VETERAN HEALTH INFORMATION EXCHANGE WHITE PAPER

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Keywords: *Virtual Lifetime Electronic Record (VLER), veteran, Rural-Urban Communicating Area (RUCA) Code*

Abstract

The Virtual Lifetime Electronic Record (VLER) eHealth program allows the United States Department of Veterans Affairs (VA), participating community medical care providers, and veterans (former service-members of the United States military) to securely share certain health information from a veteran's health record electronically. This health information data is exchanged through the Veterans Health Information Exchange (VHIE). This is a part of a public-provide organization that monitors participating trusted members in order to maintain agreed upon standards of security and meaningful use acknowledged during validation tests as signatories to the data use reciprocity service agreement (Bennet, personal communication, August 26, 2014). The Direct is a secure email-like system that allows one VA staff member to communicate with and send specific information to a participating community health partner. The VLER system was introduced to New Hampshire in April 2015 and has grown to include thousands of Granite State veterans. The VA is now connected with the New Hampshire Health Information Organization (NHHIO). This organization securely connects healthcare communities to share patient health information needed for informed care decisions (NHHIO, 2017). The challenge is to determine a method to best educate veterans about the availability of the program and sign them up while simultaneously training VA staff and concurrently constructing validated partnerships with community providers. While anecdotal evidence suggests 30% of veterans do not have internet access, research concluded that using e-mail messaging to reach the maximum number of rural-area veterans in the shortest period of time is cost-effective while also being a sustainable method of engagement over time.

Definitions

- *Correlated* – A correlation is determined based upon demographic matches between Exchange partners. Criteria are participant specific and may include but are not limited to: the date of birth, last name, first name, middle initial, and/or social security number.
- *Opted-In* – Veteran has authorized the release of protected 7332 (Drug, Alcohol, HIV, and Sickle Cell) health information by signing VA form 10-0485.
- *Rural* – The rural-urban commuting area (RUCA) codes classify U.S. census tracts using measures of population density, urbanization, and daily commuting.
- *VAMC* – Veterans Affairs Medical Center.
- *Vet Connect Act* – To amend Title 38, United States Code, to authorize the Secretary of Veterans Affairs to disclose to non-Department of Veterans Affairs health care providers certain medical records of veterans who receive health care from providers.

Introduction

When veterans return from military service one important avenue of transition to civilian life and career is through treatment and care at one of the United States Department of Veterans Affairs (VA) Medical Centers – however, little is known about one of the most innovative ways being used to address their health care needs. The initiation of the Virtual Lifetime Electronic Record (VLER) was announced during a joint declaration on 9 April 2009 by the President of the United States, the Department of Veterans Affairs, and the Department of Defense. The goal of the project is to work toward integration of a system of bi-directional health information exchange (National Guard, 2009). This was later modified allowing DOD and VA to maintain separate systems that instead would interact (The American Legion, 2013).

The eHealth Exchange allows VA clinicians to access veteran health information not only from the DOD but also the Social Security Administrations (SSA) and now from non-governmental trusted partners. These community partner information systems have been validated to join the national eHealth Exchange by the governing body of that exchange, nowadays known as the Sequoia Project (Bennett, personal communication, August 26, 2014). By providing this enhanced service to veterans, improved outcomes can be expected. For example, veterans may no longer need to repeat labs or hand carry records between appointments while VA and community care staff will benefit from electronic access to portions of Veteran medical records that were previously delayed or even inaccessible (Bichrest 2014).

For some time it has been apparent that medical information systems had fallen behind in their ability to use technology to enhance health care services. According to one medical researcher, to call medical information technology "'twentieth century' is as wrong as calling it 'twenty-first century' its nineteenth century" (Liang, 2010 p. xiii). Doctors order merchandise on-line but, chart information with a pen and paper. Nurses, have to fax documentation between medical providers and cannot securely e-mail information. This same theme was noted both within the DOD and the VA. These two departments, charged with the care of service personnel and veterans, could not productively communicate electronically between each other, and at times, could not even communicate effectively electronically within their own organizations. This then led to discussion regarding the implementation of an enhanced electronic exchange system that would allow for better communication and service (Bichrest, 2014).

There is a need to not only improve how VA interacts with other medical facilities but how to educate veterans and staff alike about emerging healthcare initiatives. The United States Department of Veterans Affairs Office of Rural Health completed VLER direct mails to veterans through the Veteran Rural Health Resource Center (VRHRC) at the Togus Veterans Affairs Medical Center in Maine, as is standard practice with these initiatives. While the results were effective according to published reports in the quarterly VA newsletter, *The Rural Connection,* there is a method that will enhance these efforts and provide increased veteran participation quicker and cheaper. This would not only ensure better care for veterans but also streamline work flows for both VA and community medical staff. Using e-mail in a consistent and systematic fashion has proven to be effective in the Manchester VAMC catchment area in New Hampshire. Using a controlled process, the diffusion of VLER information to rural Granite State veterans has proven successful in providing an additional engagement method.

