

CovidSafe

A Privacy-Protecting Contact Tracing Experience

PACT protocol and its reference implementation CovidSafe was created by a multidisciplinary group from the University of Washington, University of Pennsylvania, Boston Public Health Commission and volunteers from Microsoft

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CovidSafe empowers healthy individuals to be aware of Covid-19 risks and enables infected individuals to speed up the contact tracing process.

Protect Others

Do their part in society to flatten the curve

Protect those in their community by reducing risk-exposure with contact tracing

Protect Themselves

Get notified by public health officials about high-risk areas

Symptom tracking

Self-reporting (+) status (with verification)

Self-educate with self care tips

Help Contact Tracers

Collect symptom and contact information

Prepare information quickly for contact tracing interviews

Send relevant contact trace data directly to public health agencies

Rights based

We start from a foundation of [privacy](#) and control by the user so they are empowered to make better decisions from their data.

Community Driven

People can come together to donate data if they choose to do so. These actions are voluntary.

Inclusive

Design elements should account for wide range of abilities and backgrounds, including alternative languages. A website version is being developed for those without phones.

Data Minimization

Only data that is absolutely needed is to be collected and not held or used further than original intent.

Transparent

Users should be clearly informed about who is collecting their data, how it will be used and why.

Trust

Information can be overwhelming and have negative consequences if inaccurate. System needs to be secure and up to date to maintain user trust.

General Public

Healthy individuals without COVID-19

Individuals with COVID-19

Individuals who may have been exposed to SARS-Cov-2 and should be tested

Health Care Professionals

Doctors, nurses and other staff

Contact teams (may not always be a nurse)

