



Research to Reality

Cyber-Seminar Series

March 2014



Reaching Smokers in the Age of Mobile Technology: Resources, Networks, and Messaging

National Cancer Institute

<https://researchto reality.cancer.gov/>

Our presentation will begin shortly

Closed captioning is provided. To view, open the “MORE” tab at the top of the screen. Adjust the text box to your preference.

Reaching Smokers in the Age of Mobile Technology: Resources, Networks, and Messaging



Jessie Saul, Ph.D.

Director of Research, North American Quitline Consortium



Anathalie Jean-Charles

Project Manager, Canadian Cancer Society

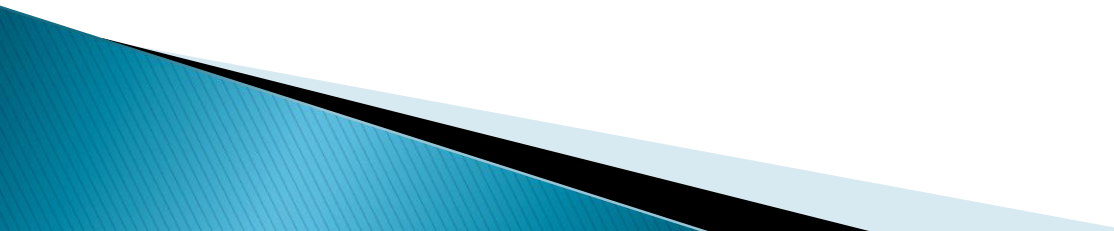
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Knowledge Integration in Quitlines: Networks That Improve Cessation (KIQNIC)

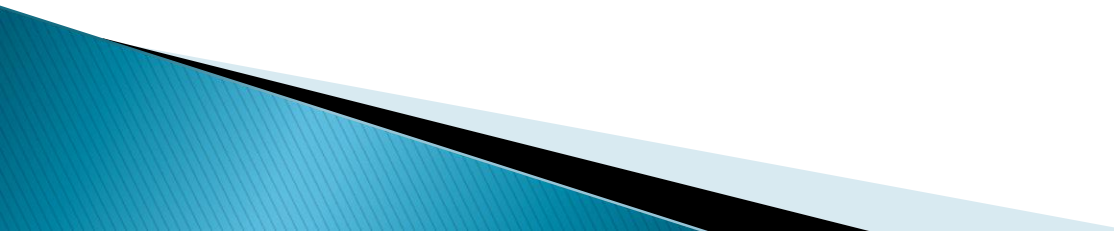
Implementation of Tobacco Cessation Quitline Practices in the U.S. and Canada

Research to Reality (R2R) Cyber Seminar
March 18, 2014

The KIQNIC Study

- ▶ Goal: To assess the North American quitline network in order to improve dissemination, adoption and implementation of best practices.
 - ▶ Principal Investigator: Scott Leischow, Ph.D.
 - ▶ NCI Grant #R01–CA128638
- 

Methods

- ▶ 3-year quantitative survey assessing implementation of practices among quitlines
 - ▶ Selection of practices: those that had strong or emerging evidence of increasing, or potential to increase, either reach or efficacy of quitlines
 - Each practice categorized by level of evidence for increasing reach or efficacy
 - Rating scale based on PHS Guideline strength-of-evidence classification
- 

Evidence Levels for Quitline Practices

SYMBOL key for the level of evidence for each practice:*

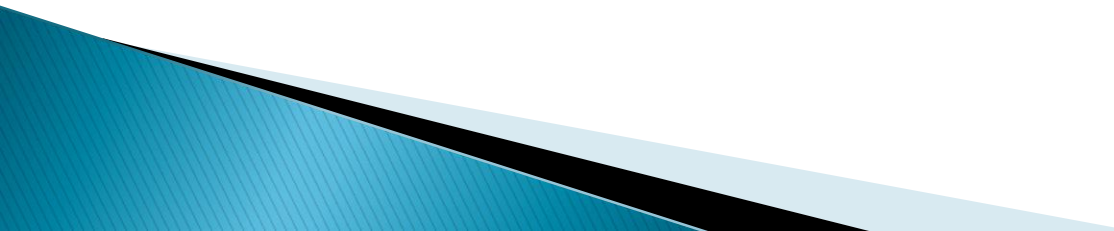
- – Evidence to support this practice based on scientific consensus;
- ◐ – Some scientific evidence to support this practice;
- ◑ – Recommended best practice given limited evidence;
- – No evidence currently to support this practice.

Level of Evidence for Efficacy	Level of Evidence for Reach	Quitline Practices
●	○	Proactive counseling ^{1,2,3,4,5,6,7,8,9,10}
●	◐	Provide free or discounted NRT without counseling ^{5,14,15,16,17,18,19,20}
●	◐	Provide NRT only when registered for counseling ^{5,21,22,23,24,25,26}
◐	○	Multiple call protocol ^{3,5,13}
◐	◐	Media targeting mainstream population ^{3,24,27,28,29,30,31}
◐	○	Self-help materials to proxy callers ^{3,37}
◐	○	Self-help materials to users regardless of reason for calling or services selected ^{5,38,39}
◐	○	Self-help materials to users who receive counseling ^{5,38,39}
◐	○	Text messaging ⁴⁴
◐	○	Integrate phone/Web ^{45,46,47}
◐	◐	2As or 3As and refer ^{11,49,50,54,55}
◑	○	Reactive counseling ^{1,11,12}
◑	◐	Media targeting specific populations ^{11,32,33,34,35,36,56,57,59}
◑	○	Provide counseling immediately ¹¹
◑	○	Evaluate quitline effectiveness ^{11,40,59}
◑	◐	Serve uninsured callers ^{11,33,41,58,59}
◑	○	Obtain Medicaid/insurance reimbursement ⁴²
◑	○	Refer callers with insurance to health plans ¹¹
◑	◐	Re-contact relapsed smokers ^{11,51}
◑	○	Interactive Voice Response (IVR) ^{11,53}
○	◐	Fax referral ^{5,48,49,50}
○	○	All Masters-level counselors
○	○	Integrate phone/face-to-face

Methods (cont.)

