**Leveraging Virtual Technology to Support the Operational Capability of the Department of Veterans Affairs Amidst a Global Pandemic**

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**Abstract**

The Corona Virus Disease, 2019 (COVID-19) Pandemic of 2020 created a tumultuous environment that has seriously hindered the ability of organizations to conduct normal operations. State Government issued stay-at-home orders, conflicting guidance on mitigating exposure, and the rapid spread of COVID19 each contributed to organizations in all sectors of society being negatively impacted. This paper focuses on the U.S. Department of Veterans Affairs (VA) and utilizes empirical research from government reporting and scholarly research on the use of virtual technology as a method of providing uninterrupted service during a pandemic. The VA currently uses telehealth as a way to connect with patients, but it is an underutilized program. The paper examines using this and other virtual technology as a way to improve the way that the VA provides services to the veterans of the United States. It further examines the utilization of change management in the field of healthcare as these new technologies are introduced, including resistance and barriers for both patients and physicians. Effective change management is vital in the acceptance and use of these technologies in the medical facility, by the physicians and the veterans receiving care. By instituting agency wide changes, the VA can provide services that are faster, cost effective, more efficient, and will not be adversely affected by the inherent restrictions imposed during a pandemic.

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**Chapter I – Introduction**

In early 2020, a contagious disease outbreak in China, later identified as the Novel Corona Virus Disease, 2019 (COVID-19) quickly began spreading throughout the world, resulting in a global pandemic. According to the World Health Organization reporting on 01/09/2020, "Chinese authorities have made a preliminary determination of a novel (or new) coronavirus, identified in a hospitalized person with pneumonia in Wuhan" (World Health Organization, 2020).

The situation quickly grew worse, as by 01/28/2020, "106 deaths can be attributed to the disease and at least 4,500 cases of coronavirus have been confirmed, an overnight increase of 60%. Five cases have been confirmed in the U.S., and the Centers for Disease Control and Prevention report that an additional 110 cases are under investigation in 26 states. Other cases have been confirmed in France, South Korea, Japan, Nepal, Thailand, Cambodia, Singapore, Vietnam, Taiwan, Canada and Sri Lanka" (Cruickshank, 2020).

Within just two months, the initial viral outbreak had reached around the world. According to the Centers for Disease Control (CDC), "On March 11, 2020 the Novel Coronavirus Disease, COVID-19, was declared a pandemic by the World Health Organization. On March 13, 2020 a national emergency was declared in the United States concerning the COVID-19" (CDC, 2020). This pandemic impacted the health and economy of the entire world.

As the pandemic grew, efforts were taken by global governments to mitigate the further spread of the disease. This task was made more difficult as they were not only providing medical attention to the infected, but trying to determine the best way to keep their respective societies functioning.

Throughout the United States, many Governors passed stay-at-home orders as a method to try and slow the spread of the virus. McCarthy (2020), reports that:

> According to the Kaiser Family Foundation and New York Times NYT data, the number of states issuing "stay at home" orders has been rising steadily in recent days and 35 have such measures in place as of 02 April, 2020. Others have taken action, but to a lesser extent, with Mississippi and Pennsylvania announcing restrictions for certain counties, though the latter has just extended those to the entire state. Likewise, Utah, and Georgia have told their high-risk groups to remain at home with the rest of the populace free to carry on in relative normality. Currently, close to 300 million Americans are being urged to stay home across the country.

As a result of these orders and other internal decisions made by the private sector and government alike, organizations temporarily closed, worked with a bare minimum of staff, or when possible had employees doing telework from their homes. The result was a severe economic downturn, increased unemployment, and an uncertainty that was felt by all. "The COVID-19 outbreak and the economic downturn it engendered swelled the ranks of unemployed Americans by more than 14 million, from 6.2 million in February to 20.5 million in May 2020. As a result, the U.S. unemployment rate shot up from 3.8% in February – among the lowest on record in the post-World War II era – to 13.0% in May" (Kochhar, 2020).

Beyond the financial dilemma, U.S. military veterans suddenly found themselves limited in their ability to receive medical care through the U.S. Veterans Administration (VA) system. "VA has shifted some outpatient care to telehealth and some elective and non-emergent procedures have been postponed" (US Department of Veterans Affairs, 2020). Although a plan

was implemented by the VA, it became apparent that they are not prepared to remain fully

operational during a pandemic. This disruption could have been avoided by more fully utilizing

the telehealth system already in place within the VA and then expanding into other types of

secure virtual environments and technologies.

## Chapter II – Problem Statement

COVID-19 and the subsequent quarantines and stay-at-home orders have created unintentional barriers for patients to receive medical care when needed. More specifically, U.S. military veterans found themselves unable to receive medical care at Department of Veterans Affairs hospitals and community-based clinics.

In an ideal world, veterans would be able to meet with all of their doctors through video conference and they would be issued home-based equipment to facilitate any necessary testing. Results of those tests would be transmitted directly to the doctor without the need for the patient to ever leave their home. The physician would then be able to reconnect with the veteran to discuss findings and prescribe a course of treatment.

While the Department of Veterans Affairs does provide telehealth services for veterans, it is not available in all areas, nor for all types of care. Although this is not an intentional denial of services, the underutilization of the service creates a significant gap in remote medical care for health issues being faced by the veteran population in the United States.

Without readily available medical care during a pandemic, veterans become physically vulnerable and are placed at risk of the exacerbation of their current medical conditions and/or development of others which left untreated, increase the chance of severe illness or death.

This paper will conduct a secondary review and analysis of data to identify areas within the Veterans Health Administration (VHA) that benefit from expanding the use of the telehealth program as well as embracing the use of virtual technology to further enhance the ability of the VA to provide remote services to their veteran clientele. This paper will identify ways to mitigate the interruption of services during a pandemic by improving and expanding upon the use of

virtual technology to improve the timeliness and efficiency of the VHA, and to reduce costs

associated with veteran travel reimbursement.

**Chapter III - Overview of the organization**

The U.S. Department of Veterans Affairs (VA) is a government agency created to assist U.S. military veterans. It is divided into three divisions: The Veterans Benefits Administration (VBA), the Veterans Health Administration (VHA) and the and National Cemetery Administration (NCA). This paper will focus specifically on the VBA and the VHA.

The VBA is responsible for processing claims and appeals for veteran benefits. While there are multiple variations of claims, depending upon the type of benefit, the process involves the following: A veteran submits an appropriate application and supporting documentation to the VBA, a review is conducted by the VBA of the veteran's military records, a physical compensation and pension examination is completed with the veteran, and then a final review and decision is made by a trained VA reviewer. An integral part of the claims process is the compensation and pension (C&P) examination. This involves a physical examination of the claimed condition in order for the physician to provide details regarding the severity of the condition and to provide an opinion regarding its connection to the veteran's service in the military. These examinations are normally conducted in person at a medical facility.

The VHA is responsible for providing healthcare for eligible veterans through VA Medical Centers (VAMC) and Community Based Outreach Clinics (CBOC). The majority of appointments are conducted in person at one of those locations.

The VA's stated mission, Vision and Core Values are as follows:

Mission Statement

To fulfill President Lincoln's promise "To care for him who shall have borne the battle, and for his widow, and his orphan" by serving and honoring the men and women who are America's veterans.

