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VA Mobile App RX Refill/Pharmacy

Usability Findings

Background

VA Mobile App RX Refill Usability Findings | 6/2022

Since the launch of the Flagship Mobile App, the Mobile App team has received numerous requests from Veterans to have a prescription refill feature in the flagship app. In an effort to meet that need, we are incorporating an MVP prescription refill experience into the app. We conducted user research on a design prototype of the MVP in order to ensure we are meeting users' expectations and core needs.

Research Goals

1. Determine if the current concept of refilling a prescription matches Veteran's expectations and understanding
2. Identify major usability or content issues with the current concept of viewing prescription history and tracking prescriptions

Approach

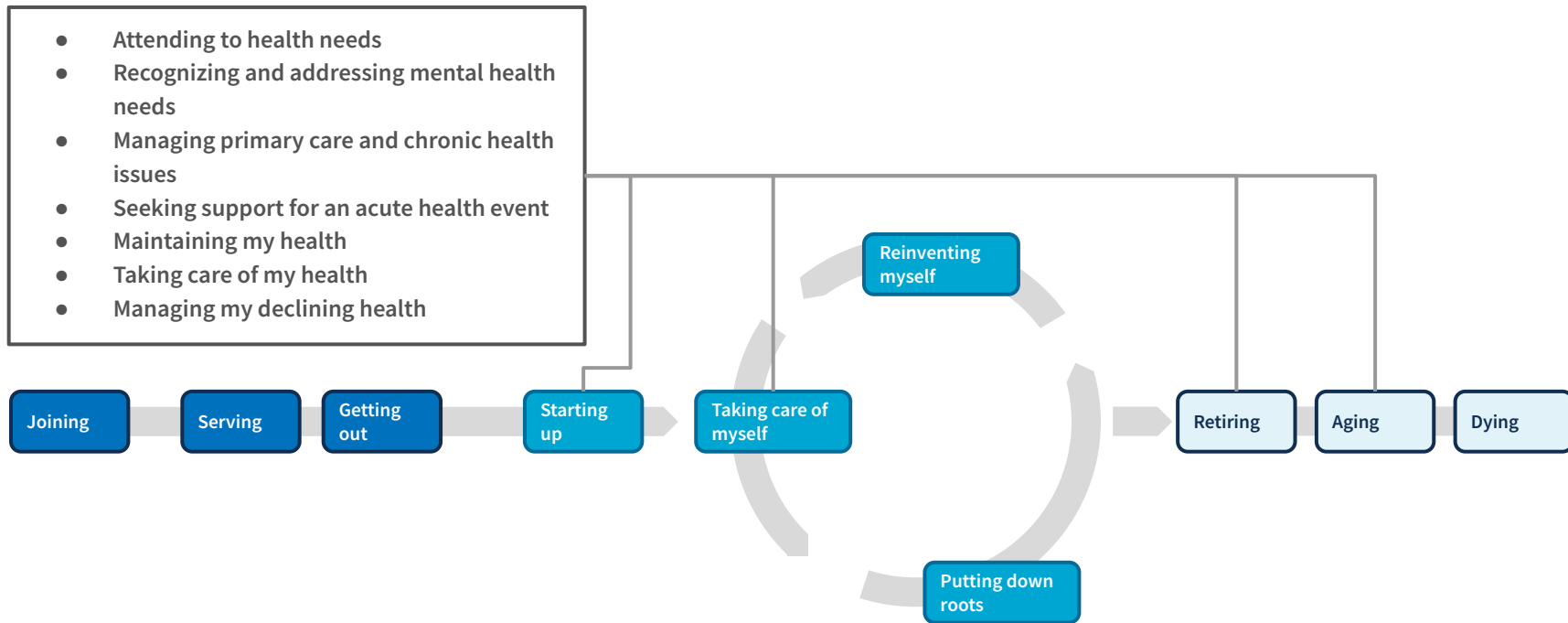
We interviewed 10 Veterans in a remote moderated usability study using a low fidelity Figma prototype



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How this research maps to the Veteran journey

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For a fully detailed Veteran journey, go to

<https://github.com/departement-of-veterans-affairs/va.gov-team/blob/master/platform/design/va-product-journey-maps/Veteran%20Journey%20Map.pdf>

Serving and separation

Living civilian life

Retiring and aging

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OCTO-DE goals that this research supports

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Supported

Not supported

Veterans and their families can apply for all benefits online

Veterans and their families can find a single, authoritative source of information

Veterans and their families trust the security, accuracy, and relevancy of VA.gov

