Enhancing eReferral Capacity: A Strategy for Increasing Cessation among Priority Populations and Encouraging Health System Change

FINAL REPORT

Submitted by:

Project Period: May 2015 – March 2017
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This project was made possible through a grant from Pfizer Independent Grants for Learning and Collaboration. It was conducted in collaboration with the Smoking Cessation Leadership Center at the University of California, San Francisco.

ABSTRACT

Automated referral between quitlines and patients' electronic medical records, called "e-Referral", provides the opportunity for quitlines to deliver effective cessation services to more smokers, especially those populations disproportionately burdened by smoking (low-SES, LGBTQ, ethnic minorities, behavioral health population, etc.). As of January 2015, only five of 11 service providers that operate the 53 state quitlines had the capacity to conduct eReferrals with health care organizations. In May 2015, the North American Quitline Consortium (NAQC) launched an 18-month project to establish national capacity to implement eReferral among quitlines. This project went beyond educating health professionals to address the system changes needed within healthcare organizations to identify smokers and refer them electronically to quitlines and address the system changes needed within state quitlines to receive an eReferral and provide an electronic feedback report. Four of the six service providers that did not have capacity for eReferral agreed to participate in the project, and together with NAQC, each service provider established a state team consisting of a state health agency that funds the quitline and a healthcare provider. These four state teams received intensive training and individualized technical assistance to help address challenges and overcome barriers that presented.

Each state team achieved the intended project outcome thereby expanding the number of quitline service providers with the capacity to provide eReferral. This final report reviews the barriers and challenges encountered, solutions developed and overall lessons learned by the state teams as well as next steps.

Key Words: eReferral, State Teams, NAQC, tobacco, quitlines

PURPOSE

The overall goal of the project is to deliver effective quitline services to more smokers, especially those in priority populations, by establishing a national capacity to implement electronic referral ("eReferral") systems between quitlines and health care organizations (i.e., healthcare centers and institutions such as hospitals). The objectives for this project included:

1. Provide training and technical assistance on implementing eReferral systems to 6 state teams, each comprised of the funder of the state quitline, the quitline service provider and a healthcare organization.
2. Include a healthcare organization that serves a high proportion of priority populations in each of the six state teams.
3. Increase the number of referrals from the selected healthcare organizations to the 6 participating state quitlines by 10%, approximately 1,250 smokers.
4. Increase the number of states with eReferral pilots underway or completed from 8 to 14.
5. Increase the number of states that have successfully implemented eReferral from 5 to 11.
6. Increase the number and percentage of state quitline service providers who are engaged in eReferral projects from 5 to 11 and from 45 percent to *100 percent*, respectively.
7. Develop three resources on implementation of eReferral, including a technical tool, a guide for developing successful eReferral partnerships between quitlines and healthcare organizations, and a series of six case studies.
8. Disseminate resources and lessons learned to all state health departments, quitline service providers and the healthcare community. Maintain these resources on NAQC's website as an enduring product of the project.

PROJECT SCOPE

The overall goal of the project was to establish national capacity among state quitlines for engaging in eReferral with healthcare organizations to greatly increase the quit attempts and cessation success, especially among tobacco users from priority populations; strengthen partnerships and collaborative endeavors between quitlines and the healthcare sector on cessation treatment; and advance system changes in the healthcare sector and quitlines. Originally, six state teams comprised of the state funder (Arizona, Illinois, Mississippi, Puerto Rico, South Dakota and West Virginia), the quitline service provider (American Lung Association, Avera McKennan, beBetter, Information and Quality Healthcare, Telemedik and University of Arizona), and a healthcare institution were selected to participate in the project. Prior to the project kick-off two of the quitlines, Telemedik (Puerto Rico) and beBetter (West Virginia) declined to participate due to funding concerns. Four state teams (AZ, IL, MS and SD) moved forward to carry out the pilot project. Training on eReferral implementation via webinars along with resources and individualized technical assistance was provided to the state teams throughout the project to assist them in addressing and overcoming challenges.