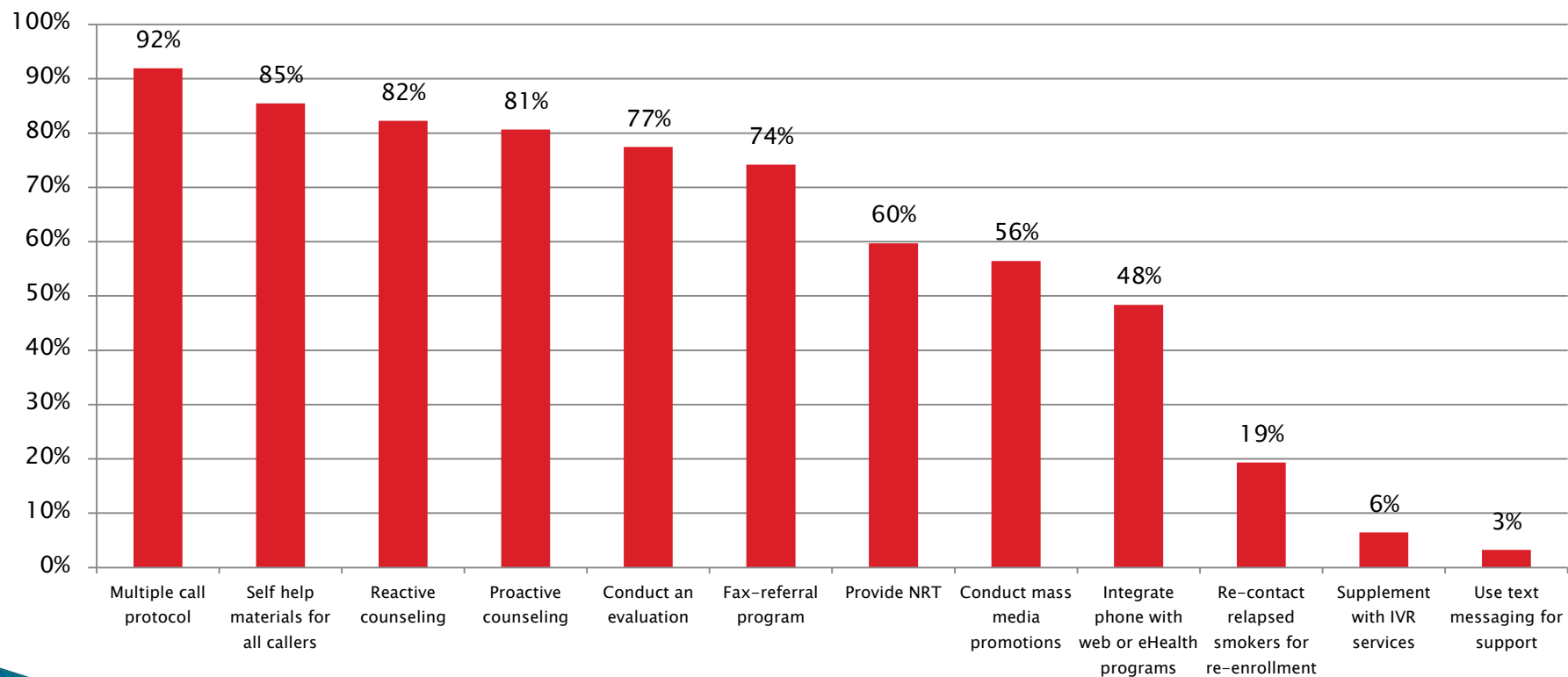
- ▶ All quitline decision-makers surveyed
 - 273 potential participants, representing 63 quitlines
 - 176 (64.5%) responded representing 62 of 63 quitlines (98.4%)
 - 83 “key responders”
- ▶ For each practice (n=22), respondents reported:
 - whether they were aware of the practice
 - What stage of decision-making process they were in
 - What stage of implementation their quitline was in

Implementation Questions

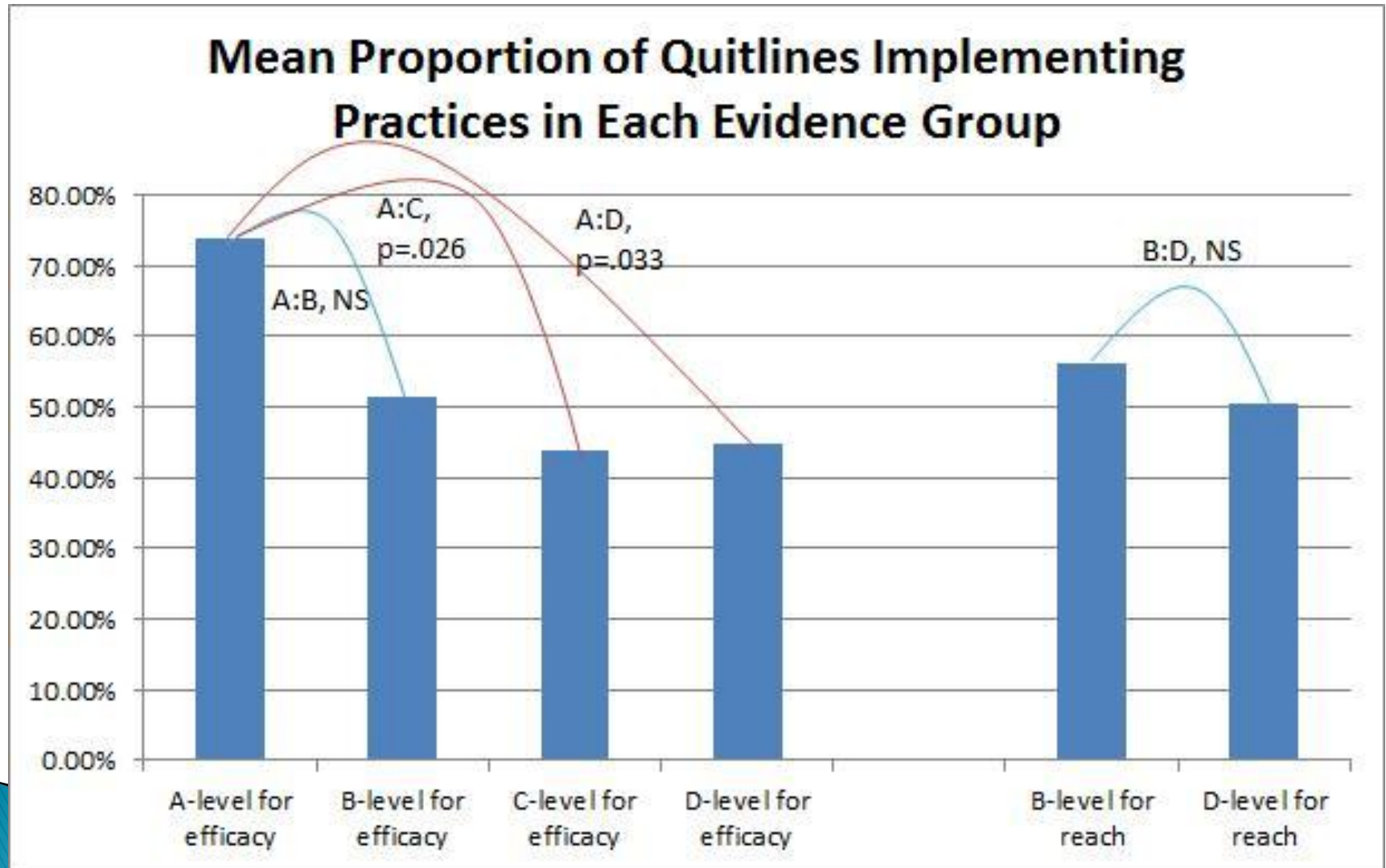
- ▶ To what extent were different types of practices implemented within and across quitlines?
 - ▶ What are the patterns of implementation of practices grouped by research evidence level?
 - ▶ Was there any relationship between implementation of practices and either spending levels for quitlines or treatment reach outcomes?
- 