VA Core Values and Characteristics

Vision

To provide veterans the world-class benefits and services they have earned - and to do so by adhering to the highest standards of compassion, commitment, excellence, professionalism, integrity, accountability, and stewardship.

Core Values

**Integrity:** Act with high moral principle. Adhere to the highest professional standards. Maintain the trust and confidence of all with whom I engage.

**Commitment:** Work diligently to serve Veterans and other beneficiaries. Be driven by an earnest belief in VA's mission. Fulfill my individual responsibilities and organizational responsibilities.

**Advocacy:** Be truly Veteran-centric by identifying, fully considering, and appropriately advancing the interests of Veterans and other beneficiaries.

**Respect:** Treat all those I serve and with whom I work with dignity and respect. Show respect to earn it.

**Excellence:** Strive for the highest quality and continuous improvement. Be thoughtful and decisive in leadership, accountable for my actions, willing to admit mistakes, and rigorous in correcting them. (U.S. Department of Veterans Affairs, 2018)

As the world was overwhelmed by the COVID19 virus pandemic, it became unsafe to conduct in-person appointments through the VHA. The utilization of virtual technology is a way to avoid this type of interruption in services in the future to continue to provide assistance to veterans.

## Chapter IV – Literature Review

Review of: Department of Veterans Affairs (VA): A Primer on Telehealth

This article provided by Victoria L. Elliott, Analyst in Health Policy provides a description of the telehealth system and how it is being utilized by the VA throughout the nation. Elliott (2019) explains that "It is a mode of health care delivery that extends beyond the "brick-and mortar" health care facilities of the VHA." However, she also explains that this system is meant to augment, not replace in-person visits.

The use of telehealth has limitations due to requirements for connectivity and access to the systems needed to conduct an appointment. These limitations are being addressed by the VA and changes are being instituted to increase accessibility to veterans.

In discussing both the continued use and possible expansion of the telehealth system, Elliot (2019) notes that "the VA has stated that increased access to telehealth could reduce the use of VA travel benefits by veterans and reduce hospital admissions."

This article is relatively brief, serving to help the reader better understand the development and use of the telehealth system for the VA. It was published prior to the outbreak of COVID-19 and its subsequent quarantines and limitations on in-person visits at the VA. As such, this topic should be revised to address these new developments and re-assess the use of the telehealth system. While it was originally designed as a method to augment rather than replace in-person visits, it would seem that in this new climate, an updated description of the system might better state that telehealth can serve to augment in-person visits as well as replace them under special circumstances such as a pandemic (or any other extreme circumstances) that would prevent a veteran from being physically present for an appointment at the VA.

Review of: Patient Perceptions of Video Visits Using Veterans Affairs Telehealth Tablets

This paper details a survey study that was conducted on veterans who used VA issued tablets to conduct telehealth appointments. An initial survey was provided at the issuance of the tablet and a follow up survey was then conducted between three and six months later. The use of these tablets is still relatively new, and this study provides important information on how effective this technology is for veterans in the VA health care system. According to the authors, "this is the first nationally representative survey of VA tablet recipients examining their experiences with VA video visits (Slightman C, et al, 2020).

The study discussed the mixed methodology used in analyzing the data, and clearly identified limitations and potential bias. The results were generally positive, and revealed that "Satisfaction with the tablet program was high, and in the follow-up survey, approximately two-thirds of tablet recipients preferred care via a tablet (194/604, 32.1%) or expressed that video-based and in-person care were "about the same" (216/604, 35.7%), whereas one-third (192/604, 31.7%) indicated a preference for in-person care (Slightam C, et al, 2020).

This study was conducted in a normal, functioning environment, free of the restrictions and barriers posed by a pandemic. It would seem that the use of this technology is meant to provide an additional resource for those individuals who may be unable or unwilling to travel to appointments in person at the VA. However, given the events brought on by the COVID-19 pandemic of 2020, it would be prudent to re-task this technology to also account for such an environment, and an updated study of its use in this capacity would prove useful.

Review of: Promoting Technology and Virtual Visits to Improve Older Adult Mental Health in the Face of COVID-19

This brief submission to the American Journal of Geriatric Psychiatry addressed the need for remote mental health services for older adults amidst the 2020 Pandemic. The article advocates for the use of technology to reach this high-risk group who are even more isolated than normal as a result of the pandemic. Gould and Hantke (2020) advise that "Services include video telehealth, which has a robust evidence base including among older adults." They discuss the use of internet and smartphone applications, but cite some difficulties due to lack of operational knowledge by this sector of society. In order for the use of virtual technology to become effective, steps must be taken to teach this sector of society both how to use it, and to recognize how convenient it can be for them.

The authors provide other clinicians several goals and methods to better succeed in making a connection with their clients through the use of technology as demonstrated below:

**Table 1**

| Proposed Clinician Guidelines to Facilitate Technology Use in Older Adults | |
| --- | --- |
| Goals | Proposed Approach |
| Increase access to technology | Reduced cost or free home broadband or mobile devices with data plans are essential to improving access. Locate local programs that facilitate technology access for low-income individuals. |
| Promote technology literacy | To ascertain, ask patients questions such as: Do you have a smartphone? Do you have Wi-Fi at home? Have you downloaded an app? Do you use FaceTime [or other video chat apps]? When needed, provide education materials to teach mobile device basics.4 |

| | |
|---|---|
| Increase patient buy-in | Promote technology use to cope with social isolation, stay active, and manage anxiety. When offering information, explain why the app, video conferencing tool, or other technology is useful. |
| Be familiar with the tools | Take the time to get to know the recommended tool before suggesting it. The recommendation should encompass both the usefulness of the tool and its usability, which comprise two critical aspects underlying technology adoption.5 |

Note. From "Promoting Technology and Virtual Visits to Improve Older Adult Mental Health in the Face of COVID-19," by Gould, C., and Hantke, N., 2020, The American Journal of Geriatric Psychiatry, 28, 889-890 (DOI: https://doi.org/10.1016/j.jagp.2020.05.011). Copyright 2020 by The American Journal of Geriatric Psychiatry.

The common theme in this article is that of overcoming the hurdles of both isolation and technological aversion/inadequacy to better serve the mental health needs of the elderly population during a pandemic.

Review of: Patient Characteristics of VA Telehealth Users During Hurricane Harvey

This study in the Journal of Primary Care & Community Health conducts an analysis of the use of VA Telehealth services before and after Hurricane Harvey. Der-Martirosian, et al (2020) describe how of the veterans enrolled in the VHA, "one-third live in rural or highly rural areas, where face-to-face access to a VA provider might be limited, especially during major disasters."

In reviewing data derived from VA Corporate Data Warehouse, the authors were able to determine that the use of telehealth services increased following the disaster, and provided an effective means of providing ongoing service to the affected veterans. This in and of itself does not appear to be a significant discovery, as regular services would not have been available following the disaster, so alternate means would have been the only available to obtain necessary services. However, the study does still indicate that amidst a disaster situation, the use of telehealth is an effective means of reaching its veteran clientele.

The authors recognize that as this study was specific to just Hurricane Harvey, additional similar studies are warranted. Der-Martirosian et, al (2020) point out that, "given the recent increase in the number, intensity, and different types of major disasters, more studies are needed to better understand how VA telehealth and similar technology among non-VA telehealth users can effectively meet the needs of both VA and non-VA patients, including those who are medically vulnerable."

