USDS Discovery Sprint Report

Mission Act: Community Care

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"When Veterans come to VA, it is not up to them to get us to say yes. **It's up to us, you and me, to get Veterans to yes.** That's customer service."

Secretary Robert Wilkie, Department of Veterans Affairs State of VA Employee Address

EXECUTIVE SUMMARY

Under the *Veterans Access, Choice, and Accountability Act of 2014 (Choice Act)*, Veterans became eligible to receive care from third-party healthcare providers under the Veterans Choice Program, which created eligibility criteria centered around the timing and availability of Department of Veterans Affairs (VA) medical care. Section 101 of the *John S. McCain III, Daniel K. Akaka, and Samuel R. Johnson VA Maintaining Internal Systems and Strengthening Integrated Outside Networks Act (MISSION Act) of 2018* establishes the new, permanent Veterans Community Care Program. The Veterans Community Care Program evolves the legacy Veterans Choice Program substantially by expanding Choice eligibility criteria and setting forth additional requirements around sharing medical records, establishing regional medical networks, and maintaining continuity of medical care for Veterans receiving care in the community. Per the MISSION Act, the VA must implement new legislative and regulatory requirements by June 6, 2019, one year after the Act was signed into law.

At the request of Assistant Secretary for Enterprise Integration, Dr. Melissa Glynn, the United States Digital Service (USDS) conducted a two-week independent discovery sprint on the VA's preparations for compliance with Section 101 of the MISSION Act, "The Establishment of Community Care." Over the course of the sprint, the USDS team spoke with leadership from the Office of Community Care, program stakeholders, congressional aides, Medicare experts, leaders and project managers from the VA Office of Information and Technology (OIT), practicing physicians at both the Martinsburg and Baltimore VA Medical Centers, and Veterans who were eligible to receive community care under the Choice Act. Additionally, the team spent several days embedded onsite with AbleVets, the contractor delivering the Decision Support Tool (DST), the MISSION Act's hallmark software for rapidly determining Veteran eligibility. The team also shadowed eligibility and scheduling workflows with Community Care clinical staff at VA Medical Centers.

While the USDS team expects the VA to fulfill the legal requirements for Section 101 at a high level, doing so comes without alignment to a single, Veteran-centric vision for how to fundamentally transform the VA health system to ensure Veterans have **"easy and reliable access to care that the Veterans need when they need it."1** To help guide MISSION Act

1 | https://www.va.gov/oei/docs/MISSION_Act_2018_FAQs.pdf

efforts ahead of the June 6, 2019 roll-out, the USDS team identified the most critical concerns observed throughout the sprint. Each concern is outlined below, with corresponding supporting observations and recommendations outlined in more detail throughout the report.

- **Redirect static eligibility determination away from the physician's workflow.** For eligibility determination, the intended workflow and audience for the Decision Support Tool (DST) is flawed and could significantly disrupt VA physicians' ability to see patients.

- **Create a Veteran-accessible tool for static eligibility determination.** There are clear regulations outlining eligibility for the Veterans Community Care Program, but the methods for determining eligibility based on the regulations are ambiguous and will create confusion around whether Veterans are legally covered to receive care in the community.

- **Support the continuity of Veterans' ongoing care when creating scheduling processes and guidelines.** Frequent changes in administrative scheduling contracts created delays and confusion in providing Veterans with access to community care.

- **Structure new provider contracts to support the continuity of Veterans' ongoing care.** The statutory requirement that VA create networks of health care providers is technically fulfilled with the use of TriWest to service regions while the VA engages to contract with other providers, however, Veterans will experience continuity issues while the VA transitions care between TriWest and new contracted networks. If at all possible, modify the TriWest contract to allow any active authorizations created prior to the termination of their contract to remain active. This will allow Veterans to continue receiving community care from their provider after the new networks are established.

- **Utilize national networks already operated by federal services that currently provide community based care, such as the Department of Defense (DoD) or Medicare.** This will minimize disruption to Veteran care while maximizing their network of available providers.

