

## Reducing Tobacco Use and Secondhand Smoke Exposure: Quitline Interventions

### Summary Evidence Table: Provider Referral to Promote Quitline Use

Study	Location Intervention Comparison	Study Period Study Population Sample Size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up Time
<p><b>Author (Year):</b> Bentz et al. (2006)</p> <p><b>Study Design (Suitability):</b> Non-Randomized Trial (Greatest)</p> <p><b>Quality of Execution (Limitations):</b> Fair (3)</p>	<p><b>Location:</b> Oregon, USA</p> <p><b>Intervention:</b> Fax Referral</p> <p>Provider actively refers smokers who are interested to the quitline by faxing the patient's form. Upon receipt of the fax referral, the quitline counselor proactively calls the tobacco user, develops an in-depth quit plan, and offers the quitline services to those who are interested.</p> <p><b>Comparison:</b> Brochure Referral</p> <p>Smoker is given a brochure by the provider and urged to initiate contact with quitline if interested in quitting</p>	<p><b>Time:</b> 10/2002-10/2003</p> <p><b>Study Population:</b> 175 providers in 19 clinics with a total of 103,597 patients seen, with 15,662 being current smokers.</p> <p>All Patients who were identified as smokers were eligible to receive the intervention once they consent to the study</p> <p>Intervention( n): 496</p> <p>Comparison (n): 233</p>	Connections to Quitline	Comparison 19% (249)	Intervention 59% (292)	<p>Absolute Difference +40 pct pts</p> <p>Relative Change 210.5%</p>	Analysis Completed 10-12/03
<p><b>Author (Year):</b> Borland et al. (2008)</p> <p><b>Study Design (Suitability):</b> Group RCT (Greatest)</p>	<p><b>Location:</b> Victoria, Australia</p> <p><b>Intervention:</b> Fax Referral</p> <p>GPs encouraged to refer smokers with interest in</p>	<p><b>Time:</b> (09/2004-12/2005)</p> <p><b>Study Population:</b> Current Smokers, ≥18 yrs, spoke English, provided informed consent</p>	<p>Total # Referred 47.5% (n=366) (Note: N=771)</p> <p>% of Fax Referred</p>	<p>Comparison 1.43% (n=11)</p> <p>Comparison ==</p>	<p>Intervention 46.04% (n=355)</p> <p>Intervention</p>	<p>Absolute change: +44.61 pct pts</p> <p>Relative change: 3119.6%</p> <p>Not used</p>	<p>3 months</p> <p>N/A</p>

Study	Location Intervention Comparison	Study Period Study Population Sample Size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up Time
<b>Quality of Execution (Limitations):</b> Good (1)	quitting to the Victorian Quitline <b>Comparison:</b> In-practice Management  GPs encouraged to provide smokers with additional information and help to stop smoking	Computerized randomization of PCPs (GPs) in ratio 1:2 for Intv:Ctrl  <b>Participants:</b> Intervention (n) = 30 PCPs; 728 Patients (f/u = 547@3m, 495@12m)  Comparison (n) = 15 PCPs; 311 Patients (f/u = 224@3m, 195@12m)	Patients Contacted by Quitline  % of Contacted Patients that Enrolled  Self-reported 7 day point prevalence at 3 months  Self-reported 30 day continuous abstinence at 3 months  Self-reported 7 day point prevalence at 12 months  Self-reported 30 day continuous abstinence at 12 months	Comparison ==  Comparison 7.7%  5.5%  9.0%  1.6%	76.8%, n=281)  Intervention 73.5% (n=206)  Intervention 13.5%  10.2%  15.4%  4.4%	Not used  Absolute change: 5.8 pct pts (not used)  4.7 pct pts (not used)  6.4 pct pts (not used)  <b>2.8 pct pts</b>	N/A  3 months  3 months  12 months  12 months
<b>Author (Year):</b> Ebbert et al. (2007)  <b>Study Design (Suitability):</b> Group RCT (Greatest)	<b>Location:</b> MN, USA (Olmsted and Mower Counties)  <b>Intervention:</b> Brief Counseling from Dental Hygienist + Fax Referral  <b>Comparison:</b>	<b>Time:</b> Recruitment was from 06/2005-08/2006  <b>Study Population:</b> Adults >=18; dental patient coming for routine dental	Connections to Quitline  Self-reported 7 day abstinence at 3 months	N/A  22.7%  27.3%	47% (28 of 60)  18.3%  25.0%	N/A  Absolute change: -4.4 pct pts (not used)  <b>-2.3 pct pts</b>	N/A  3 months  6 months