<u>Review of: Change in the Veterans Health Administration: Theory and Applications</u>

In this paper, the authors review the methods of organizational change utilized by the Veterans Health Administration (VHA) and the effectiveness of those methods. The paper discusses the following five theories of organizational change:

1. Porras and Robertson's model of the dynamics of planned organizational change

2. Burke-Litwin change model

3. Tushman & Romanelli's Punctuated equilibrium model of organizational transformation

4. Kotter's organizational transformation model

5. Freedman's realistic managed-resistance model of transformational change

Each of these organizational change theories are discussed and summarized to provide the reader with a basic understanding of the model and how they are applied. Of these theories, the authors devote greater attention to Freedman's model. Osatuke, et al (2014) explain that "Freedman's model recognizes that change is experienced as difficult and provokes resistance. The model offers detailed descriptions of the change process along several dimensions, which include specifically addressing how employees might react and how leaders can respond." The Freedman model is further illustrated below:

**Figure 1**

FREEDMAN'S (1997, 2010) REALISTIC MANAGED-RESISTANCE MODEL OF TRANSFORMATIONAL CHANGE
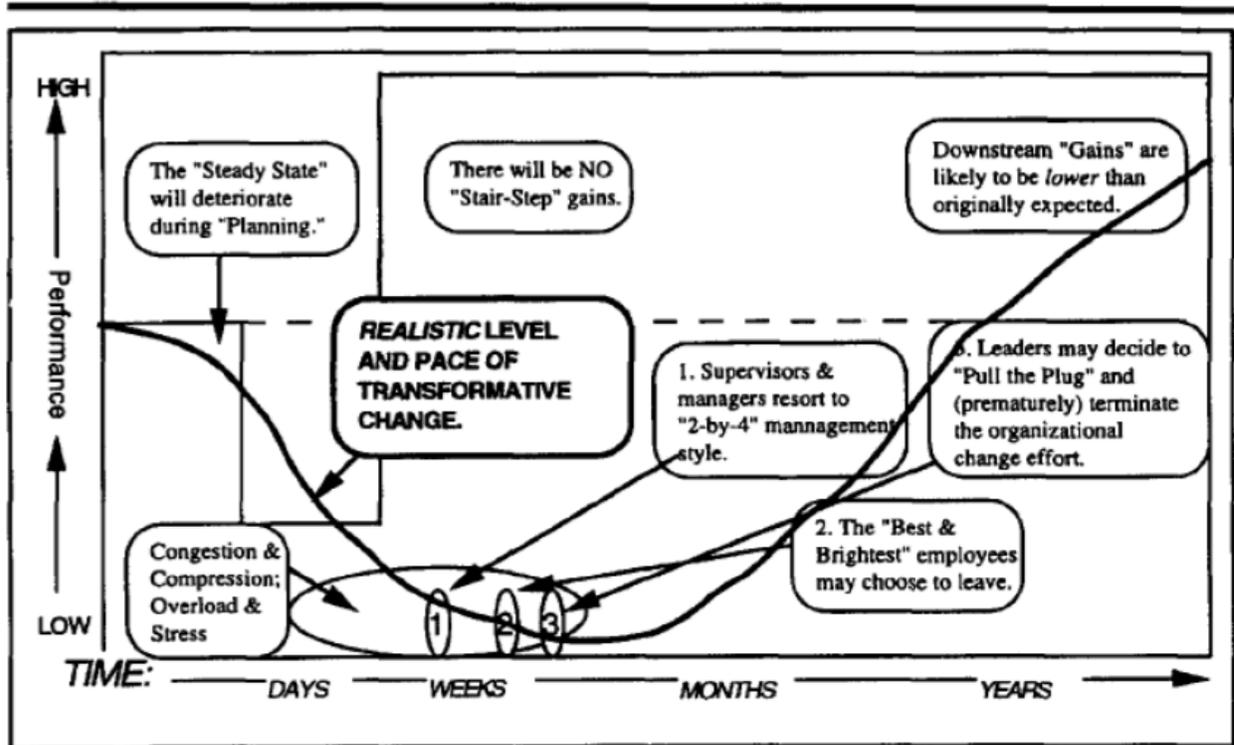


Note. The image was created from "Change in the Veterans Health Administration: Theory and Applications," by Osatuke, K., Yanchus, N,, White, S., and Ramsel, D., 2014, Journal of Organizational Psychology, 14(1), p. 81. Copyright 2014 by Journal of Organizational Psychology.

As Figure 1 demonstrates, the implementation of change will inevitably result in a drop in performance/production for a time while management and employees cope with the planning, training, and implementation of changes. Additionally, planning for a change must take into

account the potential turnover of personnel amidst the process and seek a way to prevent this

and/or include succession planning in the process.

Freedman (as cited in Osatuke, et al, 2014) describes how leaders can help mitigate the

negative impact of beginning a change process: "Leaders can respond by preventing unnecessary

workload, preventing emotional contamination, preserving functional subsystems, and

maintaining boundaries, which may be accomplished by regulating the onset and sequence of

changes, validating employees' feelings, avoiding surprises, and developing mechanisms to

create clarity." This represents one piece of the larger change process, as there are multiple

phases that each have their own areas of concern to deal with. The paper provides additional

details regarding each of these phases. Osatuke, et al (2014) then go on to explain how

Freedman's model has been used a basis for a system utilized with the VHA. The VHA

has begun using "a transformational change survey instrument based on Freedman's model: the

Phases of Change Assessment (POCA). The POCA assists leaders in understanding employees'

perceptions of change, then directs them to resources (overviewed below) that support change at

each given phase, according to the model." Through the use of this model, both leaders and

employees are actively engaged in the change process to increase the chance of success.

In keeping with the chosen model, the VA has also created a graphic representation of the

change process within their organization as shown below:

**Figure 2**

VA DEPICTION OF TRANSFORMATIONAL CHANGE ADOPTED FROM
FREEDMAN'S MODEL



Adapted from A.M. Freedman (1997, 2000): Realistic Managed-Resistance Model
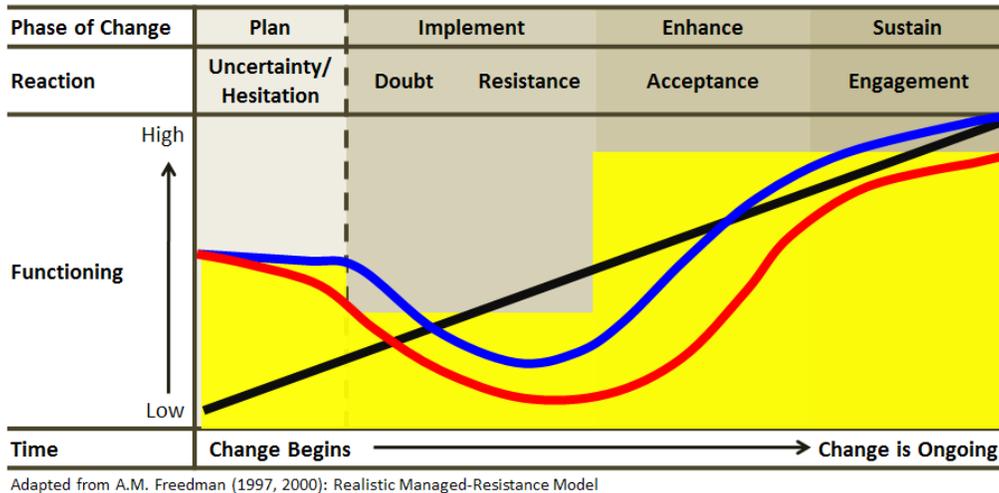
(Note: Black line shows the frequent but unrealistic expectation held for the organizational change process. Red line shows the likely trajectory of organizational change when left unmanaged. Blue line shows the likely trajectory of the change process when closely attended to and realistically managed by organizations.)