User Journey

START

Onboarding

EVALUATE

Evaluating exposure risk

PREPARE

Prepare for contact tracing interview

TRACK

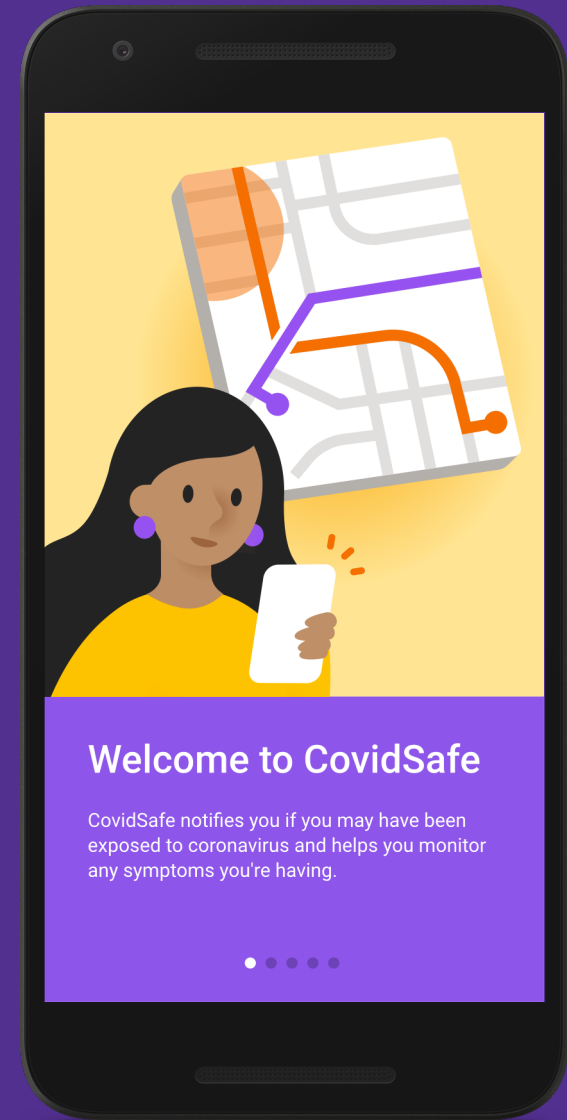
Keeping track of your symptoms

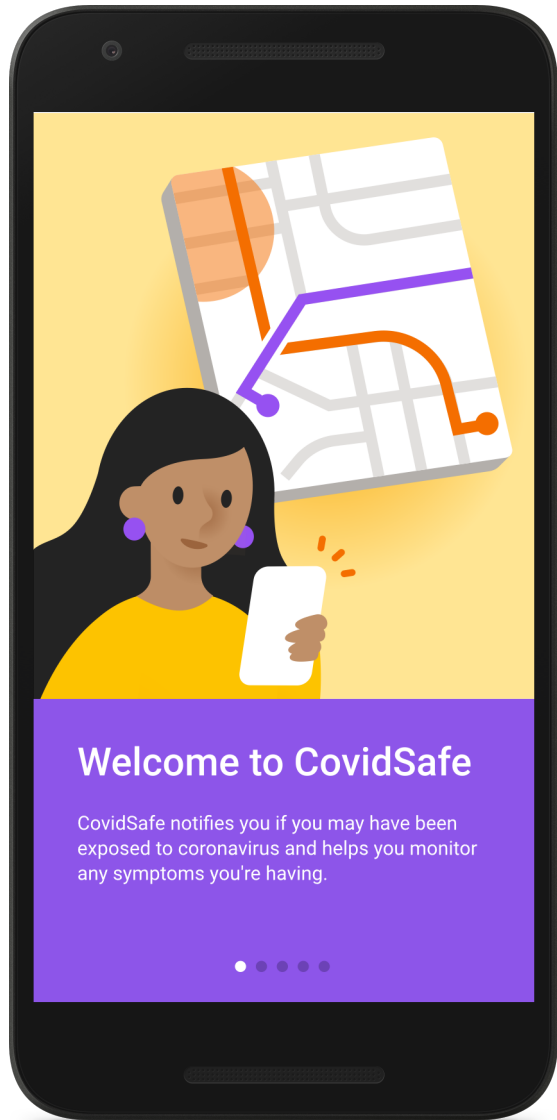
START

How does the user get started?

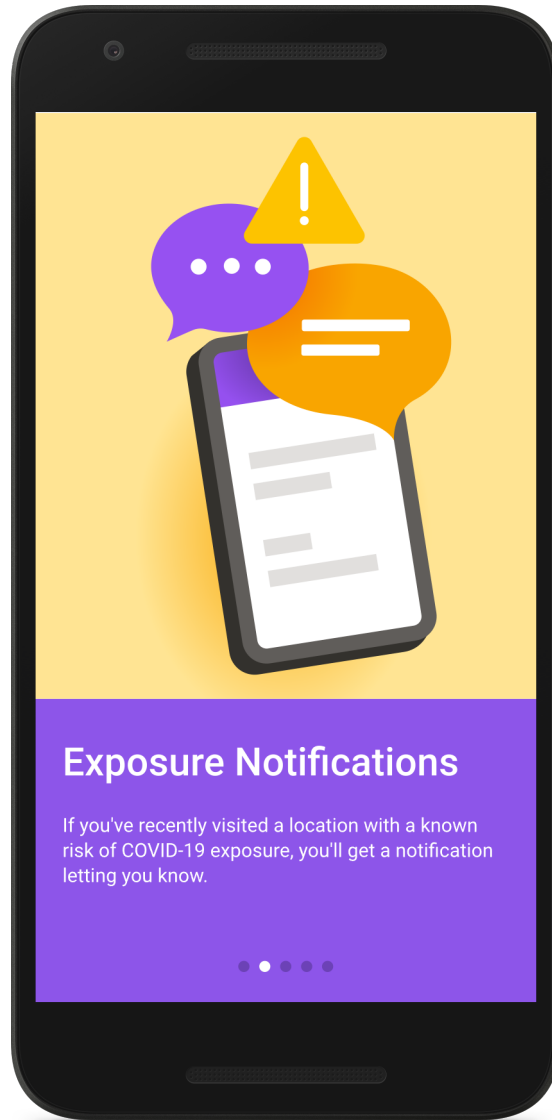
Download the App

- Explore app features
- Understand your data privacy
- Control your notification and data settings

