

COVID WATCH

Unmoderated Usability Testing Findings

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www.covidwatch.org

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Executive Summary

Background

Overview

Covid Watch will continually release an updated version of the app as a new product release. To ensure that each design is improving usability, an A/B test was conducted to compare the newest release (v5) against the prior version (v4). V5 was based on UX research conducted over the summer.

Goals

- Compare the newest product release with the prior one to test usability and validate that changes made to app improved usability
- Cover 3 functions on the app: onboarding, self-reporting, and receiving exposure notifications

Project timeframe

Sept - Nov 2020

Demographics

Participants

- Each arm of the test had 20 users* initiate the usability test
 - 14 users completed v4
 - 19 users completed v5
- Recruitment Recruitment activities initially focused on targeting students, staff and faculty at universities. However, as the CW product and user research team gained insights from moderated testing activities, the team determined to recruit the general public to this unmoderated testing activity

**referred to as users throughout the document*

Methodology and demographics

Methodology

- Users were assigned one of two versions in the Covid Watch app, v4 and v5, through a user-testing platform called Maze
- Users were tasked with completing 3 tasks in the app, and then asked follow up questions about their decisions and perceptions of the app

Analysis

- Comparing design changes in Figma
- Evaluating survey responses between v4 and v5 users in Google sheets
- Refer to user paths and heat maps in Maze

Artifacts

- Research plan
- Test structure & questions
- Word clouds

Key Themes

1. Users need more details about possible exposures
2. Lack of clarity about diagnosis verification codes
3. Privacy was a concern for users in both versions of the test

More details needed about possible exposures

1. Users struggle to complete the task of finding information about possible exposures
2. The app doesn't provide much information in the "Learn More" section
3. After receiving a notification:
 - a. Majority of users in both tests "want to know what to do next" and "Details about the exposure"
 - b. However, only 1 user (from v5) said they would "Share the app to improve notification accuracy"
4. Users did not consistently understand who receives exposure notifications
 - a. Users thought their positive diagnosis would be shared with the university or region selected.

Suggestion

1. When users receiving a possible exposure, the exposure data should be easily accessible on the homescreen
2. In addition, there should be explanations regarding the different risk levels and associated next steps
3. Reaffirm that sharing a positive diagnosis is anonymous

Verification codes caused confusion

1. Users did not navigate to the screen explaining what the Diagnosis Verification Codes were
2. As such, they did not know who provides the verification code
 - a. Of the 26 users who answered “Who do you think provides the verification code?”, **7 users correctly selected “the testing center”**, while 14 users selected “Covid Watch app”

Suggestion

1. Include a short explanation as part of the instructions:
“1. Enter the Diagnosis Verification Code provided by the testing source”
2. Make it clear that “Where is my code” has additional info
3. In “Where is my code”, collapse the sections so users aren’t overwhelmed. Separate it by “Where to find it” and “What is the Diagnosis Verification code?”

- [illegible]

1. Use more encouraging language during the “Share a positive diagnosis”
 - a. Users indicate they’d respond more to messaging around the safety of their friends & family
2. Reassure privacy protections by reminding them where the data is going

Overall

The majority of users said they would use this app

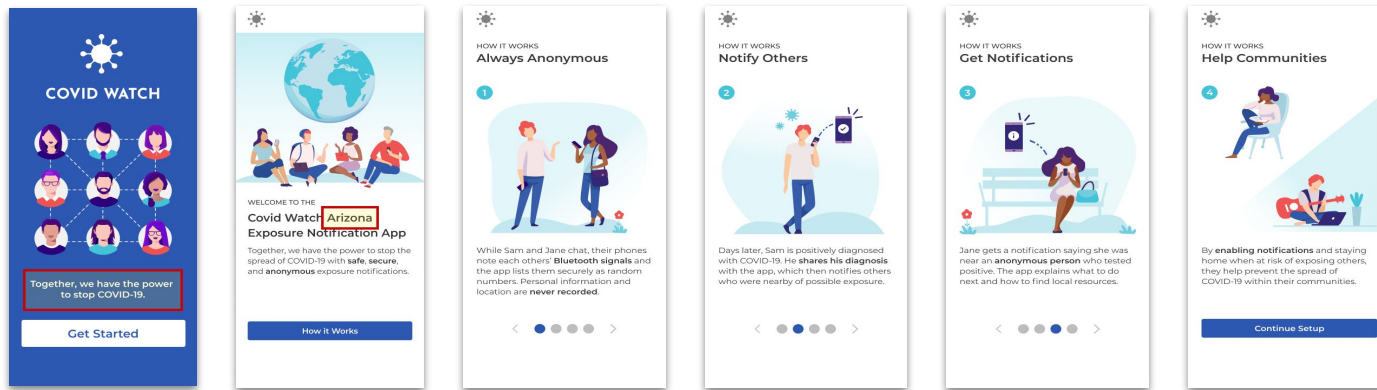
90% and 77% of v4 and v5 users, respectively, said that they would use the Covid Watch app. The dip in v5 users was due to 2 users who said that they found the app complicated or were not concerned about exposure to COVID-19. A significant number of participants in both arms (v4: 100% versus v5: 90%) also said they were highly likely to recommend the Covid Watch app.