Veterans can manage their health services online

VFS teams can build and deploy high-quality products for Veterans on the Platform

Logged-in Participants have a personalized experience, with relevant and time-saving features

Logged-in Participants can update their personal information easily and instantly

Logged-in Participants can easily track applications, claims, or appeals online

Measures to increase

Completion rate of online transactions

Percent of applications submitted online (vs. paper)

Veteran satisfaction with VA.gov Benefit use and enrollment, across all business lines

Benefit value (in \$) delivered from online applications or transactions

Number of VA.gov Participants as a function of total Veteran population

Usage of digital, self-service tools

Measures to decrease

Time to successful complete and submit online transactions

Time to process online applications (vs. paper)

Call center volume, wait time, and time to resolution

Time from online benefit discovery to benefit delivery

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Participant Demographics

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Findings may not include the perspectives of the following underserved Veteran groups:

- Live in rural areas or abroad
- Identify as Black, Latinx, Native
- Identify as LGBTQ+
- Of immigrant origin

We recommend studies with these underserved groups in the future.

Note: Due to uncertainty on the accessibility of the prototype tool, we could only recruit assistive tech users that use magnification/zoom or hearing aids

final # of participants	15	10	# of no shows			5	# of AT users			4									
Category	Target	Study	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
General Based on current VA statistics																			
Age 55-64+	8	7	0	0	NS	1	0	NS	NS	1	1	NS	NS	1	1	1	1		
Cognitive Disability	8	5	0	0	NS	0	0	NS	NS	1	1	NS	NS	1	1	0	1		
Mobile user	8	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Rural	4	2	1	0	NS	1	0	NS	NS	0	0	NS	NS	0	0	0	0		
No degree	4	2	1	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	1		
Immigrant origin	3	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Women	2	2	0	1	NS	0	0	NS	NS	0	0	NS	NS	0	1	0	0		
Expat (living abroad)	1	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Race Based on VA's projected statistics																			
Black	3	1	0	1	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Latinx	2	1	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	1		
Biracial	1	1	0	1	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Asian	1	1	0	1	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Native	1	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
LGBTQ+ LGBTQ+ Veterans are 5 times as likely to have PTSD																			
Gay, lesbian, or bisexual	1	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Transgender	1	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Nonbinary, gender fluid, gender queer, Two-Spirit (Indigenous only), or another gender beyond man or woman	1	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Assistive Tech (AT) Ask an a11y specialist to help you complete this. Targets are for a general AT study.																			
Beginner AT User	2	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Experienced AT User	2	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Desktop Screen Reader (SR)	0	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Mobile Screen Reader (SR)	0	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Magnification/Zoom	1	1	1	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Speech Input Tech (Siri, Dragon)	0	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Hearing Aids	1	3	0	0	NS	1	0	NS	NS	0	1	NS	NS	0	1	0	0		
Sighted keyboard	0	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Captions	0	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Switch Device	0	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		
Braille Reader	0	0	0	0	NS	0	0	NS	NS	0	0	NS	NS	0	0	0	0		

[Rx Refill Participant Demographics Tracker](#)



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Methodology & Key Findings



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Interview Procedure

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Introduction

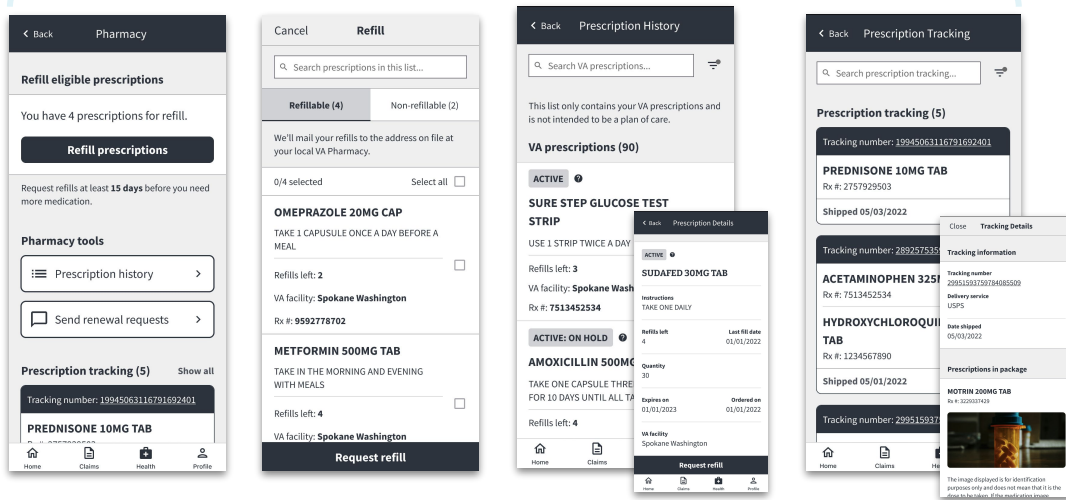
- Overview of session format
- Veteran's usage and experience with VA services (VA.gov, MHV, VA: Health and Benefits app)
- Experience with prescription management and prescription mental model

