Check-In Staff Facing Discovery Research Report

Sept 2021

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Background

One of the primary methods currently available to check-in to a medical appointment at a VA facility is a VetLink kiosk. The VA's contract with VetLink is ending nationwide by Mar 2022. An effort is underway to understand the Veteran experience of check-in, in order to rapidly design and release an alternative check-in method to help lessen the impact of kiosk system deprecation. However, the check-in experience relies heavily on staff at VA health care facilities and the tools they have access to.

This report details the process, findings, and recommendations from research conducted with staff from VA facilities across the country from May-August 2021.

Research Goals

With this round of research, we were looking to understand the staff experience of Veteran check-in, so that we can improve both the staff and Veteran's experiences of check-in with the upcoming product design and development.

The broad goal of this discovery research effort was to understand the check-in experience for staff at VAMCs and CBOCs across the country. Through talking with staff and observing them in their work environment, we hoped to learn about the pain points they experience while performing their duties, their attitudes about check-in, as well as what is working well about the current system.

We were also interested to talk to administrators about what needs of theirs are being met through the VetLink system, and what is important to them about check-in in general. An additional secondary consideration was clinical staff's experience tracking where a Veteran is in an appointment which is an existing feature of VetLink.

Initial research questions:

- **What is the staff experience of check in and patient tracking?**
    - How does experience vary by facility / role / department / appointment type?
    - Do staff use or have access to VSE GUI during check-in?
    - What are pain points for staff throughout the check-in process?
    - What is working well about existing processes & tools?
    - What are the admin-level needs being met by VETlink software and other patient flow management tools?
    - What are the constraints of the physical environment? What is the desktop / workstation environment like?
    - What are the competing responsibilities of staff? How do staff access other tools needed to do their jobs?
    - What workarounds have staff established? How do their actions differ from training or management instructions?
- **What are the admin-level needs being met by VetLink?**

Methods

In order to meet the breadth and depth of our research goals, we planned to complete remote semi-structured interviews as well as on-site observation in the style of contextual inquiry where possible.

Semi Structured Interviews

Moderated remote semi-structured interviews allowed us to follow the users' attitudes and thinking throughout the interview, which is appropriate to capture the breadth of experiences across many participants. Conducting interviews remotely via Microsoft Teams allowed researchers to reach participants across many different regions at times that were convenient for their busy schedules.

We prioritized group interviews, with multiple participants from similar roles and facilities in one conversation where possible. However, for scheduling purposes and to balance the roles of participants where needed, we did conduct individual interviews as well. We spoke with 18 participants across eight group interviews, and conducted five individual interviews.

See appendix for links to interview notes.

Onsite Contextual Inquiry

In order to balance the breadth of information gained from interviewing staff across VISNs, facilities, and roles, we conducted site visits to understand the staff experience in more depth. During site visits, researchers sat alongside frontline staff to observe their processes and ask questions in a contextual inquiry format. Observations and conversations were low in structure and formality, and participants were noted but not rigidly tracked throughout onsite interviews. Two health systems hosted researchers for site visits, North Texas -Dallas and Pittsburgh Health System (University District and Heinz).

It should be noted that no Veteran-facing research was conducted during these site visits, and staff were informed of the research project before being observed and interviewed. Researchers limited their time and impact on staff when appropriate.

Participant Overview

Target Roles

The research primarily targeted three strata of staff roles: frontline, clinical and administrative, as defined below.

Frontline staff

Staff responsible for checking-in Veterans for their appointments, inclusive of staff who supervise frontline staff. Possible titles: Medical Support Assistant (MSA), Advanced Medical Support Assistant (AMSA), Medical Support Assistant Supervisor.

Clinical staff

Staff who provide care to Veterans in the clinical context. Possible titles: RN, LVN, LPN, Physician.

Administrative staff

Staff with minimal to no contact with Veterans within their work duties. Responsible for overseeing administrative programs across multiple clinics. Possible titles: VetLink Coordinator, Program Manager, Chief, Assistant Chief.

Recruitment

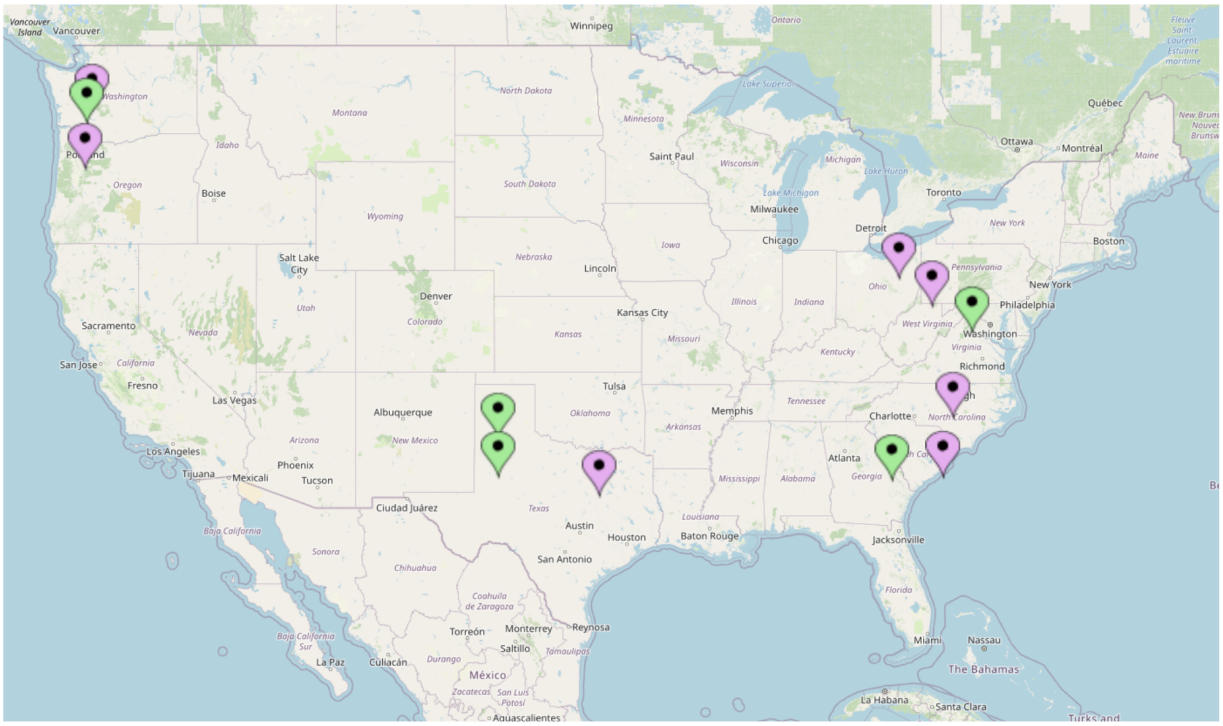
Participants were recruited through OVAC's connections to VetLink Administrators and champions at facilities across the country. OVAC staff members sent initial orientation emails to facility contacts requesting participants, and facilities replied with lists of willing staff members. Staff from this list of volunteers were then contacted by the research team based on facility and role. Supervising staff were cc'd on emails to volunteer staff members to promote visibility of the research and facilitate necessary approval.