This let us know that the objective and use of the app was generally well-received, meeting users' expectations for an exposure notification app.

Onboarding

Users felt they understood the app's purpose

- There were minimal design changes between v4 and v5 for the “How It Works” section
- 86% of testers in both v4 and v5 claimed to understand the app's purpose
 - Only slightly more testers in v5 understood how the Covid Watch reduced the spread of COVID-19 (v4:71% versus v5: 79%)
- Users were not interested in an explainer video to understand how the app worked



v5 “How It Works” screens. Updates from v4 highlighted in red

Though the purpose was clearer, there were misconceptions about how the app works.

Many did not understand the app was anonymous and thought location was being tracked (42% of users of v4 versus 25% of users of v5).

*“It captures **location**”*

*“Not sure if I want to share my **personal info**”*

*“It captures someone’s **GPS** coordinates”*

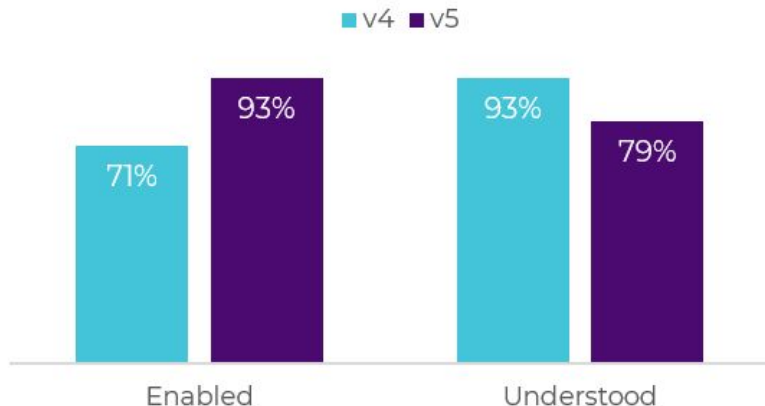
Fewer users who tried v5 thought that location was being tracked, but it was still almost half (v4: 43% versus v5: 71%)

Suggestion

1. Make it clear that it doesn’t use location

Despite no design changes, v5 users enabled exposure notifications but did not seem to fully understand them

Exposure Notifications



- There were no design changes for exposure notifications between v4 and v5
- However, v4 users didn't enable because

"I don't like notifications, I prefer to check the app on my own"

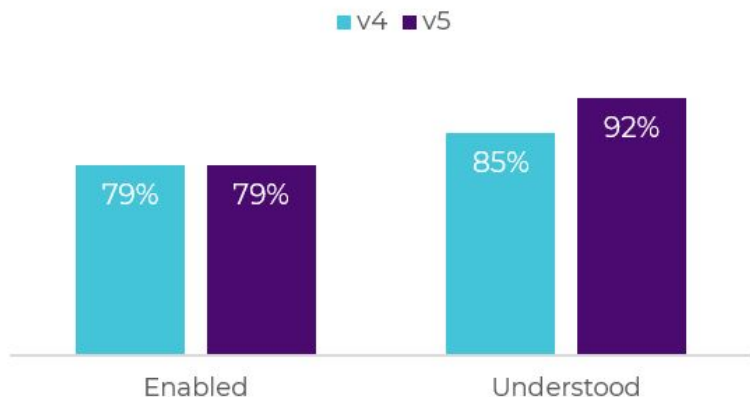
"A little uncomfortable with [the] app tracking me but would enable for the safety of others"

"As a senior citizen, [I'm] seldom out. A lot of seniors don't have their iPhones in their possession regularly."