Note. The image was created from "Change in the Veterans Health Administration: Theory and Applications," by Osatuke, K., Yanchus, N,, White, S., and Ramsel, D., 2014, Journal of Organizational Psychology, 14(1), p. 89. Copyright 2014 by Journal of Organizational Psychology.

Review of: Organizational change and sensemaking in the veterans health administration

Yanchus, et al (2015), "examined employee perceptions of change using qualitative and quantitative data from the VHA census of organizational climate, the All Employee Survey (AES)." The authors provide a description of Freedman's Realistic Management Response Model, which is a basis for change management programs within the VHA. The paper explains how Freedman's model differs from others as it recognizes that change is not a quick, step by step process but rather one that is more fluid and takes place over a greater amount of time.

Yanchus, et al (2015) provides valuable insight into the use of surveys: "How employees make sense of transformational change provides insight into their resistance to change and helps leaders grasp how to successfully facilitate the change process." That represents an important difference between Freedman and other systems that place too much emphasis on the management level, and not enough on the employees. Both parties are vital to the effective implementation of change and must be able to operate as a team.

The paper also describes Freedman's model being effective in combination with the sensemaking model, which "provides a unique perspective for understanding change, by suggesting a method of examining shifts in common construed meanings about an organization" (Yanchus, et al, 2015). As the authors contend, an organization is built by the collective perceptions of its employees, so it is vital to study and understand what those perceptions are, as well as when and why they change.

The authors discuss the qualitative and quantitative results of their survey, identifying how participants felt about change in their organization. According to Yanchus, et al, 2015), "In our study, employees do make sense of a past work environment that needed to improve compared to a present one in which things are better. This finding supports one of the key tenets

in Freedman's model: employees in the latter phases of organizational change begin to accept that change has occurred and is beneficial. In our analysis of the AES open-text comments, this is what seems to happen with VHA employees as evidenced by their acknowledgement of change occurring but with an absence of negative language in their response (i.e., complaining about the change)."

The study further demonstrated that, "Qualitative comments on employee surveys are an underutilized source of data that can provide a wealth of information about employee behaviors and attitudes. Among other uses, these data reveal sensemaking processes that shape employee perceptions of organizational change and to an important extent define the impact of change efforts upon the organizational members." (Yanchus, et al, 2015).

This paper demonstrates that successful employee engagement and acceptance of organizational change begins with obtaining, understanding and utilizing feedback from the employees throughout the process.

Review of: Transitioning a home telehealth project into a sustainable, large-scale service: a qualitative study

The study describes an 18-month long trial in which telehealth services were added to normal in-person services. According to Wade, et al. (2016), a review following this trial "found high acceptance from patients and providers, substantial reductions in staff travel time, more timely clinical intervention for palliative care patients, and that more allied health services could be delivered to rehabilitation patients in the home, with positive functional outcomes."

The study then assessed known impediments to the successful implementation of telehealth services on a larger scale. Namely, "the major enablers of usable technology, planned organisational change, provider acceptance, provider collaboration, the adoption of a business model, and policy support." (Wade, et al. 2016). These issues are examined inside the framework of three phases of organizational change: "initiation, sustainability, and large-scale uptake." (Wade, et al 2016). Further expanding on this, the study discusses using a grounded theory approach to help develop an effective plan for implementation.

Interviews were conducted and discussed the areas of Governance, Funding Models, Technical Management, Models of Care, and Data Management as it applied to a large-scale development of telehealth services. Based on these interviews, the authors developed the following chart which depicts possible forms of implementation:

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**Table 2**

**Table 1** Models for Home Telehealth Implementation

| Model | Advantages | Disadvantages |
|---|---|---|
| 1. Distributed Model<br>Services are operated independently by each clinical unit or organisation. | Greater local control<br>Easier to tailor to own needs | Cannot obtain economies of scale<br>Difficulty with interoperability with external services<br>Harder to scale up or down in response to changing demand<br>Development needs to be done separately in each organisation, hence increased time needed to implement |
| 2. Centralised Government Model<br>State government provides all aspects: clinical services, technical network, device supply, management and IT support. | Small marginal cost to add home telehealth to an existing large ICT service<br>Easy to scale up and down | A generic service may not suit all models of care<br>Meeting privacy and security criteria may cause delays or abandonment of the service<br>Restrictions on use of the service in the private sector |
| 3. Centralised Commercial Model<br>A commercial entity provides all technical services, and may also include clinical services. | Off-the-shelf products with more rapid implementation<br>Easy to scale up and down<br>Economies of scale for larger contracts | Less responsive to local needs<br>May be limited to particular devices and systems<br>Risk of higher-priced service contracts in a monopoly market |
| 4. Centralised Consortium Model<br>A group of providers forms a new not-for-profit entity. | Off-the-shelf products with more rapid implementation<br>Providers have influence over the consortium<br>Potential for the consortium to generate revenue and reduce costs for members<br>The consortium can be a driver and innovator in the field | Time and effort required to build relationships, bring the partners together and construct agreements<br>Potential conflict of members' interests<br>Members will initially have to fund central operations |

Note. From "Transitioning a home telehealth project into a sustainable, large-scale service: a qualitative study," by Wade, V., Taylor, A., Kidd, M., and Carati, C., 2016, BMC Health Services Research, 16(1), 183, p. 5 (https://doi.org/10.1186/s12913-016-1436-0). Copyright 2016 by Wade, et al.

These ideas were used as the basis for discussions on which model is best suited to successfully implement the program. Wade, et al (2016) explain that, "a consensus was reached that the preferred option for larger-scale implementation was to form a collaborative consortium."

In discussing the use of telehealth services in other parts of the world. Wade, et al (2016) note that, "the Veterans Health Administration in the USA is a successful large-scale telehealth

system that was built up by commencing with local innovation, then creating overarching

clinical, technical and business systems that supported implementation at multiple sites."

The study determined that, "While patient demand could be the primary driver of

innovations in telehealth, our results suggest that clinician acceptance is the more important

component." (Wade, et al, 2016). So, this study identifies the medical staff as being the primary

group necessary for effective implementation of telehealth services. By getting the clinicians to

not only understand the use of the system, but to fully buy-in to its use, they are better prepared

to use and promote the use of this service to patients.

Review of: How to Move a "Giant": 7 Lessons Learned for Making a Change in a Large

Organization.


In this article, the authors discuss what they learned from their experience in

implementing a new suicide prevention intervention within the Department of Veterans Affairs.

Following the successful trial in one VA medical center, and a subsequent expansion to another,

Yahney et al, (2019) identified the following lessons to assist change management in large

organizations:

1.  Feedback Can Only Make Your Project Stronger

2.  Enthusiasm Is Key to Engagement

3.  Focus on Willing Participants of the Grand Design

4.  Speak the "Language" of Your Audience

5.  Pull Back the Curtain of Mystery—The Unknown Is a Barrier

6.  Promises Attract a Crowd, but Results Build Relationships

7.  Commitment Plus Passion Can Change the Landscape

Throughout the article, the authors further elaborate upon each of the seven lessons

learned. Of particular note, they discuss the importance of feedback in the success of a project.