METHODS

State Team Selection Process

To ensure that every quitline service provider has the capacity to implement eReferral, NAQC conducted a telephone assessment of service providers in December 2014-January 2015. The assessment confirmed that five of the 11 service providers that operate the 53 state quitlines are engaged in eReferral pilot projects

(Alere Wellbeing, California Smokers Helpline, MaineHealth, National Jewish Health and Roswell Park). Many of these service providers will serve as experts for this project (see letters of support in appendix). Five of the six remaining service providers that do not have eReferral capacity have agreed to participate in the project, including American Lung Association, Avera McKennan, beBetter, Information and Quality Healthcare and University of Arizona Smokers Helpline (see letters of support in appendix). Telemedik, the service provider for Puerto Rico, was not able to gain approval before the proposal due date. NAQC anticipates that territorial staff will have approval to participate by the start date for the project and has assumed they will participate. If approval is not received, we will move forward with five "official" state teams and will continue to encourage Telemedik to participate informally by attending training webinars and moving forward as much as they are able.

Study Design
The project had four phases:

Phase One: Foundation and assessment activities (months 1-4)
During this phase:

- States notified of participation in project;
- Kick-off meetings and webinar training held with the state teams;
- State teams identified healthcare organization that serves a high proportion of priority populations to join each state team; and
- State Team's strengths and weaknesses assessed to tailor training and technical assistance to specific needs of the state teams.

Phase Two: Building eReferral capacity (months 5-12)

- This phase focused on delivering training and technical assistance adequate for each team to build eReferral capacity.

Phase Three: Demonstration period (months 13-16)

- During this phase, the state teams were expected to demonstrate and improve their capacity for eReferral, thus achieving the primary goal of creating national capacity for eReferral among all state quitline service providers.
- Focus of this phase was on identifying problems and inefficiencies in the process, collecting data and compiling lessons learned for dissemination to the broader field.

Phase Four: Dissemination and evaluation (months 17-18)

- Final report that will reflect lessons learned and recommended next steps will be developed.
- Completed case studies, the technical tool and the resource for successfully engaging healthcare organizations in eReferral developed and posted to the NAQC website and shared electronically with the cessation and tobacco control communities as well as healthcare sector (through associations and societies as well as national partners including SCLC, the Office of the National Coordinator (for Meaningful Use), Centers for Disease Control and Prevention, National Institute of Health, and others).

Evaluation Design

Evaluation for this project was performed using standard quantitative data obtained from participating quitlines and qualitative data from members of the state teams regarding various aspects of the project.

For quantitative data, the focus centered on MDS data on referrals from the healthcare partner for each state quitline to determine achievement of objectives 1, 3-6:

- Number of fax referrals (start date will vary; end date will be month 16)
  - Number of referrals who register for services
  - Demographics of referrals (age, gender, race/ethnicity, education level and type of insurance (uninsured, private, Medicaid)
  - Special descriptors, if available (LGBT designation, behavioral health factors, chronic disease factors)
  - Nicotine dependency level
  - Number and types of services delivered
  - Quit status
- Number of eReferrals (start date will vary; end date will be month 16)
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Additionally, the health care partners' demographic profiles were used for the evaluation to provide context about reaching priority populations for objective 2 especially, and also 1, 3-6. Additionally, a survey of all 11 service providers who operate quitlines in the U.S. was conducted to determine: a) whether they are engaged in eReferral activities; b) if so, the names of the states in which they are developing eReferrals and the status of the activities (eReferral capacity being built or eReferral transmissions being received and sent); and c) the names of their healthcare partners. Survey monkey will be used for this activity. The data will be used to determine whether we met objectives 4-6.

Administrative files were used to describe the number of training and technical assistance sessions, topics covered, who led each session and who participated in the session to contribute to describing activities and success with objective 1 as well as determining how well engaged each team member was in the project. Administrative data from the project was also used to describe activities and successes related to objectives 7 and 8.