Justification

There is an ongoing need to determine and then regularly re-visit best practices to reach veterans with information regarding eHealth Exchange in order to better serve rural veteran populations, improve VA staff efficiency, and promote community connections between VA and local healthcare providers.

Veterans making informed decisions about their care - is a hallmark of a veteran-centric system that needs to be continuously refined and enhanced using process control.

This study was conducted to determine the viability of an e-mail campaign in reaching rural veterans with the VLER eHealth program message. With only one Rural Health Community Coordinator on-station at the Manchester VAMC, the challenge to reach and educate tens of thousands of veterans across the state while standing up a program with VA staff and developing community contacts was daunting. By combining access to information from the Veterans Benefits Administration denoting eBenefits users in New Hampshire with existing contacts, an extended reach via e-mail jump-started authorizations. This then promoted further actions to enhance continuity of care connections between the Manchester VA and its community partners.

Statement of the Problem

Correlated veterans may not be aware of the advantages provided by an eHealth Exchange system that allows VA to electronically share portions of their VA medical record with outside providers while also receiving information back about their care in the community. VA and their community partners continue to exchange records in an outdated and time-consuming fashion that at times relies on the veterans themselves to initiate and follow through on information transfer. While the Vet Connect Act is making progress through Congress, delays in opting-in veterans now limits potential benefits veterans may receive from the system as it now operates. All diffusion options may not currently be in full use to address veteran education about eHeatlh Exchange.

The problem is that the Department of Veterans Affairs is not using e-mail in a consistent localized fashion which would improve communications significantly with the veterans it was established to care for. Research at Manchester VAMC has demonstrated how e-mail specifically impacted veteran's interactions with the medical center via participation in the eHealth VLER program. This has great potential to impact other VA initiatives as well. VA continues to work to improve veteran's access to care, develop a veteran-centric culture, and improve overall performance of existing systems to build trust with veterans and the community. Electronic communications should be thoughtfully considered across a wider spectrum for the potential that they offer to reach veterans in a consistent and cost-effective manner. In 2016 the Gulf Wars cohort surpassed the Vietnam cohort as the most prevalent group of veterans accessing VA care (VA, 2017). This cohort consists of mostly digital natives as opposed to prior cohorts which were made up of digital immigrants (Prensky, 2001). The sooner that VA can adapt its systems to this new reality, the more effectively it will be able to incorporate its stated goals into day-to-day operational work flows that are dynamic and receptive to continued refinements.

Modified Literature Review

"In 2015, the VA Maine Healthcare System (VA Maine HCS) successfully connected to HealthInfoNet, Maine's statewide HIE. This connection gave providers at the Togus VA Medical Center and eight VA Community Based Outpatient Clinics in Maine the ability to view veterans' health information from more than 450 community health care facilities in Maine. The VA Office of Rural Health's Veterans Rural Health Resource Center in Togus, Maine (VRHRC-Togus) worked with VA Maine HCS and HealthInfoNet on the technological implementation of HIE, and trained VA providers to use the HealthInfoNet web portal" (Office of Rural Health, 2016).

"VRHRC-Togus also informed veterans about HIE and prepared them to share their VA health information through VA's HIE. More than 52,000 Maine veterans received a letter and postcards about VA Maine HCS joining HealthInfoNet and about HIE benefits" (Office of Rural Health, 2016).
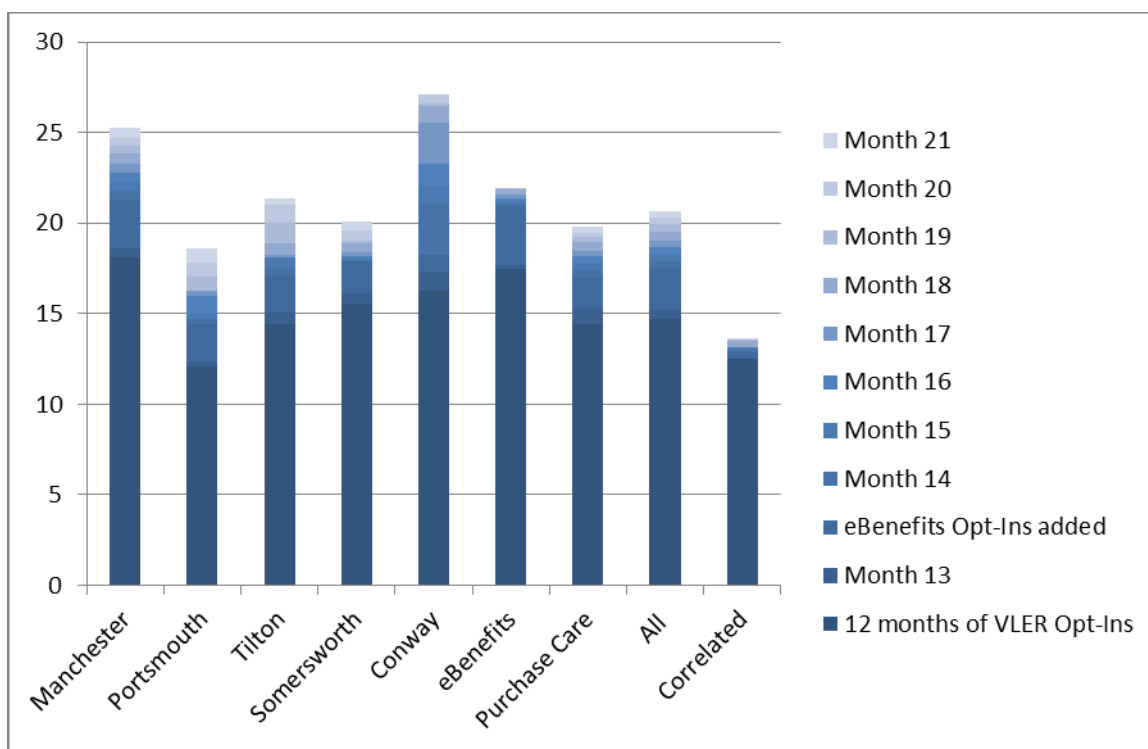
Note: Graphic of the percentage results of nine VLER e-mail lists for Manchester VAMC.