Participants By Role & Method

	Frontline Staff	Clinical Staff	Administrative Staff	Total
Remote Interviews	9	2	12	23
On Site	32	9	5	46
Total	41	11	17	69

Regional Representation

Research was conducted with representatives of 36 clinics across 15 facilities within 7 VISNs. Facilities were distributed across 12 unique locations, half of which serve an urban population primarily and the other half a rural population.



Clinic & Department Representation

Research was conducted with representatives from 36 departments. Initial scope of research included departments with walk-in services (lab, pharmacy, enrollment & eligibility), however further into the research the scope shifted to only include scheduled appointment departments. Of the 36 departments we spoke with, we spoke with representatives of 20 departments offering scheduled appointments and representatives of 6 different facility administration departments. Departments included in the research sample:

- Administration (HAS/MAS)
- Surgery
- Audiology
- Mental Health
- Enrollment / Eligibility
- Lab
- PM&R
- Primary Care

- Pharmacy
- Imaging
- Medicine
- Dental
- Travel

Known Gaps

This research effort was short, and participant willingness and availability was a primary factor in sample selection. The following gaps should be considered in any interpretation and application of the findings from this research.

Accessibility of Staff Systems

As detailed in Theme 4, Finding 1, accessibility of staff systems did not surface during this research and was not explicitly pursued. This is a major gap in the research and should be addressed in any future research pursuits.

Geographic Diversity

Because this research only includes 7 of 18 VISNs, many geographic gaps exist in our facility sample. Notably absent from the sample are facilities in the Midwest or Southwest regions. Due to the nature of facility-level and VISN-level directives, including a wider range of facilities and regions in future research would provide insight into any outlying systems and processes, as well as confirm patterns of consistent systems.

Facilities Not Using VetLink

Facilities known to use VetLink were solicited for volunteers by OVAC, therefore this research does not include any facilities that do not use VetLink for managing patient check-in. Though some clinics opted not to use VetLink, most facilities we spoke with had implemented VetLink throughout the majority of their clinics. Facilities that do not use VetLink could provide an additional layer of insight into the possibilities of check-in workflow without kiosks.

Facilities Not Considered High-Functioning

Many of the facility representatives we spoke with labelled their facilities as ‘high-functioning’ and were eager to discuss their participation in plans for future updates to the check-in experience. Learning the challenges and experiences of facilities that would not self-describe as high-functioning would provide important insight into the potential for deploying new check-in systems across facilities nationwide.

Themes, Findings & Recommendations

Findings from the research efforts fall into five major themes. Additional insights could be gained from data collected from this research if reanalyzed with narrower questions in mind. Each theme is outlined at length in the following section, with detailed findings, supporting examples and specific recommendations.

Variation Across Clinics & Facilities

Theme: Staff processes and tools for managing patient check-in and other clinical tasks vary across and within facilities and clinics.
Recommendation: Provide staff with a common but configurable toolset, allowing staff to configure their toolset to reflect their needs and constraints.

Value of Frontline Staff in Solving Complex Problems

Theme: Frontline staff play an important role in providing customer service and complex problem solving to Veterans throughout the check-in process.
Recommendation: Utilize technology to perform the routine and simple tasks and to provide staff easy access to information that enables them to solve more complex problems.

Staff Expertise in Clinic-Specific Irregularities

Theme: Frontline staff become experts in the irregularities of their clinic areas in order to fulfill their responsibility of keeping operations running despite system errors, constraints of the physical environment, and Veteran confusion.
Recommendation: Implementation of a new check-in system should draw from and enable staff expertise.

Opportunities for Reassessment

Theme: Research with staff showed that some of the foundational components of check-in systems and processes may not be serving staff and Veterans.
Recommendation: Modifying the check-in experience provides an opportunity to reassess some of the current practices within the staff check-in workflow.

Validation of Planned Work

Theme: A subset of the work currently in development was validated by the research conducted with staff, in particular the use of VSE GUI for staff-facing functionality in lieu of adding an additional system to the staff experience.
Recommendation: Continue to solicit feedback from staff about the functionality of forthcoming features.

Theme 1: Variation Across Clinics

Staff processes and tools for managing patient check-in and other clinical tasks vary across and within facilities and clinics.

Recommendation 1: Configurable Toolsets

Provide staff with a common but configurable toolset, allowing staff to configure their toolset to reflect their needs and constraints.

Frontline Staff Tool Variation

Across our research, no two clinics with scheduled appointments shared an identical suite of tools for frontline staff to fulfill their responsibilities. However, all clinics we spoke with that have scheduled appointments use VSE GUI.