- **Prioritize the exchange of electronic health records (EHRs) using Fast Healthcare Interoperability Resource (FHIR) APIs, a standard already in use by other parts of the VA, Medicare, and the health industry as a whole.** This will move the VA toward the meaningful exchange of medical records for Veteran care while also simplifying the proposed technologies and formats for community care and Department physicians.

ESTABLISH A VETERAN - CENTRIC VISION

Within the Office of Community Care, stakeholders have roughly described the MISSION Act as "a natural extension of current processes." To that end, the VA has largely employed a divide-and-conquer approach within the Veterans Community Care Program and across OIT, leading to piecemeal updates and evolutions to existing policies, contracts, and software efforts. This approach has created missed opportunities to evolve existing business processes and embrace the spirit of the legislation, which is to fundamentally transform the VA health system to ensure Veterans can reliably access care when necessary. Little research has been done in the field to understand how Veterans, physicians, and clinical staff are currently providing and receiving care in the community through the VA before new processes are established. Several individuals in the Office of Community Care have great intention, however, USDS hasn't observed a shared vision for how the office can holistically optimize the Veteran experience while also fulfilling the statutory requirements of the MISSION Act.

Instead of the VA saying 'Go to this doctor', I'd love to choose my own. [...] You may want to make your own decisions. Oh yeah, I would much rather do my own scheduling. When I do research, I'm looking for the reviews from people, then how long they've been in practice, and how long they've been certified.

Air Force Veteran from Hickory, NC

Early research with Veterans highlighted both the need to streamline the Veteran-facing points of contact while scheduling appointments and receiving community care. Veterans want to have more options to select the specific provider they are being referred to whenever possible. Additionally, the existing Patient Aligned Care Team (PACT) initiative is well understood by physicians and clinical staff at VA medical centers, and USDS heard from multiple people in those roles that they would prefer that community care be an extension of the PACT initiative.

There is a misconception that the primary care provider will co-manage community care. I will instruct every one of my PCPs not to do this.

Primary Care Department Lead at a VA Medical Center

- **Define what the Veterans Community Care Program should be from the Veteran's perspective.** Senior leadership should fully engage on the ground, following user-centered design principles to understand the unique experiences and challenges of Veterans, VA physicians, clinical staff, and community providers, all of whom are crucial to a successful evolution of community care. Specific members of the Office of Community Care, as well as the AbleVets contractor, have expressed their strong desire to conduct user research in the field, and leadership should encourage and support them in these efforts.

- **Minimize new community care efforts pending a holistic Veteran-centric vision.** The Community Care team has identified several low-effort contingency plans for MISSION Act preparation. USDS recommends only implementing the minimal legally required efforts for legislative compliance until the VA can articulate a singular community care vision. Each current workstream should be evaluated against that vision before efforts resume.

CEASE DEVELOPING THE CURRENT DECISION SUPPORT TOOL

The MISSION Act of 2018 expanded the complexity and number of eligibility criteria for Veterans to receive community care to include physician recommendation, drive times, and permutations of the existing timing and availability requirements, among other smaller criteria. Actuarial data furnished by the 2018 VA Enrollee Health Care Projection Model (EHCPM) indicates that based on the proposed drive time regulations of 30 minutes for primary care and 60 minutes for specialty care alone, the number of Veterans eligible to receive care in the community is expected to increase from 685,000 Veterans under the Veterans Choice Program to 3.7 million Veterans under the MISSION Act. Anticipating an influx of new eligible Veterans for the Community Care Program, it's in the best interests of VHA daily clinical operations for the department to develop a technological solution capable of automating the eligibility approval process as much as is technically and dependably possible.

These people are out of their minds. We aren't housekeepers, doorkeepers, garbage men. The idea that I'm going to sit and have this conversation [about static eligibility] is a silly concept.