Implementation of Practices

Proportion of quitlines reporting "high" or "full" implementation



Implementation of Practices by Evidence Level

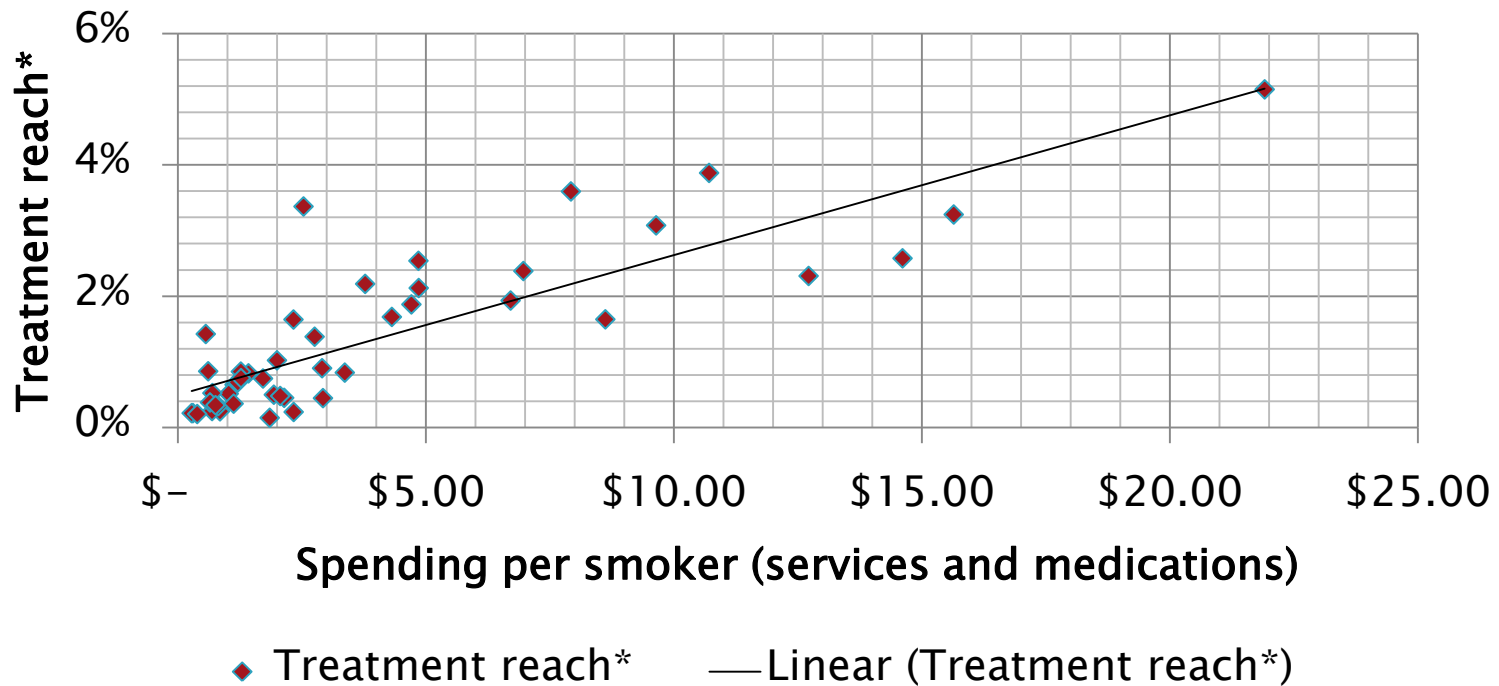


Relationship Between Implementation of Practices and Key Quitline Outcomes

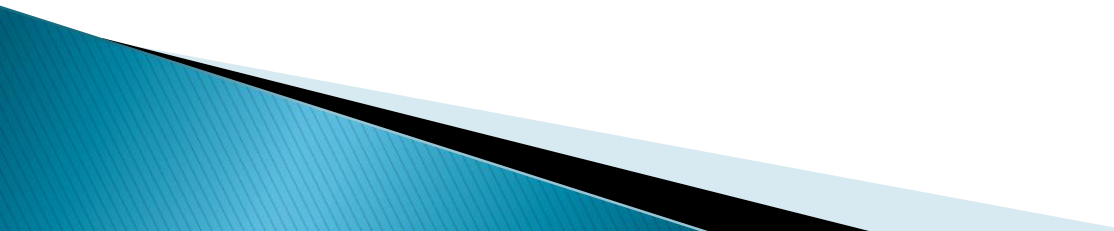
Practice or Practice Grouping	Correlation with Reach	Correlation with Spending
B-level for reach	R=0.39, p=0.007	R=0.36, p=.006
A or B level for efficacy	R=0.36, p=0.01	NS
Conducting mass media for mainstream populations	R=0.41, p=0.004	R=0.30, p=0.05
Conducting mass media for targeted populations		R=0.31, p=0.05
Multiple call protocol		R=-0.34, p=0.009
Providing NRT		R=0.28, p=0.05

Strongest Correlation Between Reach and Spending

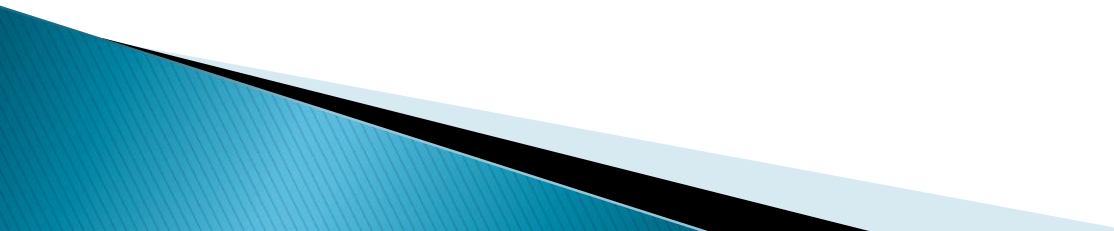
The Relationship Between Spending per Smoker and Treatment Reach*



Discussion

- ▶ All correlations between practices (grouped or individual) and reach or spending were moderate.
 - ▶ Strongest relationship between treatment reach and spending per smoker.
 - ▶ Implication: If a goal is to have quitlines serve more people, they must be funded appropriately.
- 

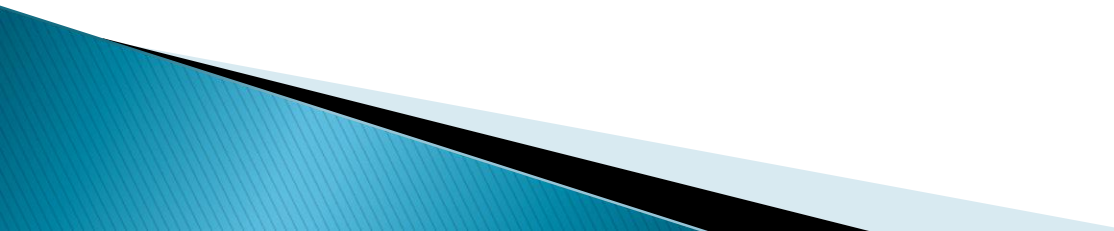
Discussion (cont.)