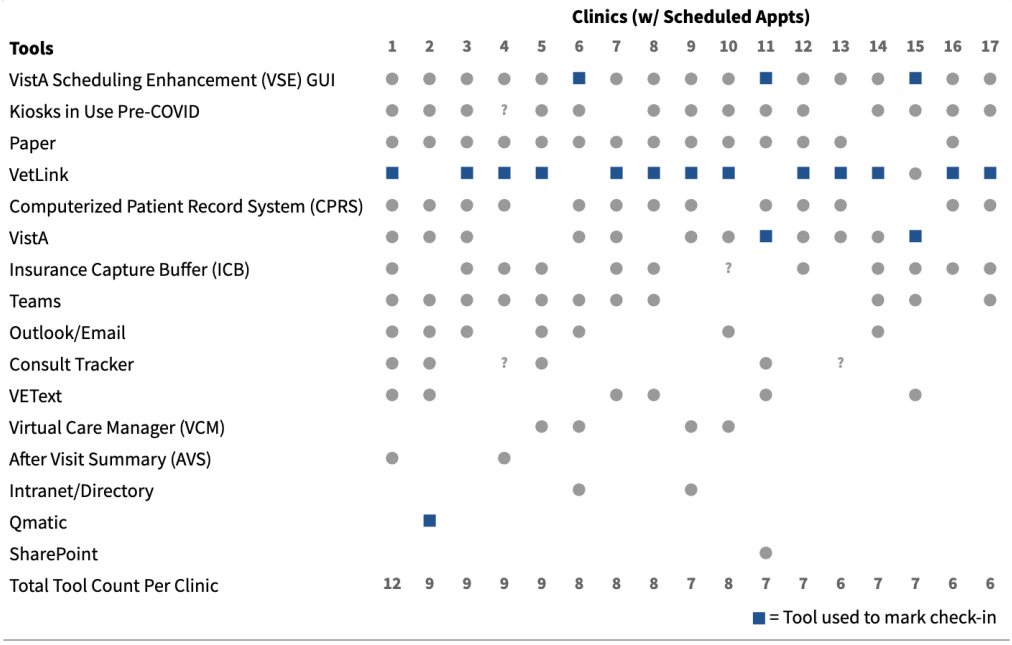


Table 1. Tools in use by frontline staff across 17 different clinics with scheduled appointments. Blue marks indicate tools used to mark a patient checked-in by frontline staff. On average, frontline staff use at least 7 tools to perform their duties. No two clinics had an identical suite of tools. The only commonality across all 17 clinics with scheduled appointments was the use of VSE GUI. It should be noted that this table is not comprehensive, and only reflects the tools that were mentioned by staff in interviews or seen by researchers during observations, omissions are possible.

Recommendations:

- There is no one single solution that will solve every need for every case. Recommend providing a common toolset that staff can use to get their jobs done, while recognizing it's not going to work for every case.

- The trend of VSE GUI use across clinics validates the planned path to utilize VSE GUI for staff-facing check-in.

Staff-Facing System Notification Preferences

Staff preferences around notifications from digital tools vary widely depending on role, workspace, workflow, system access, and ease of system use.

Examples:

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Recommendations:

- Build check-in tools with multiple notification options to allow both frontline and clinical staff to enable the notification mechanism that works best for their work environment. Suggested integrations: Teams, Email, SMS message, in-system pop up notification.

Barriers to Clinical Staff Tool Utilization

Staff cite too abrupt timeouts, lack of access, and general resistance as barriers to clinical staff using digital tools to track patient check-in status. Almost half of the clinics we spoke with rely on VetLink automatic printouts to notify clinical staff that a patient has checked in.

Examples:

- Provider complaints that Vetlink times out after 40 minutes, but are sometimes unaware so the patient will be waiting (UD6.267 - MSA)
- We would like it if providers were on VetLink, but they say “I’m not on my computer” (D4.669 - MSA)
- Doctors are not using the system and continue to push back against it (UD4.192 - MSA)
- "Rely on paper because the back office staff don't all have access to the computers, either physical computers or the software needed, takes too long to pull up someone, staff may not know how to use the software” (UD3.127 - MSA)

Recommendation:

- Recommend further research into needs of clinical staff to best meet their needs with notification system options.
- Recommend adding automated printout on check-in functionality of VetLink to VSE GUI.

Intra-Staff Communication Tools

Mistrust between clinic hierarchies results in the need for audit trail and subsequent communication tool mandates. However, tensions remain despite tool mandates and in some cases clinics use reliable but unallowed methods to communicate with other staff.

Examples:

- I like the Vetlink, once you sign them in, it will go to your providers, your nurses or anyone dealing with that patient within your area, so they can't say they didn't know the patient was there. (P16 - MSA)
- Sometimes the MSAs will let therapists know if a Veteran is there using Teams ("skype"), but therapist reports this happens inconsistently, and VistA is the most reliable source of information. (D4.656 - Clinical Staff)
- For last couple weeks, MSAs have been told to not use Teams to communicate with clinical staff, because if everyone decides to use VetLink, it protects the MSAs from accusations of not notifying providers that the patient has arrived (which has happened before). (D2.597 - MSA)

Recommendations:

- Recommend allowing system check-in to trigger notification to clinician in their preferred format that clinicians can manage themselves.
- Recommend providing options, not attempting to meet all needs with single method.
- Recommend exploring possible integration between check-in and Teams for staff notifications as high priority method of MSA-clinical staff communication tool.

No-Show / Late Windows

The definition of 'late' varies within facilities and clinics, and is commonly determined by individual provider preference. No shows are marked anywhere from immediately when the Vet is late to the end of the day.

Across the clinics we spoke with, no-shows were marked as early as 20 minutes after the start of the appointment time, or half-way through the appointment time, and as late as the end of the day.

Late is defined as the time at which a Veteran's appointment time is no longer available to them. The definitions of late times across eight clinics we visited within one facility demonstrate the types:

- 4 out of 8 clinics said that 20 minutes was the set late time.