Figure 1. Opt-In Tracking.

Preliminary Results

The results of nine VLER e-mail lists for Manchester VAMC are shown in Fig. 1: "Manchester" – 811 veterans of 3,201 contacts opted-in, 25.33%; "Portsmouth" – 71 veterans of 381 contacts opted-in, 18.63%; "Somersworth" – 276 veterans of 1,369 contacts opted-in, 20.16%; "Tilton" – 112 veterans of 514 contacts opted-in, 21.78%; "Conway" – 177 veterans of 653 contacts opted-in, 27.10%; "eBenefits" – 976 veterans of 4,450 contacts opted-in, 21.93%; "Purchase Care List" 951 veterans of 4,787 contacts opted-in, 19.86%; "All" – 1,543 veterans of 7,434 contacts opted-in, 20.75%, and "Correlated" - 231 veterans of 1,691 contacts opted-in, 13.66%.

Overview

The VLER system was introduced to New Hampshire in April 2015 and has grown to include thousands of Granite State veterans. VA is now connected with the New Hampshire Health Information Organization (NHHIO). This organization securely connects healthcare communities to share patient health information needed for informed care decisions (NHHIO, 2017). The challenge is to determine a

method to best educate veterans about the availability of the program and sign them up while simultaneously training VA staff and concurrently constructing validated partnerships with community providers. While anecdotal evidence suggests 30% of veterans do not have internet access, research concluded that using e-mail messaging to reach the maximum number of rural veterans in the shortest period of time is cost-effective while also being a sustainable method of engagement over time.

The Manchester VAMC local Public Affairs Office (PAO) approved messaging that was sent out beginning in June 2015, on an every-other-month basis. The system is used to augment in-person veteran's contacts. There is typically a 95% initial e-mail delivered rate. Some veterans may have opted-in without reviewing or even receiving an e-mail. However, research indicates that a significant portion of New Hampshire veterans (13.6%) have positively responded to this e-mail initiative by choosing to participate in the VLER program. These results have proven sustainable over time and are also more cost-effective when compared to traditional outreach methods such as direct mails.

Setting

New Hampshire is one of the six New England states with a veteran population of approximately 114,000 (VA, 2017). There is a VA Medical Center located in Manchester with four outlying Community Based Outpatient Clinics (CBOCs) located at: Conway, Portsmouth, Somersworth, and Tilton within the Manchester catchment area. Approximately 25,000 Granite State veterans are enrolled with the Veterans Health Administration (VHA) and approximately 17,000 of those veterans use VA care (VA, 2017).

Participants

There are a total of approximately 22,000 veteran contacts across nine Manchester VAMC e-mail lists. Some redundancies occur across these lists. There are approximately 3,400 Veterans opted-in to VLER to date in New Hampshire. That is approximately 13.6% of the nearly 25,000 veterans that receive health care in the Manchester catchment area.

Participant veterans represented a cross-section of ages, genders, and races as well as varied residence locations across multiple states. Inclusion and/or exclusion criteria was limited only by the ability to obtain e-mail contact information and the ability of veterans to then participate in the program by signing the VA form 10-0485.

The Participant Veterans represented different cohorts and eras from: World War II, Korea, Vietnam, Grenada, Panama, Desert Shield/Desert Storm, Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF), Operation New Dawn (OND), and even other actions like Beirut or Kosovo. Each of these Veteran groups are represented in New Hampshire and participated in different combat and non-combat experiences as well as drafts and the All-Volunteer Force (DOD, 2017). However, these finer distinctions are not within the scope of this study. The primary focus for this research is to note that New Hampshire and the Manchester VAMC catchment area are designated as rural by the Department of Veterans Affairs.