- ▶ Positive correlation between conducting mass media promotions for mainstream populations and treatment reach.
 - ▶ Only individual practice to show a relationship to treatment reach.
 - Providing NRT did not show a relationship.
 - Question: NRT mentioned in mass media?
 - ▶ Implication: Content of media may be important to examine with respect to increasing reach.
- 

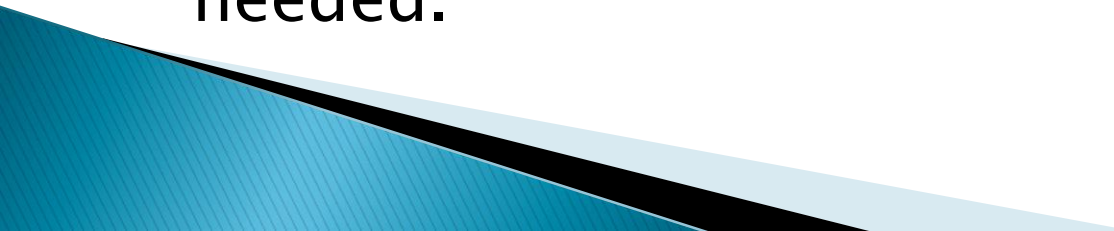
Discussion (cont.)

- ▶ Providing a multiple call protocol moderately and negatively correlated with spending per smoker.
 - Reason unclear, may be due to cost efficiencies, or other services provided.
 - Metrics may be problematic – spending per quitline user, or average number of calls completed per user, may be more useful to understand this finding.
- ▶ Implication: More research is needed

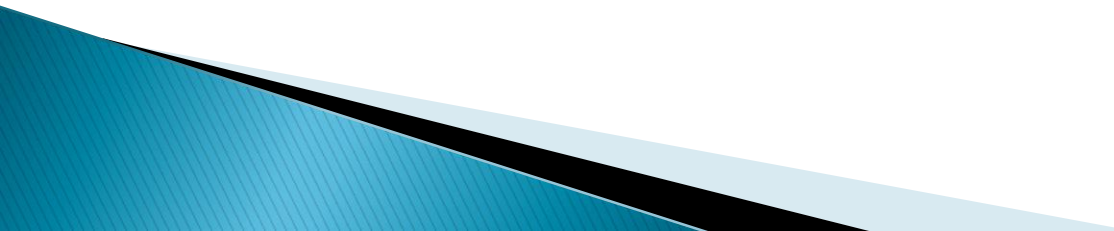
Cost-Effectiveness

- ▶ Cost-effectiveness may be a critical issue for quitlines in their decisions to implement new practices
 - ▶ Limited evidence exists for cost-effectiveness for all 22 practices in the study
 - ▶ Implication: additional information is needed on cost-effectiveness for more types of quitline practices, as well as how cost-effectiveness factors into decision-making. Qualitative case studies would be useful.
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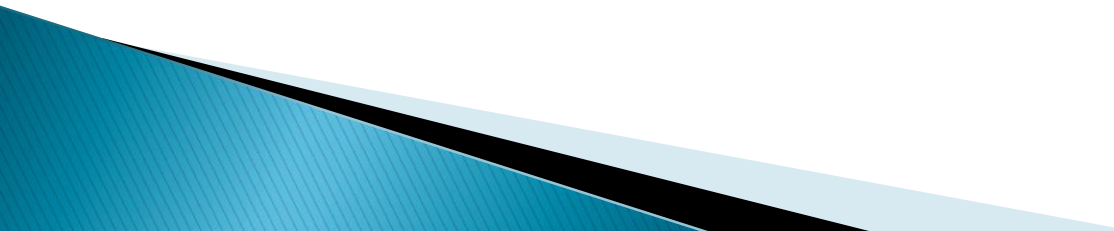
Conclusions

- ▶ First description of state of quitline practices related to levels of evidence for increasing reach and efficacy.
 - ▶ Clear relationship between reach and spending emphasizes need for continued and increased funding for quitlines.
 - ▶ Quitlines seem aware of which practices will increase reach, and implement those practices more often. Information distribution (by NAQC, CDC, and others) seems to be working well.
 - ▶ Lack of information on quitline decision-maker awareness of evidence for practices, and factors that go into decision making. Qualitative research needed.
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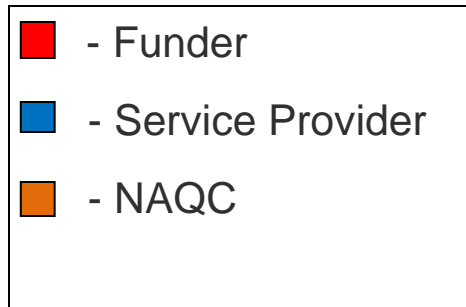
Conclusions (cont.)

