OVERVIEW

In 2015, the American Lung Association/Illinois Tobacco Quitline (ITQL) engaged in a pilot to develop and implement an Electronic Health Record (EHR) tobacco referral process, to better facilitate and increase referrals to the ITQL especially among patients with low socioeconomic status (SES). Prior to engaging in this effort to establish eReferral, ITQL had established a partnership between Near North Health Service Corporation (NNHSC) and the tobacco cessation research lab in the Department of Preventive Medicine at Northwestern University (Northwestern) in which the Northwestern research lab’s cessation clinical trials were the first referral source for NNHSC’s smoking patients.

Prior to this project, NNHSC used standard paper-based fax referrals, and referred patients who were not eligible for or not interested in participating in the clinical trials to the ITQL using online fax referral. While Northwestern was able to connect some smoking patients to ITQL for treatment, ITQL also recognized the opportunity to: (1) Leverage the EHR system to increase the number of NNHSC patients who could be referred for treatment, (2) Devise a low-cost, sustainable referral approach that increased engagement in ITQL treatment, and (3) Alleviate the burden of the referral process from medical providers who often face multiple health issues that must be addressed in a 15-minute clinic visit. Given the history of previous collaborations and established relationship, Northwestern seemed like the perfect healthcare partner to engage in this pilot.

The Team

As part of this effort, each state selected to participate in this pilot was required to form a team comprised of the state quitline funder, the quitline service provider and a healthcare organization. In addition to ITQL, the entities involved in the implementation process included:

- **Illinois Department of Public Health (IDPH),** the quitline funder.
- **NNHSC,** a federally qualified health center comprised of six community health clinics throughout Chicago, serving over 35,000 patients annually. Racial and ethnic composition of the clinic’s patient population includes 10% Hispanic, 66% African American, 10% Caucasian, 0.8% Asian, and 0.2% multiracial. The remaining percentage is classified as “unknown”. Ninety-six percent of NNHSC’s patients live at or below the Federal Poverty Line, 56% are uninsured and 40% qualify for Medicaid. Females account for 63% of all patients.
- **Alliance of Chicago Community Health Services (Alliance),** a Health Resources and Services Administration-funded network of independent community health centers including NNHSC. The NNHSC EHR system is centrally hosted by the Alliance. Therefore, the eReferral system developed through this project could be readily disseminated to Alliance’s 11 safety net health centers in Chicago, which serve almost 500,000 low income patients annually.
- **Vorro Health,** a Long Term Post Acute Care (LTPAC) health information technology vendor.

Each stakeholder organization was chosen to play a specific role in the development and implementation of the protocol and IT processes. From ITQL and NNHSC, Cherylee Bridges and Anna Veluz-Wilkins provided oversight and coordination with meetings and project timeline. Sarah Ritner from Alliance served as the lead in connecting communications from Jose Lopez (IT ITQL), Jeremy Carr (IT from Alliance) and Bob Umbreit with Vorro Health. The ability to network and arrive at an agreed upon process was enhanced through the collaboration of these IT departments’ efforts.

The Process

ITQL initially embarked on this project in collaboration with a large healthcare foundation to establish a community process for referral to the quitline. However, in mid June 2015 the original partner was forced to end its participation due to a change in its EHR system and the administration’s decision not to establish a Business Associate Agreement (BAA) with the ITQL. At this junction, the IL team reviewed alternative partners and identified a healthcare organization that would provide similar attainable outcomes. Around the same time ITQL was approached by Northwestern to partner on a National Cancer Institute (NCI) research grant it was awarded that focused on tobacco user referrals to quitline services. The NCI grant incorporated use of EHR referrals and dovetailed with the pilot effort. Given ITQL’s established and longstanding partnership with Northwestern, the finalization process for them to become the EHR partner was easily arranged.

The build for the eReferral system required the technical expertise of Alliance from the EHR side and Vorro Health to support the ITQL receipt of the eReferral. In September 2015, Northwestern began the technical build however it had already conducted pilot testing of the general referral process (e.g., feasibility of acceptance of the letter and texts,
Assessing the likelihood that this referral approach could increase quitline treatment engagement. Due to concern from Alliance in using the CCDA, it was determined that an HL7 file would be used to send discreet data to the ITQL. When ITQL receives the referral from Alliance, the following information is provided:

- Clients First Name
- Clients Last Name
- Clients Street Address
- Clients Zip Code
- Clients Email Address
- Clients Phone Number
- Source from whom we received the referral
- SubSource, or division from which we received the referral
- Clients Birthdate
- Clients Gender
- Clients Race
- Clients Preferred Method of Contact – Phone or Email
- Clients Best Time To Call
- Account Name – Name of Clinic / Institution
- CaseNote – Additional information from provider in reference to the referrals, for example, ppd, which products to offer or what the clients is needing from ITQL.