VA Primary Care Physician

Much of the data necessary to determine eligibility is currently housed across several legacy VA systems that don't interoperate, creating an inefficient and highly manual determination process. Decision Support Tool (DST), the principal technology in progress for the MISSION Act rollout effort, could streamline the eligibility determination by connecting to these legacy VA systems to gather data on the Veteran and produce a determination. However, following extensive research around the technology and processes surrounding the development of DST, and with active development only starting roughly 6 weeks ago, USDS has identified significant risks surrounding software development timing, integration dependencies, and usability.

An in-depth assessment of DST may be found in Appendix A.

- **Stop development on DST as it is currently implemented.** OIT requirements, User Acceptance Tests (UAT) and Initial Operating Capacity (IOC) processes have allowed only twelve weeks of actual development time for the software. Code lock for the June 6th release is scheduled to occur April 3rd, three weeks before initial ATO meetings with OIT leadership. Should any issues be uncovered during UAT or IOC, such as the usability concerns highlighted below, there will be no time for development modifications. From an engineering perspective, the current implementation is brittle with the AutoHotkey feature connecting the Computerized Patient Record System (CPRS) to DST. Minor user preferences, like having multiple patient tabs open in CPRS or running Chrome in the background, might completely stall the planned MVP implementation of DST. DST also requires integration with six legacy VA systems, each with dependencies on other systems to prioritize DST over their own backlogs. This creates a tremendous impediment to completing development on time. Given the high level of risk surrounding the timeline,

planned engineering implementation and usability concerns, USDS anticipates that DST, if released into production, will negatively disrupt the physicians workflow and reduce daily appointment capacity within VHA.

- **Redirect development efforts towards a reimagined DST that serves both VA Clinical Staff and Veterans.** The most complex eligibility criteria for clinical staff to determine using manual workarounds are VA wait times and Veteran driving times. USDS recommends reducing the DST MVP to only determine these criteria. Using only a user-provided address and SEoC selection, the tool can determine static eligibility according to wait time, drive time, and whether a VA medical center is located in the Veteran's state, covering the majority of the expected Veteran eligibility while also simplifying the technical approach, eliminating all but one internal integration (SSOi) in favor of accessing existing APIs (https://www.accesstocare.va.gov/) and Bing Maps. USDS recommends building this tool by creating a DST API and working with a bifurcated front end that serves as a standalone entry point for VA staff to determining Veteran eligibility. Removing the connections to CPRS provides the flexibility to have anyone within the patient's PACT perform this determination rather than the referring physician. Additionally, USDS recommends integrating with the VA.gov "My VA" dashboard to show a Veteran whether they're eligible and allow a Veteran to proceed directly to community care. All of this work should be achievable by June 6th, and AbleVets can add capabilities in future iterations after the team conducts user research.

ESTABLISH A VETERAN FACING TOOL FOR ELIGIBILITY

The MISSION Act Veterans Community Care Program eligibility criteria employs data-driven metrics, such as drive time, VA provider wait time, and availability of VA services. However, neither the law nor the draft regulations specify to an adequate level of detail how the VA should calculate drive times and wait times to make these determinations. For example, calculating drive time depends on an information system that uses mapping data of roadways, speed limits and other metadata to compute an optimal route and estimate the time required. Differences in specific technical implementations for gathering this type of data will likely result in different estimates. Additionally, the law and regulations do not outline how traffic congestion or other considerations may impact an eligibility decision. These nuanced details can affect whether or not a Veteran is eligible for community care, and may lead to the public perception that the criteria are arbitrary, inconsistent, or unfair.

I'm going to do some research online, maybe [I can find a community primary care provider] for longer than three or four months. I haven't had a steady PCP for a year and a half, just the Nurse Practitioner of the Month.

Army Veteran in Anniston, AL

This variability becomes particularly acute when a Veteran uses the publicly available eligibility criteria specified in the legislation to estimate their own eligibility for services. Of the primary care providers USDS interviewed, several noted that community care is not currently

offered to eligible Veterans unless they ask specifically for it during their appointment. Therefore, it is critical for the Veteran to be aware of the Veterans Community Care Program, and for the VA to mitigate public misconception by exposing a tool capability of determining eligibility to Veterans.