Prototype Testing

- Guiding the user through the “VA Mobile App Pharmacy” experience to get their feedback on key interactions

General Takeaways

- Deep-dive into user-specific insights
- Obtain general feedback for the prototype experience



Key Findings - Validated Interactions

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Participants enjoyed the clean, minimal style of the Pharmacy Landing Page

Participants liked how easy it was to find and refill their refillable prescriptions

Participants liked being able to filter and look for more detailed information as needed

"[This] is good and bold and easy to read." - P12

"I like the big refill button, because it's what I'm coming straight here to do. I like that it's at the top." - P2

"Very simple to do [filter]...It's intuitive... I'm an intuitive guy!" - P14

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Key Findings - Insightful Learnings

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Participants wanted more of a confirmation when submitting their refill requests

Participants wanted a place to view all of the “in process prescriptions”

Participants have a lot of faith in VA prescription shipping. They’ll typically only look at tracking if something gets lost or to verify it’s been shipped.

“You know what would make [this] fairly easy for me?[...]Anything that I had requested would be on that one scroll but separated into groups[...]Say something is taking a little longer, I am running low, if I could have one page that shows that list I can see if it has a tracking number or I can see where it is in the process.” - P9

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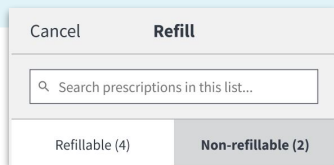
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Secondary Findings

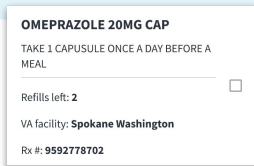
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Refill Screen

Participants didn't understand what the "non-refillable" tab was, and why it contained a separate list of prescriptions

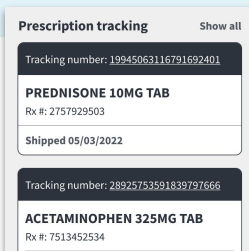


Participants stated they didn't need all of the metadata upfront in order to refill



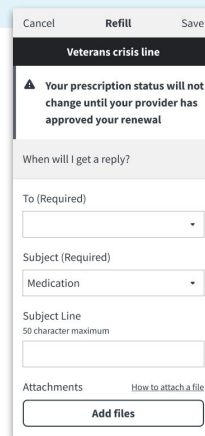
Tracking

Participants thought that their tracked prescriptions were a list of active or recently submitted prescriptions



Secure Messaging

Participants liked the idea of renewing through secure messaging, as well as other functions.



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Findings Unrelated to the Digital Experience

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- **Shipping estimates influence users' refill behavior**
 - Participants who have been refilling for a while reported observing how many days medications take to ship. They'll wait until this amount of days to request a refill.
- **Some participants expressed confusion around statuses**
 - 4 users verbally expressed confusion about what the statuses meant, e.g. "What is active:parked? Parked? I have no idea what that means." -P2
 - MHV users didn't seem to recognize all the statuses
 - 1 participant who has been using MHV for a while reported having to frequently look up status definitions
- ***Several participants who use MHV reported login as a pain point for them***
 - *There was common frustration expressed at the "3 billion ways to log in" - P2*



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Prototype Feedback



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Prototype Questions & Hypothesis

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Research Questions

- Do Veterans **understand the difference between refillable and non-refillable** prescriptions in the refill modal?
- Will Veterans be **able to accomplish the main pharmacy tasks**:
 - Refilling a prescription?
 - Viewing their prescription history and prescription details?
 - Viewing tracking details of a prescription?
 - What high-level prescription information do Veterans need to know?

