

VA



U.S. Department
of Veterans Affairs

Draft: Health Records: Medications, Allergies, and Immunizations

Discovery Readout

Background & Goals

Background

Our goal is to improve the in-person and online pre- and post-appointment experiences for Veterans, contribute to physical distancing efforts in VA facilities, and better integrate Veteran-provided data in VA workflows by providing Veterans with a digital option to complete pre- or post-appointment questionnaires and screeners.

Our next phase will focus on improving the pre-appointment experience when visiting primary care providers by allowing Veterans to update their health record information, particularly medications, allergies, and immunizations.

Research goals

This research is to explore:

- problems Veterans face when communicating health record (medications, allergies, and immunizations) changes to their VA providers.
- how Veterans understand, group, and find value in reviewing and updating their medications, allergies, and immunizations within a health questionnaire prior to a primary care appointment.

Hypotheses to be tested

- Adding the ability to view and update medications, allergies, and immunizations within the questionnaire help solve some of the Veteran's current pain points.
- Veterans will be confused by certain medication, allergy, and immunization information. This test should help identify commonly confusing items, so we can address that confusion.
- A pattern will emerge from the Veteran's groups, so the team will understand Veteran's mental model. This mental model could then be replicated in the workflow/interface.
- Veterans will find value in a subset, but probably not all possible data points and proposed features. This will help the team determine scope for this phase.

Methodology

Method

We conducted 7 remote moderated tests via Zoom using the Perigean contract. To start, the Veterans will be asked a series of interview questions to uncover current pain points and workflow. Then, participants will engage in a participatory design activity utilizing Mural. This activity should assist with:

- identifying confusing health record terms/data points.
- developing a mental model on how Veteran group health record information.
- identifying value of data points and proposed features.

Who we spoke with: 7 Veterans

Gender

Male: 3

Female: 4

Age

25-34: 1

45-54: 1

55-64: 1

65-74: 4

In order to qualify for the study, all participants had to:

- **currently be taking at least one medication,**
- **have at least one allergy, and**
- **have had an immunization within the past two years.**

We also specifically recruited for a portion of participants, who:

- **receive some medical care outside of the VA (5 participants), and**
- **received their immunization at a facility outside the VA (3 participants).**

Research questions: Warm-up

- How much of your medical care do you receive from the VA? (A great deal/All, Quite a bit, Somewhat, Very little, or None at all)
- How do you keep track of your medications, immunizations, and allergies?
 - What do you like about your current process?
 - What is frustrating about keeping track of your medications?
- How do you keep your VA providers up-to-date on your medications? For instance, maybe you stopped taking a medication or you were prescribed a new medication from a non-VA provider, how did you let your VA providers know?
 - How did the process of communicating those changes to the VA go?
 - If you take any supplements, vitamins, or over-the-counter medications, do you share that with your VA providers?
 - If yes, how did those experiences of letting your VA provider go? What methods did you utilize to communicate the change?

Research questions: Warm-up

- Have you ever let your VA provider know about any changes to your allergy history?
 - If yes, how did those experiences of letting your VA provider go? What methods did you utilize to communicate the change?
- Have you ever received an immunization at a non-VA facility, maybe a non-VA provider's office or a pharmacy?
 - If yes, how did you let your VA provider know about those immunizations? How did those experiences of letting your VA provider go? What methods did you utilize to communicate the change?

Research questions: Warm-up

- Do you get a flu shot every year? If so, where? If non-VA location, do they tell their VA provider? If not, why not?
- Have they gotten their COVID vaccine? If yes, was it at a VA facility? If no, are they planning on getting the vaccine and where do they plan on getting it?
 - If they got their COVID vaccine, how was their overall experience?
- *Only ask if necessary, depending upon how the Veteran answered the past three questions, if they didn't talk about their actual appointments with their providers. How do you prepare for your appointment when you have changes you would like to discuss with your VA provider?*
 - Observers: Take note if anyone mentions printing.