	Data Set #2
Count	22
Mean	169.3636364
Median	159.5
Mode	113
Max	405
Min	75
Range	330
Std Dev (Pop)	83.96240796
Std Dev (Sample)	85.93826436
Variance (Pop)	7049.68595
Variance (Sample)	7385.385281
95% Conf. Interval for Mean	
Upper Limit	207.4665282
Lower Limit	131.2607445
99% Conf. Interval for Mean	
Upper Limit	221.240088
Lower Limit	117.4871848

Figure 2. Results Tracking.

Measures

SPC for Excel™ is an add-on for Microsoft Excel™ that can simplify the statistical analysis of data (see Fig. 2). It can create charts based on the values available in a spreadsheet and enables the user to manipulate them. SPC Excel™ software was used to generate an Individual Moving Range. This is a standard control chart designed to show results as a sustained process. Also, an R Chart was used which showed the variation of the process between each data point (see Fig. 3 below).
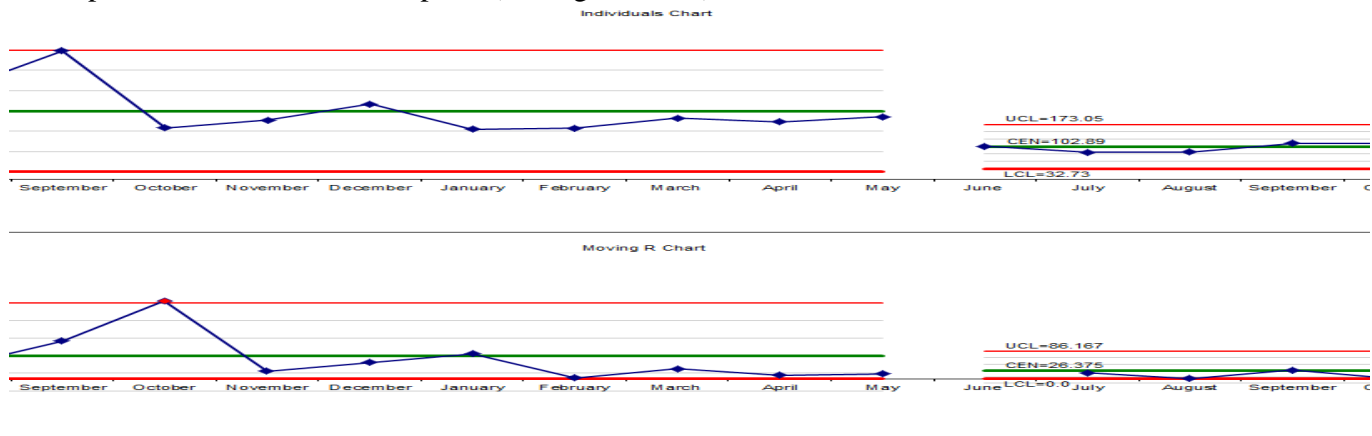
Note: 22 data points utilized.

Figure 3. Individuals Chart and R Chart.

Procedures

The study started with every-other-week and then modified to weekly e-mail messaging as of October 2015. Veterans could appear on multiple lists. For example: "eBenefits" and "Manchester". "Purchase Care" veterans were also a focus with traditional direct mails, in addition to this e-mail messaging. That ended January 2017. No other list of veterans had received VLER direct mails but that changed in July 2016 with the addition of a New Hampshire "Correlated" (veterans affiliated with non-VA participants of the eHealth Exchange) list. The lists were initially generated by zip code or geographic area and then additional "eBenefits" (Veterans Benefits Administration electronic portal participants) and "Purchase Care" (veterans receiving community care) lists were added as they became available.

The "All" list, is not a cumulative type list. It contains some veterans that may reside outside of the boundaries of the State of New Hampshire that may receive VA care here. For example: veterans living in southern and western Maine or northern Massachusetts. Also included in the "All" list may be veterans residing in New Hampshire but outside the catchment boundary shared with White River Junction, Vermont VAMC. The "Correlated" list refers to the correlation that the listed veterans have with non-VA community partners. This is determined by their confirmed affiliation with non-VA participants of the eHealth Exchange, specifically in this instance with Maine HealthInfoNet.

Analysis

Model infers a percentage of the variance is due to the relationship between a given independent veteran diffusion variable and the dependent process control variable. Model depicts multiple data sources merged. Source data is dependent on outside inputs. The research was completed with the assistance of SPC - EXCEL™ software (see Fig. 2). An Individual Moving Range was used as a standard control chart designed to show results as a sustained process. An R chart was generated from the data with results showing the variation of the process between each data point month to month (see Fig. 3). The control charts were then split at the mid-way data point in June. This illustrated how the process, although slowed after a year, was still a consistently controlled process. The data cleaning was processed by removing the duplicates and combining the lists to one spreadsheet. The following hypotheses have been evaluated:

- H_1 -The hypothesis is that there is a relationship between various independent diffusion variables and the dependent process control variable among rural Veterans.
- H_0 -The null hypothesis is that there is no relationship between various independent diffusion variables and the dependent process control variable among rural Veterans.

Table 1. Check Opt-Ins Sheet.