Hypothesis

- Veterans will be **able to accomplish the pharmacy tasks designed in the prototype**, and will **articulate what the refillable and non-refillable categories mean**.
- Veterans **will have different prescription information knowledge needs** depending on their individual circumstances

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Prototype Feedback: Pharmacy Landing Page

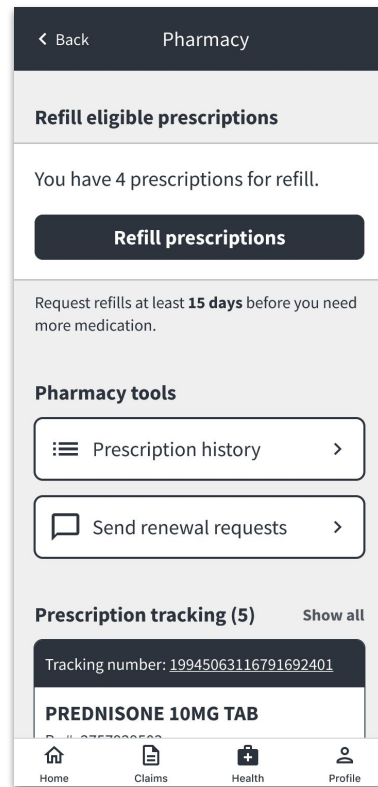
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Observations

- **Refill is the highest priority** function for all participants; they **liked that this was easily accessible** and at the top
- Participants noticed the pharmacy tool buttons after the refill button and tracking section
 - Participants who often have to request prescription renewals were excited about the “Send renewal requests” button
- Participants **liked the tracking section layout but had different ideas about what this list meant**
 - 5/10 participants thought this list would include other types of prescriptions, e.g. recently submitted refill requests or refillable prescriptions
 - Only 1 participant knew to use the “Show all” button to get to the Tracking List
 - 5/10 participants said they don’t typically look at tracking information

User Experience Opportunities

- **Remove the tracking section from the landing page** due to confusion about the purpose, as well as low potential usage.
 - Replace this with a section or button that links to prescriptions “in progress”.
- **Design and build the “Renewal requests” experience**
 - Almost all participants reported having to send secure messages to communicate with their providers or the pharmacy



Prototype Feedback: Refill Modal

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Observations

- 9/10 participants were **able to easily select prescriptions and complete the refill request** without prompting or guidance
- Participants **felt there was more information here than needed in order to refill**
 - No participants thought the instructions field was useful, only 1 participant found the facility name useful
- All **participants were confused by the “Non-refillable” list** and thought it didn’t make sense on this screen. Only 2 participants ultimately understood the purpose.
- 4/10 participants verbally expressed that the snackbar was not sufficient confirmation
- 6/10 participants thought that submitted refill requests went to its own area such as the landing page, tracking list, or a section/ default filter on the Prescription History screen
- **7 users wanted to see all of their “in progress” prescriptions in a separate area or list**, 4 users expected to see their recently submitted requests in the tracking list
- Participants shared that they typically go to the Refill list (on MHV and the RX refill app) knowing what they may want to refill. Therefore, they would not be making decisions about what to refill on this screen.

User Experience Opportunities

- **Consider removing metadata** from the Refill screen (as long as it doesn’t present a patient safety issue).
- **Create a “prescriptions-in-progress” list or section** that includes prescriptions that have recently been submitted, are “refill in process”, or are in transit to the patient (trackable)
- **Remove the non-refillable tab**
 - Put items that would typically go into this list in the “prescriptions-in-progress” list
- **Add a confirmation screen** that summarizes what the user submitted a refill request for
- Consider incorporating an auto-refill feature, primarily for long-term medications, so that Veterans don’t have to worry about when they should request a refill

Cancel

Refill

🔍 Search prescriptions in this list...

Refillable (4)

Non-refillable (2)

We'll mail your refills to the address on file at your local VA Pharmacy.