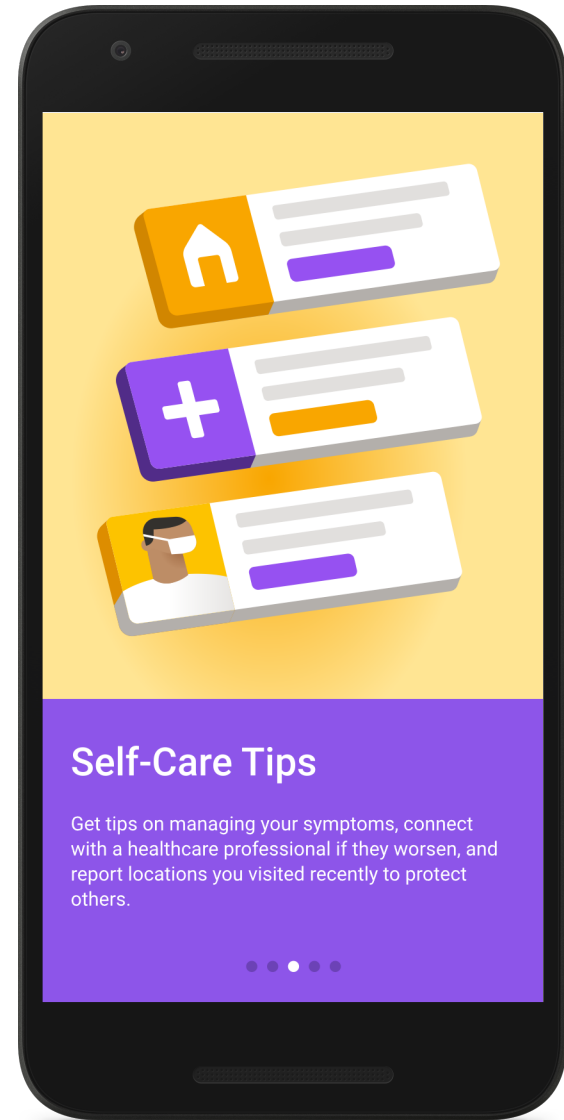




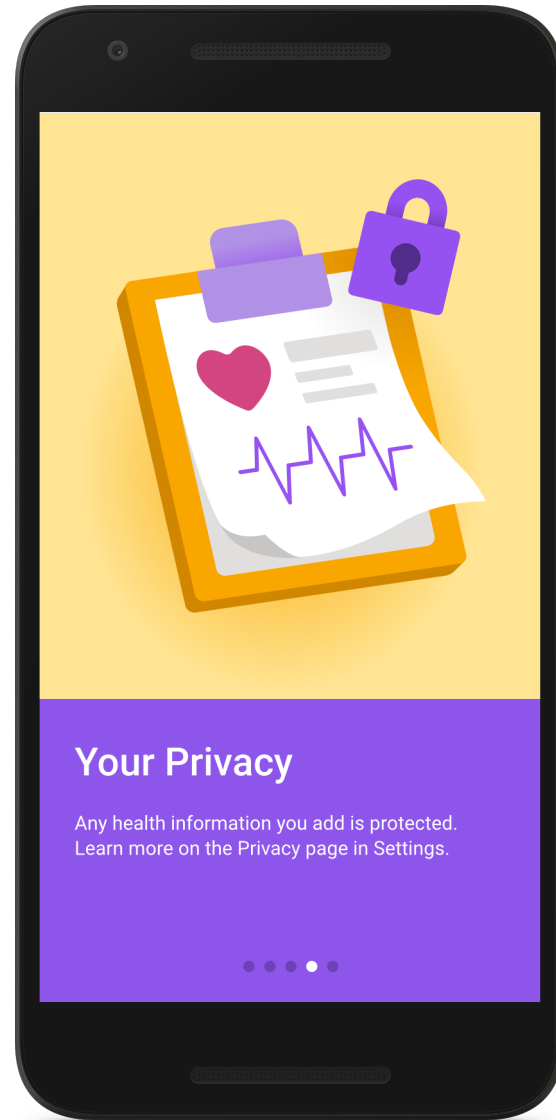
Welcome



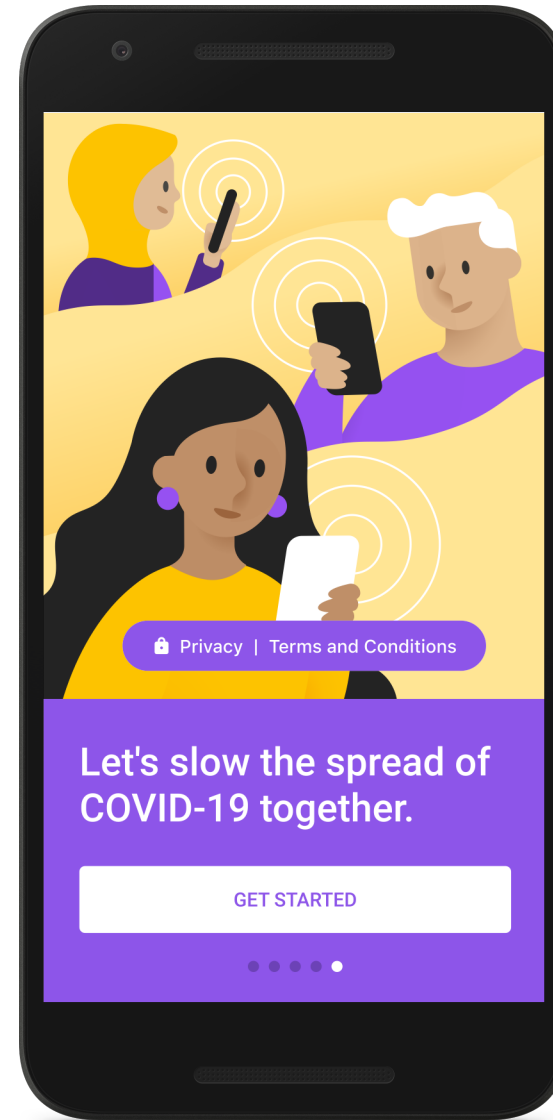
Exposure notifications



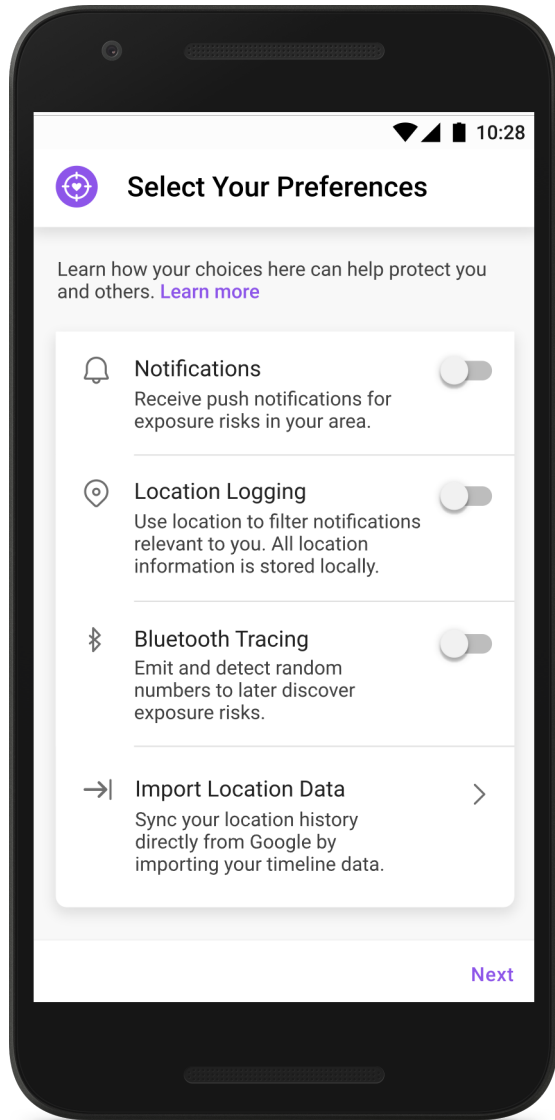