Study	Location Intervention Comparison	Study Period Study Population Sample Size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up Time
<b>Quality of Execution (Limitations):</b> Fair (4)	Brief Counseling from Dental Hygienist only	prophylaxis; currently smoking  Population:: 82 Patients Randomized  Intervention (n):60  Comparison (n): 22	Self-reported 7 day abstinence at 6 months				
<b>Author (Year):</b> Gordon et al. (2010)  <b>Study Design (Suitability):</b> Group RCT (Greatest)  <b>Quality of Execution (Limitations):</b> Fair (2)	<b>Location:</b> Mississippi, USA  <b>Intervention:</b> GRP 1: 5As (Ask, advise, assess, assist, arrange) Referral to the Mississippi quitline was optional and was at the discretion of the provider  GRP2: 3As (Ask, advise, arrange quitline referral) Based on the AAR model "Fax-to-Quit referral to the Mississippi quitline was offered to the participants  <b>Comparison:</b> Usual Care Practitioners provided their usual tobacco-use cessation services to patients (details of the services not given)	<b>Time:</b> (10/2003-08/2008)  <b>Study Population</b> >= 21 yrs; Dental patient; Smoker or user of Smokeless tobacco  Participants (N): 2160  GR1:5As (n): 817  GRP2:3As (n): 793  Comparison (n): 550	% Referred  Connections to Quitline % (#)  Self-reported 7 day point prevalence at 3 months  Self-reported 7 day point prevalence at 12 months  Self-reported 90 day continuous abstinence at 12 months	Control: 25.5%  Control: 4.9%  Control: 7.6%  Control: 1.5%	GRP1: 52% GRP2: 29%  GRP1: 52.4% GRP2: 40.1%  GRP1: 6.6% GRP2: 5.0%  GRP1: 13.2% GRP2: 10.8%  GRP1: 3.3% GRP2: 3.0%	N/A  GRP2 vs. Control: Absolute change: 26.9 pct pts Relative change: 105.5%  Not used  Not used  GRP2 vs. Control: Absolute change: 1.5 pct pts	N/A  N/A  3 months  12 months  12 months
<b>Author (Year):</b> Guy et al. (2012)	<b>Location:</b> Arizona, USA  Referral Types	<b>Time and Study Population:</b>	Self-reported 7 day point prevalence at 7 months	Provider passive referral: 8.36%	Provider active referral: 10.55%	Not used	7 months