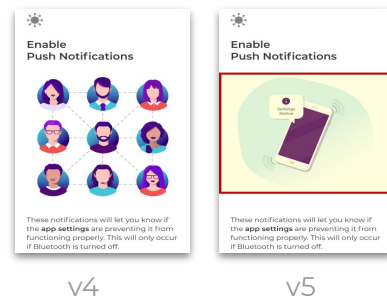
Most enabled push notifications, but some users did not understand the difference

"I didn't understand the difference between these notifications and the previous ones. Since I enabled the first one, I didn't know why I should enable the second one"

Push Notifications



- A cleaner design allowed users to focus more attention on the text below, improving their understanding



- But increased understanding did not increase enabling

Onboarding Suggestions

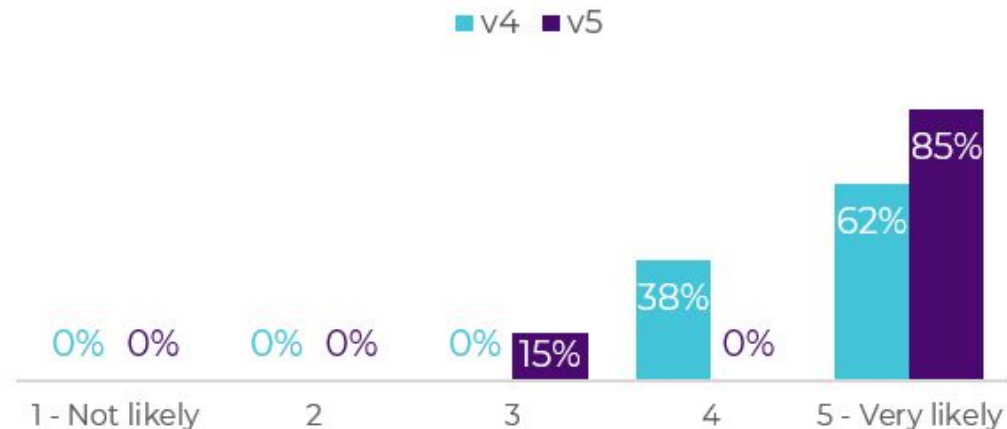
Suggestions

1. Reemphasize that the app is anonymous and does not track location, potentially by showing an example of an exposure notification
 - a. This is similar feedback provided in the moderated testing
2. Clarify that the app only works if notifications are enabled
3. To address that users are confused when they reach the second notification screen:
 - a. Conduct an A/B test where the same notifications are enabled on the same screen
 - b. Clarify that the push notifications are notifications regarding Bluetooth status

Sharing a Diagnosis

V5 users were more likely to self-report

How likely would you use the app to self-report if you had a positive diagnosis?



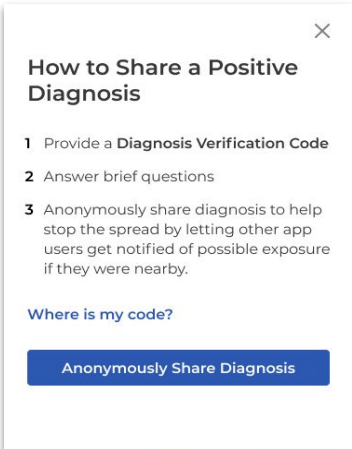
- The two v5 users who selected neutral (rating = 3) said they would not self-report due to concerns about anonymity and privacy protections

Suggestions

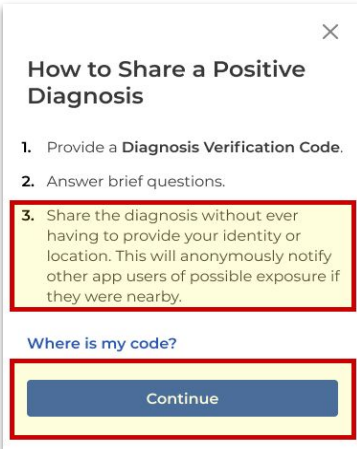
- Users said they would feel more comfortable if ...
 - There was a refresher on where the data is going
 - Requires more reassuring language and colors