Self-help, care tips



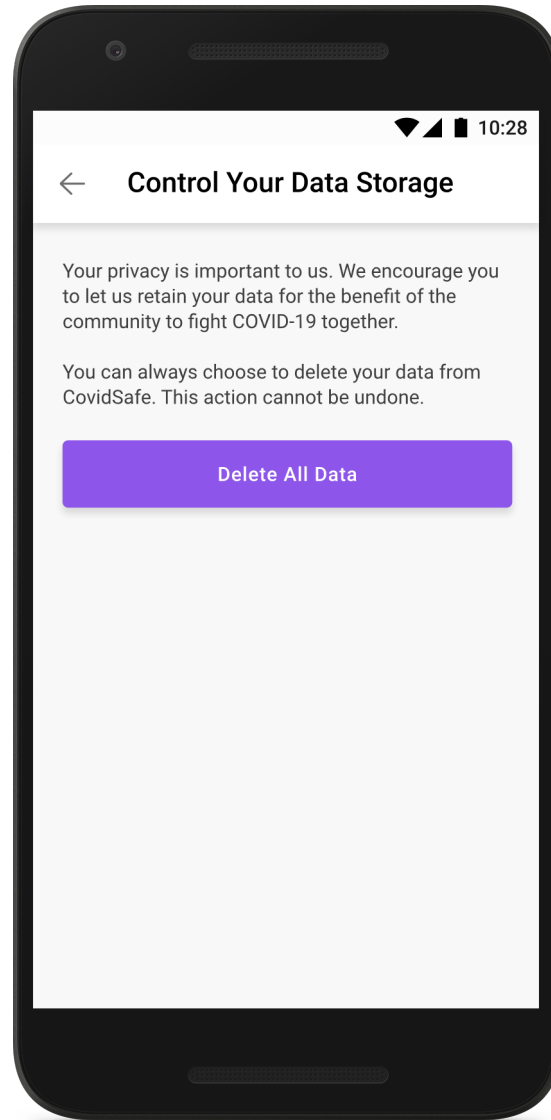
About your privacy



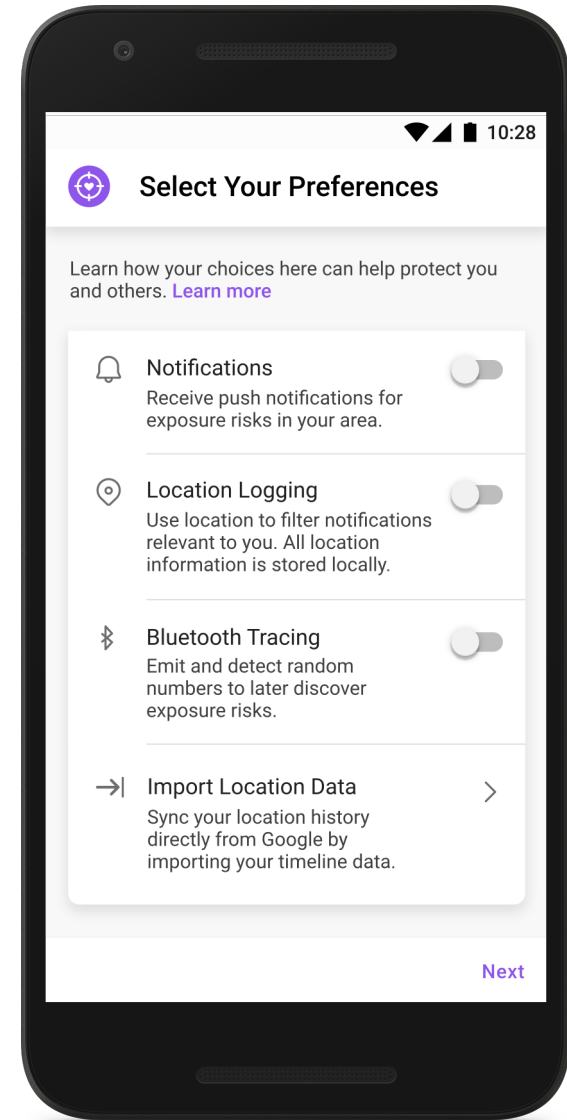
Get started



Preference settings



Data storage settings