Study	Location Intervention Comparison	Study Period Study Population Sample Size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up Time
<p><b>Study Design (Suitability):</b> Retrospective (Moderate)</p> <p><b>Quality of Execution (Limitations):</b> Good (1)</p>	<p>Self-Referral: Client contacts ASHLine on his own volition</p> <p>Personal Passive Referral: Client encouraged to contact ASHLine by non-medical professional like family, friends</p> <p><b>Provider Passive Referral:</b> Client encouraged to contact ASHLine by medical professional but were not formally referred</p> <p><b>Provider Active Referral:</b> Client willing to quit were fax/mail referred to ASHLine</p>	<p>All clients enrolled between 07/01/2005-05/27/2010 (from Quitline records)</p> <p>Total N = 11,040 – No allocation was done</p>	<p>Self-reported 30 day continuous abstinence at 7 months</p>	<p>Provider passive referral: 8.17%</p>	<p>Provide active referral: 9.86%</p>	<p>Absolute difference: 1.7 pct pts</p>	<p>7 months</p>
<p><b>Author (Year):</b> Kobinsky et al. (2010)</p> <p><b>Study Design (Suitability):</b> Retrospective (Moderate)</p> <p><b>Quality of Execution (Limitations):</b> Good (1)</p>	<p><b>Location:</b> Wisconsin, USA</p> <p><b>Intervention:</b> Fax To Quit: Clients who were Fax Referred to WTQL by Health Professional</p> <p><b>Comparison:</b> Non-Fax To Quit: Clients who were Verbally encouraged to contact WTQL</p>	<p><b>Time:</b> 12/01/2006-03/01/2007</p> <p>Telephone Survey: 03/01/2007-08/30/2007</p> <p><b>Study Population:</b> English speaking; &gt;= 18 yrs; Valid phone # in WTQL database; Tobacco user</p> <p>(from Quitline records)</p> <p>Intervention (n): 158</p>	<p>Self-reported 7 day point prevalence at 3 months</p> <p>Self-reported 3 months continuous abstinence at 3 months</p>	<p>42.1%</p> <p>32.7%</p>	<p>52.5%</p> <p>46.8%</p>	<p>Not used</p> <p>Absolute change: 14.1 pct pts</p>	<p>3 months</p> <p>3 months</p>

Study	Location Intervention Comparison	Study Period Study Population Sample Size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up Time
		Comparison (n): 107					
<b>Author (Year):</b> Lewis et al. (2009)  <b>Study Design (Suitability):</b> RCT (Greatest)  <b>Quality of Execution (Limitations):</b> Good (1)	<b>Location:</b> UK  <b>GRP A: Brief Counseling + Passive referral:</b> Brief counseling by HSCS and the provided with contact information of and verbally advised to contact Local Community-based Smoking Cessation Service  <b>GRP B: Intensive Counseling + Passive Referral:</b> 4 Intensive Counseling sessions + 5 Information Leaflets + Verbal advise to contact Community-based Smoking Cessation Service  <b>GRP C: Intensive Counseling + Active Referral:</b> 4 Intensive Counseling sessions + 5 Information Leaflets + Specific Appointment to attend the Community-based Smoking Cessation Service within 7 days	<b>Time:</b> 05/2005-11/2006  <b>Study Population</b> Consecutive smokers; >= 18 yrs; Attending Hospital  Participants (N): 450	Connections to Community-based Service %	GRP B: 4%	GRP C: 23%	Absolute difference: 19 pct pts; Relative difference: 475%	5wks
		GRP A: Randomized 150 # Analyzed (n): 132  GRP B: Randomized 150 # Analyzed (n): 132	Connections to Community-based Service %	GRP B: 6%	GRP C: 8%	Not used	52wks
		GRP C: Randomized 150 # Analyzed (n): 129	Self-reported 7 day point prevalence at 55 weeks	GRP B: 20%	GRP C: 22%	Absolute difference: 2 pct pts	55wks
<b>Author (Year):</b> Mahabee-Gittens et al. (2008)	<b>Location:</b> Ohio, USA  <b>Intervention:</b> 2As + Fax Referral	<b>Time:</b> (09/2005-08/2006) Follow-up: up till 11/2006	% Referred	N/A	89% (n=212)	Not used	N/A
			% Fax Received	N/A	83%	Not used	N/A