In v5, text was added to reiterate that location is not being tracked

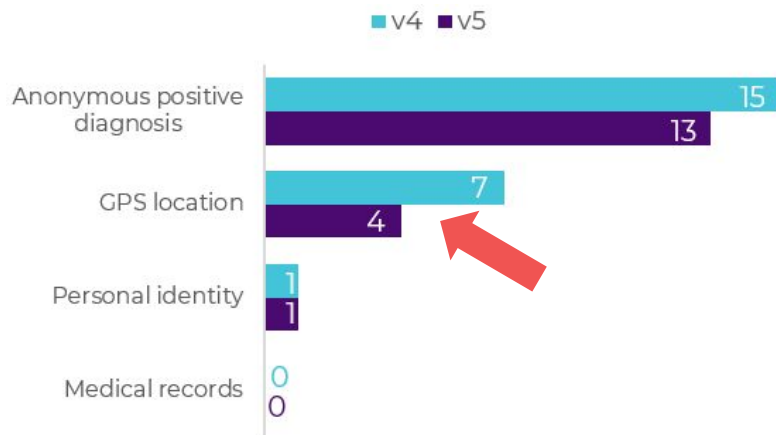
v4



v5



What information does Covid Watch collect in this process? (multi-select)



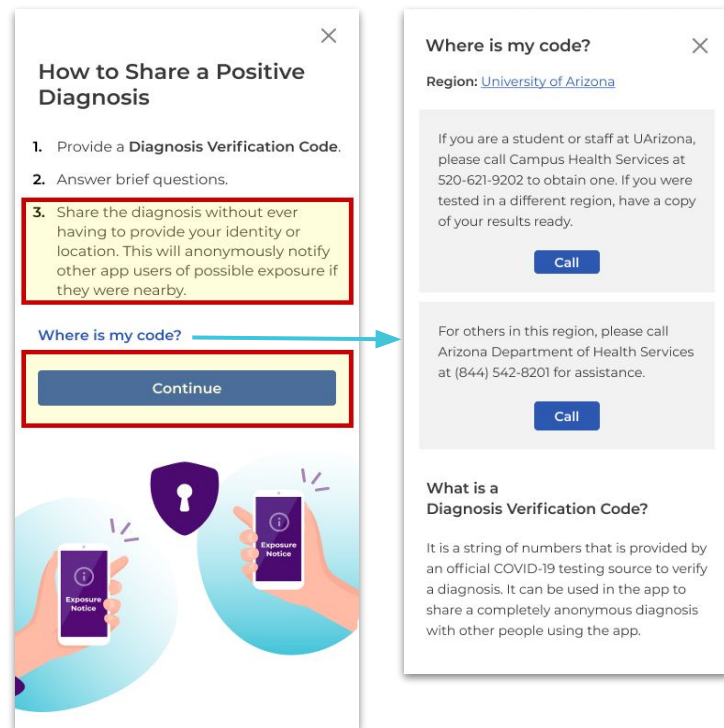
- More users in v4 selected “My GPS location” when prompted with this question
- The copy changes in v5 reassured users that their identity or location was not tracked
- V5 users felt their privacy was more protected than v4 users

Verification codes are essential, but most don't know who provides it

- A majority of users thought the verification code was provided by the Covid Watch app
- Only 4 people out of the 26 total testers reached the “Where is my code” screen, which holds crucial information

Suggestions

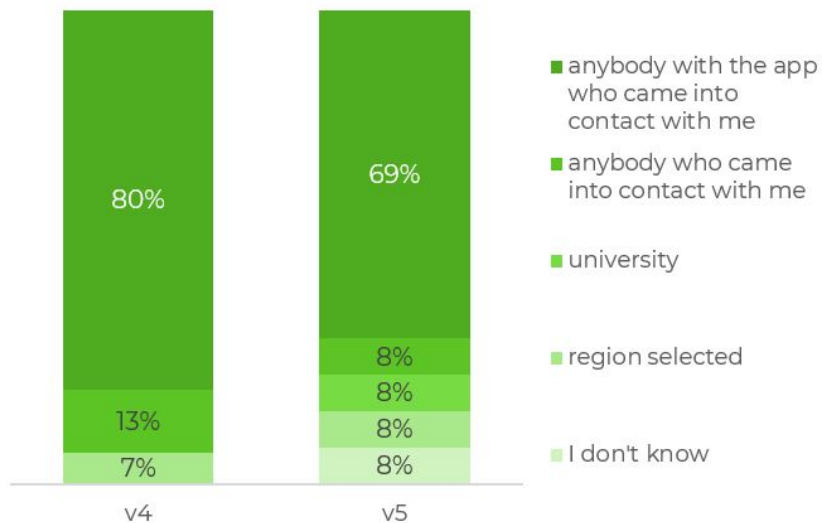
- In “How to Share a Positive diagnosis”
 - Make it clear that “Where is my code” has additional info
 - Include the explanation as part of the instructions: “1. Enter the **Diagnosis Verification Code** provided by the testing source”
- In “Where is my code?”
 - Collapse “what is” and “where to find it” so users aren't overwhelmed with text and can slowly read through each section