Site	12 months	13 month u	eBenefits (	14 month	15 month	16 month	17 month	Month 18	Month 19	Month 20	Month 21	Month 22
Manchester	18.08	0.50	2.72	0.47	0.53	0.51	0.47	0.55	0.44	0.40	0.60	0.03
Portsmouth	12.07	0.26	2.10	0.26	0.27	1.05	0.26	0.00	0.79	0.78	0.79	0.00
Tilton	14.39	0.65	2.05	0.44	0.56	0.00	0.19	0.59	1.16	0.98	0.39	0.38
Somerswort	15.56	0.58	1.75	0.00	0.14	0.15	0.22	0.51	0.09	0.57	0.51	0.08
Conway	16.23	1.07	0.92	2.83	1.00	1.20	2.32	0.92	0.15	0.46	0.00	0.00
eBenefits	17.48	0.18	3.23	0.16	0.14	0.15	0.21	0.29	0.09	0.00	0.00	0.00
Purchase Ca	14.41	0.94	1.61	0.44	0.39	0.38	0.31	0.48	0.27	0.21	0.38	0.04
All	14.72	0.50	2.25	0.39	0.41	0.41	0.32	0.50	0.42	0.39	0.33	0.11
Correlated	12.53	0.00	0.35	0.12	0.18	0.00	0.00	0.30	0.06	0.06	0.06	0.00

Note. Data represents percentage of specific list completed.
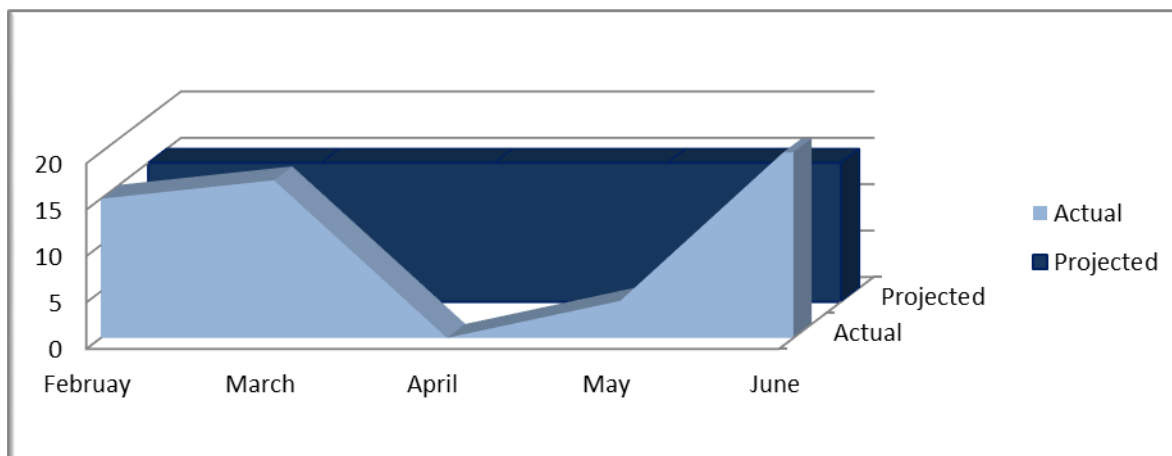
Note. Figure depicts results showing the actual versus the projected eBenefits opt-ins.

Figure 4. eBenefits Opt-Ins tracked by month.

Results

The results are shown in Table 1 and in Fig. 4, and summarized below:

- Conway CBOC has the least number of recorded e-mails for Veterans; (14%). Somersworth CBOC (23%); Portsmouth CBOC (22%); Tilton CBOC (21%); and Manchester Medical Center (20%).
- Somersworth CBOC has the largest number of Veteran contacts after the Manchester Medical Center itself.
- Manchester area receives the largest number of total VLER e-mails.
- Conway CBOC (2%) and Tilton CBOC (5%) are the sites least represented for the Purchased Care messaging.
- Tilton CBOC has the greatest percentage of Veterans signed per total contacts available for the four CBOCs.
- Portsmouth CBOC area receiving the least number of total VLER messaging e-mails.
- eBenefits monthly opt-ins indicate significant change in VLER participation rate.
- Average (2.5%) opt-ins during stoppage months:

> Highest month: May (5%)
> Lowest month: April (0%)

- Re-introduction month: June (36%)

Discussion

"Manchester" no longer has the highest geographic type list percentage, 25.33%. "C o n w a y" CBOC is ahead of "Manchester" with 27.10% - "Portsmouth", 18.63% - "Somersworth", 20.16% - and "Tilton", 21.78%. The CBOC veterans come in for specialty care and/or other services to the main VAMC facility but Manchester veterans do not need to visit the CBOCs. This may provide additional opportunities for those veterans to be engaged by staff regarding VLER opt-in. However, initial results were skewed by

duplicates. When this was addressed Somersworth CBOC became a stand-out along with Manchester for participation.