A secondary focus of the evaluation assessed the satisfaction of state team members with the training and technical assistance provided during the project, the strengths and weaknesses of the

project; and key lessons learned, next steps and recommendations. A survey of state team members was used to collect this information.

RESULTS

The overall results in achieving the project objectives are shown below:

OBJECTIVE	RESULT
Provide training and technical assistance on implementing eReferral systems to 6 state teams, each comprised of the funder of the state quitline, the quitline service provider and a healthcare organization.	Although 6 state teams had agreed to participate, only 4 were able to participate once the project began. Two state teams (West Virginia and Puerto Rico) were unable to participate due to financial restrictions within the quitline. Arizona, Illinois, Mississippi, and South Dakota participated.
Include a healthcare organization that serves a high proportion of priority populations in each of the six state teams.	All participating state teams (4) included a healthcare organization that serves a priority population.
Increase the number of referrals from the selected healthcare organizations to the 6 participating state quitlines by 10%, approximately 1,250 smokers.	The total number of referrals from the four participating state quitlines during the project period was 1,013. This number is lower than expected due to having 2 states drop out of the project and also due to a longer than expected start-up phase prior to initiating referrals.
Increase the number of states with eReferral pilots underway or completed from 8 to 14.	As of November 2016, 6 state quitlines are actively working to implement eReferral but have not yet completed the work,
Increase the number of states that have successfully implemented eReferral from 5 to 11.	As of November 2016,, 20 state quitlines have successfully implemented eReferral with at least one healthcare partner inclusive of the 4 state teams that participated in the eRferral Pilot Project.
Increase the number and percentage of state quitline service providers who are engaged in eReferral projects from 5 to 11 and from 45 percent to *100 percent*, respectively.	The number and percentage increased from 5 to 9 and from 45% to 82%, respectively.
Develop three resources on implementation of eReferral, including a technical tool, a guide for developing successful eReferral partnerships between quitlines and healthcare organizations, and a series of six case studies.	The following resources were developed: ▪ eReferral Technical Guide ▪ 4 case studies (since 2 of the teams dropped out) ▪ Fact Sheet: Considerations for Selecting A Health Care Organization Partner Enhancing eReferral Capacity for Quitlines

OBJECTIVE	RESULT
	▪ 5 training webinars to provide practical training on building eReferral capacity
Disseminate resources and lessons learned to all state health departments, quitline service providers and the healthcare community. Maintain these resources on NAQC's website as an enduring product of the project	The following resources have been developed and disseminated to all state health departments and posted to NAQC website: ▪ Poster presentation on the eReferral Project at NCTOH ▪ 45 minute session at NAQC Conference ▪ 4 Case Studies ▪ 5 Training Webinars

The experiences of each of the four state teams that participated in the project varied greatly. While each encountered barriers and challenges in the process, some were more critical than others. An overview of the barriers and challenges experiences by each of the state teams is outlined below:

Arizona

The Arizona State Team faced a major challenge during the course of the project - identifying the best way to establish a secure bi-directional exchange with its healthcare partner. The initial solution identified by the Team was to pursue connection with Arizona's statewide health information exchange (HIE). However, after numerous discussions, the Team was informed that the state quitline could not participate in the HIE because it did not fall into the permitted uses under the states Health Information Organization (HIO) statute - https://azhec.org/wp-content/uploads/2016/05/AZ-HIO-Statute_FINAL_05-2016.pdf. This response was unexpected and required the state team to engage the services of the technical consultant provided through the project to assist in evaluating alternative options.