- 3 out of the remaining 4 clinics said that late time was provider dependent and varied from 10-60 minutes.
- In 6 out of the 8 clinics, staff said that they do their best to find time later in the day for late Veterans to be seen.

Recommendations:

- Recommend late mobile check-in window be no later than 10 minutes after appt time, to minimize negative experience of Veteran checking in successfully through mobile check-in only to find out they won't be able to keep their appointment time. Bad news should come early and from a human.
- Recommend communicating standard e-check-in window very clearly and explicitly define that the standard check-in window is only specific to E-CHECKIN
- Before implementing clinic-specific late windows or appointment length specific late windows, explore the impact on Veteran experience.

Theme 2: Value of Frontline Staff

Frontline staff play an important role in providing customer service and complex problem solving to Veterans throughout the check-in process.

General Recommendation 2: Use of Technology to Best Support Staff

Utilize technology to perform the routine and simple tasks and to provide staff easy access to information that enables them to solve more complex problems.

Partial Check-in

Identifying and resolving partial kiosk check-ins requires time consuming effort on the part of frontline staff. Staff often attribute partial check-in to lengthy or difficult question sequences on the kiosk.

Representatives of 11 clinics mentioned challenges related to partial check in. For example, frontline staff will closely monitor the waiting room and the VetLink check-in list to make sure that no Veteran is missed.

Additional examples:

- Observed MSA having to finish check-in for the patient in VetLink after Veteran attempted to use kiosk. D2.614
- “Sometimes when patients are not checked in all the way, either kiosk or face-to-face glitch, there is no clear way to say that check in was incomplete” (UD4.203 - MSA)
- “Depending on the clinic, staff could be diligent in the waiting areas. If they see a patient waiting there for a long period of time, they would ask if they'd checked in. Also would take a look at the Vetlink queue and keep watching as folks kept checking in. If the system doesn't say check in complete, they would call for that person.” (P12 - Admin/MSA)

Recommendations:

- Use technology to provide staff with complete and accurate information about the status of Veteran check-in across all departments the staff member is responsible for. Regardless of the system in place, staff will be responsible for resolving unexpected issues, no technology can replace the ability of staff to kindly solve a Veteran-specific problem.
- Consider exploring conditions under which to notify staff and Veterans about errors during check-in, to prompt resolution.
- Limit check-in questions to only those required in order to notify staff of patient arrival.

Wayfinding

Wayfinding is a major issue at most facilities, few facilities have reliable wayfinding solutions in place. Due to changes to clinic layout, wayfinding systems require constant maintenance by staff. Frontline staff are consistently the most reliable wayfinding tool which places additional responsibility on them.

Representatives of 18 clinics mentioned wayfinding difficulties. Staff, Veterans and visitors rely on frontline staff for directions and signs are often out of date, confusing or insufficient. Construction and frequent changes to facilities make maintenance of physical and technological wayfinding systems difficult. Printed directions from VetLink kiosk are small and difficult to read.

Examples:

- “[Veterans] just don't know where they need to go” (P11 - MSA)
- “Most like being able to just talk to someone [for directions]” (P13 - Admin)
- “We have two divisions. You can tell when someones lost and you help them.” (P5 - RN)
- During the observation period, MSA was asked for directions, or offered wayfinding assistance, four separate times. D2.621

Recommendations:

- Recommend not relying on technology for solving wayfinding, due to the difficulty of maintaining the system and the high likelihood and risk in providing incorrect information.
- Recommend solving simpler responsibilities of frontline staff with technology allows frontline staff the bandwidth to offer wayfinding guidance.
- Tactically speaking, enforcement of location information in clinic profiles is essential for reliable clinic location instructions provided to Veterans digitally.

Pre-Registration

Pre-registration as frontline staff performance evaluation metric requires staff to repeat questions asked of the Veteran earlier in the day / week / etc. also results in rote review of information, and less thorough capture.

Frontline staff perform pre-registration in a perfunctory fashion in order to avoid negative repercussions. This results in lots of low quality interactions, instead of fewer high quality interactions. Staff who ask patients to recite their address and contact information, or show the Veteran their information, are the exception.

Examples:

- “MSAs get dinged for not doing ICB update, even if not their service line. Whomever checked in will get dinged” (H2.403.5 - MSA)
- If Veteran is in correct place, MSA asks “phone, address, insurance all up to date?” MSA asks this every time, because there is no way to know when it was last updated. (D2.590 - MSA)
- “You never say "is everything the same" you ask them for it. a lot of folks have a tendency to do this even if they're trained properly” (P16 - MSA)
- “It would be great if the Kiosk also did pre-registration because they are part of the MSA performance evaluation.” (D4.662 - MSA)

Recommendations:

- Make the date of last pre-registration information update easily visible to staff and establish a max time elapsed since last updated to reduce unnecessary inquiries and increase quality of information review.
- Recommend Veterans complete pre-registration information in a less public and less time-sensitive environment.
- Recommend exploring alternative methods to evaluate staff performance and consider cultural change among frontline staff and administrators.

Theme 3: Staff Expertise in Clinic Irregularities

Frontline staff become experts in the irregularities of their clinic areas in order to fulfill their responsibility of keeping operations running despite system errors, constraints of the physical environment, and Veteran confusion.

General Recommendation 3: Enable and Draw from Staff Expertise

Implementation of a new check-in system should draw from and enable staff expertise.

System Interoperability

Inconsistent interoperability among the many separate but overlapping staff-facing systems leads to confusion and frustration among clinical, administrative, and frontline staff, as well as duplicative work to update multiple systems with the same information.

Throughout the research process, staff regularly described the same functionality in conflicting ways or had different understandings of the connections between the various systems they use. In lieu of complete interoperability, which is a monumental challenge, building understanding of the limitations of system connectivity is essential.