"eBenefits" is no longer the list that is the highest overall, this was not expected. 21.93% of the veteran contacts on that e-mail list, started in June 2015, have opted-in to the eHealth Exchange. It is relatively easy for veterans to opt-in on-line, when they are already part of the "eBenefits" system. "eBenefits" offers an advantage. Veterans can opt-in at their convenience. Perhaps, then, the question should be why this has not yet resulted in a higher percentage? The significance of no current non-VA community Exchange partners in NH, as noted in the messaging, should be considered. While Direct Messaging through VLER Direct went live with NHHIO on 1 December 2016, this may not have the impact that a local Exchange partner might. However, VITL in Vermont and HealthInfoNet in Maine have contributed to Veteran participation with VLER. The eBenefits participation is still a strong predictor of VLER authorizations.

White River Junction VAMC, Maine, Massachusetts, and Vermont veterans have contributed to the "All" Veterans list result, 20.75%. "Portsmouth" CBOC may have one of the lowest opt-in percentages because of its location at Pease Air National Guard Base (guarded access) and the proximity to the "Somersworth" CBOC. However, those speculations are outside the scope of this data. "Conway" is the most rural CBOC site. Positive opt-in results indicate an important "win" for the Office of Rural Health. "Conway" CBOC has the VLER Champion, a Nurse and VISN Rural Health Committee member, on station, versus MHV/VLER volunteers at the other three New Hampshire CBOCs. "Tilton" CBOC is located approximately 24 miles south of the geographic center of New Hampshire. This may partially explain the numbers of veterans that choose to visit this site from both the Manchester and even White River catchment areas. Participation is consistent if varied across all outlying geographic areas speaking to the need and results of the e-mail campaign.

"Purchase Care" lists veterans who also receive direct mails. This group of veterans was added to the process later, in October 2015. The "Correlated" list of New Hampshire veterans was developed based upon correlations specifically completed with Maine HealthInfoNet, which went live in May of 2015 as an eHealth Exchange partner. A correlation is determined based upon demographic matches between Exchange partners. The Maine veterans residing in Oxford and York Counties along the New Hampshire border were specifically selected for an ongoing direct-mail campaign since there was potential meaningful use information to exchange between the VA and the community care providers of these veterans. Numbers of these veterans get VA care at a New Hampshire CBOC while receiving community care in Maine. These veterans participated at lower rates than those on other lists but still responded positively and in an ongoing fashion to VLER e-mails.

Limitations

This research relied upon one particular case study and a modified literature review for background context regarding VLER engagement methods with rural veterans. However, there is limited reference material regarding VLER as confirmed in prior research (Bichrest, 2014). While there are other outreach methods being used at various VA locations across the country, Maine is home to the Veteran Rural Health Research Center (VRHRC) and its diffusion methods were selected for review specifically because of its leadership role in educating rural veteran populations. Additionally, this research study is based upon over twenty-one months of information when typical VA six sigma projects rely on only abbreviated data sets.

Conclusions

Did this e-mail messaging campaign have a return on investment over time? Clearly - "Yes", since investment cost in e-mail is already limited, and messages were still returning eBenefits opt-ins after 21+ months. While some eBenefits opt-ins will always take place, results demonstrated that local eBenefits Veteran opt-ins frequently occur specifically following messaging dates and messaging times. There is an estimated 15% increase at Manchester in VLER opt-ins directly attributable to messaging based upon the Veterans Authorizations and Preferences (VAP) application tracking. A fact made clear by the increase in phone and e-mail traffic from veterans inquiring about VLER. The majority of veterans to date (90%) opted-in prior to Manchester having a VLER community partner (NHHIO), speaking to the effectiveness of the message. Manchester is a top performing location for VLER opt-ins (highest 15% nationally) and a comparison should be completed with other sites that are, and are not, e-mail messaging, in order to confirm these results.

Which features of rural veteran early adopters predict VLER opt-in progress? While approximately 30% of veterans may have no on-line access, the clear majority of veterans do have the capability to take advantage of this medium. This then leverages the advantages of both the eBenefits and VLER programs by combining an on-site Rural Health Community Coordinator with the enhanced reach of electronic communication to engage and opt-in, veterans interested in eHealth Exchange options. With funding for CBOC visits at a premium, this may be a cost effective method to reach more rural veterans. While sporadic attempts at the national level have had some successes, it seems clear that a methodical and sustained local effort can produce continuous opt-in results over time, while still being sensitive to list accuracy (deceased veterans) and providing a veteran "unsubscribe" option. Additionally, while the focus at Manchester is rural veterans, this method may also prove successful with other community engagement opportunities.