- **Establish clear, deterministic access standards to ensure that two parties don't arrive at different conclusions when determining a Veteran's eligibility for community care.** In the upcoming regulations, the standards are based on drive time and wait time, but there is no specific guideline for formulating drive or wait times, and no recommendation on what data source to use.

- **Provide static eligibility on the VA.gov "MyVA" dashboard.** USDS recommends exposing Veterans' potential static eligibility according to their current address and a selection of specialty on their "MyVA" dashboard at VA.gov, creating a natural extension of the actions currently available on this singular Veteran portal.

- **Develop Veteran-centered guidelines to manage discrepancies in eligibility due to data variation.** Inevitably, there will be cases where a Veteran's eligibility for Community Care is variable due to uncontrollable fluctuations around the output for wait time and drive time. For example, wait time for a cardiology appointment may teeter between 58 and 61 days within a given month, or drive time may vary between 25 to 35 minutes depending on road closures. In these cases, USDS recommends the VA should adopt a people-centered approach in the field, providing the most liberal interpretation possible for eligibility criteria.

SUPPORT CONTINUITY FOR SCHEDULING VETERANS' ONGOING CARE

In 2013, the VA awarded contracts to two third-party administrators (TPAs), Health Net Federal Services (Eastern region) and TriWest (Western region), to administer the Veterans Choice Program (VCP) across the VA. Due to issues with serving Veterans, as well as late payments to providers with service agreements, the VA declined to exercise the option to continue the Health Net Federal Services contract as of September 30, 2018 and expanded the TriWest contract to administer all regions for both the Veterans Choice and Patient-Centered Community Care (PC3) Programs. Veterans and VA community care scheduling support staff alike highlighted that TriWest's track record in scheduling appointments was mixed at best. TriWest's service level agreement (SLA) requires them to schedule appointments for Veterans within 3-5 days. Clinical staff at two VAMC locations reported that the TPA is often not meeting that SLA, increasing the time the Veteran must wait to have an

I think it would be more effective for me to call the clinic myself, have my schedule in front of me, rather than go through a third party.

Marine Veteran from Oceanview, CA

You should be assigned to one person, and if you're having problems in the non-VA care, you should be able to contact one person and that person should be empowered to help you.

Army Veteran from Newburn, NC

appointment scheduled and requiring VA staff to leverage homegrown workarounds for following up with Veterans and providers on their own.

Ultimately, the Office of Community Care plans to transfer appointment scheduling away from TPAs and back into local medical centers, and based on observations in the field, USDS agrees this is in the Veterans' best interest. However, the introduction of scheduling through TriWest at additional VA locations earlier this year is contrary to the long term community care plan and created shortsighted disruption for both Veterans and clinical staff as schedulers on the ground were required to learn new software and processes.

- **Create a thoughtful, seamless scheduling transition for Veterans moving from Veterans Choice to Veterans Community Care.** There have been, and will be, several changes to the way Veterans receive care in the community. Last September, the Health Net contract ended. At the end of January, some facilities opted to offer scheduling through TriWest. In June, the new Community Care Network established by the MISSION Act will move scheduling back to the medical centers. These changes affect Veterans on the ground.

- **Complete a service design study to establish the best methods for managing and scaling scheduling staff at VA medical centers while providing consistency for Veterans.** USDS learned in the field that scheduling teams had shifted their methods over short periods of time in attempts to manage their backlogs of consult requests awaiting scheduling, including dividing an alphabetical list of Veteran last names, dividing consults by medical specialty, and even "dogpiling" several schedulers on one consult. Veterans expressed that if their appointments would be scheduled for them, they would like to be able to consistently work with the same scheduler.

- **Allow options for Veterans to schedule their own appointments.** Veterans reported that regardless of being scheduled by the VA, TriWest, or Health Net, they were not really offered a "choice" of providers to see, but were rather told which provider they would see. In some cases, the Veteran was given the name of a provider and told to make an appointment on their own. They reported that they would prefer to research providers and schedule appointments themselves, just as the general public does.

