td></td>
</tr>
<tr>
<td>in next 2 weeks</td>
<td>796 (18.2%)</td>
</tr>
<tr>
<td>next 30 days</td>
<td>986 (22.5%)</td>
</tr>
<tr>
<td>next 6 mths</td>
<td>1862 (42.5%)</td>
</tr>
<tr>
<td>not in next 6 mths</td>
<td>551 (12.6%)</td>
</tr>
<tr>
<td>Previous quit attempt &gt;1 mth</td>
<td>2440 (55.7%)</td>
</tr>
<tr>
<td>Mean determination to quit (1-5 scale)</td>
<td>3.7 (0.9)</td>
</tr>
<tr>
<td>Not previously attended SSS</td>
<td>2898 (66.1%)</td>
</tr>
</tbody>
</table>
## Results

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
<th>OR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f(%)</td>
<td>f(%)</td>
<td>Unadjusted</td>
<td>Adjusted</td>
</tr>
<tr>
<td>Attended SSS</td>
<td>458(17.4)</td>
<td>158(9.0)</td>
<td>2.12 (1.75–2.57)</td>
<td>2.20 (1.80–2.70)</td>
</tr>
<tr>
<td>7-day validated point-prevalent abstinent</td>
<td>236(9.0)</td>
<td>97(5.6)</td>
<td>1.68 (1.32–2.15)</td>
<td>1.67 (1.29–2.14)</td>
</tr>
<tr>
<td>Completed SSS course</td>
<td>382(14.5)</td>
<td>123(7.0)</td>
<td>2.24 (1.81–2.78)</td>
<td>2.30 (1.84–2.87)</td>
</tr>
<tr>
<td>7-day self-report pp</td>
<td>424(16.1)</td>
<td>187(10.7)</td>
<td>1.61 (1.34–1.94)</td>
<td>1.62 (1.34–1.97)</td>
</tr>
<tr>
<td>24hr self-report pp</td>
<td>445(16.9)</td>
<td>201(11.5)</td>
<td>1.57 (1.31–1.88)</td>
<td>1.57 (1.31–1.89)</td>
</tr>
<tr>
<td>1mth self-report prolonged</td>
<td>357(13.6)</td>
<td>151(8.6)</td>
<td>1.67 (1.36–2.04)</td>
<td>1.70 (1.38–2.10)</td>
</tr>
<tr>
<td>3mths self-report prolonged</td>
<td>240(9.1)</td>
<td>103(5.9)</td>
<td>1.61 (1.26–2.04)</td>
<td>1.64 (1.28–2.11)</td>
</tr>
<tr>
<td>3mths validated prolonged</td>
<td>150(5.7)</td>
<td>60(3.4)</td>
<td>1.70 (1.25–2.31)</td>
<td>1.68 (1.23–2.30)</td>
</tr>
</tbody>
</table>
Subgroup analysis

Intervention more effective for males:

SSS attendance: $(p=0.01)$  
7day pp abstinence: $(p=0.01)$
Social deprivation

SSS attendance:

Differential greater in IMD Quintiles 2 and 3 and 4 (p =0.005)
Process measures

Taster sessions
• Total number of smokers attending = 739/2635 (28%)
• Mean Attendance at sessions = 5.6 (1-19)

Attendance and smoking status outcome
• Participants were more likely to attend the SSS if they had attended a taster session (45.7% vs. 6.3%)
• Participants who received the intervention and attended the SSS were most likely to be 7-day abstinent (28.7%)
Perception of the personal risk letters

More people in Intervention group:
• found it more personally relevant
• said it made them feel more confident towards quitting
• said it made them more determined to quit
• said they felt more optimistic

The letter did not make them feel more
• angry 4.1%
• anxious 8.2%
• depressed 4.5%

Perception of the Taster session

‘very welcoming and informal and friendly informative and non judgmental’

‘very good. Without trying to 'preach' or exert undue pressure’

‘nice to know that such a service exists’
Summary

• Use of stop smoking services can be encouraged by
  - using more proactive recruitment methods
  - offering personal risk information
  - opportunity to attend no-commitment taster session

• Intervention more effective for men

• Participants found the tailored personal risk letter acceptable, and the taster session was well-received

Further research is needed to investigate the effectiveness of each component of this intervention.

Cost-effectiveness

• mean costs per participant: £54 intervention, £0.9 control
• intervention less likely to be cost-effective in the short-term
• long-term results over a lifetime horizon: intervention has 86% probability of being more cost-effective
Co Investigators:
Professor Irwin Nazareth  UCL Medical School
Professor Richard Morris (Trial Statistician)  UCL Medical School
Dr Irene Petersen (Statistician)  UCL Medical School
Professor Stephen Sutton  University of Cambridge
Steve Parrott  University of York
Dr Simon Galton  Camden Stop Smoking Service

Funding Acknowledgement:
This project was funded by the National Institute for Health Research HTA Programme (Project Number 08/58/02)

Department of Health Disclaimer:
The views and opinions expressed herein are those of the authors and do not necessarily reflect those of the HTA Programme, NIHR, NHS or the Department of Health.