- ▶ Lowest number of quitlines implemented practices requiring use of new technologies (text and IVR)
 - ▶ Implication: Need to observe changes in implementation of these practices over time, as well as the emergence of other practices.
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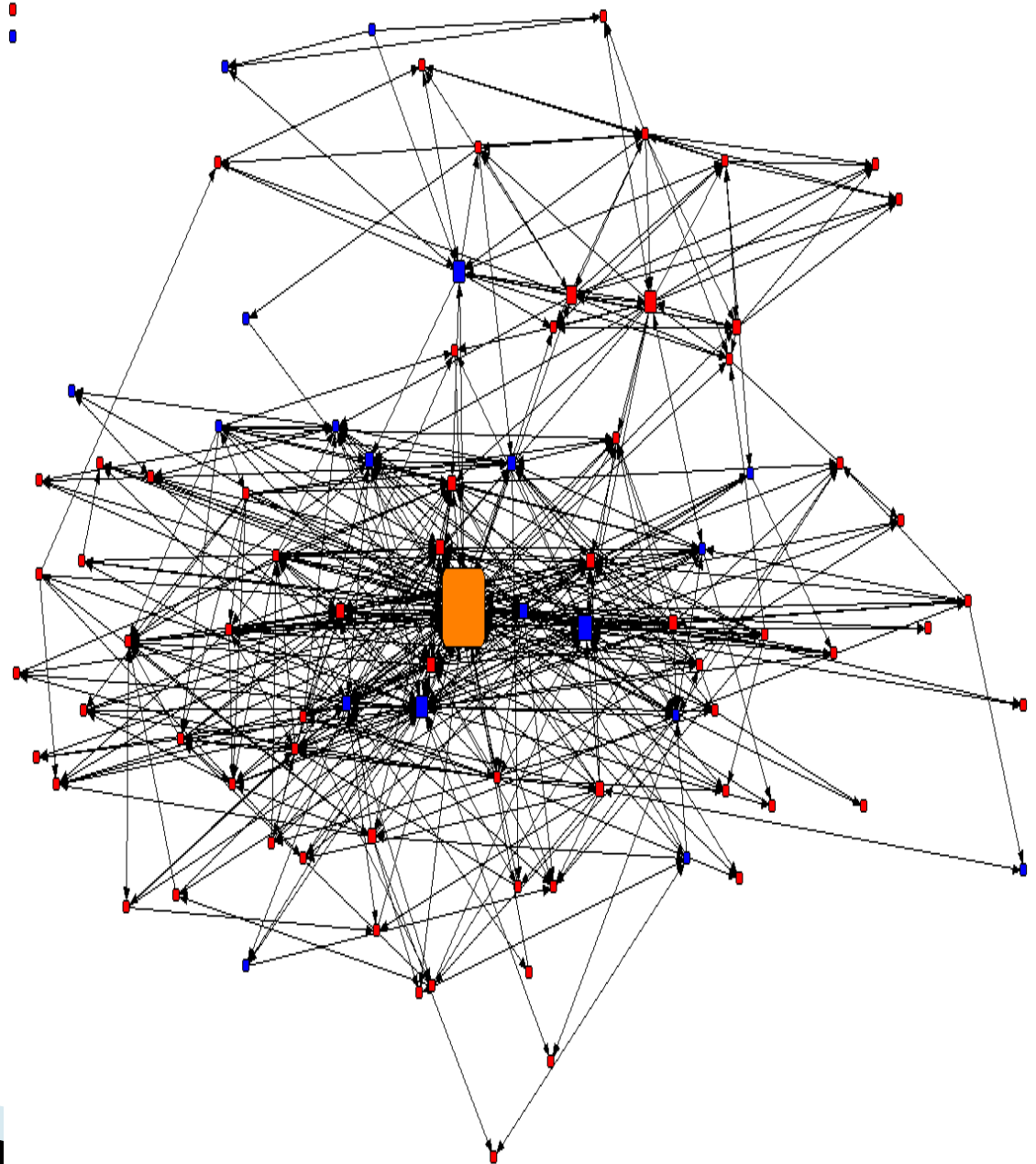
Network Analysis Methods

- ▶ Respondents asked from which organizations they received information in the following areas:
 - Financial
 - General Management
 - Service Delivery
 - Outreach/Promotion
 - ▶ Respondents asked several “attitudes” questions, e.g., identify quitlines they admire for doing an especially good job regarding tobacco quitline activities.
- 

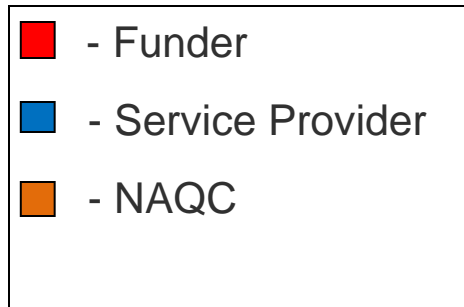
Info Sharing: Service Delivery



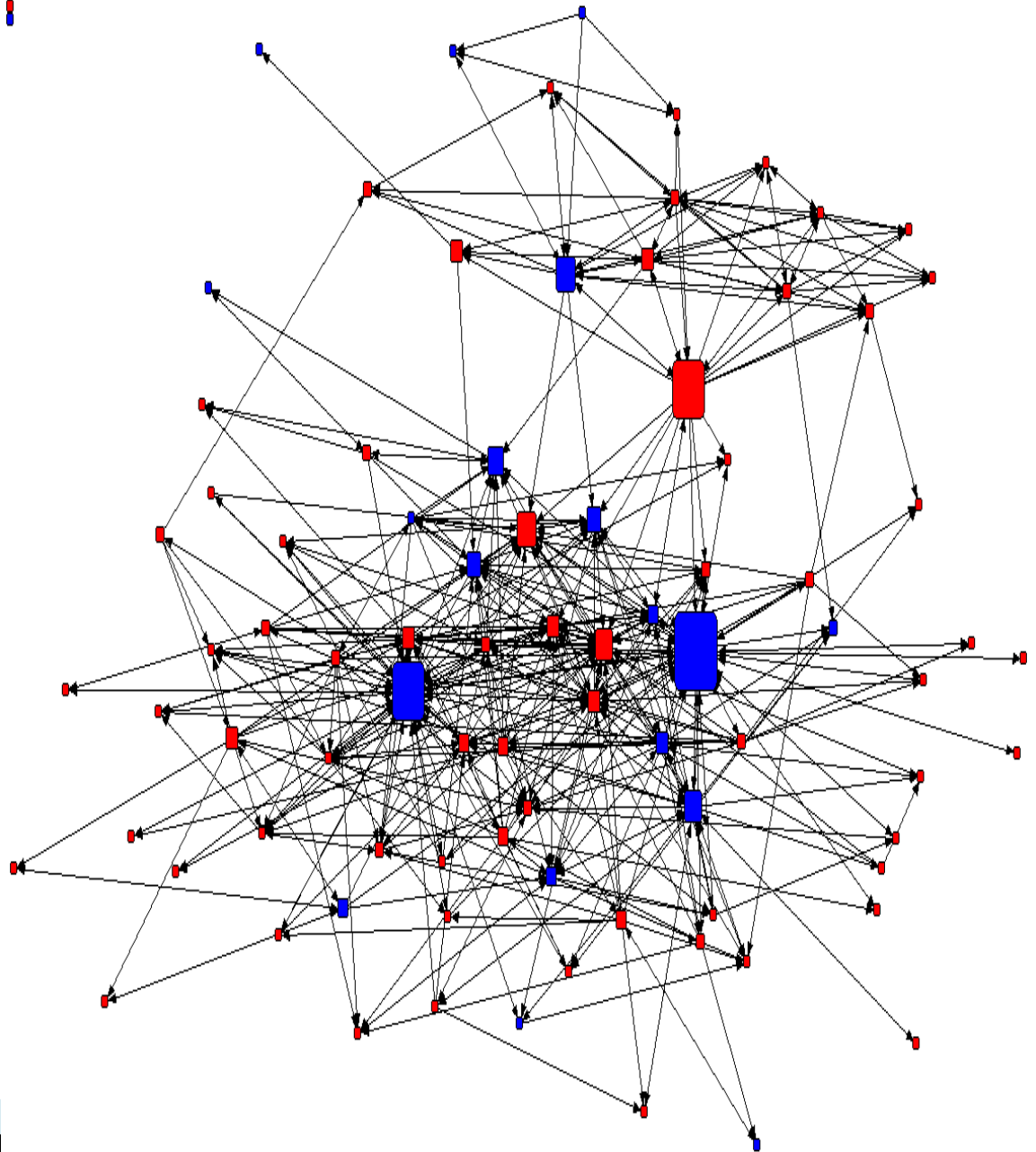
*Size of node corresponds to betweenness centrality