Examples:

- Monitor half checked in Vets using VetLink - says "signed in" - can click on notification in status column to see detail, but staff don't always do that (P3 - Admin)
- VetLink only shows if they're completely checked in (P11 - MSA)
- Therapist reports that when patients used to check in via kiosk, it doesn't show them as checked in in VistA/VetLink. Therapist said that the clerk has to mark them as checked-in in VetLink and Vista. "It would really be great if VetLink and VistA could talk to eachother" (D4.654 - Clinical Staff)
- Would be better if more systems could communicate, particularly VetLink and ICB. (H2.417 - MSA)
- MSA reports that on VSE it doesn't show check in if MSAs didn't check them in (ie if Veteran checked in via Kiosk) (H2.383 - MSA)

Recommendations:

- When designing training materials and experiences, highlight what the system can't do, explicitly name limitations.
- Monitor early implementation of new check-in system for opportunities to add high-impact interoperability with other systems.

Contingency Systems & Support Pathway for System Issues

Software interruptions (bugs, crashes, and speed issues) are common, and disrupt or delay processes. When preferred technology is unavailable, frontline staff are adept at finding alternatives, resorting to paper when necessary.

Staff in one third of clinics we spoke with mentioned issues with availability of their systems and their plans for continuing operations in the event of check-in system shut-down. Clinics will continue to operate even when systems are down, and making recovery a simple process for staff is key to quickly returning to normal operations.

System Issue Examples:

- VistA is so old it glitches a lot. Daily basis. (P1 - Admin)
- The systems to check in can run slow or go down. (H1.355 - MSA)
- GUI is down so we're scheduling in vista so it's a pain. Don't know whats wrong with it but it's been down since yesterday. (P9 - MSA)
- Sometimes the programs all crash simultaneously (didn't use to happen before computer upgrade) (D2.584 - MSA)

Contingency System Examples:

- If check in systems go down, they marked that a Veteran checked in on the daily printed sheet. When the system is back up, they go in and check them in then. (H1.356 - MSA)
- When scanner doesn't work, MSA writes down patient info, lets the patient go to their appointment, and later will enter any information in the system. When system goes down completely, staff will update manually even up to days later. (UD1.43 - MSA)
- If VetLink is not working, can use VSE, if VSE is out, can use VistA. (D2.606 - MSA)

Recommendations:

- Recommend ensuring existing fall-back systems are still viable even when new systems are added to the ecosystem.
- Clearly define and communicate the escalation pathway for new check-in system errors, including VSE GUI more broadly.
- Continue to collect feedback from staff on VSE GUI as check-in interface.

Multiple Check-In Methods

Staff see value in having multiple modes available for Veterans to check-in, particularly when clinics are under volume stress.

Many staff reiterated what we learned in Veteran facing research, that different Veterans prefer different check-in methods, and there isn't one method that works for everyone. In particular, staff communicated the importance of keeping staff facilitated check-in, and the importance of other methods to relieve pressure on staff during peak times or understaffed periods.

Examples:

- When there's only one MSA, having the kiosk helps relieve the pressure on the one staff member doing check in. (D2.631 - MSA)
- Would add in-person check-in (not just kiosk) (P11 - MSA)
- Option to get staff ability to manually check in veteran if kiosk cant needs to stay (P5 - Nurse)
- Still like face to face interaction, but if there was a way to integrate parts with technology - check in for appointment, kiosk demographics, refill scripts, MyHealtheVet (UD7.503 - MSA)
- Kiosks eliminate stress on the MSAs. Phone check-in is good, but we still need a standing piece of hardware. (M.P18 .854 - MSA)

Recommendations:

- Training materials should make clear that in-person check-in with staff and mobile check-in are equal check-in methods, staff should not direct Veterans to use mobile check-in if they aren't interested.
- Future evaluations of the need for a third check-in method (neither in-person, nor reliant on Veterans' personal devices) should be explored.

Hands-On Intervention from Staff

Staff will intervene to support Veterans when they are having issues with technology, including kiosks and personal cell phones.

Examples:

- "I don't think they read their texts in time. I have to help them with their phone a lot." (P9 - MSA)
- "Go assist Veterans needing extra help with Kiosk. (P11 - MSA)

- Greeter outside pharmacy will also help Veterans who need mobility assistance or other help with the kiosk. (D6.716 - Observation)

Recommendations:

- Recommend creating simple staff-facing job aids to interpret and resolve Veteran facing errors.
- Recommend exploring possible needs for lightweight and simple Veteran materials.

Considerations for Physical Clinic Area

It is common for multiple clinics (and departments) to share a single check-in area. Frontline staff have unique insights into the function and flow of the physical check-in and waiting areas, and have ideas for how to improve flow through these spaces.

Examples:

- Primary care MSAs check-in all appointment types in even though there are Behavioral Health and Surgical MSAs in the back office. (H2.372 - MSA)
- 6 services/clinics share 2 hallways. (P5 - Nurse)
- Wanted kiosks in the check-in areas too instead of the hallway (UD6.290 - MSA)
- To improve check-in: change the flow/layout of the area. Veterans and staff can't hear at the counters due to the plexiglass and noisy hallway. (UD5.232 - MSA)

Recommendations:

- Recommend that the mobile check-in team offer guidance to clinic supervisors of the difficulty of deploying in just one clinic if clinic is colocated with other clinics. Best to deploy among all colocated clinics simultaneously.
- Recommend ensuring that any collateral and artifacts can be configured in ways that make sense to the on-the-ground clinical team. Offerings should be flexible enough to adapt to different space restrictions. Staff should be free to apply them as they see fit.

Theme 4: Opportunities for Reassessment

Research with staff showed that some of the foundational components of check-in systems and processes may not be serving staff and Veterans.

General Recommendation 4: Reassess During Check-In Redesign

Modifying the check-in experience provides an opportunity to reassess some of the current practices within the staff check-in workflow.

Staff-Facing System Accessibility

Accessibility of staff-facing tools is unknown.