STRUCTURE CONTRACTS FOR CONTINUITY OF VETERAN CARE

The MISSION Act requires that the VA establish networks of healthcare providers to serve Veterans who are eligible for community care. VA originally contracted with TriWest and Health Net Federal to create two massive provider networks spanning the country. After the Health Net contract was allowed to lapse due to poor service and nonpayment to providers, TriWest took over the region Health Net had previously covered, creating a lapse in Veteran care due to unfinished authorizations left hanging by the Health Net contract. The VA has since divided the country into six regions for the new Community Care Network and is awarding a different contract for each.

I was sent to a dentist down the street from my house, who did the preliminary X-rays and checkups. I got a call about a week later saying, "Due to non-payment by the VA, we're not accepting VA patients anymore." It took about a month to straighten it out... The [new] dentist requested approval from the VA, but the VA kept sending the authorization to the original surgeon! I haven't had the appointment for the actual service yet.

Army Veteran from Newburn, NC

There are many areas of the MISSION Act statute and regulations where Veterans could lose access to a needed doctor or service during bureaucratic transitions, such as changes when:

- A medical service lines are deemed under quality and published in the Federal Register, potentially moving Veterans from VA Medical Centers to Community Care,
- VA Medical service lines become eligible for community care based on how the VA implements quality standards, and
- When providers that are in network based on contractual transitions become out of network when the contract for the region changes.

Poor implementation and administration of the contracts implementing the statute and regulations pose real, life-threatening risks to Veterans. They may transition from one provider to another as contracts are awarded, or lose access to their providers as they come in and out of network during these regional transitions.

- **Include language in all contracts to ensure providers remain in-network regardless of contracting changes when a Veteran is in the middle of treatment.** USDS recommends modifying the TriWest contract to allow any active authorizations created prior to the termination of their contract to remain active, as well as including similar language in any future provider network contract. Alternatively or additionally, make sure new contracts that take over a Veterans care during an episode of care could cover the Veteran's care with their previous provider during that episode of care that spans contract periods. USDS understands that in the past the VA's Office of the General Counsel has blocked similar efforts and recommends that senior leadership in VHA and OGC work together to figure out the best path forward for Veterans.

- **Ensure changes in eligible service lines are simple, communicated openly, and don't impact Veterans in the middle of treatment.** Minimize changes in eligible service lines

to reduce the risk of disruption to Veteran care. During the Community Care team's week-long Face-to-Face Meeting in early February, the team recognized this fluctuation as a risk but dismissed it as solvable by "communicating to the Veteran that they have to switch providers." This is unacceptable and will harm the most vulnerable Veterans populations.

PARTNER WITH ANOTHER FEDERAL NETWORK

Numerous stakeholders, including those at the VA and on the Hill, emphasized the importance of various provider network related efficiency and consolidation efforts mandated by the MISSION Act. The Act itself aligns VA community care programs with Medicare payment rates and quality standards and also requires that VA consult with Medicare and other entities on access standards. It defines eligible providers by their participation in Medicare or other federal programs such as those administered by the Department of Defense.

I feel like I'm getting someone in their field. You wonder whether VA has the best doctors. When you go outside the field you feel like you are getting someone where that's their specialty.

Navy Veteran from Navarre, FL

Currently only one of the six new contracts needed to establish the VA's consolidated national network is operational. Two are currently in protest and three others have yet to be awarded. While the VA has the appropriate contingency plan in place - to extend their current provider TriWest's contract through September 2020 - USDS believes that the additional administrative burden of continuing to pursue new contracts arrangements outweigh their benefit. Based on past contracts, outsourcing care coordination and provider networks introduced new systems and players into the ecosystem, increasing the potential for miscommunication and confusion from Veterans determining appropriate point of contacts, without mitigating any of the administrative burden from the VA.