Yahney et, al (2019) break feedback down into Positive feedback, Accurate critical feedback,

and Inaccurate negative feedback. Each type of feedback has value in helping gain buy-in from

all stakeholders.

In lesson six, Yahey et, al (2019) make a point that goes to the heart of change

management, "To convince others of the merits of your practice, sharing your successes,

struggles, and results gathered over time will inspire others. After all, change is evident only

through the accumulation of experience over time." Implementation of change is not instant, and

stakeholders are more likely to engage when they understand this fact and can see that you are

committed to overcoming obstacles and including them in the process.

Review of: Resistance to change: an empirical investigation of its antecedents

This paper examines resistance to change as it occurs in the healthcare field, and more specifically amongst healthcare professionals in the Emergency Departments of Greek Hospitals. Although this target group is quite specific, the information gleaned has universal commonality and applicability as it applies to resting change in healthcare.

Amarantou et, al (2018) identified that, "Hospital employees perceive change as a process that would make them lose control over the way they access lab results, make clinical decisions and operate in general. This perception makes them more willing to act against organizational changes." This resistance to change is founded in a reliance upon historically proven methods and a perceived lack of time to adapt to and implement new processes in an already high stress environment. In other words, medical staff operating in an ER feel that they are already working at a barely sustainable pace and simply cannot devote more time to learning something new.

To counter resistance to change, Amarantou et, al (2018) state, "Managers should explain employees the necessity of change and clarify that even if their job position within the organization is altered, it will be for their best interest, meaning that their abilities and talents will be optimally used." Openly communicating the need for the change as well as demonstrating how said change will not only benefit the organization and their customers, but also have a positive impact on the employee (streamlined processes, elimination of unnecessary tasks, greater autonomy in positions, etc.) is key to promoting a team effort in bringing about change.

Review of: Applying Lean Principles to Reduce Wait Times in a VA Emergency Department

Vashi et, al (2019) report that, "VHA leadership has called for the advancement of the VA healthcare system by using Lean Six Sigma, and in 2011, in an effort to improve the quality and efficiency of Veteran healthcare, the national Veterans Engineering Resource Center initiated the Lean Enterprise Transformation program to promote Lean principles and strategies in 10 VA medical facilities." The use of Lean principals was in response to an ongoing problem with excessive wait times in VHA medical centers throughout the United States. While normally utilized in the field of manufacturing, Lean management shows very clear indications for streamlining and improving processes in healthcare.

In this study, the authors studied the change in time between a veteran checking in at the VA medical facility and being seen by a medical provider as impacted by the implementation of Lean principles. "As part of a strongly supported VA Lean transformational effort, the VA Palo Alto Health Care System (VAPAHCS) ED prioritized flow redesign" (Vashi et, al 2019). This redesign was primarily done on the front end of the process and was then data was collected over a 24-month period.

The results of the study demonstrated that "the intervention was successful in reducing "Door to Doctor" time relative to similar controls throughout the VA" (Vashi et, al 2019). This was yet another positive study in the use of Lean management in the healthcare field.

According to Vashi et, al (2019), it is important to recognize "it was not large or resource intensive breakthroughs or modifications that led to success but rather multiple small process enhancements unique to local people, processes, and environment." The use of Lean management principles found ways to use what was already in place and modify processes to

function more smoothly. And by doing so, the change process was less disruptive and more

readily accepted by those involved, making it more successful.

Review of: A systematic scoping review of change management practices used for telemedicine

service implementations

The authors conducted an extensive review of available literature on change management

as it relates to telemedicine implementation. The review found that there was a prevalence for

reporting barriers and issues of implementation rather than the scope and use of change

management practices utilized to mitigate those problems. However, they were able to identify

sixteen change management practices commonly tied to telemedicine service implementation:

**Table 3**

Summary table of change management practices reported in telemedicine literature with examples and related articles that refer to its application

| Change Management Practice | Examples of CM Practice | Articles that mentioned applying CM Practice |
|---|---|---|
| 1. Conduct a needs assessment | Assess organizational characteristics, readiness and needs of the clinics and providers to inform design process | [3, 10, 11, 14–16, 20, 23, 25, 29–31, 59, 60, 65] |
| 2. Assess compatibility of telemedicine equipment and applications | Consider other services being provided, existing infrastructure, new technology and appropriate location for telemedicine equipment | [8, 11, 20, 27, 33, 55, 59, 65, 75, 76] |
| 3. Establish plans | Collaborate with key stakeholders to plan and design telemedicine services | [2, 3, 6, 8, 11, 15, 23, 25, 29–31, 59, 65] |
| 4. Gain leadership and management support and commitment | Provide direction through influence to bring about change | [4, 14, 20, 22, 24, 25, 27, 31–33, 58–60, 64, 74] |
| 5. Identify champions | Select key staff to promote, legitimize and build awareness about telemedicine services | [3, 4, 11, 20, 22–24, 26, 27, 30, 33, 60, 64, 74, 75] |
| 6a. Engage partners and stakeholders | Involve stakeholders in design process through frequent communication and building relationships and alliances | [3, 4, 6, 9, 10, 14–16, 20, 23, 24, 27, 29–33, 35, 60, 64, 65, 73, 75, 76] |
| 6b/6c. (Continue to) engage partners and stakeholders | Continue engaging stakeholders to reaffirm value of telemedicine and to obtain feedback | [4, 9, 15, 30, 32, 60, 65] |
| 7. Develop and articulate a clear, simple vision | Have a shared vision with partners and stakeholders | [4, 20, 22, 32, 62, 64] |
| 8. Assign coordinating roles | Assign telemedicine coordinators at both participating and provider site | [1, 3, 4, 7, 9–11, 15–18, 21, 22, 24, 25, 27, 31, 37, 67, 75] |
| 9. Ensure adequate resources | Complete a workflow analysis to ensure adequate resources are deployed to support telemedicine services | [1, 3, 4, 8, 11, 17, 20, 22, 26, 27, 58, 65, 67, 75, 82] |
| 10. Communicate changes and understanding of telemedicine | Disseminate information about changes, benefits, limitations of telemedicine and raise awareness | [2–4, 6–9, 11, 16, 18–20, 24, 25, 27, 31, 32, 34, 58, 60, 64, 73, 75] |
| 11. Gain stakeholder trust, acceptance and buy-in | Build confidence and familiarity for the new system and conduct regular site visits to provide education | [3, 7, 8, 10, 11, 15, 19, 20, 24–27, 30–32, 34, 35, 55, 59, 60, 62, 65, 74, 75] |
| 12. Facilitate ownership of the service | Allow users as choose how and when service should be utilized to facilitate ownership | [9, 14, 20, 23, 24, 32, 33, 73] |
| 13. Provide training and education | Training includes how to use equipment, troubleshoot and how to conduct consultations through the technology | [1–3, 6–9, 11, 12, 14–16, 18, 19, 21–25, 27, 31–34, 55–60, 67, 73, 75, 76, 82] |
| 14. Develop new work processes, protocols and procedures | Develop guidelines and clinical protocols. Customize existing workflow to accommodate the use of telemedicine services | [2–4, 6, 8–11, 13, 15, 18–24, 26, 27, 29–31, 34, 35, 59, 60, 62, 73, 75, 76, 82] |
| 15. Monitor change and maintain flexibility | Refine services by obtaining periodic feedback through reporting systems and regular meetings with stakeholders | [2–5, 8, 15–18, 25, 29–32, 55, 59, 60, 64, 67, 73, 75–82] |
| 16. Evaluate the changes and maintain flexibility | Evaluate patient outcomes, quantify efficiency, assess the capacity of telemedicine operations and conduct a cost analysis | [2, 4, 5, 8, 11, 15, 16, 20, 22, 31, 59, 60, 76, 82] |

Note. From "A systematic scoping review of change management practices used for telemedicine service implementations," by Kho, J., Gillespie, N., and Martin-Khan, M., 2020, BMC Health Services Research, 20(1), p. 7 (https://doi.org/10.1186/s12913-020-05657-w). Copyright 2020 by Kho, et al.