Receiving Exposure Notifications

Most users felt they understood who receives an exposure notification from a positive diagnosis

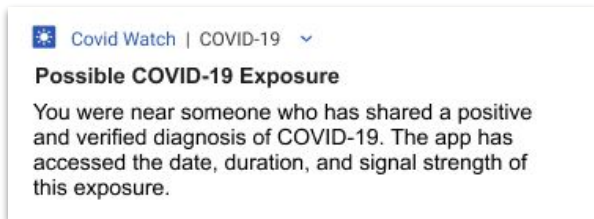
Who do you think receives the exposure notification from your positive diagnosis?



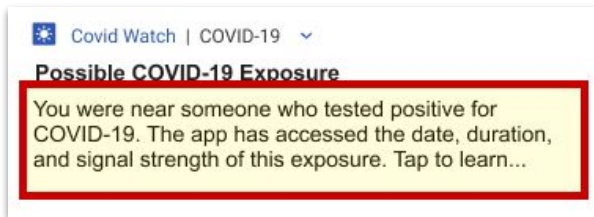
- Text copy was the only difference between the tests
 - V4: You were near someone who *has shared a positive and verified diagnosis of COVID-19*
 - V5: You were near someone who *tested positive for COVID-19*

V5 users said they are more likely to act on their exposure notifications

v4



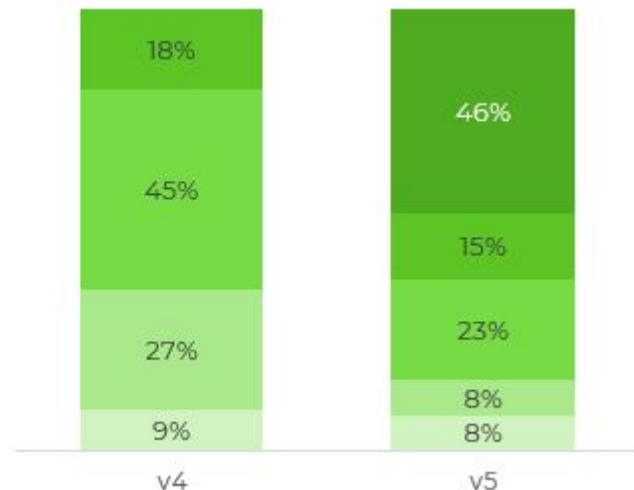
v5



- In v5, the copy tells users they were...
 - Near someone who “tested positive” vs “shared a positive and verified diagnosis”
 - “Tap to learn” could’ve also signaled a stronger Call-To-Action