It took forever to get an appointment at the VA. I waited about 3 months and dealt with the pain. Once I got an appointment, it took another two weeks for them to let me know I had kidney stones and that they were referring me to civilian health care to handle it. The physician's assistant contacted me and said someone would refer me out, and that a clinic near my house would contact me. After a few weeks, someone did contact me, and they scheduled me for sound blasting. I had contact from the VA probably two weeks after the procedure to schedule a follow-up. They said it would be three months for that.

Army Veteran from Anniston, AL

- **Cease efforts to develop robust payer infrastructure and administer Community Care by exploring partnering with another federal payer already serving Veterans.** Aligning with either Medicare or DoD's TRICARE will prevent the VA from creating new redundant and less efficient bureaucracy that fails to capture the lessons learned over multiple decades of operating existing government payer programs. The DoD especially has already served these Veterans, and 48% of all Veterans are currently eligible for Medicare according to data on https://www.data.va.gov.

- **Move quickly to conduct market research to determine the best federal program to partner with.** USDS believes

that this approach is achievable under the letter of the MISSION Act (including the requirement for a competitive bid process) via the Economy Act of 1932 and aligns with the intent of the legislation to create an efficient, streamlined experience for Veterans and the American taxpayer. VA should conduct market research on various public sector providers and review the research across public and private sectors to determine the best program to partner with. Then, the VA should focus and fast-track any current pilot efforts in development with DoD TRICARE and Medicare to replace their current network contracts.

- **Shift resources currently managing the VA network towards concierge services that improve the Veteran community care experience.** Based on conversations with Veterans, providers, and stakeholders, there are clear gaps in communication and continuity of care that must be addressed for the Community Care Program to successfully serve Veterans, the most important of which have been addressed elsewhere in this report. A high-level of localization also means Veteran experiences can vary dramatically. For the Community Care program to succeed at scale, the VA must focus on improving their services as a provider, not building another public sector national network.

USE FHIR FOR THE EXCHANGE OF ELECTRONIC HEALTH RECORDS (EHRS)

Section 101 of the MISSION Act requires the Secretary ensure the "establishment of a mechanism to receive medical records from non-Department providers." The Community Care team currently plans to meet this requirement through two mechanisms: the use of HealthShare Referral Manager (HSRM), a commercial off-the-shelf software product, and through the manual, one-off exchange of records in any format that a non-Department provider prefers, such as fax, or secure mail.

USDS thinks based on its user research that it is unlikely that non-Department providers will choose to adopt a VA-specific platform for sharing medical data. As a result the majority of record sharing will continue to require manual exchange.

- **Prioritize the exchange of records using Fast Healthcare Interoperability Resources (FHIR) APIs, a standard already in use in other parts of the VA, Medicare, and the health industry as a whole.** FHIR APIs would allow the VA to integrate non-department records directly into a Veteran's existing file, instead of as an attached image or note. FHIR is already being used by the Project Special Forces team to allow Veterans to connect their VA medical records to Apple HealthKit. Some Office of Connected Care mobile apps are

I don't know how they hand off records for a consult. I'd like them to have my history so they could understand my condition... I'm in the middle of that right now getting my Navy records.

Marine Veteran from Oceanside, CA

It seems like the VA doesn't read their own notes.

Army Veteran from Newburn, NC

also using FHIR. The Centers for Medicare and Medicaid Services and the Office of the National Coordinator have both recently proposed legislation backing the standard. Cerner, as well as Amazon, Google, IBM, Microsoft, Oracle, and Salesforce among others have also pledged to use FHIR for medical data exchange.1 We strongly recommend investing in this infrastructure to develop a similarly streamlined process for medical record exchange between the VA and community care providers instead of investing in nascent technologies.

- **While medical providers come up-to-date with the FHIR standard, continue using current methods, including fax and secure email, to share medical records.** Minimize investment in new technologies that aim to exchange medical records in other ways.