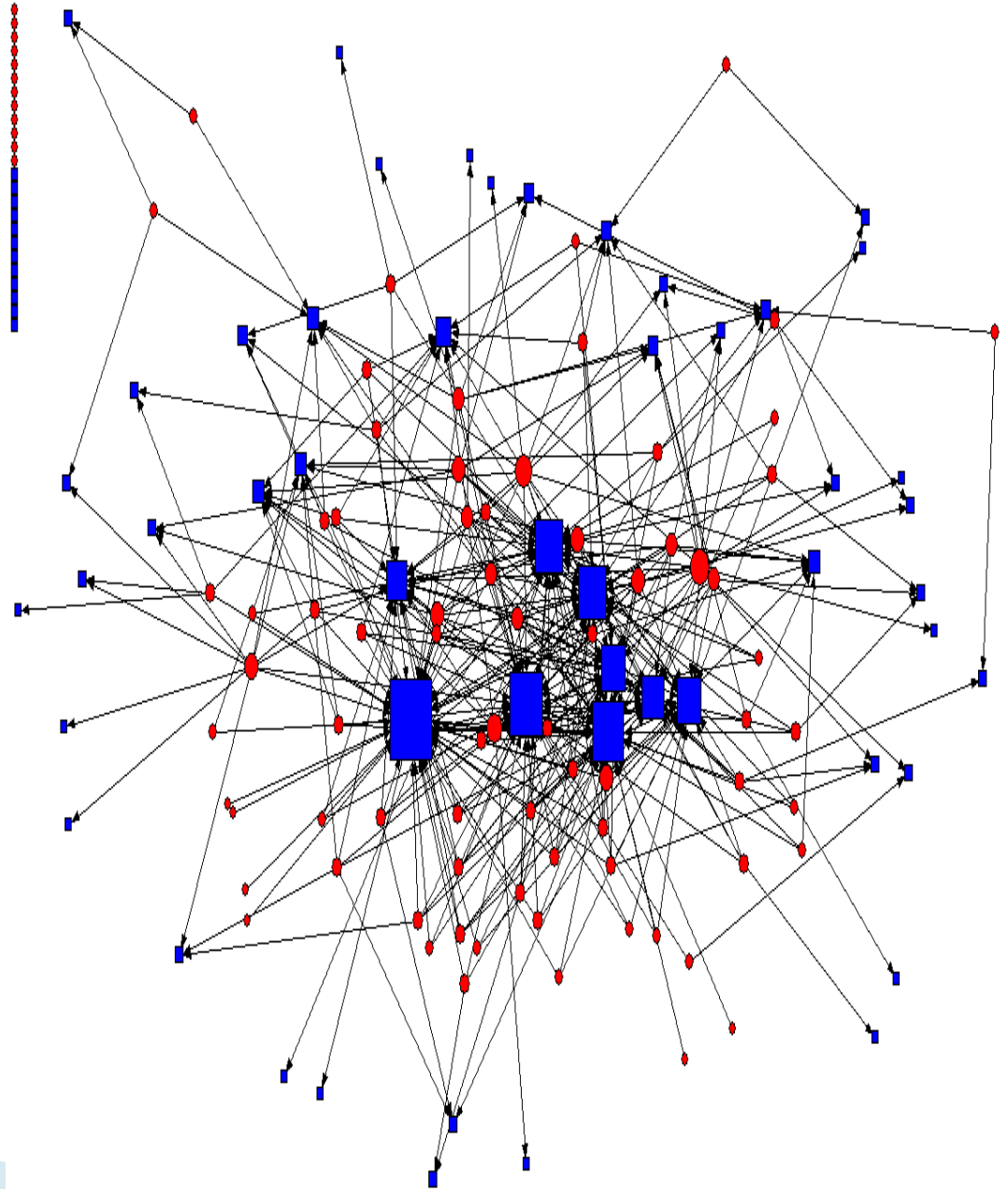
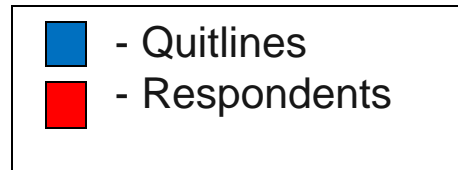
Service Delivery: NAQC Removed



*Size of node corresponds to betweenness centrality

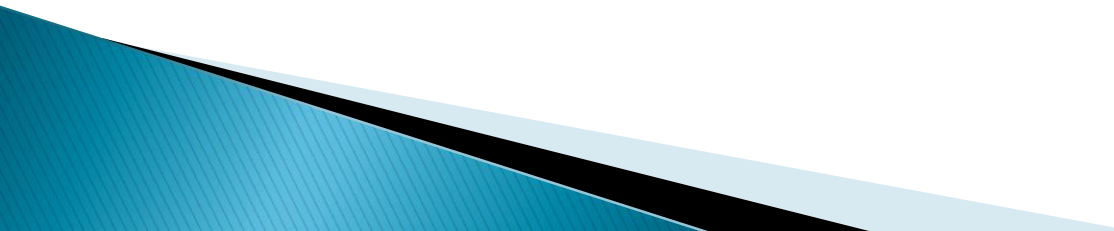


Quitline Reputation



*Size of node
corresponds to
degree
centrality

Implications of Network Analysis

- ▶ NAQC is a critical node in the network for disseminating information
 - ▶ Several other key organizations emerge as important regarding information sharing
 - ▶ Increasing implementation of evidence-based practices could utilize existing communication links within the network of quitlines
- 

For more information:

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Show the cigarette who's boss!

Anathalie Jean-Charles

Project manager, Cancer prevention and health promotion

Canadian Cancer Society, Quebec Division





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Background





Background

Problem in Quebec

- Smoking prevalence is high among young adults (28%)
- 71% want to quit
- Young smokers rarely use traditional support services

Objective

Improve smoking cessation support by using text messages adapted to young adults.

Methods

- Promotional campaign design for young adults
- Survey at 3 and 6 months
- Analysis of abstinence rate, satisfaction, usefulness of the program



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The SMAT





Proactives messages – 12 weeks, 2/day to 2/week.