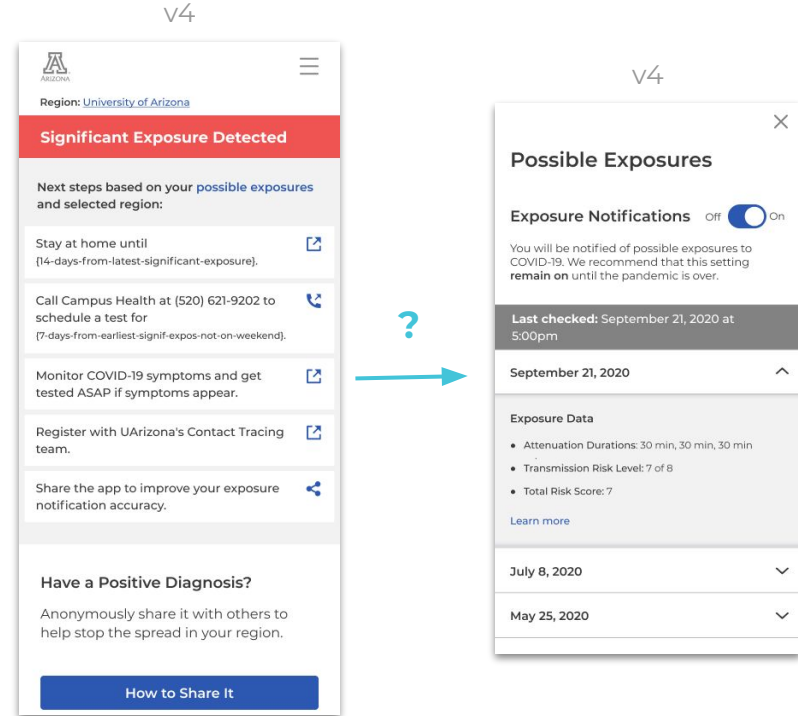
How much of the following notifications lead you to act (find more information, etc)?

■ 5 - Very much
■ 4
■ 3
■ 2
■ 1 - Not at all



Although users want details about exposure and risk levels, most could not reach the screen about exposure data

- When asked to “Open an exposure notification to get more information”:
 - 5 users indirectly successfully accomplished the task of getting to the “Possible Exposure” screen (3 users in v4, 2 users in v5)
 - 20 users abandoned this task and did not complete it



Design wise, v4 had more direct paths to “Possible Exposures”

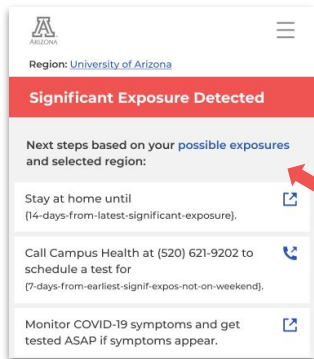
- V4 users are able to access the “Possible Exposures” screen 2 ways -- via the clickable link on the home and navigation menu.
- However, V5 users can only access the same screen via navigation menu.

Note that users must tap the hamburger icon in the navigation menu, requiring an extra step to access the navigation.

Paths to view Possible Exposures	v4	v5
Clickable text link on the home screen	●	×
Navigation menu	●	●