Two of the most frequently mentioned practices amongst the articles review were those of communication and stakeholder engagement. "Clinical providers, staff and administrators in health organizations typically have high workloads and multiple competing priorities, which influenced their engagement in new projects. Yet, engaging key stakeholders at the beginning of a telemedicine implementation project, and bringing them together to understand the current need for, and challenges of, implementing telemedicine services was a necessity" Kho, et, al (2020). While each of the sixteen areas are important, it appears that open, continual communication with stakeholders serves as a vital practice in implementing a telemedicine program. The use of this practice lends itself to the other areas that were identified by gaining leadership support, ownership of change, understanding of the change, clearly assigning roles, and keeping everyone abreast of changes and developments.

Review of: Virtually Perfect? Telemedicine for Covid-19

This entry in the New England Journal of Medicine discusses the way in which telemedicine is being utilized amidst the current COVID-19 pandemic. According to Hollander and Carr (2020), "Disasters and pandemics pose unique challenges to health care delivery. Though telehealth will not solve them all, it's well suited for scenarios in which infrastructure remains intact and clinicians are available to see patients."

The authors discuss the fact that there are a multitude of medical center utilizing telehealth systems effectively during this pandemic. One way in which this is occurring is by conducting triage of patients virtually and sometimes providing treatment without ever having there be any physical, face to face interaction between the patient and clinician.

Hollander and Carr (2020) describe an innovative process that could be utilized in even the most extreme situation: "To prepare for the worst-case scenario — a local pandemic that leaves health care workers quarantined, sick, or absent — Jefferson Health is deploying telehealth so that clinicians can continue to care for established (nonexposed) patients by converting scheduled office visits to telemedicine visits. These visits can be conducted with both patient and clinician at home, greatly limiting travel and exposure and permitting uninterrupted care of established patients. Online training modules and remote training sessions are available for clinicians or patients who require just-in-time training or assistance during their first call."

This type of forward-thinking innovation is a strong example for others to emulate in the medical field. It represents a method of providing uninterrupted service as well as remote training to ensure the patient is able to utilize the technology properly. This also demonstrates

good change management theory by communicating, providing training, and helping to mitigate

fear and uncertainty regarding the changing processes that are being implemented.

## Chapter V – Procedure

This paper conducted a secondary analysis of data with a mixed qualitative and quantitative approach. Data was retrieved from U.S. Department of Veterans Affairs operational reports as well as online scholarly studies and articles related to the subject matter.

The information was reviewed and analyzed to identify the current use of virtual technology within the VA system, available technologies, veteran utilization of VA services, and how organizational change theory has been or could be applied.

### Chapter VI - Discussion, Conclusion, and Recommendations

A review of the available information reveals that telehealth services have been made available as a way to better serve veterans who are unable or unwilling to attend in-person appointments at VA facilities.  The VA currently has a number of different programs in use or in development as demonstrated below. However, the availability of these services varies depending upon the location of both the VA facility and the veteran.

**Figure 3**

| VA Telehealth Services | | |
|---|---|---|
| TeleAddiction Services | TeleAmputation Care | TeleAudiology |
| TeleBipolar Disorder | TeleCardiology | TeleDental Care |
| TeleDermatology | TeleCardiology | TeleChaplain |
| TeleDentistry | TeleDermatology | TeleEpilepsy |
| TeleGastroIntestinal/Hepatitis Care | TeleGenomic Counseling | TeleInfectious Disease |
| TeleIntensive Care | TeleKinesiology | TeleMental Health |
| TeleMOVE! Weight Management | TeleNephrology | TeleNeurology |
| TeleNutrition | TeleRetinal Imaging | TeleOccupational Therapy |
| TelePain Management | TelePathology | TelePodiatry |
| TelePolytrauma Care | TelePrimary Care | TelePulmonology |
| TeleRehabilitation | TeleSchizophrenia | TeleSpinal Cord Injury Care |
| TeleSpirometry | TeleSurgery (Pre & Post Care) | TeleTransplant (Pre & Post Care) |
| TeleWound Care | Women's Telehealth | |

Note. Adapted from "VA Telehealth Services Fact Sheet," by Department of Veterans Affairs, Office of Public Affairs Media Relations, 2016. (https://www.va.gov/COMMUNITYCARE/docs/news/VA_Telehealth_Services.pdf).

Telehealth is not a new technology in either the VA or the civilian medical environment. According to Weinstein, Krupinski, and Doarn (2018), "the modern era of telemedicine started in 1968." However, this service did not see continuous, widespread use in the medical community until much later. And while telehealth has been used steadily for some time, the COVID-19 Pandemic of 2020 has resulted in a significant increase in telehealth utilization.

In early 2020 as the pandemic started getting worse, the VA (2020) implemented a number of steps to help mitigate the risk to veterans as part of their COVID-19 response plan:

February 20: VA expanded plans to use telehealth services to help patients during the outbreak.

March 10: VA stopped allowing visitors to enter its 134 nursing homes and 24 major spinal cord injury and disorder centers.

March 27: VA released its full COVID-19 response plan, which among other things outlined the Department's plans to shift some outpatient care to telehealth and postpone elective surgeries.

These steps had a noticeable impact on the use of telehealth throughout the country. According to the VA (2020), "telehealth video appointments using VA Video Connect increased from approximately 10,000 to 120,000 appointments a week between February and May of 2020. This increase of 1000% is attributed to VA providers and Veterans taking precautions against COVID-19."

This trend was not unique to the VA. Reporting demonstrated that throughout the United States, "telemedicine shifted into hyper-drive over the past month, with virtual health-care interactions on pace to top 1 billion by year's end, according to analysts at Forrester Research. That would represent a massive expansion from telemedicine usage before the coronavirus pandemic. Forrester analysts estimate coronavirus-related virtual visits could top 900 million this year, based on current projections for COVID-19 infections in the U.S. (CNBC, 2020).

There is a clear connection between this drastic increase in telehealth use and the ongoing worldwide pandemic. However, studies pre-dating the beginning of the pandemic were already showing an upwards trend (see figure 4).