0/4 selected

Select all ☐

OMEPRAZOLE 20MG CAP

TAKE 1 CAPSULE ONCE A DAY BEFORE A MEAL

Refills left: 2 ☐

VA facility: **Spokane Washington**

Rx #: **9592778702**

METFORMIN 500MG TAB

TAKE IN THE MORNING AND EVENING WITH MEALS

Refills left: 4 ☐

VA facility: **Spokane Washington**

Request refill

Prototype Feedback: Prescription History

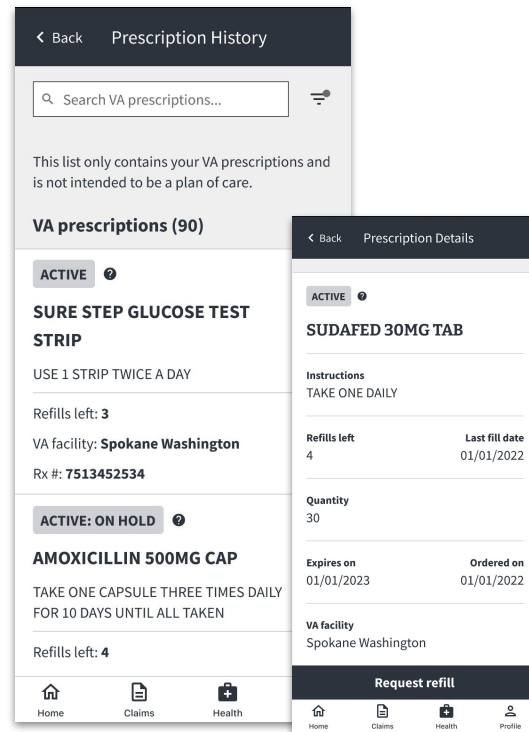
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Observations

- Participants **understood what the prescription history screen would show but had different ideas on what information should be presented**
 - 1 participant wanted to see date last filled, 2 participants mentioned wanting to see the instructions, 1 participant mentioned not finding the RX number useful
- 9/10 participants were able to easily filter the prescription history screen without prompting or guidance
- 3/10 participants wanted to see a version history (if and when a dosage changed)
- Participants **reacted positively to the prescription details screen and the information presented**
 - 1 participant had thoughts on the grouping of information and suggested grouping the rx number and prescription name together “for people who do use the RX number [to differentiate prescriptions]”
- 3/10 participants noticed the TTY number. 2 of the participants were confused by what it meant.

User Experience Opportunities

- **Group the RX number with the prescription name** so that users are able to use that information to easily distinguish between prescriptions
- Separate the phone number and TTY number from the facility information since a specific facility number isn't currently associated with prescriptions
- **Consider building status update notifications** to notify users when the status of their prescription has changed
- Consider incorporating history for an individual prescription so that users are able to see how that prescription has changed over time (ex. Changes in dosage, start and re-start dates)
- **Consider changing the title of “Prescription History”** to clarify its content



Prototype Feedback: Tracking

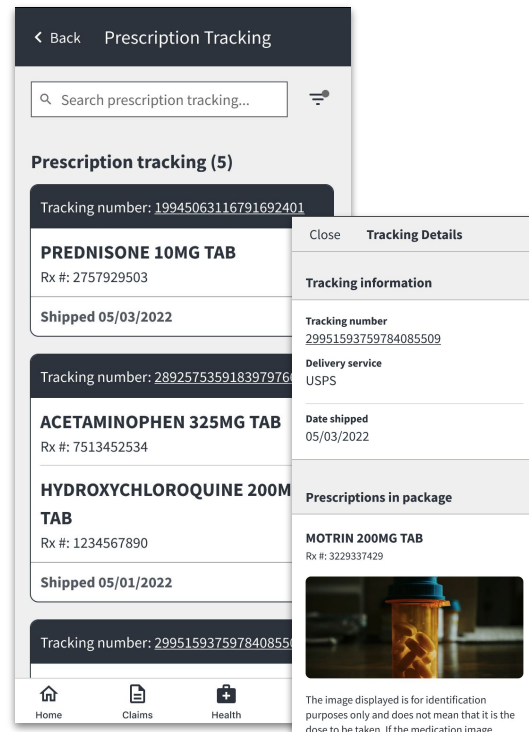
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Observations

- **Half of all participants said they don't typically look at tracking information**
 - These participants stated they'll only look at tracking if their package is taking a while to arrive or to verify it's been shipped.
- 3/10 participants expected to filter the prescription history page to view tracked prescriptions; most users did not know how to get to this screen
- Participants expected that clicking the tracking number would take them to the carrier's website to view more detailed tracking information
- Participants would **want to be notified that their prescriptions have been shipped and/or delivered**
- Participants found the basic tracking information in the tracking details screen to be sufficient
 - When questioned, participants said they wouldn't need to see detailed information about their prescription in the tracking details screen

User Experience Opportunities

- Design the **tracking experience** in a way that fits more with its **secondary nature**; remove the tracking preview from the landing page
- Consider incorporating the tracking list into another list or screen
- **Implement an opt-out notification system** (push, email, text) to notify users when their package has been shipped and delivered
- Removing additional prescription information from the tracking details view



Recommendations & Next Steps



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Next steps

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Step 1: User Testing Output



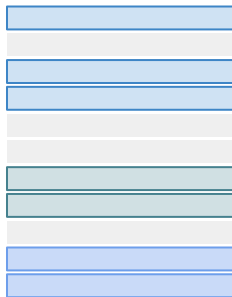
Distill user testing output into key takeaways and design considerations.



