

## **What makes for an effective Stop Smoking Service? - Supplementary content**

Currently, primary care in the National Health Service (NHS) in England is organised in 151 Primary Care Trusts (PCTs). Since their introduction in 1999, an NHS Stop Smoking Services (SSS) has been set up in each PCT. SSSs are free at the point of access and provide a combination of pharmacological and behavioural treatments that have been shown to significantly increase smokers' chances of quitting.[1] Pharmacological therapy covers nicotine replacement therapy, bupropion and varenicline, while trained advisors deliver behavioural support in one-to-one sessions, groups, drop-ins, by telephone or in other situations (table S1, [2]). Groups can be 'open (rolling)' or 'closed'; open groups are open to new members at each session, i.e. individuals within the same group will be at different points in their quit attempt and have different quit dates. A closed group in contrast is a group in which all members start their quit attempt together and new members cannot join after the first meeting. Drop-ins differ from one-to-one support in that they operate without fixed appointments and number and timings of sessions are less fixed [3].

The client is supposed to freely choose their preferred treatment; however, not all SSSs offer all intervention options [4].

A treatment episode begins when a smoker sets a quit date with the SSS at the beginning of an intervention. The treatment episode ends four weeks after the quit date, when the client has either been abstinent for at least two weeks, is lost to follow-up or has not been abstinent for the required time[3].

**Table S1. Client demographics and treatment characteristics**

		Current sample, N=126890		All SSSs in England 2009/10 [2]
		n	%	%
Gender	Female	66235	52.2	52.0
	Male	60641	47.8	48.0
	Missing	14	<0.1	-
Ethnicity	White	108147	85.2	87.4
	Asian	5517	4.3	3.0
	Black	3008	2.4	1.7
	Mixed	2679	2.1	1.4
	Other	1947	1.5	0.9
	Unknown/declined	5592	4.4	5.6
Occupation	Routine and manual	25477	20.1	21.1
	Intermediate	8367	6.6	7.2
	Managerial/professional	17080	13.5	12.0
	Full-time student	5989	4.7	4.5
	Retired	13496	10.6	10.2
	Home carer	7413	5.8	5.1
	Sick/disabled and unable to work	8193	6.5	5.6
	Never worked/long-term unemployed	15598	12.3	12.1
	In prison	1227	1.0	1.0
	Unable to code /missing	24050	19.0	21.1
Prescription charges	Exemption	69074	54.4	50.3
	Pays for prescription or unknown	57816	45.6	49.7
Treatment episode number (Used as binary variable - first versus later episode)	1	86766	68.4	Data not available
	2	25177	19.8	
	3-5	13294	10.5	
	6-10	1549	1.2	
	>10	104	0.1	
Type of medication <sup>a</sup>	Single NRT *	44675	35.2	65.1 <sup>1</sup>
	Combination NRT	38940	30.7	
	Varenicline (Champix)	26966	21.3	
	Bupropion (Zyban)	1569	1.2	
	No medication/missing	14740	11.6	

		Current sample, N=126890	All SSSs in England 2009/10 [2]	
		n	%	%
Intervention type	One to one support *	103513	81.6	78.6
	Drop-in clinic	11159	8.8	10.6
	Open (rolling) group	5487	4.3	4.4
	Closed group	3479	2.7	2.2
	Telephone support	1886	1.5	1.2
	Other	1362	1.1	2.1
	Missing	4	<0.1	-
Intervention setting	Primary care	51931	40.9	44.8
	Specialist clinics *	40998	32.3	30.0
	Pharmacy	28601	22.5	18.4
	Home visit	1722	1.4	not available
	Prison	1242	1.0	1.4
	Other	2370	1.9	3.4
	Missing	26	<0.1	-

Notes:

\* Reference category

<sup>1</sup> Single and combination NRT not reported separately

Mean age of current sample was 41.94 years (SD=14.93), data not available for all English SSS.

**Table S2. Sensitivity analysis using first treatment episodes only; complex samples (SSS as cluster) multiple logistic regression predicting abstinence, N=86595.**

	CO-validated 4-week abstinence <sup>a</sup>	
	OR (95% CI)	p value
<b>Medication</b>		
Single NRT vs no medication	1.64 (1.33-2.02)	<0.001
Combination NRT vs single NRT	1.33 (1.02-1.74)	0.032
Bupropion (Zyban) vs single NRT	1.14 (0.97-1.33)	0.112
Varenicline (Champix) vs single NRT	1.73 (1.55-1.92)	<0.001
<b>Intervention type (reference: one-to-one)</b>		
Closed group	1.40 (1.16-1.68)	<0.001
Drop-in	0.66 (0.51-0.85)	0.002
Open (rolling) group	1.56 (1.30-1.88)	<0.001

CO-validated 4-week abstinence <sup>a</sup>		
	OR (95% CI)	p value
Telephone support*	-	-
Other	0.94 (0.65-1.34)	0.738
Intervention setting (reference: Specialist clinics)		
Primary care	0.73 (0.59-0.90)	0.004
Pharmacy	0.84 (0.75-0.94)	0.002
Other	0.83 (0.67-1.04)	0.108

OR=Odds ratio, CI=Confidence interval. Strata=1, cluster=24, sampling design df=23

<sup>a</sup> Adjusted for gender, ethnicity, occupation and prescription charges.

\* Due to the nature of a telephone intervention, CO-validation was not attempted in most cases, thus this result would not be reliable and is not presented.

## References

- [1] West R, McNeill A, Raw M. Smoking cessation guidelines for health professionals: an update. Health Education Authority. Thorax. 2000;55(12):987-99.
- [2] The NHS Information Centre. Statistics on NHS Stop Smoking Services: England, April 2009 – March 2010. 2010.
- [3] Department of Health. NHS Stop Smoking Services - Service and monitoring guidance. 2010.
- [4] The NHS Centre for Smoking Cessation and Training (NCSCT). Training needs analysis. [http://www.ncsct.co.uk/resources/downloads/NCSCT\\_Training\\_Needs\\_Analysis\\_Sept09.pdf](http://www.ncsct.co.uk/resources/downloads/NCSCT_Training_Needs_Analysis_Sept09.pdf). 2009; accessed 20 January 2011.