None of the staff we spoke with disclosed the need for, or use of, assistive technology to perform their duties at work, nor did we directly inquire on this topic in order to respect their privacy in their work environment. Improving accessibility of these systems will benefit all users. This current check-in experience design and development project is a key opportunity to assess the current state of system accessibility and make high-impact enhancements.

Recommendations:

- Recommend a formal evaluation of staff-facing tool accessibility, in particular of VSE GUI.

Cell Coverage

Frontline employees and administrators have concerns about relying on mobile-based solutions because of connectivity issues.

Representatives from approximately a third of clinics we spoke with expressed concerns about cell coverage in their areas. Additionally, some expressed concerns about tech-literacy and limited cellular plans. Many sites reported negative experiences with cell coverage causing major issues with VeText 'I Am Here'. In light of the upcoming deployment of mobile check-in, an assessment of the state of cellular coverage across target facilities is essential for understanding the factors impacting outcomes of the new tool.

Examples:

- "[Mobile check-in] Could work well, but cell signal wouldn't work here." (P9 - MSA)
- "Cell coverage is terrible at our location for all but Verizon customers." (482 - Admin)
- Wifi/cell reception is non-existent in this department. They said "this was why VetLink was great." (UD6.304 - MSA)

Recommendations:

- Recommend assessing and improving cellular coverage throughout facilities interested in deploying mobile check-in.

Insurance & Eligibility Checks

Frontline staff are the catch-all system for issues that could be known and resolved prior to the appointment time, in particular insurance capture and eligibility issues.

Admins rely on interactions with staff to fulfill requirements from insurance capture directive (90% capture rates). Insurance capture is important to administrators as a source of funding for their facilities. Insurance card readers are unreliable, staff frequently manually update insurance information. Additionally, though eligibility issues are rare during check-in, they are catastrophic for Veteran experience and frontline staff at clinics typically have to direct Veterans to another office at the facility before they can be seen.

Insurance Examples:

- Kiosks were creating a problem regarding insurance - Vets learned to bypass insurance on the Kiosk by saying they did not have any updates to make, even if they were marked in ICB for more specific follow up by MSAs, the kiosk wouldn't hold accountable to ICB list. Clerks then would call Veterans on ICB list on the phone to verify their insurance information. (D1.813 - Admin)
- Staff pull a report in the morning of who needs their insurance captured. (H2.398 - MSA)
- "ICB needs to be incorporated into one system. May sometimes have to reach out to get updated if ICB is skipped" (UD6.265 - MSA)
- Training inconsistent clinic to clinic for MSAs, impacts insurance capture procedures (P0.635 - Observed)
- Now that Veterans don't have to come back to central check-in, the facility hasn't been hitting their 90% insurance capture rates. (UD1.39 - MSA)

Eligibility Examples:

- "If they aren't service connected, they will tell them to go to eligibility first." (UD2.79 - MSA)
- "I know they can't be seen. If you want to be seen, go to the business office. They shouldn't get pass us. They still get processed I don't think they should be seen if they're still in processing. Just because you're a veteran doesnt mean you're qualified to be seen here." (P9 - MSA)

- "If the MSA is unsuccessful in finding an answer about eligibility, they send the Veteran over to admissions to sort everything out. Some Veterans choose to fill out forms and be billed for the visit". (H1.348 - MSA)
- "If a Veteran goes to pre-registration first, sometimes the Medicaid question causes them to be marked as ineligible when they are actually in an "in-process" status. Addition of that one eligibility status [in-process] to VetLink would help clarify a lot of eligibility questions, so they wouldn't have to call the eligibility department as much." (UD6.276 - MSA)

Recommendation:

- Recommend reevaluating whether insurance and eligibility checks are essential to the in-person check-in workflow and if there is a more reliable and less disruptive point in the experience for those checks.

Tracking Veteran Status During Appointment/Services

Clinics use a variety of means to communicate about where patients are in the appointment process after check-in, however VetLink activity buttons are rarely used by clinics with scheduled appointments.

Of all scheduled appointments for which a Veteran was checked-in via VetLink, staff only use the 'Activity Button' tracking feature of VetLink on 10-15% of those appointments. Of all the staff we spoke with, administrators took the most value out of the activity tracking features of VetLink. Staff more often relied on lower-tech solutions to communicating with other staff members about Veteran status during appt. One high-value use case worthy of further investigation is in surgical clinic settings for patient status.