**Figure 4**
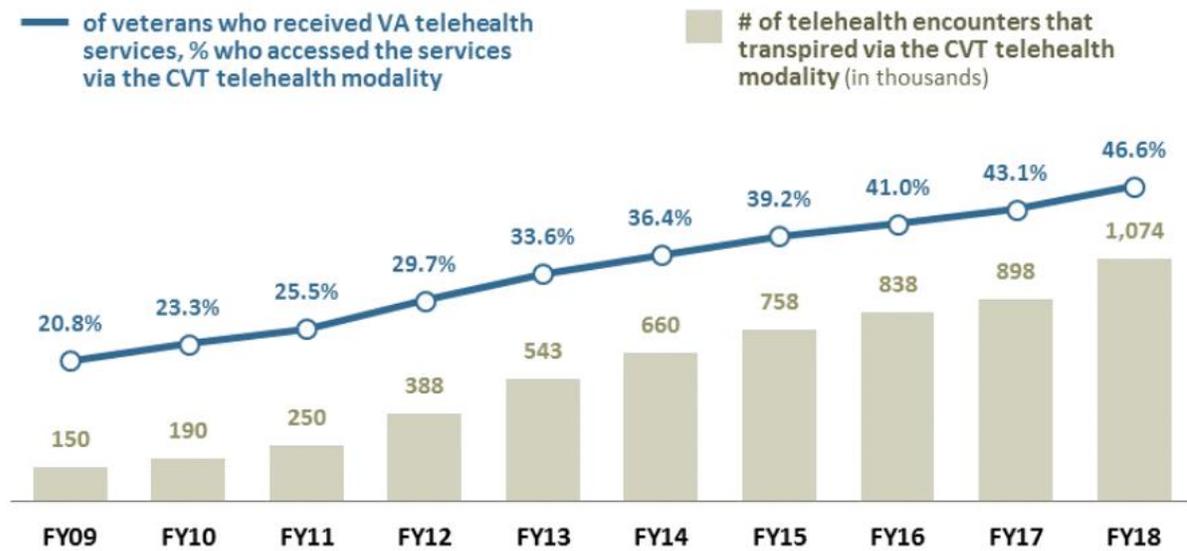


**Source:** Figure prepared by CRS based on data from an email that CRS received from the Veterans Health Administration of the Department of Veterans Affairs, January 14, 2019.

Note. This image was created from "Department of Veterans Affairs (VA): A primer on Telehealth," by Elliot, V., 2019, p. 13. Congressional Research Service (https://crsreports.congress.gov/product/pdf/R/R45834).

Telehealth services continue to evolve, and their acceptance and use by the veteran community as a whole has continued to increase steadily each year. So, while the pandemic has certainly acted as a catalyst to drive telehealth use, it is not the primary cause.

With no definitive date in sight for the end of the pandemic, organizations must make long term plans to account for the changes in the way they interact with their customer base. It

seems that for the immediate future, the use of technology to connect remotely will continue to represent an important and sometimes preferred form of communication.

Over the years since telehealth services became a part of VA operations, they have looked at this technology for its fiscal impact, veteran usage, and ability to positively impact operations. In addition to costs for their facilities and personnel, the VA also has to factor in travel pay going out to veterans and veteran co-pays coming in to the VA.

Veterans who qualify under certain circumstances receive travel reimbursement when travelling to and from their VA appointments. Additionally, Veterans who fall into specific categories are obligated to make co-pays for their VA appointments. While these are areas that are part of fiscal review and planning for the VA, further details as to the specific circumstances for receipt of travel reimbursement or co-pay amounts are outside the scope of this paper.

There is a fiscal savings that accompanies the use of this technology. "Telehealth has been shown to increase access to care and improve outcomes; reduce wait times, missed appointments and readmission; improve communication for patients and providers; and offer care models that are low cost and easy to use" (Colvin, 2019).

A study conducted at the Madison VA compared the costs for veterans who attended in-person appointments and received travel reimbursement with the cost of those who only participated in telehealth/virtual appointments (see Figure 3). The study revealed that "avoiding average travel reimbursement for veterans resulted in VC costing 65% less than an in-person facility visit. Ultimately, 50% of VC did not require in-person facility visits, eliminating veteran out-of-pocket costs associated with lost work time, travel, and/or parking costs" (Abott, D., et al, 2018).

The use of telehealth services provides benefit to both the veteran and to the VA itself

through conservation of time and effort for the former and financial savings for the later.

**Figure 5**
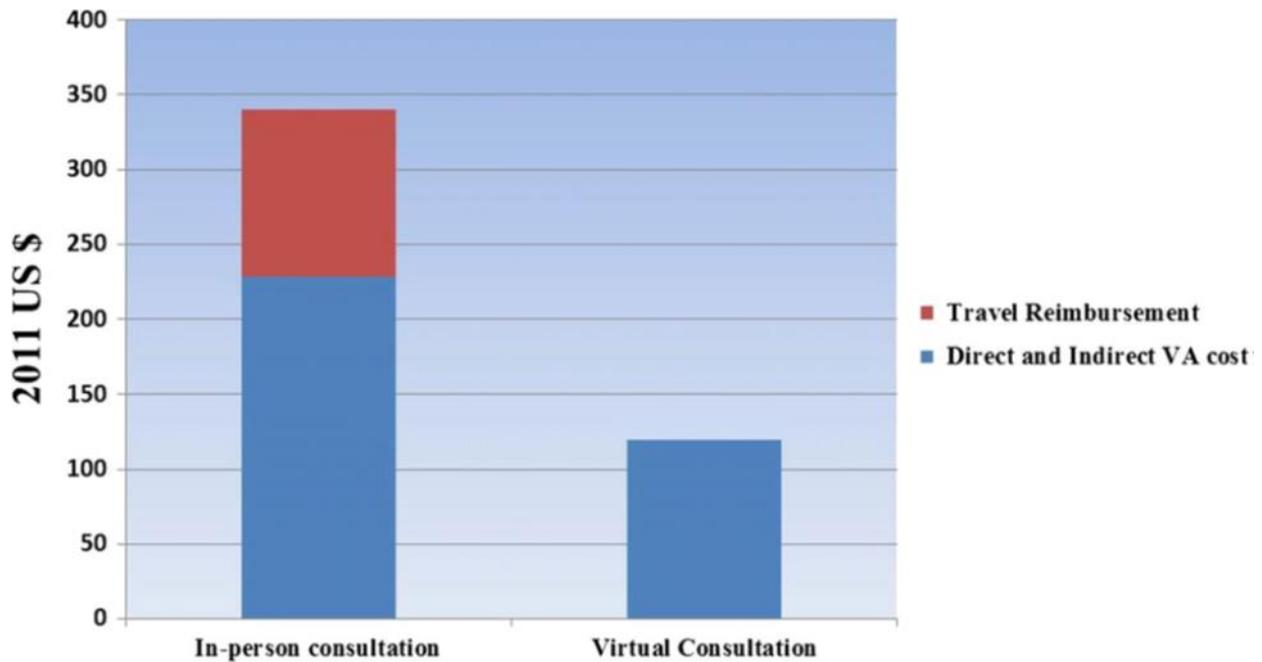


Comparison of in-person and VC costs, incorporating hospital costs and veteran travel reimbursement.

Note. The image was created from, "Financial and Temporal Advantages of Virtual Consultation

in Veterans Requiring Specialty Care," by Abbott, D., Macke, R., Kurtz, J., Safdar, N.,

Greenberg, C., Weber, S., Volis, C., Fisher, D., and Maloney, J., 2018, Military Medicine, 183,

p. 74. Copyright 2018 by Military Medicine.