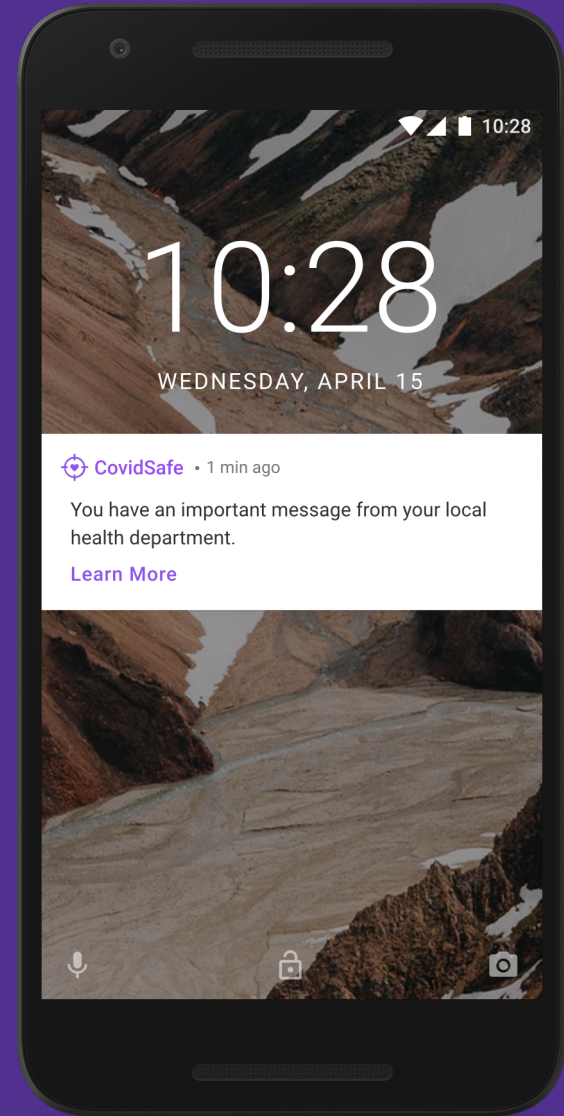
Select preferences turned on

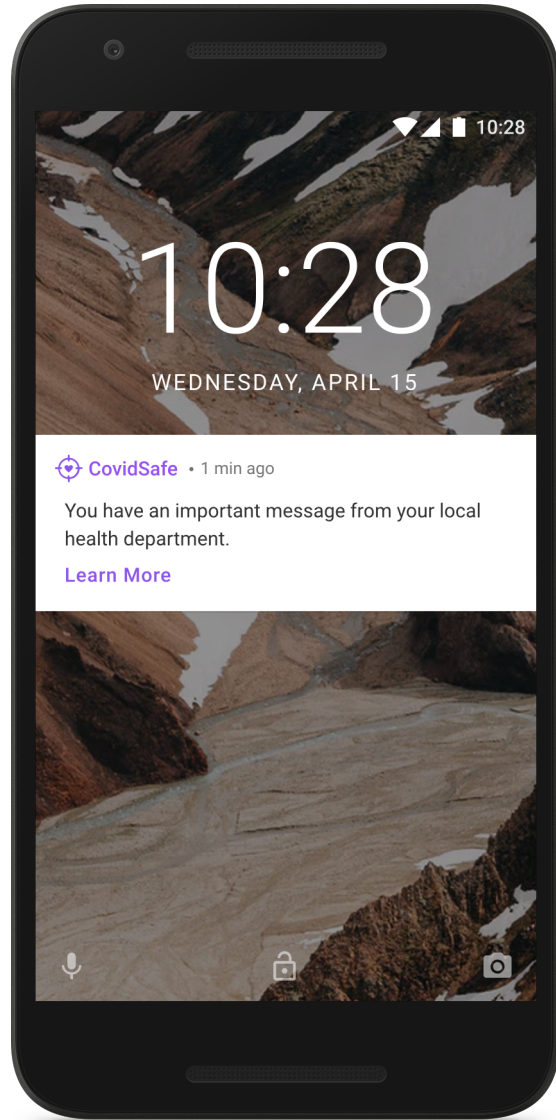
EVALUATE

How does the user know when they have been exposed to risk?

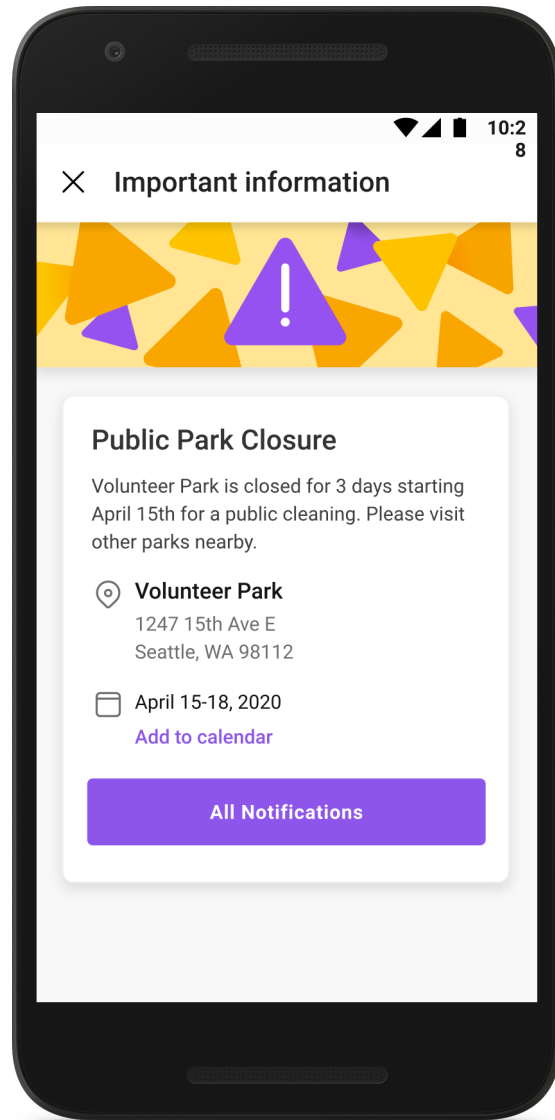
Exposure Notification

- When Notifications are turned On
- App pulls CovidSafe server for possible exposures
- App will match exposures to where you've been
- Your location information could be misconstrued.