Coincidentally, around the same time this news was delivered, the NAQC listserv thread which provides a forum for members to communicate with other members, mentioned a NextGen "plug and play" solution used in Texas. The Arizona State Team reached out to and connected with staff at the quitline in Texas to obtain further understanding of the approach the employed. The discussion with Texas led to additional internal discussions about whether this "plug and play" solution would be the best means to meet the goals of the eReferral pilot. One of the factors discussed was the cost associated with the "plug and play" solution, and whether the return-on-investment on that cost would be cost-prohibitive for both the quitline and its healthcare partner, and whether it would serve as a barrier to implementation and, more importantly, sustainability. Based on these collective discussions, the Team decided the most feasible approach for all partner involved would be to pursue using direct messaging as a means of exchange since it was the most secure, compliant, and cost-effective solutions relative to other options.

Illinois

The Illinois State Team faced several barriers throughout the course of the project. First, in April 2015 the quitline operations were suspended for 5 ½ weeks due to the onboarding of a new Governor. Then in July 2015, the quitline received an FY16 approved budget from state legislators and the Governor. The three month delay in gaining an approved budget to continue quitline operations posed significant limitations which impeded progress on the project. This first challenge resolved itself with a budget getting ultimately approved which allowed quitline operations to resume.

Obtaining the required cyber security insurance; getting a Business Associate Agreement (BAA) established; and completing the HIPAA privacy process with their health care partner posed significant barriers for the Illinois team. In particularly, the health care partner's legal team expressed concerns over the level of information that would be shared with the quitline via the Continuity of Care Document (CCD) since the CCD contains the majority of the entire patient's health record. Another issue was that there was inconsistent formatting between the EHRs used by the health care partner. The Team decided that the health care partner would send only the discreet data needed for the study.

In an effort to assist the Illinois State Team in mitigating this issue, NAQC staff connected the state team with members of the eReferral Workgroup who had encountered and overcome the issue. Despite the additional knowledge and information provided, the legal team stood firm on their stance that the information not be sent using the CCD. The quitline ended up securing a qualified firm to complete a network assessment. A legal firm was also retained to provide assistance with drafting the BAA to ensure protection of all parties involved. The quitline also had to complete an evaluation of existing liability insurance as well as purchase additional insurance. The end result was that the Team decided to implement an HL7 process for discreet data transmission which meant that the health care partner would only send the information needed to make the referral.

Unfortunately, due to issues establishing the BAA agreement and the specificity of the project also being linked to a NCI grant, the team was not able to receive paper fax referrals from their healthcare pilot project partner, Alliance, throughout the duration of the pilot. However, since the conclusion of the project, the Team has been and continues to receive referrals. Additionally, letters of engagement has been sent to 12 more prospective EMR referral partners with hopes of securing at least 3-5 more additional partners by the end of the FY17.

Mississippi

The Mississippi State Team's challenges centered on:

- varying interpretations of scope expectations between the quitline and healthcare partner;
- challenges encountered with automation and manual process improvement (*e.g. patient intake, counselor assignment, etc.*) from their healthcare partner; and
- acquiring the level of IT staff needed to fully implement the project which required additional funding to get the project up and running.

To address the first issue, the team received insight and suggestions from their peers during the monthly state team calls on ways to improve communication and coordination. The second issue was address by the healthcare partner which provided "onboarding training" to staff who were new users of NextGen, which was its EHR. The last challenge was addressed by the quitline's engagement of external IT experts. While the latter came with unintended costs consequences, IT experts helped propel the project forward to ensure full eReferral implementation prior to the end of the project period.

South Dakota

Overall, The South Dakota Team was in a better position at the start of the grant period than the other state teams since it had already successfully piloted eReferral between the quitline and its internal healthcare partner. However, one barrier encountered by their Team was with the Meditech vendor program and the mixed messages they were conveying regarding the possibility of bi-directional communication. The Team was able to address this issue with the help of a developer from the quitline who led efforts to establish and streamline the process. As a result of these efforts, a foundation for obtaining eReferrals from other clinical areas such as Physical Therapy or Occupational therapy, etc. was established to bridge the outcome communication piece within the electronic health record.