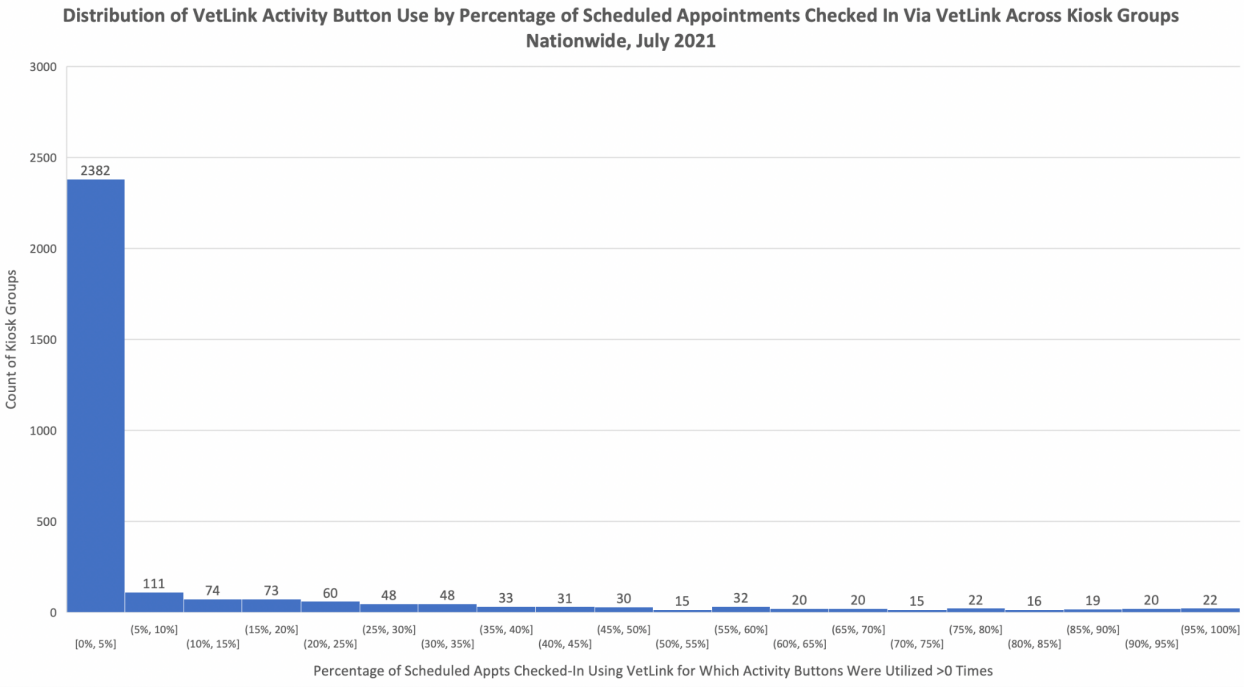

Table 2. Distribution of Kiosk Groups across the country by use of activity buttons (queuing) within VetLink, as a percentage of all scheduled appointments checked-in using VetLink. The majority of Kiosk Groups (which roughly map to clinics) serving scheduled appointments use activity buttons within VetLink for <5% of appointments.

Examples:

- “Can use the activity buttons to let others know the status of patient, but no one looks closely enough. In order to use tracking buttons, would have to click "call", then "with nurse," then undo "with nurse" to allow someone else to track.” (UD4.172 - MSA)
- “No, there may be more capabilities that we're not using, but after the check in, [VetLink] not being used.” (P4 - Nurse)
- After completing intake tasks LVN will either message doc in Teams to see if they are ready for patient or walk by the providers room to see if they are ready. (D5.688 - LVN)

Recommendations:

- Recommend reevaluating whether this functionality of VetLink needs to be duplicated in a new system.
- Recommend communicating as soon as possible with facilities and clinics that rely on activity button functionality for scheduled appointments.

Theme 5: Validation of Planned Features

A subset of the work currently in development was validated by the research conducted with staff, in particular the use of VSE GUI for staff-facing functionality in lieu of adding an additional system to the staff experience.

Recommendation 5: Continued Assessment of Features

Continue to solicit feedback from staff about the functionality of forthcoming features.

Avoid Adding Unnecessary Complexity

Avoidable complexity in clinic operational tasks puts strain on frontline staff's ability to provide customer service to Veterans and visitors.

Staff do their best to provide quality customer service, even when simple tasks become cumbersome with multiple systems involved or system errors. Staff use a wide range of tools to investigate issues and find information relevant to the problem they are solving. Because Veterans are often present while frontline staff are performing their duties, they have to balance completing their task with providing service to the Veteran.

Examples:

- Performing multiple tasks at the front desk, including RTC clean up, patients get upset. H2.429 - MSA
- Some Veterans get upset with checking in twice (once at central pre-registration and once at clinic). H2.405 - MSA
- I don't tell them they weren't checked in because they don't want to hear that. I'll say "let me help you," I don't say that they did something wrong. (P9)
- MSAs will become detectives trying to find info in many systems. They look in VistA too. H1.346
- [Half-checked in] causes delay, patient dissatisfaction. They're never going to say "It's my fault." They blame the people, the system. (P4)
- After checking in, MSA looks up which nurse is associated with the provider in an outlook message (schedules change hour by hour if coverage for a nurse who is out) and then sends that nurse a Teams message. D2.595

Validations:

- Validates assumption that it is more helpful to MSAs to integrate into existing tools, instead of creating new tools. Fewer tools can mean fewer transitions between tools, if tools are easy to use, training is in place, and tools are flexible enough to adapt.
- Validates integration of check-in functions into existing tools.

Pre-Check-In

Frontline staff and administrators are open to pre-registration information being completed by Veterans ahead of their appointments.

While staff had reservations about Veterans 'checking-in' prior to being on site for their appointments, they were open to Veterans completing pre-registration and demographic information collection before arriving onsite for their appointments.

Examples:

- "I definitely think that that address, phone number, pre-screening upfront, next of kin, medicine reconciliation, all of that could be done [beforehand]." (P13 - Admin)
- "All that demographics stuff shouldn't be there [in the kiosk]...We have baby boomers in our department, 60 and over and there are too many steps they don't understand. " (P9 - MSA)
- "The amount of questions, next of kin, confirmation, sometimes patients just want to change things and it doesn't go the way it should. So they don't continue through." (P5 - Nurse)

Validation:

- Validates plan for Veteran self-pre-check-in, allowing Veterans to review information before arriving at the clinic, on their preferred device.

Recommendation:

- Identify sites that separate pre-registration from clinic check-in before deploying pre-check-in at a large scale to review possible impact to their facility workflow.

Limit Length of Check-In Questions

Admins value the opportunity to collect patient information via the kiosk, but longer check-in kiosk interactions contribute to fewer successful check-ins.

Administrators add additional questions to the kiosk to take advantage of the opportunity to collect patient information, for example questionnaires about COVID screening, flu shots, ebola, clinic access, ER specific workflows, and ebola. However, these custom additions require management, and prove as a barrier to patients efficiently checking-in to their appointments.

Examples:

- "We've built a lot of workflows around vetlink. If it was only built on check in, we would miss out on all of these things" (P13 - Admin)
- “Especially when they are running late, the last thing they want to do is answer these questions.” (P10 - MSA)
- “It's too long. Are you the person? Are you ready to check in? Put your social in, check in. And then if something else needs to be done, go to the front desk.” (P9 - MSA)
- “If there were fewer questions [it may help them complete check in]” (P6 - MSA)
- “We don't do kiosks in the pre-op. We gotta get them in a timely manner and they need to be seen” (P16 - MSA)

Validation:

- Validates decision to limit check-in experience to questions needed to simply notify staff of patient arrival to the clinic area.