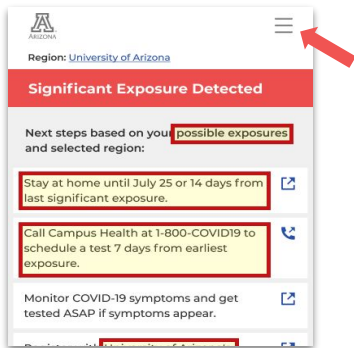
Step 1

Clickable text on
Home screen



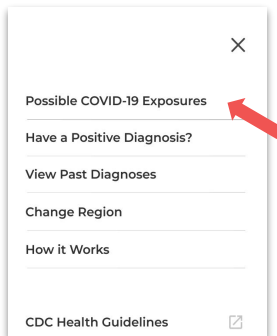
v4

The navigation menu must be
tapped to view exposure data



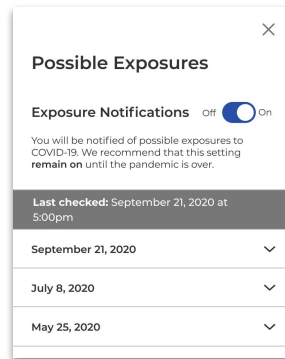
v5

Thus, an extra
step is required



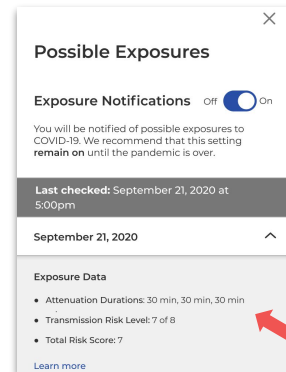
Step 2

Accordion on
Exposure Data screen

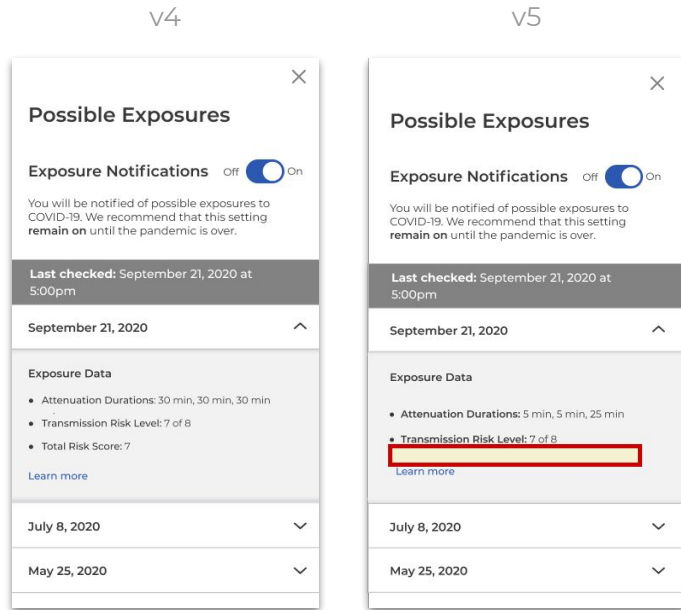


Step 3

Details on Exposure
Data screen

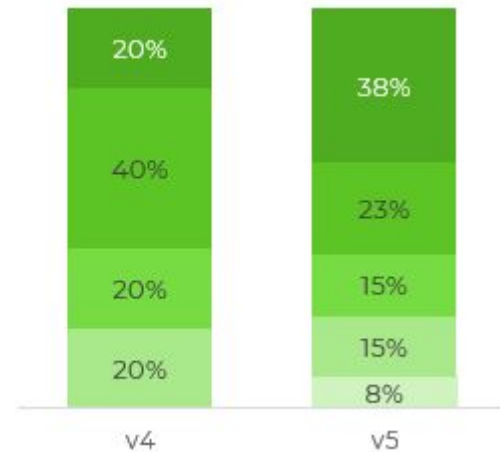


When all users were shown the exposure data, more users in v5 understood it



To what extent do you understand this exposure data?

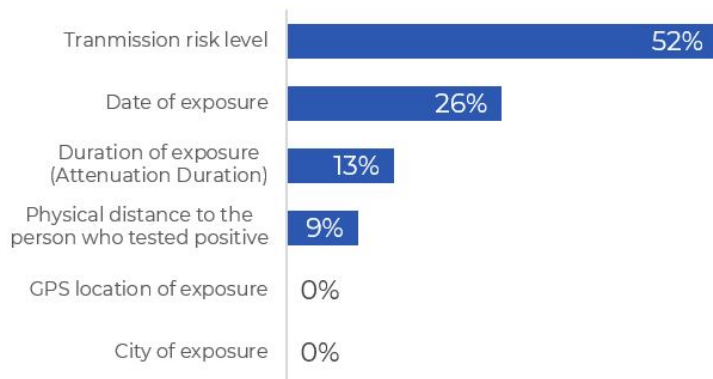
- Very Well
- Somewhat well
- Neutral
- Somewhat poorly
- Very poorly



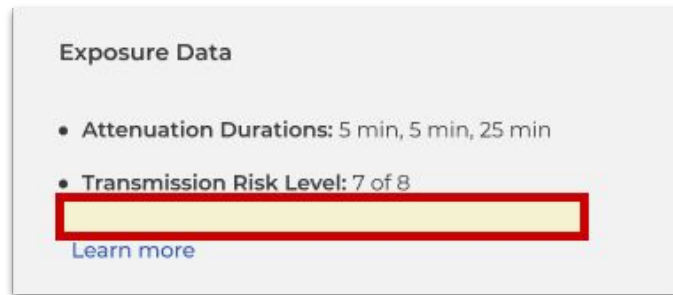
- Removing the “Total Risk Score” bullet point reduced confusion

Transmission risk level is important to users, but it's difficult to find more information

Of the exposure details below, which is the most important for you to know?