Keywords

Reactive messages





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Results 2011-2012





Results 2011-2012

Registration period

- December 8, 2011 to March 1, 2012

High level of interest

- 993 users out of 1218 registrations
- 69% under the age of 35
- 41% aged 18-24
- 52% men





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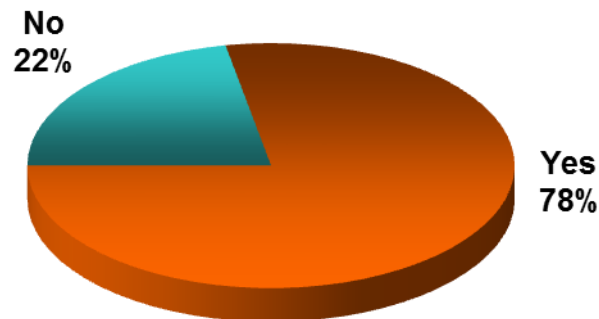
Smoking Cessation





Smoking cessation

- 22 to 31*% were abstinent 3 months after the SMAT



- 94% of those who ended in relapse still wanted to quit
 - 32% were planning on quitting in the next 30 days
- At 6 months, 34% were abstinent in the past 7 days (before the survey)



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Satisfaction





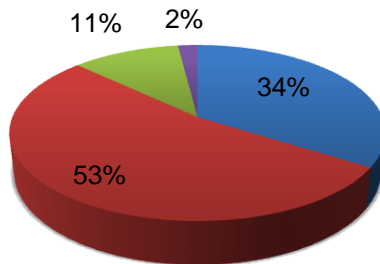
Satisfaction

Overall very high level of satisfaction

- 87% were satisfied with the service (see Graph 1)
- 95% would recommend the program (see Graph 2)
- 62% perceived the program was useful

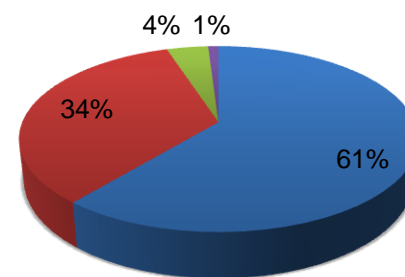
Graph 1. User satisfaction

■ Very satisfied ■ Satisfied ■ Somewhat satisfied ■ Not satisfied



Graph 2. User intention to recommend

■ Certainly ■ Probably ■ Probably not ■ Certainly not





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What's new this year?





Key points

- Year-long registration
- 24-week program
- Choice of 6 criteria
- Support in contemplation and preparation stages
- New keywords
- New website

**Santé
et Services sociaux**

Québec





Proactives messages - 24 weeks

Interactive



Keywords

Reactive messages





Contemplation	Preparation	Day 0	Week 1	Weeks 2-4	Weeks 5-12	Weeks 13-24
2/month (6 months)	<ul style="list-style-type: none">- 1/week (4 weeks)- 1/day 5 days prior to quit date	2	2/day	1/day	2/week	1/week
6 criteria (profiles)		6 additional text messages per criteria selected				

Keywords (Reactive messages)			Profiles (proactives)
Promoted	Not-promoted	Status	Criteria
Oups (<i>oops</i>)	Ennui (<i>boredom</i>)	Rechute (<i>relapse</i>)	Enceinte (<i>pregnant</i>)
Envie (<i>cravings</i>)	Difficile (<i>difficult</i>)	Stop	Étudiant (<i>students</i>)
Distraction	Voyage (<i>trip</i>)	Reprendre (<i>resume</i>)	Travailleur (<i>workers</i>)
Party	Sexe	Recommencer (<i>restart</i>)	Humeur maussade (<i>moody</i>)
Pause (<i>break</i>)	Constiper (<i>constipated</i>)	Go	Café, alcool, cannabis et autres (<i>substance abuse</i>)
Stress	Info		Problème de santé (<i>health problems</i>)
	Insomnie (<i>insomnia</i>)		
	Poids (<i>weight</i>)		
	SMAT		
	😊		
	aight, d'accord, thanks, merci, noté		



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[Modifier mon profil](#)
[Foire aux questions](#)
[Savais-tu que...](#)



S'INSCRIRE MAINTENANT

Maintenant disponible toute l'année

Comment ça marche ?

1. L'inscription

C'est simple : inscris-toi au
SMAI en 30 secondes.

2. Fonctionnement

Le SMAI t'envoie plein de trucs et conseils par texto.



3. Soutien 24/24

tu peux écrire au SMAT 24 heures sur 24 pour obtenir du soutien

Plus d'infos sur le fonctionnement ➕

39 689 unique visits



La cigarette n'est pas seulement nuisible pour ta santé,
elle l'est aussi pour notre planète :

- 1 mégot peut mettre jusqu'à 12 ans avant de se décomposer.
- 1 seule machine de fabrication de cigarettes utilise 6 km de papier à cigarette par heure.
- Rien qu'en Afrique du Sud, environ 200 000 hectares de forêts sont détruits chaque année pour la plantation de tabac.
- 40 % des déchets marins dans la méditerranée sont des mégots et des paquets de cigarettes.

Découvrez plus de faits sur le tabacisme ➕

Besoin de parler ?

Tu souhaites parler à quelqu'un pour t'aider à arrêter de fumer?

On a toute une équipe qui est là pour prendre de tes nouvelles : les spécialistes en arrêt tubaïque de la ligne d'Arrête. Dis-nous donc comment ça se passe par téléphone.

Appeler la ligne d'Arrête au 1 866 556-8754

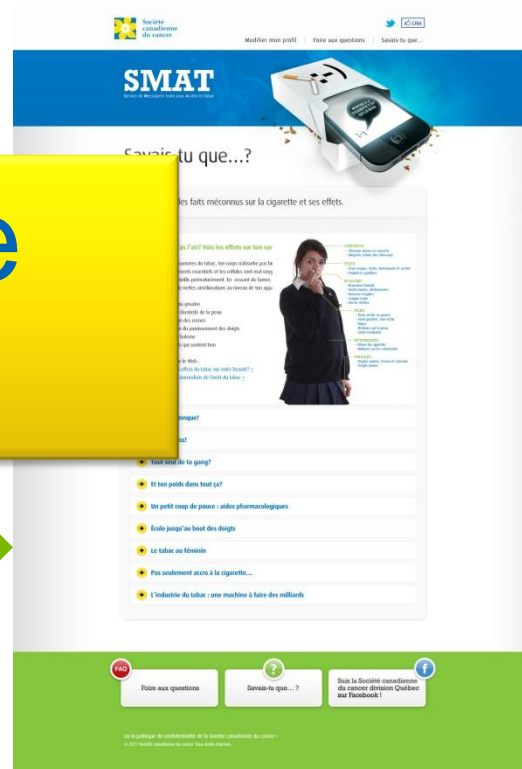
FAQ

Foire aux questions

?

Savais-tu que... ?

Suis la Société canadienne
du cancer division Québec
sur Facebook !





To register

SMAT
Service de Messages texte pour Arrêter le Tabac

En complétant l'inscription, tu lis et acceptes les termes suivants :
Le SMAT est gratuit, mais les frais habituels de messagerie texte s'appliquent. Consulte les détails de ton entente avec ton fournisseur de téléphones cellulaires. En tout temps, si tu veux te désabonner, tu n'as qu'à envoyer le mot « stop » par message texte au 514-589-5886 (3886). Les données du service seront recueillies à des fins statistiques.

* Numéro de cellulaire: Ex: 514-855-4788

* Date d'arrêt: JJ MM AAAA ?