Recommendation:

- Explore other opportunities to configure pre-check-in questionnaires on a facility or clinic level, to enable patients to respond to admin-driven questionnaire needs in a less time-sensitive context.

Clinic Access Management

Because clinics change and staff rotate across clinic areas, staff don't always have access to the clinics in VetLink that they need to do their jobs. The need to manually add new clinics to VetLink also causes interruptions to check-in processes.

Clinic access in VetLink is often managed by administrators not integrated into a given clinical department, and in order to gain access to a kiosk group or template (either because it’s changed or because a staff member has been floated there for a day) a staff member has to contact an administrator and wait for access to be granted. If a new clinic is added to a kiosk group, the same administrator has to add the clinic to the kiosk group manually.

Examples:

- The department has to let HAS know when a new provider starts to update clinics. (UD6.305 - MSA)
- “Right now you have to have the template to look at it. And if I'm a float [MSA] and I don't have that template, then I can't do my job effectively. Have to contact someone

on site to get approval. Then if they're busy, you are waiting for them." (P12 - MSA/Admin)
- "Typically, some issues are new clinics not being in Vetlink automatically. Once in Vista, have to be manually loaded in Vetlink." (P13 - Admin)
- "We used to have a lot of superusers, but too many hands in the pot. Had to strip access away." (P7 - Admin)
- Looking at VetLink, says no appointments, but MSA looks and sees that they do have an appointment with a provider in this area, but the clinic hasn't been updated in Vetlink to include the new provider. (D2.613 - MSA)

Validation:

- Validates plan to allow staff members to manage their own clinic profiles in VSE GUI, building on existing VistA clinic access structure.

Recommendation:

- Continue to solicit feedback from staff about the functionality of forthcoming staff-managed clinic profile functionality.

System Authentication

VetLink uses VistA Access/Verify code for staff authentication, which expires frequently and causes interruptions for staff who have failed to reset their password. Other tools used by staff rely on PIV-based authentication.

Examples:

- "Daily they'll say we cant get into VETlink or locked out. So it's configure and unlock accounts. Something as simple as needing to change verify code in VistA. (P7 - Admin)
- "They can't remember password for VistA or it expires; Vetlink doesn't accept PIV card" (P12 - Admin)
- "Daily calls that staff can't use PIV to login to VetLink. Access/verify code from VistA exp after 90 days." (P3 - Admin)

Validation:

- Validates plan to integrate check-in functionality for staff into a tool that uses PIV authentication, sharing auth method with other common staff tools.

Opportunities For Future Research

Wayfinding

What stands in the way of maintaining accurate clinic location and clinic name information? How could this process be made easier in order to more reliably offer wayfinding information to Veterans digitally? Could Veterans supply feedback on the accuracy and ease of use of the directions they were given for their appointments?

Insurance Capture

How do Veterans feel about sharing insurance information with VA? What would make sharing information easier? What stands in the way?

Clinical Staff Workflow / Tools

More research into clinical staff tools and workflow: What are common clinical tools that check-in notification systems should integrate with to improve intra-staff communication and increase trust across clinical staff teams?

System Interruption

Speed issues were the most common among our research with staff. More research is necessary to identify and remediate the source of speed issues and other common technical disruptions in staff-facing systems.

Considerations For Change Management

A subset of clinics will be more heavily impacted by upcoming tooling transitions for staff management of check-in and patient tracking. Notifying those clinics about the unique impact this transition will have on their operations as early as possible will help lessen the burden of transition. There are three subtypes of clinics that should be identified and contacted: clinics using VetLink queueing/activity buttons for scheduled appointments, clinics using VetLink but not using VSE GUI, and facilities with designated pre-registration departments.

Clinics Using VetLink Queueing for Scheduled Appointments

Clinics with scheduled appointments that rely heavily on VetLink for patient tracking or "queuing". As mentioned in Theme 4, Finding 4, most clinics with scheduled appointments will not be impacted by the loss of this functionality, but clinics that do rely on this feature should be specifically notified.

Clinics Using VetLink, Not Using VSE GUI

Clinics with scheduled appointments that have been using VetLink to check-in Veterans, but do not currently use VSE GUI. Such clinics were not seen during our research, but it's possible that there are clinics where scheduler roles and check-in roles are separated and check-in staff may not have access or scheduling keys and therefore the use of VSE GUI by check-in staff may not have been necessary previously. Training check-in staff in VSE GUI prior to deprecation of VetLink would help ease the transition.

Facilities Using Designated Pre-Registration Department

In the research, most sites required clinic-based staff to perform pre-registration, but some required Veterans to interact with staff at a pre-registration department before proceeding to the clinic area. The Veteran experience at these facilities will be greatly altered by the rollout of pre-check-in and these facilities should be notified and collaborated with early to discuss the impact to their processes.

Appendices

Group Interview Notes

Individual Interview Notes

Site Visit Notes

Site Visit Photos

Catalog of Utterances & Observations

Presentation Deck

Glossary

CBOC - Community Based Outpatient Clinic

IMH - I Am Here

VeText feature built during COVID-19 pandemic to allow Veterans to notify clinics of arrival to facility via SMS message.

MSA - Medical Support Assistant

Frontline staff role commonly tasked with checking in Veterans for appointments, scheduling appointments, and communicating Veteran arrival to clinical staff.

Pre-registration

Pre-registration includes review and updating Veteran information such as address, contact information, emergency contact, next of kin, and insurance details.

RTC - Return to Clinic

Clinical order for follow-up visits within a given clinic.

VAMC - Veteran Affairs Medical Center

VetLink

Brand name of software tool & associated physical kiosk in place at many VAMCs to allow Veterans to check-in to appointments.

VSE GUI - VistA Scheduling Enhancement Graphical User Interface