Whether through the effects of the pandemic or recognition of the value of telehealth

services, the VA has committed funding to ensure that the program not only remains, but grows

larger in the future. This began in its 2018-2024 strategic planning process in which they explain

that the VA will be "expanding the use of telehealth, mobile applications, electronic forms, and videoconferencing capabilities to deliver benefits and care to Veterans no matter where they live" (VA, 2019).

In order for these expansions to take place, the VA had to make adjustments to its budget to fund those changes. "VA is allocating a 4.2 percent increase in funding in its proposed budget for 2021 as compared to the funding levels from FY 2020" (Chisholm, Chisholm, and Kilpatrick, 2020).

In their 2021 Budget Submission, the VA (2020) demonstrates the manner in which they intend on utilizing and expanding upon the use of telehealth services in this next year:

- VA Video Connect application

- ATLAS initiative (Advancing Telehealth Through Local Access Stations)

- Home Telehealth Remote Monitoring Program

- Veteran tablet loaner initiative

- Growth of clinical resource hubs for primary care, mental health, and specialty care

- Development or expansion of targeted specialty program initiatives such at tele-dermatology, tele-sleep medicine, and tele-oncology

- Expansion of a national expert consultation center model

- Tele-stroke

- Tele-ICU (Intensive Care Unit)

- Telehealth Emergency Management (TEM)

Emergency situations, regardless whether they are from a natural disaster or from a virulent disease, are cause for the use of telehealth to be embraced. "When access to face-to-

face/usual care is interrupted because of road closures or other environmental conditions that

makes it unsafe to leave home, telehealth might be a viable option. Telehealth can help connect

VA patients to their health care providers when in need of care" (Der-Martirosian, et al, 2020).

Der-Martirosian, et al (2020) goes on to explain that, "Each VA facility has the potential

to expand and adapt its routine daily telehealth services to accommodate access to care during

major crises. Additionally, as a part of an integrated health care network, VA facilities have the

potential to collaborate and incorporate telehealth technologies during disasters." This idea of

collaboration presents an even greater opportunity for utilizing virtual systems across multiple

platforms and organizations to provide uninterrupted care to patients.

Amidst the COVID-19 pandemic, veteran's access to care was initially restricted due to

the physical closure of VA Health Care facilities combined with stay-at-home orders. Eventually,

the VA began allowing some in-person appointments (with the prescribed social distancing

guidelines in effect).   Yet, with the pandemic still ongoing it is unclear when or if operations

will resume as they were in the past.

As the pandemic is still our current reality, "VA is also taking strides to bridge the digital

divide for Veterans who lack the technology or broadband internet connectivity required to

participate in VA telehealth services. More than 26,000 cellular-enabled tablets are currently

distributed to Veterans across the country" (VA, 2020). This represents yet another step towards

the expansion of virtual services for veterans. Additionally, veterans will need to be both trained

in the use of this technology and/or convinced of how it can improve their life.

Of course, there is evidence that the use of virtual technologies may already be preferable

to in-person appointments for those who have engaged in virtual appointments. "Despite the

technical challenges that may hinder initial use, once patients participate in a video visit, they

often perceive it to be of the same or better quality than in-person care" (Slightam, et al, 2020). The restrictions imposed by the pandemic along with the possibility of contracting the virus could add to the desire for veterans to continue to utilize virtual visits.

The COVID 19 Pandemic has caused the VA to make temporary changes to the way in which it operates. These changes have also spurred the organization to increase the amount of money being devoted towards the expansion of its telehealth and other virtual technologies. The VA will do well to continue to fully fund all efforts towards the further development of these technologies.

In addition to increasing the financial funding and greater scope of technologies, the VA must be thorough in its planning and implementation of any and all changes in operations. The VA is a massive organization with multiple sites in every state in the U.S. as well as foreign locations. Undergoing operational change, no matter how promising, represents a monumental task in contending with the cost, logistics and the varied stakeholders involved.

As demonstrated by the literature review, change management practices are a necessity when implementing changes in healthcare. Of these change management practices the following stand out as most important to the successful implementation and improvement of telehealth services:

1. Communication: This is a far-reaching practice that encompasses communication both within the organization (leaders/managers to staff) and outside of the organization (to stakeholders and partners). This communication must be continuous and travel both ways so that feedback is being used to ensure the project is staying on the proper course. Additionally, all those involved in the process develop a sense of ownership which makes them more likely to help make it successful.

2. <u>Mitigating resistance to change</u>: Resistance is inevitable, and must be addressed right from the initiation of a new project. There is no single method that can fix such a deep seeded, complex psychological issue as resistance to change. Yet, there are some proven methods that should be used. According to Amarantou, et, al (2018), "When management requests the opinions and feedback of its employees, it provides them the opportunity to influence the organizational agenda. This process makes employees increase their dedication and become passionate supporters of the organizational vision." This of course leads back to the first practice of utilizing effective, ongoing communication.

3. <u>Ensure adequate resources</u>: A vision, while another important piece of the planning process, will never come to fruition without the financial and physical resources needed to make it reality. As part of the initial planning process, a realistic assessment must be completed to map out all of the resources necessary to begin and sustain the project. These resources must be secured as well as planning for any additional that may become needed throughout the life of the project.

4. <u>Provide instruction and training</u>: Any new process, no matter how minor needs to be learned. In the implementation of new technological tools and accompanying processes in a medical center, a great deal of training will be required. For the medical providers this is not only just to learn the physical operation of said equipment, but also how it will affect appointment times, potential issues that might arise, dealing with veterans who may be reluctant to utilize the new system, etc. And for the veterans, it is to understand how this new system will benefit them, how to use the technology, who to contact with issues and so on. This training must be ongoing, and offered to all stakeholders and partners.

Telehealth and other virtual technologies are being utilized within the VA system at present. In order for there to be growth and expansion of those systems, the afore mentioned change management techniques (along with many others) must be applied. While these are proven technologies, their ready acceptance and use by clinicians and veterans is not guaranteed. An ongoing dialogue amongst all stakeholders and partners can serve to ensure changes are more proficient and more readily accepted and utilized. This must occur within the administrative levels of the VA, the operational levels in the VA medical centers, the state and county veterans service organizations, and with the veterans.

The VA has shown itself to be a flexible, forward-thinking organization that is willing to grow and change in order to better serve the veteran clientele. The VA has utilized Lean Management techniques to streamline processes in the medical centers, utilized alternative medicine to expand its services while simultaneously combatting Opioid addictions, and many other innovative programs.

The VA appears to be increasing the type and scope of its virtual technologies while also expanding the ability to reach a greater number of veterans, regardless of their physical location. The inclusion of emergent care and at-home monitoring along with all other new and expanding virtual endeavors will serve to properly assist veterans in need. If the organization stays on this path, and utilizes effective change management techniques in the growth of its telemedicine programs it should be able to be properly prepared to contend with any future emergency situations that arise.

<u>Recommendation for future studies</u>

There have been a multitude of studies of the financial impact of virtual technologies in the VA as well as the acceptance or preference of its use by veterans. However, there are few studies of virtual technologies being used amidst emergency situations. In order for the VA to effectively develop the future use of these technologies, new studies should be conducted over the years to come.

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