Study	Location Intervention Comparison	Study Period Study Population Sample Size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up Time
<p><b>Study Design (Suitability):</b> RCT (Greatest)</p> <p><b>Quality of Execution (Limitations):</b> Good (1)</p>	<p>Brief Tobacco cessation information based on the first 2As (Ask and Advise) of the 5As of the Clinical Practice Guideline, and offered a faxed referral to the telephone tobacco Quitline</p> <p><b>Comparison:</b> Usual Care Control</p> <p>Patients were surveyed and given informed consent only – no cessation information</p>	<p><b>Study Population:</b> Parent or legal guardian of children 18 years or younger; triaged to the non-urgent category; Tobacco user</p> <p>Participants (N): 356</p> <p>Randomized to achieve a 2:1 ratio between intervention and control participants</p> <p>Intervention: (n): 237 completed 3m f/u (n): 120 (78%)</p> <p>Comparison (n): 119 completed 3m f/u (n): 65 (75%)</p>	<p>% Enrolled</p> <p>Connections to Quitline % (#)</p> <p>Self-reported 7 day point prevalence at 6 weeks</p> <p>Self-reported 7 day point prevalence at 3 months</p> <p>Self-reported 7 day point prevalence at 6 weeks and 3 months</p>	<p>N/A</p> <p>N/A</p> <p>3.4%</p> <p>5.9%</p> <p>1.7%</p>	<p>84%</p> <p>46%</p> <p>6.8%</p> <p>11.4%</p> <p>4.2%</p>	<p>Not used</p> <p>Not used</p> <p>3.4 pct pts (not used)</p> <p><b>5.5 pct pts</b></p> <p>2.5 pct pts (not used)</p>	<p>N/A</p> <p>N/A</p> <p>6wks</p> <p>3 months</p> <p>3wks and 3 months</p>
<p><b>Author (Year):</b> Perry et al. (2005)</p> <p><b>Study Design (Suitability):</b> Before and After (Least)</p> <p><b>Quality of Execution (Limitations):</b> Fair (4)</p>	<p><b>Location:</b> Wisconsin, USA</p> <p><b>Intervention:</b> Fax Referral</p> <p>Identification of all patients who smoke as part of a vital signs assessment and their referral to the Wisconsin Tobacco QuitLine (WTQL) through a Fax-To Quit</p>	<p><b>Time:</b> Implementation Started in 2003</p> <p><b>Study Population:</b> Patients attending 470 healthcare facilities in Wisconsin who identify as Tobacco users.</p> <p>Intervention( n): NA</p>	# Referrals to Quitline	Comparison 1 <sup>st</sup> Quarter 2003 N=10	Intervention 4 <sup>th</sup> Quarter 2004 N=1100	N/A	N/A

Study	Location Intervention Comparison	Study Period Study Population Sample Size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up Time
	<p>system after obtaining their consent</p> <p><b>Comparison:</b> None</p> <p>NOTE: This paper only reported the extent to which the FTQ approach has been adopted by health care providers; it showed trend in # of referrals to the Quitline after the implementation of Fax-To-Quit. No baseline before intervention implementation, and the 1st quarter 2003 is only for the month of March.</p>	<p>Comparison (n): None</p>					
<p><b>Author (Year):</b> Schiebel et al. (2007)</p> <p><b>Study Design (Suitability):</b> RCT (Greatest)</p> <p><b>Quality of Execution (Limitations):</b> Fair (2)</p>	<p><b>Location:</b> Minnesota, USA</p> <p><b>Intervention:</b> Fax To Quit:</p> <p>Fax Referral for Quitline counseling involving an initial 45-minute telephone session followed by up to four 10-15 minute follow-up sessions around their identified quit date</p> <p><b>Comparison:</b> US Public Health Services Self-help Manual</p>	<p><b>Time:</b> 09/2006-11/2007 (14 months duration)</p> <p><b>Study Population:</b> Current smoker; &gt;=18 yrs; visits a primary care physician</p> <p>84.5% Latino population</p> <p>Intervention( n): 156 @ baseline; 138 @ f/u</p> <p>Comparison (n): 102 @ baseline; 64 @ f/u</p>	<p>% Referred</p> <p>Connections to Quitline</p> <p>% Medications</p>	<p>Control: 44% Intervention: 17%</p> <p>N/A</p> <p>Control: 49% Intervention: 60%</p>	<p>Control: 37% Intervention: 35%</p> <p>41%</p> <p>Control: 65% Intervention: 63%</p>	<p>Control: -7 pct pts Intervention: 18 pct pts Absolute difference: 25 pct pts</p> <p>Not used</p> <p>Control: 16 pct pts Intervention: 3 pct pts Absolute difference: -13 pct pts</p>	<p>N/A</p> <p>N/A</p>