Return on Investment

- **Labor (mailroom)** .5 hours at rate of $20.00 per hour = $10.00 per week

- **Postage (stamps)** 0.46 per envelope x 1,000 = $460.00

- **Materials (envelopes)** 0.05 per envelope x 1,000 = $50.00

- **E-Mail – Negligible -** n/a

These cost items (above) provide only a basic inventory for the potential savings. For example, what is the savings rate of having veterans enrolled with VLER when they come in for their appointments? Meaning the clinician now spends quality and productive time interacting directly with the veteran. This is instead of trying to review paper copies of records or determine through the course of the consult particulars of co-managed care that are not readily available to view electronically. How can that be quantified and accounted for appropriately? That is to say there are innumerable soft considerations that may not be readily visible but that are clearly impacting return on investment. The above costs then illustrate only a portion of the overall potential for exponential savings with this system directly impacting Veteran care. Assumption is 1,000 messages per week, approximately $27,040.00 saved per annum.

This study demonstrates that significant cost savings can be realized through the use of e-mail messaging as a diffusion method for rural veteran VLER education. The process was consistent over time through implementation, stoppage, and re-implementation. This demonstrates the viability of engaging veterans through this medium.

Final Results

- Key diffusion indicators of rural veteran adopters include: Manchester Medical Center geographic area and Somersworth CBOC geographic area. The eBenefits affiliation diffusion variable is also related to VLER opt-in progress and directly connected to receipt of e-mail messaging.
- Veterans living in Maine, Vermont, Massachusetts, and other areas within New Hampshire but outside the Manchester catchment area boundary ("All" list), Conway, Portsmouth, and Tilton CBOC geographic areas responded to e-mails. Is there a difference even among rural veterans? Perhaps there is a finer distinguishing characteristic to consider between rural and remote. This nuance should be pursued in follow-on studies.
- Correlation to an existing eHealth Exchange partner or receiving care from a community provider does not necessarily translate to participation in VLER. Yet, even with these veterans there were responses to the campaign. This is important because education is clearly needed to explain the benefits of participation to the veterans through enhanced technology-based diffusion programs such as the e-mail messaging demonstrated by this study.

Acknowledgements

Conflict of Interest

The author is currently employed as the Rural Health Community Coordinator tasked with implementing the VLER program at Manchester VAMC in New Hampshire.

References

Bichrest, M. (2014). A Formal Literature Review of the Virtual Lifetime Electronic Record Exchange. *Insight: Rivier Academic Journal.* Volume 10, Number 2, Fall 2014.

Brown, T. T. (2009). Societal Culture and the New Veteran. *International Journal of Scholarly Academic Intellectual Diversity.* 11(1), 1-9.

Department of Veterans Affairs, Office or Rural Health. Retrieved April 4, 2017, from http://www.ruralhealth.va.gov/docs/news/ORH_Newsletter_Fall2016_FINAL.pdf

Department of Veterans Affairs. Retrieved April 4, 2017, from https://www.va.gov/vaforms/medical/pdf/10-0485-fill.pdf

Fire For Effect. Retrieved April 4, 2017, from https://en.wikipedia.org/wiki/Fire_for_effect

Maine HealthInfoNet. Retrieved April 4, 2017, from http://hinfonet.org/

Liang, L. (2010). Connected For Health: Using Electronic Health Records to Transform Care Delivery. San Francisco, California: Jossey-Bass.

National Guard Association. (2009). President Unveils Virtual Lifetime Electronic Record. *National Guard*, Vol. 63, Issue 5.

New Hampshire Health Information Organization. Retrieved April 4, 2017, from https://nhhio.org/

Prensky, M. (2001). Digital Natives, Digital Immigrants. Retrieved, 29 September, 2017 from http://marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf

Rogers, E. Retrieved April 4, 2017, from https://web.stanford.edu/class/symbsys205/Diffusion%20of%20Innovations.htm

Robinson, L. Retrieved April 4, 2017, from https://www.enablingchange.com.au/Summary_Diffusion_Theory.pdf

Rural. Retrieved April 4, 2017, from https://www.hrsa.gov/ruralhealth/aboutus/definition.html

Shewhart, W. Retrieved April 4, 2017, from, http://thephxway.com/2014/12/10/data-in-context-signal-or-noise/

The American Legion. (2013). The dilemma of electronic health records. Veterans Health Center.

United States Department of Veterans Affairs. (2017). Retrieved September 29, 2017 from https://www.va.gov/vetdata/docs/Demographics/New_Vetpop_Model/Vetpop_Infographic_Final31.pdf

Vet Connect Act. Retrieved April 4, 2017, from https://www.govtrack.us/congress/bills/114/hr5162

VLER. Retrieved April 4, 2017, from http://va.gov/vler/

Youtube: Diffusion Theory. Retrieved April 4, 2017, from https://www.youtube.com/watch?v=NiNoNYLBabA

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Appendix A

Connect Your Docs with Virtual Lifetime Electronic Record (VLER) Health Exchange

VLER eHealth Exchange is a program that shares portions of your VA health record between the Department of Veterans Affairs (VA) and non-VA health care providers.

VLER Direct Messaging is a secure email-like system that allows one VA staff member to communicate with and send specific information to a participating community health partner.