* Sexe: ☐ Homme ☒ Femme

* Date de naissance: JJ MM AAAA

* Nombre de cigarette par jour:

* Je fume depuis: MM AAAA

VALIDER L'INSCRIPTION

FAQ Foire aux questions

? Savais-tu que... ?

Suis la Société canadienne du cancer division Québec sur Facebook !

Li la politique de confidentialité de la Société canadienne du cancer -
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2 simple steps to register via smat.ca

Step 1: Validate registration

- Phone number
- Quit date (up to 6 month)

Step 2: Personalize your service

- When to receive text messages
- Follow up calls with *la ligne j'Arrête*
- Create account



Deployment

March 15, 2013



Stats overview March 15, 2013-January 31, 2014

Total subscribers	2416	
	Number	%
Total users	2029	83,62
Gender	Number	%
Men	1025	42,45
Women	1390	57,51
Age	Number	%
18-24	623	25,86
25-34	698	28,86
Mean	33,54	
Wants to be contacted by a specialist	Number	%
Total	680	28,23
Profile	Number	%
Workers	1468	60,76
Substances abuses	985	40,77



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SMAT

Service de Messagerie texte pour Arrêt

Le SMAT
de 24 se
régulière
et de l'i
t'aider à

INSCRI
MAINTEN
SMAT.CA



ire pour

nd que

à cesser tout
de problème,
s'ajustera à ta date d'arrêt.

Le service est **gratuit** et il est accessible **24 heures sur 24, sept jours sur sept**.

En partenariat avec :

Québec



Campaign effectiveness and cost

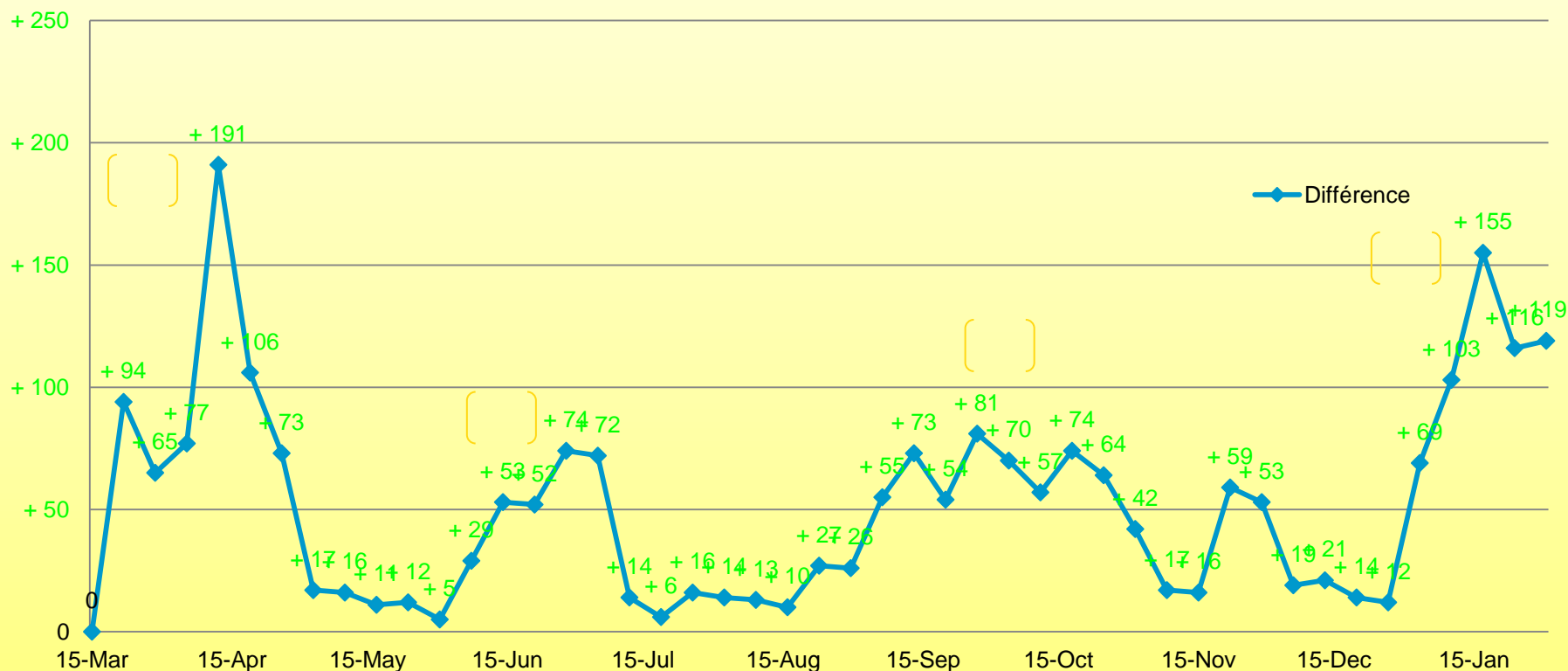
	Budget	GA (Step 1)	Conversion rate	Conversion Cost
Phase 1	\$ 7,923.31	418	2.57%	\$18.96
Phase 2	\$ 6,723.25	196	3.04%	\$34.3
Phase 3	\$ 6,845.59	365	8.51%	\$18.76
	\$ 21,492.15	979	3.61%	\$21.95

In all 3 phases, Google Search was the most efficient campaign in terms of cost and conversion rate.



Overview of promotional campaign

Progress of registration throughout the year





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Challenges and Evaluation





Challenges and Evaluation

- Technical issues
 - Fairly new technology (TaChi)
 - Main telecommunication provider not reliable
 - Considering the use of an aggregator instead of a modem
- Reaching young adult
 - Integration to social media
- Evaluation
 - This program will be evaluated by a provincial agency in Quebec (INSPQ)



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Conclusion





Conclusion

- This text messaging program seems to be effective in supporting young adults to quit smoking
- New features have been added to increase support and personalization of the service
- Fairly new technology that comes with it's own challenges
- More data will be available with the upcoming evaluation from INSPQ



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MERCI!



Questions? Please contact
Anathalie Jean-Charles

ajeancharles@quebec.cancer.ca 514.255.5151

#4512

Questions for our Speakers?



Please submit your questions for the presenters by dialing *1 or by using the Q&A feature at the top of your screen.



Jessie Saul, Ph.D.

Director of Research, North American Quitline Consortium



Anathalie Jean-Charles

Project Manager, Canadian Cancer Society

You can find links to the presenter's organizations on <http://ResearchtoReality.cancer.gov>
You can also request a PDF copy of today's slides following the presentation by emailing researchtoreality@mail.nih.gov



Continue the discussion online at:

<http://researchtoreality.cancer.gov>

You can also find links to the organizations and resources mentioned by the presenters today at this site.

And don't forget to mark **April 15, 2:00-3:00pm ET** on your calendars for our next cyber-seminar on cancer control and chronic disease.

Registration coming soon!



<https://researchtoareality.cancer.gov/>

1-800-4-CANCER

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