After the file is sent to the ITQL FTP by Vorro Health the following process occurs:

- The file arrives from the FTP and is placed in a folder.
- The file is sent to a database.
- The data received from the clinic is translated using an XSLT file.
- Additional information is added using an XSLT file.
- Information on the type of Nicotine Replacement Treatment (NRT) the client is using is then entered into the Tobacco Detail Screen.

The crosswalk of data elements to be sent to and from ITQL was completed and four test files were sent to ITQL in August 2016. At this point the process was ready for Alliance to test data from ITQL.

**Challenges**

The team encountered several major challenges throughout the course of this 18-month project. First, in April 2015 ITQL operations were suspended for 5 ½ weeks due to the onboarding of a new Governor. In July 2015, ITQL did receive a FY16 approved budget from state legislators and the Governor however the three month delay in gaining an approved budget to continue quitline operations posed significant limitations and impeded progress on the project.

Another significant challenge centered on obtaining the required cyber security insurance, getting a BAA established and completing the HIPAA privacy process. ITQL was required to secure a qualified firm to complete a network assessment. A legal firm also needed to be retained to provide assistance with drafting the BAA to ensure protection of all parties involved. ITQL also had to complete an evaluation of existing liability insurance and purchase additional insurance. These activities were time consuming and also impeded progress on the project.

**Outcomes**

Despite the complexity, severity and longevity of the challenges faced, the IL team worked together to successfully resolve all challenges by July 2016. While these challenges impacted the pace of progress and overall outcome of our team’s project, it also provided a solid foundation for ITQL to partner with additional eReferral partners in the future. As of August 2016, the team is in the final stages of full implementation and plans to achieve full implementation by September 30, 2016.

**VALUABLE LESSONS LEARNED**

All entities involved brought different skillsets to the team. The expertise of the IT personnel has been the most vital to executing the project. The fact that ITQL had established a paper fax system with Northwestern and had a good working relationship facilitated moving forward with the solution.

Additionally, having the Medical Director for NNHSC on board to help navigate EHR workflow efficiently for eReferral as well as recommend the types of eOutcomes that would be most important for continuity of care from the medical provider standpoint was critical to our success. To ensure continued input and incorporation of the medical provider’s perspective, Northwestern is currently conducting a survey with the medical providers at NNHSC to obtain feedback about their preferences for the system and the type of information they find useful regarding their patients’ cessation treatment. Some additional valuable lessons learned from our team’s experience include:

- **Build on successful relationships.** 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. Doing so makes workflow easier.
- **Contract for IT expertise.** Engage a technical expert well seasoned in eReferral implementation. The access provided to an experienced technical consultant through this project was extremely helpful and necessary for guidance throughout the effort.
- **Take care of business.** Ensure BAA’s are in place well before embarking on the technological part of the work. All stakeholders will need proper insurance and HIPAA status to mitigate misunderstandings that can lead to delays in project implementation.

**KEY ELEMENTS FOR SUCCESS**

Reflecting back on the process, challenges and overall experience of engaging in eReferral implementation, we feel the following are key elements to ensure success:

1. Have the foundation of the HIPAA, insurance, cyber assessment and...
security completely in place before confirming healthcare partners.

2. Work with and recruit partners that are ready to (organizationally and fiscally) implement EHR system changes.

3. Consider a process which allows interface with all or multiple EHR manufacturers for future expansion and cost-containment of future efforts.

4. Establish a key point of contact to facilitate all communications and manage the implementation timeline.

5. Ensure buy-in from all leadership — CEO, IT, Chief Medical Officer.

6. Utilize the eReferral guidelines published by NAQC as a key template for success.

For more information about the eReferral Initiative, contact: Tasha Moses at tmoses@naquitline.org.

ACKNOWLEDGEMENTS
This report was produced with funding from the Pfizer Independent Grants for Learning & Change. The contents of this publication are under the editorial control of NAQC and do not necessarily represent the official views of the funding organization.

CONTRIBUTORS
The following Illinois State Team Members contributed to this case study:

Cherylee Bridges, RN
Program Director, Quitline Operations
American Lung Association

Jeremy Carr
Senior Application Analyst
Alliance of Chicago Community Health Services

Gail Devito, MPA
Tobacco Prevention & Control Program Manager
Illinois Department of Public Health

Jose Lopez
IT Help Desk Specialist
American Lung Association of the Upper Midwest

Michael Mark
SVP Helpline/Quitline
Illinois Tobacco Quitline

Bill Waldrop
Vice President, Operations
Vorro Health

Anna Veluz-Wilkins, MA (2016)
Clinical Research Associate
Department of Preventive Medicine
Northwestern University Feinberg School of Medicine

Lori Younker
Regions Liaison
Illinois Tobacco Quitline
American Lung Association in Illinois

NAQC acknowledges Linda Bailey, JD, MPH for serving as editor, Tasha Moses, MPA, for serving as editor and designing the publication. For the layout, NAQC would like to thank its Administrative Manager, Natalia Gromov.