- In the exposure data in v5, the [“Learn more”](#) link only defines attenuation and risk levels
- But doesn't explain the differences in risk levels
 - How it differs from the CDC risk levels
 - What are the safety guidelines for each risk level



v5 "Possible Exposures"

Users are more likely to take action for the safety of their friends and family

- When asked what measures they'd do after receiving an exposure notification, the top 3 responses were...
 - Stay at home for 14 days
 - Call campus health
 - Monitor symptoms and get tested if symptoms appear
- Users mentioned the following would motivate them to get tested or self-quarantine:
 - Family & friends' safety
 - Community Safety
 - Personal Health
 - Safety of the people I live with

Suggestion

- Users already expressed interest in self-quarantining and getting tested, but it may be better to provide concrete next steps based on their risk level
- The language should also encourage users based on the safety of their friends, family, and community

Appendix

How to Share a Positive Diagnosis

- 1 Provide a **Diagnosis Verification Code**
- 2 Answer brief questions
- 3 Anonymously share diagnosis to help stop the spread by letting other app users get notified of possible exposure if they were nearby.

Where is my code?

Anonymously Share Diagnosis



How to Share a Positive Diagnosis

- 1 Provide a **Diagnosis Verification Code**
- 2 Answer brief questions
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Where is my code?

Anonymously Share Diagnosis



V4

How to Share a Positive Diagnosis

1. Provide a **Diagnosis Verification Code**.
2. Answer brief questions.
3. Share the diagnosis without ever having to provide your identity or location. This will anonymously notify other app users of possible exposure if they were nearby.

Where is my code?

Continue



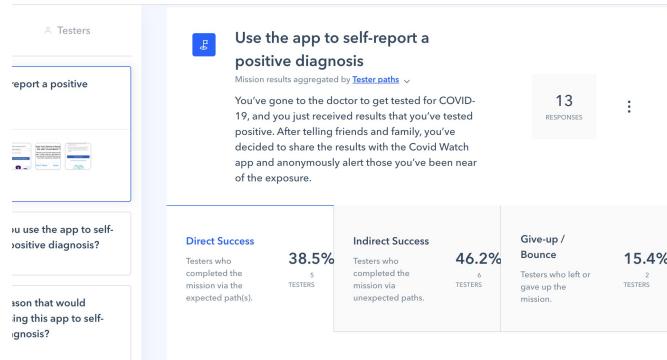
V5

V4 - No demo questions

LEVEL 1 16/20 TESTERS

INVITE TESTERS

GO TO REPORT

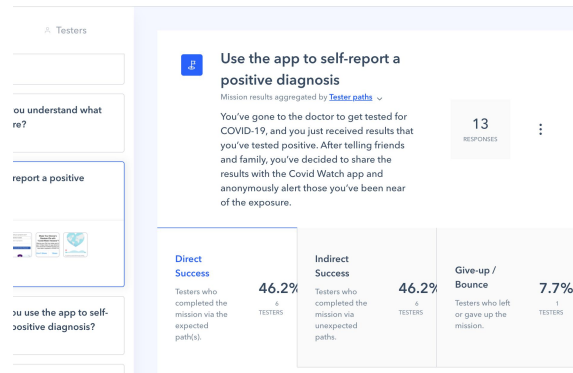


V5 - No demo questions

LEVEL 1 19/20 TESTERS

INVITE TESTERS

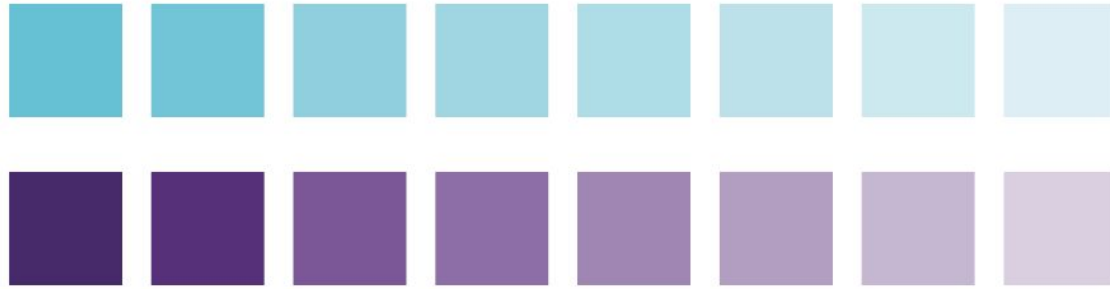
GO TO REPORT



v4



v5



Color themes - RGB
V4 vs v5
& for rating scales
Pie chart - bad & good answers



Good / positive / yes



Bad / negative / no



Neutral (if needed)