Study	Location Intervention Comparison	Study Period Study Population Sample Size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up Time
		<p>Paper is an evaluation of the effect of the addition of a fax referral to a provider reminder system (chart stamp) on provider adherence to the 4As (especially on # of patients referred and given medications)</p>					
<p><b>Author (Year):</b> Sherman et al. (2008)</p> <p><b>Study Design (Suitability):</b> Group RCT (Greatest)</p> <p><b>Quality of Execution (Limitations):</b> Fair (2)</p>	<p><b>Location:</b> California, USA</p> <p><b>Intervention:</b> EMR Computerized referral to Telephone Care Coordination Program</p> <p><b>Comparison:</b> Usual care</p> <p>Analysis of Data (from TCCP records), as well as Self-reported survey of providers</p>	<p><b>Time:</b> 05/2003 to 03/2004 (10 months duration)</p> <p><b>Setting:</b> 18 VA sites in California</p> <p><b>Study Population:</b> Current smoker, visit with a primary care provider</p> <p>Sample Frame (N): 18</p> <p>Intervention( n): 10</p> <p>Comparison (n): 8</p> <p>NOTE: Referrals were to the TCCP who later connected patients with Quitlines via 3-way telephone</p>	<p>Total # of Referrals</p> <p>Provider Self-reported Mean # of referrals in prior month</p> <p>Self-reported 30-day Continuous abstinence@ 6 months</p>	<p>N/A</p> <p>0.5 (0.2-0.7)</p> <p>N/A</p>	<p>2965</p> <p>14.1 (1.0-15.6)</p> <p>11% of all patients referred to TCCP</p>	<p>Not used</p> <p>Not used</p> <p>Not used</p>	<p>N/A</p> <p>N/A</p> <p>6 months</p>



Study	Location Intervention Comparison	Study Period Study Population Sample Size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up Time
<p><b>Author (Year):</b> Willet et al. (2009)</p> <p><b>Study Design (Suitability):</b> Before and After (Least)</p> <p><b>Quality of Execution (Limitations):</b> Fair (2)</p>	<p><b>Location:</b> Ohio, USA</p> <p><b>Intervention:</b> Fax Referral (from Quitline Records)  The Ohio Tobacco Prevention Foundation implemented 3 programs to increase provider referrals 1) A hospital base outreach to train staff at 43 participating hospitals; 2) a direct marketing initiative (Fax Five); and 3) Health professional training program</p> <p><b>Comparison:</b> Non-fax referred quitline participants</p>	<p><b>Time:</b> 06/01/2006-10/01/2007)</p> <p><b>Study Population:</b> Ohio Quitline callers in the OTQL database; Tobacco Users.</p> <p>Intervention( N):  Total Referred during study period (N): 6951  Average per month = 412 (range: 147-734)</p> <p>Comparison (n): None</p> <p>Note: Paper evaluates provider referrals from quitline records but provides no data on the outcome measurements for the control group. However, paper provided a comparison of the demographic characteristics of 1616 fax referred quitline enrollees to those who were not fax referred</p>	<p>% Enrolled</p>	<p>Comparison ==</p>	<p>Intervention 23.6%</p>	<p>Not used</p>	<p>N/A</p>

Abbreviations

Ctrl, control

Intv, intervention

Mos, months

NRT, nicotine replacement therapy

OR, odds ratio

pct pts, percentage points

SES, socioeconomic status