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1 https://www.healthcareitnews.com/news/amazon-google-ibm-microsoft-oracle-and-salesforce-pledge-remove-interoperability-barriers and https://www.healthit.gov/sites/default/files/cerner_hhs_interop_commitment_pledge_final.pdf

APPENDIX A: IN-DEPTH DST ASSESSMENT

Under the Veterans Access, Choice, and Accountability Act of 2014, Veterans became eligible for Community Care through a framework of eligibility criteria centered around the timing and availability of medical care. The MISSION Act of 2018 expanded the complexity and number of eligibility criteria to include physician recommendation and permutations of the existing timing and availability requirements, among other smaller criteria. Because of this increase, actuarial data furnished by a VA regulatory impact analysis indicates that the number of Veterans eligible to receive care in the community based on the proposed drive time regulations of 30 minutes for primary care and 60 minutes for specialty care alone is expected to increase from 685,000 Veterans under the Veterans Choice Program to 3.7 million Veterans under the MISSION Act. Anticipating an influx of new eligible Veterans for the Community Care Program, it's in the best interests of VA clinical staff for the department to develop a technological solution capable of automating the eligibility approval process as much as is technically and dependably possible.

Much of the data necessary to determine eligibility is currently housed across several legacy VA systems that don't interoperate, creating an inefficient and highly manual determination process. Once clinical staff determines a Veteran is eligible, the staff must record that status in the VA Computerized Patient Record System (CPRS). CPRS is a legacy system based on VistA that presents its own update and modification challenges. Decision Support Tool (DST), the principal technology in progress for the MISSION Act rollout effort, could streamline the eligibility determination by connecting to these legacy VA systems to gather data on the Veteran and produce a determination. However, following extensive research around the technology and processes surrounding the development of DST, and with active development only starting roughly 6 weeks ago, USDS has identified significant risks surrounding software development timing, integration dependencies, and usability.

Software Development Timing

AbleVets, the software development contractor developing DST, is operating in a pseudo-agile manner that shoehorns agile development sprints into an overarching VA OIT waterfall. OIT prescribed a four-month requirement generation process. AbleVets was only recently able to begin active development of DST, and because of user acceptance testing, ATO, 508 approval, and other VA-driven procedures, they'll be required to complete their production release on April 3rd. The condensed timeline in which active development work is occurring creates a significant risk that the engineering team won't have access to all of the necessary VA development and staging endpoints by that date. Because DST obtains information via API calls into data services, it's plausible that they will encounter integration problems that may lead to DST system hangs, sluggish performance, or unrecoverable errors.

Key pre-release milestones are happening too late for AbleVets to be able to effectively react to problems. Software development will have concluded roughly a month before the first scheduled ATO meeting with Bill James on April 26th. VA DST project management has casually discussed pursuing an IATT, but this has not been actively pursued. IOC testing, the initial training and release to selected sites and the first testing done with actual users, is

scheduled soon thereafter between May 2nd and May 22nd. If this crucial first set of testers find serious usability issues, or find Department designed the wrong product altogether, it will be too late to pivot before the production release on May 23rd.

While AbleVets is under pressure to deliver DST on an expedited schedule, USDS finds that the development team is motivated and capable of delivering a product that meets requirements with a high standard of quality. USDS reviewed the source code, system architecture, agile practices, engineering process and plans for production hosting and found no major issues. Any delays in delivery are likely to result from delays in connecting and integrating to backend APIs that provide information necessary for DST to function.

Integration Dependencies

There are two distinct parts to the planned DST rollout. First, there is a web application to be deployed into the VA Enterprise Cloud. Second, there is a new AutoHotkey package to be deployed on each workstation throughout all VA medical facilities that will provide an integration between CPRS and the DST web application. The DST web application is not intended to be used as a standalone application, and can only function as designed when invoked from CPRS. This coupling binds the success of the DST web application to the success of the AutoHotkey package and leaves no room for alternate user workflows.