VA Staff: "The VLER Exchange is a valuable program allowing the Veteran, VA Medical Center and community partners to work together to provide patient-centered care!" - Navy Veteran –K. Sherman, RN - Health Promotion Disease Prevention Program Manager- MOVE! Coordinator

"I highly recommend VLER for rural health care veterans and all veterans. It is good for both veterans and their health care providers." - L. Bowie, RN –VISN 1 Rural Health Committee

VLER eHealth Exchange:

Manchester VAMC has partnered with HealthInfoNet.

VLER Direct Messaging:

Manchester VAMC has partnered with NHHIO.

Ready to share health records between your VA and non-VA providers?

Sign up in person during your next appointment:
- Ask for the VLER Release Form, VA FORM 10-0485 when you check in
- Complete the form and return to check-in staff person
- DONE!

Your local VLER representative is available at the Manchester Medical Center during business hours:
Michael Bichrest
(603) 624-4366 ext. 2830
michael.bichrest@va.gov

You can also sign up online with eBenefits:
1. Login to www.eBenefits.va.gov
2. Select **Manage Health**
3. Scroll to the Health Records row and select **VA Health Record Sharing**
4. Select **Manage My Authorizations and Preferences** and then select **Start Authorization**
5. Click Yes to accept the terms and conditions, then select **Save and Continue**
6. Mark the box and select **Sign**. You will then be prompted to re-enter your username and password
7. Click **Re-authenticate**

Or sign up by mail:
Download and complete VA Form 10-0485 and mail to:
VAMC Manchester
Attn: ROI-136D
718 Smyth Road
Manchester NH 03104
NOTE: The completed form is private and should NEVER be sent by email but can be secured messaged by MyHealtheVet Premium Account users to:
"Ask a My HealtheyVet Coordinator Manchester."

More information:
- VLER website: www.va.gov/VLER
- Toll-free VLER Health Information line: (877) 771-8537 7:00am to 9:00pm CST

Assistance is available for MHV as well.
My HealtheVet is the VA's online patient portal. Veterans can access their patient records, order prescription refills and communicate securely with their VA health care providers. To learn more, visit the My HealtheVet website at https://www.myhealth.va.gov.

Appendix B

VA Department of Veterans Affairs

REQUEST FOR AND AUTHORIZATION TO RELEASE PROTECTED
HEALTH INFORMATION TO HEALTH INFORMATION EXCHANGES

Privacy Act Information: The execution of this form does not authorize the release of information other than that specifically described below. The information requested on this form is solicited under Title 38, U.S.C. The form authorizes release of information in accordance with The Health Insurance Portability and Accountability Act, (HIPAA) 45 CFR Parts 160 and 164, 5 U.S.C. 552a, and 38 U.S.C. 5701 and 7332 that you specify. Your disclosure of the information requested on this form is voluntary. However if the information containing the Social Security Number (SSN) (the SSN will be used to locate records for release) is not furnished completely and accurately, eHealth Exchange will be unable to comply with the request. The Veterans Health Administration may not condition treatment, payment, enrollment or eligibility on signing the authorization. VA may disclose the information that you put on the form as permitted by law. VA may make a "routine use" disclosure of the information as outlined in the Privacy Act systems of records notices identified as 24VA10P2 "Patient Medical Record -VA" , and 168VA10P2 "Virtual Lifetime Electronic Record (VLER), and in accordance with the VHA Notice of Privacy Practices. You do not have to provide the information to VA, but if you do not, the eHealth Exchange will be unable to process your request and serve your medical needs. Failure to furnish the information will not have any affect on any other benefits to which you may be entitled. VA may also use this information on this form to identify Veterans and persons claiming or receiving VA benefits and their records, and for other purposes authorized or required by law.

Patient Full Name Last: (print)	**First:**	**Middle:**

Birth Date (mm/dd/yyyy):	**SSN:**	**Gender:** ☐ Male ☐ Female

Requestor Name:

VA Approved eHealth Exchange and VLER Direct Participants and other Health Information Exchanges with whom VA has an agreement.

Information Requested:

Pertinent health information from electronic health record.

I request and authorize my VA health care facility to release my protected health information (PHI) for treatment purposes only to the communities that are participating in the eHealth Exchange, VLER Direct and other Health Information Exchanges with whom VA has an agreement. This information may consist of the diagnosis of Sickle Cell Anemia, the treatment of or referral for Drug Abuse, treatment of or referral for Alcohol Abuse or the treatment of or testing for infection with Human Immmodeficiency Virus. This authorization covers the diagnoses that I may have upon signing of the authorization and the diagnoses that I may acquire in the future including those protected by 38 U.S.C. 7332.

This authorization will remain in effect for the period of ten years. I may revoke this authorization, in writing, at any time except to the extent that action has already been taken to comply with it. Written revocation is effective upon receipt by the Release of Information Unit at my VA health care facility. Redisclosure of my electronic health records by those receiving the above authorized information may be accomplished without my further written authorization and may no longer be protected.

AUTHORIZATION: I certify that this request has been made freely, voluntarily and without coercion and that the information given above is accurate and complete to the best of my knowledge.

Signature of Patient	**Date**

VA FORM
Dec 2016   **10-0485**