Research questions: Warm-up

- Do you utilize MyHealthVet?
 - If yes,
 - Have you ever checked your medication list on there?
 - Were those list easy or hard to understand? If hard, what did you find challenging?
 - Have you ever utilized secure message to notify your VA provider of medication, allergy, or immunization changes?
- How can we make it more easier for you to communicate to your VA providers?

Research questions: Mural activity

- This activity will help prioritize and group information that we could display online in medication, allergy, and immunization sections.
 - Observers: Take note of what pieces of data or features the Veteran doesn't understand. Also, note the reasons why the Veteran ranked and grouped things a certain way.

Immunizations

Very important

Influenza
COVID-19

Date received: Oct. 1, 2020
Date received: Jan. 31, 2021
Date received: Oct. 15, 2019

Healthcare professional or clinic site: Dr. Rita Smithton
Healthcare professional or clinic site: CV?

Printing an immunization record
+ Add an immunization

Important

Healthcare professional or clinic site: Dr. Rita Smithton
Healthcare professional or clinic site: CV?

Schedule an immunization
CDC Traveler's Health Information
Short Recommendations

Moderately Important

Reaction: Rash
Reaction: Muscle ache

1st Dose
2nd Dose

Editing reactions
Recommended Screenings and Immunization

Slightly important

Comments

Not important

By mouth
Inhalant
Injection

Right deltoid
Left deltoid

Product name/manufacture: Pfizer
Product name/manufacture: Moderna

Lot number: 10235
Lot number: 91863
Lot number: 2368

These might be important to my health care professional

Research questions: Mural activity

The image shows two overlapping digital forms designed for a mural activity. The top form is titled 'Allergies' and features a vertical list of importance levels: 'Very important', 'Important', 'Moderately important', 'Slightly important', and 'Not important'. Each level has associated text fields for 'Onset date', 'Severity', and 'Verified' dates. The bottom form is titled 'Medications' and also has a vertical list of importance levels: 'Very important', 'Important', 'Moderately important', 'Slightly important', and 'Not important'. This form includes fields for 'Quantity', 'Duration', 'Prescribed by', 'Refills remaining', 'Last refilled on', 'Expires on', 'Ordered on', 'Warnings/interactions', 'Side effects that I've had', 'Reason why not taking as directed', 'Why?', 'Comments', and 'Learn more about this medication'. Both forms use color-coded circles to indicate the importance level of each item.

Immunizations

- I'm going to show you a bunch information that we could display on va.gov for immunizations. We are going to review them one-by-one. Let me know if you don't understand the item, then I'm going to have you rank them by how valuable they are to see displayed online.
- Is there anything that should be added to immunizations that we didn't already review?
- Now, let's group things together that you believe should be displayed together.

Repeat for Medications and Allergies.

Research questions: Wrap-up

- Pretend you developed a new medication allergy, such as a rash when you take penicillin. Would you add that medication allergy on the medication section and/or the allergy section?
- How often do you expect to update each of these sections? Would you want to see these sections in a questionnaire before every VA appointment? Would you want to see these sections once every six months or some other time period?
- If we could only build one of these topics into a pre-visit questionnaire, which one would you prefer? Would you pick medications, allergies, and immunizations? Why?
- Do you think adding these pages to a pre-visit questionnaire will help or not help you explain changes to your medications, allergies, and immunizations to your VA provider? Why?
- Is there anything about medications, allergies, and immunizations that I should know about that I didn't cover today?
- Do you have any final questions for me?

Research Findings

Key Findings

1. Keeping their medication, allergy, and immunization record up-to-date at the VA is a familiar activity to Veterans.
2. Veterans sometimes don't share or aren't aware that certain updates to their medication, allergy, and immunization history would be helpful to VA providers.
3. Reviewing and updating medication information is of great interest to Veterans.
4. Needing to interact with or update allergies seems to occur less frequently than medications; however, the need can feel more urgent when it does arise.
5. Veterans utilize a variety of methods to review and update their health records, including My HealtheVet, paper, phone calls, and in-person communication.
6. Reviewing and printing immunization records are useful, but updates aren't urgent and tend to occur during appointments.