At the conclusion of the project period, NAQC successfully met the project aims. We embarked on this effort with only 5 out of 11 quitline service providers having experience in eReferral. As a result of this project, we have nearly doubled call center capacity with 9 services providers now having experience with eReferral. Now, only 2 states and services providers lack capacity for eReferral. Additionally, although the methods varied, each state team was successful in achieving the intended project outcomes of:

- increasing the total number of quitline providers with experience in eReferral from five to nine;
- increasing the number of referrals to quitlines; and
- integrating quitlines into additional health care institutions.

In addition to achieving the main project aim, the following deliverables were also met:

- Bi-directional eReferral established with four state teams;
- Executed five eReferral Core Knowledge training webinars which provided practical training on building eReferral capacity to the state teams and also to other interested quitline professionals;
- Case studies were developed by each state team;
- Developed the eReferral Health Care Partner Selection Fact Sheet which reflects the lessons learned from the four state teams as well as the members of the eReferral workgroup and outlines key factors that quitlines should consider prior to selecting a health care partner to engage in eReferral;
- Disseminated project outputs (*case studies, Fact Sheet, webinar slide deck and recordings, etc.*) through NAQC's network.

Throughout the process the state teams were asked to report monthly on their referrals from the healthcare partner to the quitline. Given the varying starting points and processes undertaken by the state teams, eReferral implementation was achieved at different points during the 18-month project. State teams were asked to report on both fax and eReferrals with the participating health care partner. The reports served to track uptake of referred patients to quitline services and helped with tailoring implementation technical assistance for each state team based on need. The tables below represent the total number of both fax and eReferrals achieved for all four state teams.

Direct Referrals (May 2015 – September 2017)	**Referred via Fax/Other**				**Referred via eReferral**				**TOTAL**			
# of Referrals	**AZ**	**IL**	**MS**	**SD**	**AZ**	**IL**	**MS**	**SD**	**AZ**	**IL**	**MS**	**SD**
TOTALS	**203**	**0**	**4**	**338**	**16**	**0**	**144**	**47**	**219**	**0**	**148**	**385**

Received Services (May 2015 – September 2017)	**Referred via Fax/Other**				**Referred via eReferral**				**TOTAL**			
# tobacco users provided counseling OR medications	**AZ**	**IL**	**MS**	**SD**	**AZ**	**IL**	**MS**	**SD**	**AZ**	**IL**	**MS**	**SD**
TOTALS	**53**	**0**	**2**	**130**	**6**	**0**	**52**	**18**	**59**	**0**	**54**	**148**

Despite the variability in processes that led to each state team achieving the project's intended outcomes, several lessons learned emerged that were cross-cutting for all state teams:

- **Variability exists in the eReferral implementation process based on the EHR vendor.** Each EHR vendor can pose different challenges. There will not always be a "one size fits all" solution however by engaging the state teams in NAQC's existing eReferral workgroup they will have a forum to present their challenges to peers who may have already encountered and overcome them
- **Prior to embarking on an eReferral project, it is advantageous to select and collaborate with stakeholders and organizations with whom you have previously collaborated successfully.** All teams faced challenges throughout the project but having partners willing to persist and work collaboratively to address and overcome the challenges made workflow easier was critical to each team's success.
- **IT expertise is essential.** While the teams' benefited greatly from the technical assistant provided through the project, they also had access to experienced technical staff within their own organizations or through their collaborating partners who also provided guidance throughout the effort. Having access to IT experts/consultants experienced with eReferral implementation and working directly with the quitline vendor on every phase of the project is a critical contributing component to implementation success.
- **Take care of business prior to fully engaging a healthcare partner.** Communicate with all stakeholders what is necessary to successfully implement eReferral particularly with regards to insurances and HIPAA status, Business Associate Agreements (BAAs), etc. to mitigate misunderstandings that can lead to delays in project implementation prior to beginning on any implementation efforts.