Step 2: Design Backlog



Synthesize design considerations into backlog items/ design tasks.

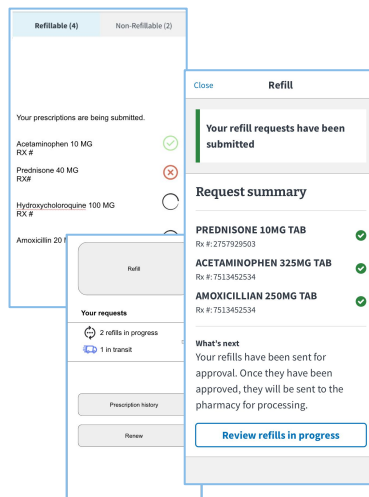


Flag dependencies and items that are quick wins vs. large operational initiatives.

Step 3 : Iterate on design concepts



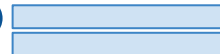
Create design concepts based on priority items.



Step 4 : Development Backlog

Put completed designs in the development backlog and work with leadership and PO(s) to prioritize.

1



2



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Backlog/ Recommendations

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The following is a compilation of the user experience opportunities that were identified due to user feedback. This list will be used to guide the design for the MVP Prescription Refill experience, depending on technical feasibility and priority. The numbered items are the changes based on key findings, according to user value/ priority.

1	Refill	Create a “refills-in-progress” list or area for users to view their prescriptions that are: submitted, in process, on hold, or trackable.
	Refill	Add a confirmation summary screen once the user has submitted their refill requests. This should summarize the list of requests that were successfully submitted.
	Tracking	Replace the tracking section on the landing page with a section or button that links to “in-progress” prescriptions.
	Refill	Change the concept of a non-refillable tab. Put these prescriptions in the list of prescriptions that are deemed “in-progress”.
	General	Consider removing unnecessary metadata from the Refill list modal.
	Tracking	Incorporate the tracking list/ index into another list or screen.
	RX History	Group the RX number with the prescription name.
	Tracking	Remove additional prescription information from the tracking details view.
	Renewal	Design and build the “Renewal requests experience”; keep a button leading to this function in the homepage.
	Notifications	Implement status update notifications to notify users when the status of their prescription has changed.
3	Notifications	Implement tracking notifications to notify users when their package has been shipped and delivered.
	RX History	Consider incorporating a “history view” for prescriptions of the same medication, so that users are able to see how that prescription has changed over time (e.g. dosage changes).

Post-MVP/
Future State

Thanks!

Questions?

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Appendix



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Work in Progress Design Concepts

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[Close](#)**Refill**

Your refill requests have been submitted

Request summary

PREDNISONE 10MG TAB
Rx #: 2757929503

✓

ACETAMINOPHEN 325MG TAB
Rx #: 7513452534

✓

AMOXICILLIAN 250MG TAB
Rx #: 7513452534

✓

What's next
Your refills have been sent for approval. Once they have been approved, they will be sent to the pharmacy for processing.

[Review refills in progress](#)

[Close](#)**Refill**

Your refill requests failed
Try again or contact you local VA pharmacy.

[Try again](#)

Request summary

PREDNISONE 10MG TAB
Rx #: 2757929503

✗

ACETAMINOPHEN 325MG TAB
Rx #: 7513452534

✗

AMOXICILLIAN 250MG TAB
Rx #: 7513452534

✗

[Close](#)**Refill**

1 out of 3 refill requests failed
Try again or contact you local VA pharmacy.

[Try again](#)

Request summary

PREDNISONE 10MG TAB
Rx #: 2757929503

✗

ACETAMINOPHEN 325MG TAB
Rx #: 7513452534

✓

AMOXICILLIAN 250MG TAB
Rx #: 7513452534

✓

What's next
Successfully submitted refills have been sent for approval. Once they have been approved, they will be sent to the pharmacy for processing.

[Review refills in progress](#)

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MVP

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Landing Page

Request a refill

View VA prescriptions

Track prescriptions

Request a renewal (SM)

Post-MVP

Start definition following
MVP definition and design

Status as of 6/24/22

Backend: Complete ✓

Frontend: In progress 🔄
- Refill request
- Track prescriptions

Design: In progress 🔄
- Refinements based on
research output

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Materials

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These materials and others may be found on the [VA Mobile App Github](#).

[Research Plan](#)



[Conversation Guide](#)



[Prototype](#)



[Mural](#)



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