Key Findings

7. The top three prioritized pieces of data or features for immunizations are immunization name (Flu shots, COVID-19), secure messaging, and schedule an immunization. Immunizations also have four main mental model groupings for data/features.
8. The top three prioritized pieces of data or features for medications are medication name and dose, refills remaining, and secure messaging. Medications also have four main mental model groupings for data/features.
9. The top three prioritized pieces of data or features for allergies are allergy name (Peanuts, Lactose intolerance), reactions (Rash, Anaphylaxis), and severity level (High risk, low risk). Allergies also have three main mental model groupings for data/features.

Key Findings

10. Some Veterans were surprised at the idea of submitting health record changes to their VA providers via a questionnaire or patient portal page.
11. Veterans acknowledged that updating their health records via health questionnaires could help alleviate some of their current pain points.
12. How often Veterans want to review and update this information varied from every appointment to annually.

Research Findings

Keeping their medication, allergy, and immunization record up-to-date at the VA is a familiar activity to Veterans.

“We usually discuss that at my physical like the new prescriptions or if I’m taking the same thing.”

“I’ve had bad side effects from medications and [my VA providers] appreciate having that information.”

“I let them know when I plan to get [my flu shot].”

“With Ritalin, you have to talk to your doctor, because it isn’t renewable.”

Research Findings

Veterans sometimes don't share or aren't aware that certain updates to their medication, allergy, and immunization history would be helpful to VA providers.

“My doctor told me that I needed to start taking supplements, but it didn't occur to me to provide them with details [about what I ended up taking].”

“It didn't think to add it to my record.” - speaking about an immunization they received during active duty that didn't make it into their VA record.

- Half of the participants commented that they do not share or did not realize that certain information could be beneficial, such as supplements, over-the-counter medications, or immunizations received outside the VA.

Research Findings

Reviewing and updating medication information is of great interest to Veterans.

- All participants had a current process by which they review their medications and communicate with their VA providers about:
 - medication questions
 - stopping the usage of a medication
 - any side effects or reactions to a medication
 - medication record inaccuracies
- When asked to choose between medications, allergies, and immunizations as the most important item for us to build within a pre-visit questionnaire, medications was chosen by five out of seven participants.

Research Findings

Needing to interact with or update allergies seems to occur less frequently than medications; however, the need can feel more urgent when it does arise.

“I’ve always had [this allergy]. I had a bad reaction at 20 years old, so it is in all my medical records.”

“Allergies could be life saving for the individual.”

“Allergies...are the most significant things that happen that are not always remembered at the appointment.”

- When asked to choose between medications, allergies, and immunizations as the most important item for us to build within a pre-visit questionnaire, allergies was chosen by three out of seven participants.

Research Findings

Veterans utilize a variety of methods to review and update their health records, including My HealtheVet, paper, phone calls, and in-person communication.

Current methods used across the Veteran's journey



Research Findings

Reviewing and printing immunization records are useful, but updates aren't urgent and tend to occur during appointments.

- One participant recently went back to school utilizing the GI Bill. As a result, having access to print out their official immunization record was extremely important.
- Six out of seven participants mentioned updating their providers about their immunizations. Most stated that they waited until their appointment.

Immunizations Prioritization

1. Immunization name (Flu shots, COVID-19)
2. Secure messaging
3. Schedule an immunization
4. Date received
5. Smart recommendations
6. Printing immunization record
7. Add an immunization
8. 1st dose vs. 2nd dose
9. Product name/manufacture
10. Health care professional or clinic site
11. Recommended screenings and immunizations
12. Reactions
13. Editing reactions
14. Comment box
15. CDC Traveler's Health Information (link)
16. By mouth, inhalant, injection
17. Lot number
18. Location of immunization (arm)

Immunizations Groupings

- Immunization name
- Date received
- Health care professional or clinic name

- Recommended screenings and immunizations
- Schedule an immunization

- Product name / manufacturer
- Lot number

- Location of immunization
- By mouth, inhalant, injection

Activity completed by 6 participants.