The lessons learned from the states teams experience was documented into **case studies** that will be broadly disseminate via NAQCs networks. An **eReferral Health Care Partner Selection Fact Sheet** was also created that reflects the lessons learned from the four state teams as well as the members of the eReferral workgroup and outlines key factors that quitlines should consider prior to selecting a healthcare partner to engage in eReferral. Additionally, an abstract was submitted to the National Conference on Tobacco or Health (NCTOH) and presented at the Conference held March 22-24, 2017 in Austin, TX. Presentations were also made at NAQC's conference on March 20-21, 2017 in Austin, TX.

Building upon the capacity established through this project, the states teams are now well-poised to move forward with next steps. AZ, IL, MS and SD state teams having begun to assess additional health care organization for which to scale up their eReferral capacity. The SD State Team, having achieved bi-directional eReferral earlier in the project timeline recognized a gap when it comes to cessation medication offered through the quitline and began researching eScript, a mechanism for prescribing medications through the EHR. The SD Team was able to successfully implement eScript throughout the Avera McKennon Health System nine months into the project period. An unintended but serendipitous consequence of eScript includes potential implications for alleviating barriers faced by Medicaid recipients.

The process of obtaining a prescription for NRT is often a barrier with Medicaid patients. In the environment of eReferral, eScript offers a potentially viable solution since it streamlines the process by allowing the provider to send the script directly to the pharmacy. As a result of this connection, quitline staff is also notified of the prescription and that information is documented in the patient's file. This streamlined process not only offers convenience for the provider and patient but also allows qualified patients to trigger more extensive benefits beyond quitline offerings and trigger benefits offered through their Medicaid plan then it would be beneficial to the patient in their quit attempt.

Scaling up to expand eReferral services to additional healthcare organizations will present a new set of opportunities along with challenges. As such, representatives from each state team have been added to

NAQC's eReferral Workgroup comprised of quitline service providers, state managers and health care institutions that were early adopters of eReferral. The Workgroup will provide a forum for the new adopters to continuously stay on the pulse of eReferral, share their lessons learned, as well as to ask questions about new challenges that present along the way.

LIST OF PUBLICATIONS AND PRODUCTS

Products and publications produced through this project include the following:

- **Case Studies (4)**. The four case studies detail the overall experience, outcomes and lessons-learned for each of the four state teams.
- **Project PowerPoint.** The PowerPoint provides highlights of the 18-month project.
- **eReferral Health Care Partner Selection Fact Sheet .** The eReferral Health Care Partner Selection Fact Sheet reflects the lessons learned from the four state teams as well as the members of the eReferral workgroup and outlines key factors that quitlines should consider prior to selecting a health care partner to engage in eReferral.
- **Core Knowledge Webinars #5 Slide Deck.** The Core Knowledge Webinar #5 served as the fifth and last installment in the Webinar Training Series that provided practical training on building eReferral capacity. The recordings and slide decks for all five webinars in the training series are also archived on NACQ's website.
- **The Enhancing eReferral Capacity: *Increasing Cessation among Priority Populations and Encouraging Health System Change* Abstract.** The Enhancing eReferral Capacity: *Increasing Cessation among Priority Populations and Encouraging Health System Change* Abstract represents the proposal to present both orally and as a poster on the eReferral project submitted to NCTOH.
- **eReferral Poster Presentation from NCTOH.** Enhancing eReferral Capacity: *Increasing Cessation among Priority Populations and Encouraging Health System Change* Poster Presentation was presented during the poster presentation session at NCTOH on Thursday, March 23, 2017 from 5:00-6:30 PM.
- **eReferral PowerPoint Presentation from 2017 NAQC Conference.** eReferral Presentation from 2017 NAQC Conference provided an overview of the current status of eReferral in quitlines followed by a brief review of the project, the barriers and challenges encountered, solutions developed and overall lessons learned. Representatives from the AZ, MS, and IL states teams were present to provide their team's perspective.
- **Project Satisfaction Survey Analysis.** The survey analysis provides the cumulative results of the satisfaction survey state teams were asked to complete at the conclusion of the project period.