From a technical perspective, DST is primarily a dashboard that aggregates information about the Veteran from other systems so that clinical staff can make an eligibility determination. While the business logic in DST is straightforward, the complexity and number of integrations currently required to determine eligibility relies on complex alignment with other VA software development teams in order to align priorities for DST release. Of the six integrations needed for DST that require an interface agreement (MVI, E&E, PPMS, CDW, SEOC, and SSOi), only SSOi, used for authenticating the physician, has been completed. Without all of the VA service integrations functional, DST will be unable to provide any actual value in determining eligibility. VA OIT has not yet filed most requests for access to these integrations. The lack of completed interface agreements (IA) has already significantly hindered AbleVets from completing sprint work. Despite a schedule indicating the requests are on track, the missing IA agreements will realistically endanger the timeline going forward as government interface agreements are the most often delayed. AbleVets tends to report Integration work as "Green" until it actively blocks development, although both USDS and AbleVets anticipate that the lack of many of the necessary integrations will block planned development.

In addition, it is unlikely that the staging environments for the integrations are representative of their production counterparts in their scale or complexity. In fact some data systems such as the Corporate Data Warehouse (CDW) have no pre-production environment at all. The VA requires an ATO for an application to serve production traffic, and the development team will likely not have production access to the endpoints required to serve end users. In order to populate the Veteran information and calculate an eligibility decision, DST calls the various services in a cascading, serialized fashion. The continued inability to test these

service integrations with regards to response times and error rates at scale could lead to severe latency, errors, or system crashes. AbleVets must be able to load test and stress test the system in order to understand the bottlenecks.

Clinical staff requires the data they use to legally determine eligibility on behalf of the Veteran to be trustworthy. Several of the planned integrations have known data quality issues, including duplicative, missing, and out-of-date data, all of which could prevent the Veteran from receiving an accurate eligibility determination. USDS has no recommendation to alleviate these data quality issues, however, as it doesn't appear that the VA has viable alternative data sources.

Usability

The DST implementation depends on a screen scraping tool called AutoHotkey to determine the appropriate time for DST to become active based on particular CPRS fields appearing at the correct time and place. This implementation allows for no variability in the way users may have configured their individual work systems, and the development team has no insight into what will happen if the required conditions are not met. Furthermore, when AutoHotkey monitors the user's screen and creates a modal pop-up window used to calculate eligibility via DST, the prompt actively blocks the user's CPRS window, preventing them from continuing. The modal initially presents a loading screen with no call to action while determining if further action is necessary. It is unclear how long this initial step takes, but the AbleVets software team estimated about 30 seconds. Due to the previously mentioned issues with testing viable data, the development team is unable to test the possible behavior before production release. More alarmingly, once the tool is rolled out to all locations on May 23rd, staff will begin to see these pop-ups with no ability to use them until the MISSION Act goes into effect on June 6th. USDS has no insight into how this workflow conflict will affect them during that period.

CPRS has usability issues that will only be exacerbated by the current implementation of DST. Because AutoHotkey is looking for particular criteria, such as text in a dialog screen, or the state of input controls, in order to activate DST, USDS suspects that clinical staff would only be able to view one Veteran in CPRS at a time, which is wildly different from the way the team observed staff using CPRS in the field. In addition, existing CPRS add-ons like Consult Toolbox often block information that medical personnel need to view when completing toolbox forms. As a workaround, they open multiple instances of the software on their machine and copy/paste between them. DST will launch a new Google Chrome browser window each time DST is triggered. It is unclear to USDS if all VA Medical personnel have the Chrome browser installed. It's also unclear what will happen in a perfectly plausible situation where the clinical staff member has Chrome open in the background in order to check patient or provider information. Various permutations such as these may lead to unpredictable behavior and result in failure modes that result in confusion and frustration.

One of the most alarming usability issues for the DST MVP release for June 6 is the assumption that eligibility would only be determined by the physician at the time the consult request

is created in CPRS. Given the usability and responsiveness issues discussed above, adding this eligibility work to the already time-constrained physician in a worst case could increase each appointment by an estimated 5-10 minutes, forcing physicians to see approximately three fewer Veterans each day, and ultimately decreasing the VA's nationwide capacity by approximately 75,000 appointments daily. This degradation goes against the spirit of the MISSION Act to improve the Veterans experience and quality of care.