Medications Prioritization

- | | |
|--|---|
| <ol style="list-style-type: none">1. Medication name and dose2. Refills remaining3. Secure messaging4. Diagnosis (What do I take this medication for?)5. Directions (Take with food)6. Warnings/Interactions7. Quantity8. Duration9. Last refilled on10. Add a medication11. Your own side effects | <ol style="list-style-type: none">12. Prescribed by (Doctor's name)13. Expires on14. Rx #15. Ordered on16. Discontinued, active, expired17. VA vs. Non-VA prescription18. Pharmacy information19. Side effects20. Patient education link21. Comment box22. Taking as prescribed (Yes/No and Why?)23. Injection, Oral, Liquid24. Description (Oval, white) |
|--|---|

Medications Groupings

- Medication name and dose
- Directions

- Refills remaining
- Last refilled on

- Quantity
- Duration
- Diagnosis

- Expires on
- Ordered on

- Side effects
- Warnings / Interactions
- Directions

- VA/Non-VA prescription
- Pharmacy information
- Prescribed by

- Medication name and dose
- Rx #

Activity completed by 6 participants.

Allergies Prioritization

1. Allergy name (Peanuts, Lactose intolerance)
2. Reactions (Rash, Anaphylaxis)
3. Severity level (High risk, low risk)
4. Add an allergy
5. Editing reactions
6. Comment box
7. Onset date
8. Patient education link (Medline plus)
9. Verified date (and not verified)
10. Documenting facility
11. Diagnosed (Yes/No)
12. Reported by (Doctor's name, Veteran)

Allergies Groupings

- Allergy name
- Reaction
- Severity level

- Add an allergy
- Editing reactions
- Comment box

- Verified date
- Documenting facility
- Onset date
- Reported by

Activity completed by 6 participants.

Research Findings

Some Veterans were surprised at the idea of submitting health records changes to their VA providers via a questionnaire or patient portal page.

- Many participants discussed their comfort with utilizing secure messaging as the digital solution to share this information.
- A few participants wondered if they would/should be required to send supporting documentation when submitting a change to their health record.

Research Findings

Veterans acknowledged that updating their health records via health questionnaires could help alleviate some of their current pain points.

“It would save time when I go to the doctor. I hate waiting and going through pages of crap each time. I can update it at night when I have the resources. There’s nothing worse than being [at the doctor’s office] and not having the [medication] bottle with me.”

- One participant asked (before even knowing about health questionnaires) to receive a notification triggering them to review and update these items before an appointment.
- All participants stated that they saw value to including medications, allergies, and immunizations with a health questionnaire.

Research Findings

How often Veterans want to review and update this information varied from every appointment to annually.

All participant responses

- every 6 months
- only major appointments like physicals, but not sick visits
- once a month to every few months
- every two-three months
- annually
- before each appointment
- based on appointment types and what could impact that appointment, so definitely before all physicals and procedures (like colonoscopies).

Research Findings

Accessibility feedback

The participant who was totally blind shared an accessibility-related issue that they have run into with secure messaging within My HealtheVet.

“I don’t know the issue with interacting with screen reading. I cannot send a message to someone with more than a few words, so I go to my file, write it, then copy it. If I try to write it in there, it kicks me out. If I try to find the new message, it is 50 keystrokes. I tried sending in problem messages and it doesn’t go through. I called and made complaints, but that’s gone nowhere.”

They also mentioned trouble navigating from section to section within My HealtheVet, but navigating an individual page worked great.

Their overall feedback was *“other than that the website is great.”*

Recommendations and Next Steps

Recommendations and Next Steps

- Move toward with the idea of allowing Veterans to review and update their medication, allergy, and immunization information in digital health questionnaires.
- Utilize the prioritization and grouping information to explore health questionnaire designs that include medications, allergies, and immunizations. Then, retest to make sure the actual solution meet Veterans needs.
- Continue to explore with Veterans and VA providers on how often these health records sections need to be reviewed.
- Validate VA provider pain points around medications, allergies, and immunizations and how health questionnaire helps.