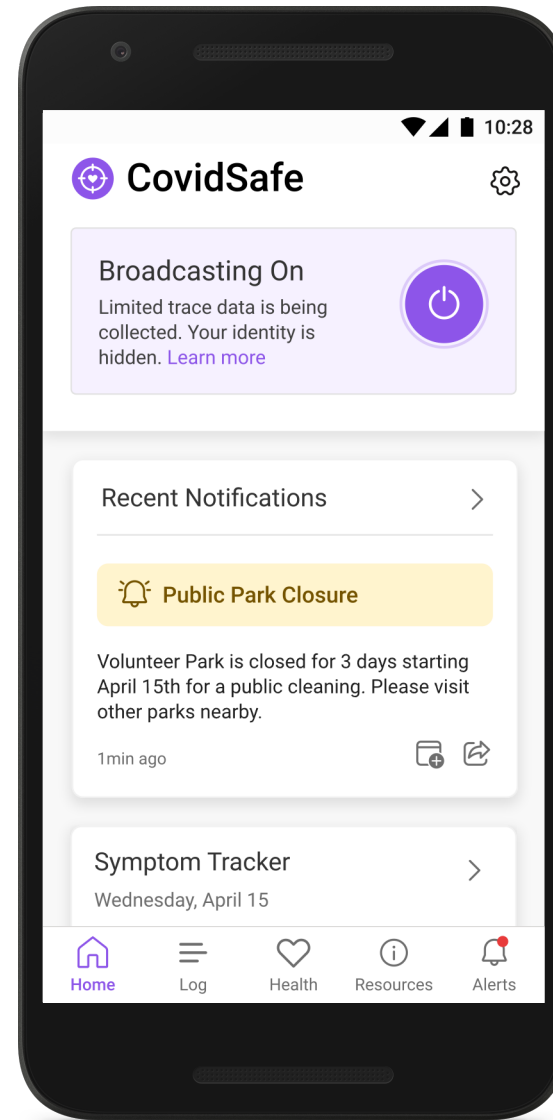




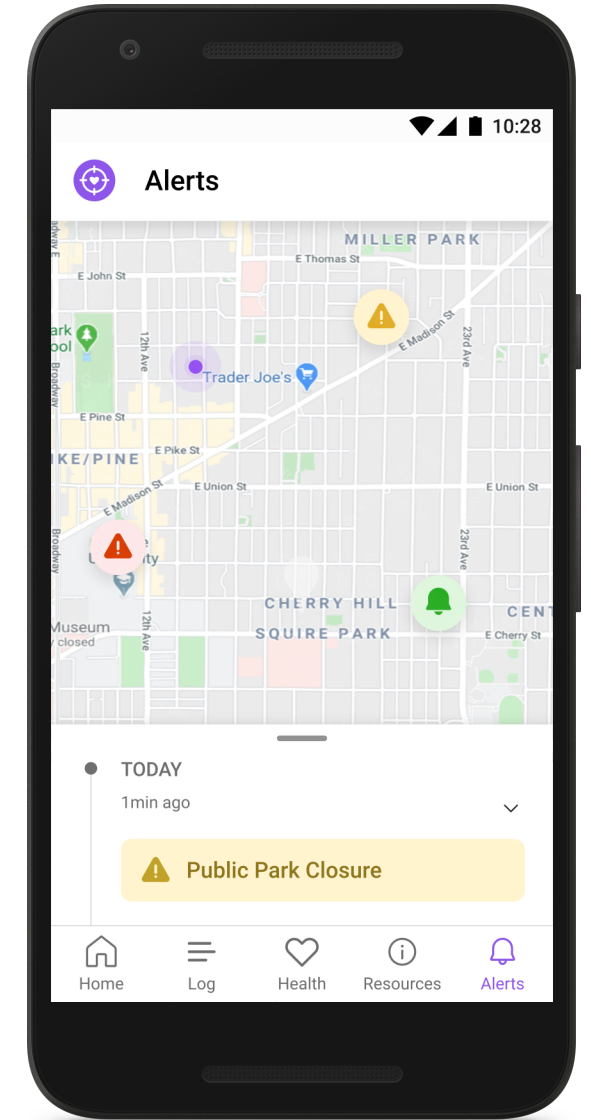
From Lock Screen



Notification – Custom takeover



Home tab – Notification Module



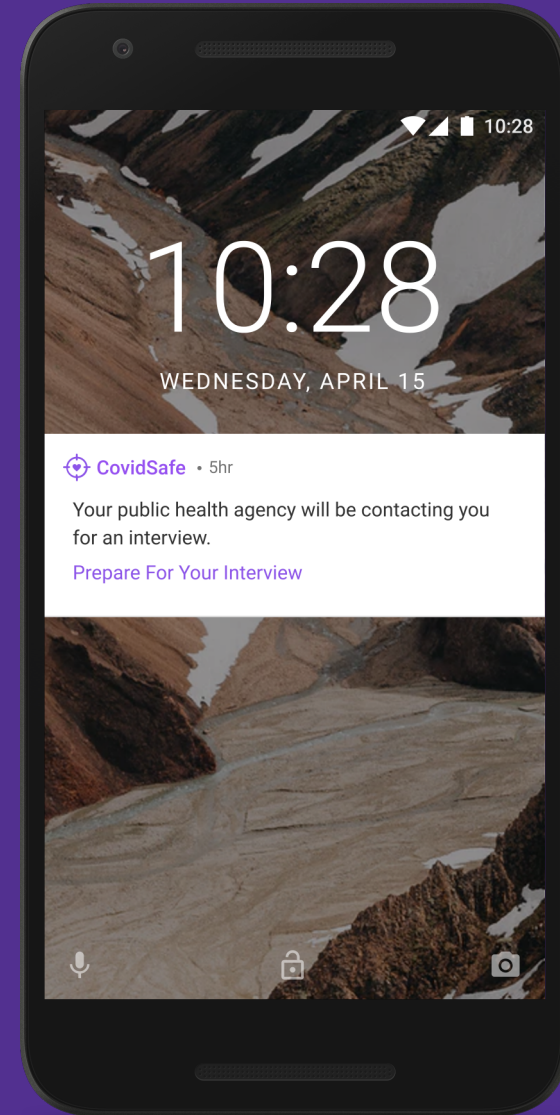
Alert tab w/notifications list

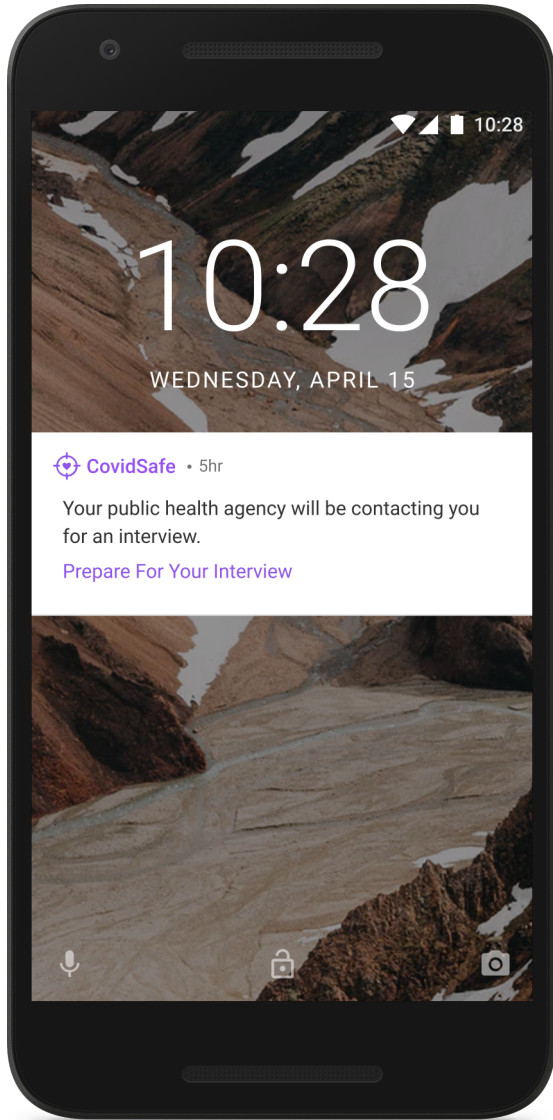
PREPARE

What happens when you are positive and need to prepare for a contact tracing interview?

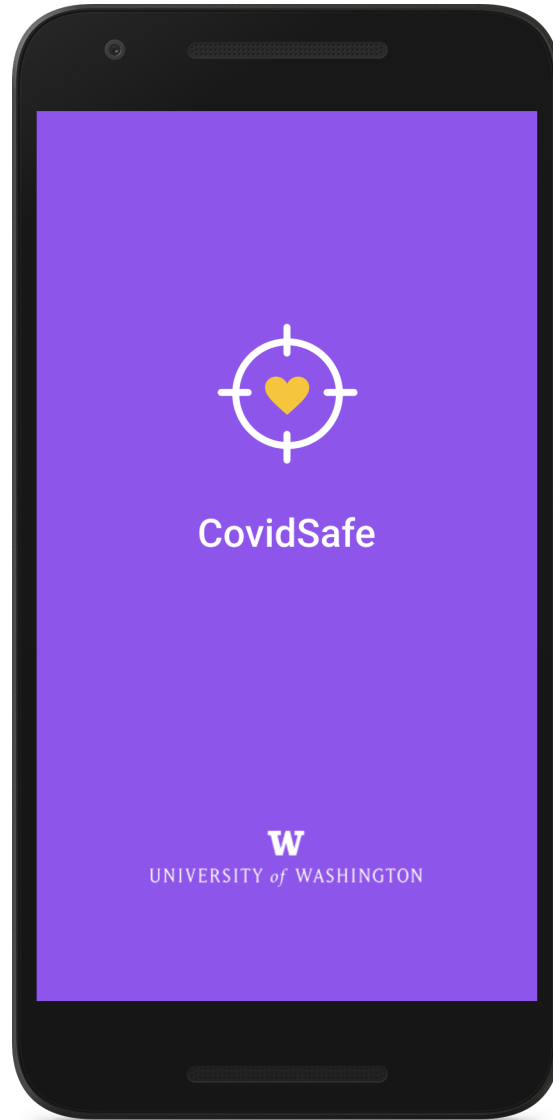
Contact Tracing Prep

- App helps you aggregate all the information you need for your contact tracing interview
- You can modify all the aggregated data
- You can opt-in to “submit” the questionnaire answers to your local public health agency if the app is connected to a case management tool
- For people just downloading the app for contact tracing preparation, the app can help them to retrospectively create their timeline

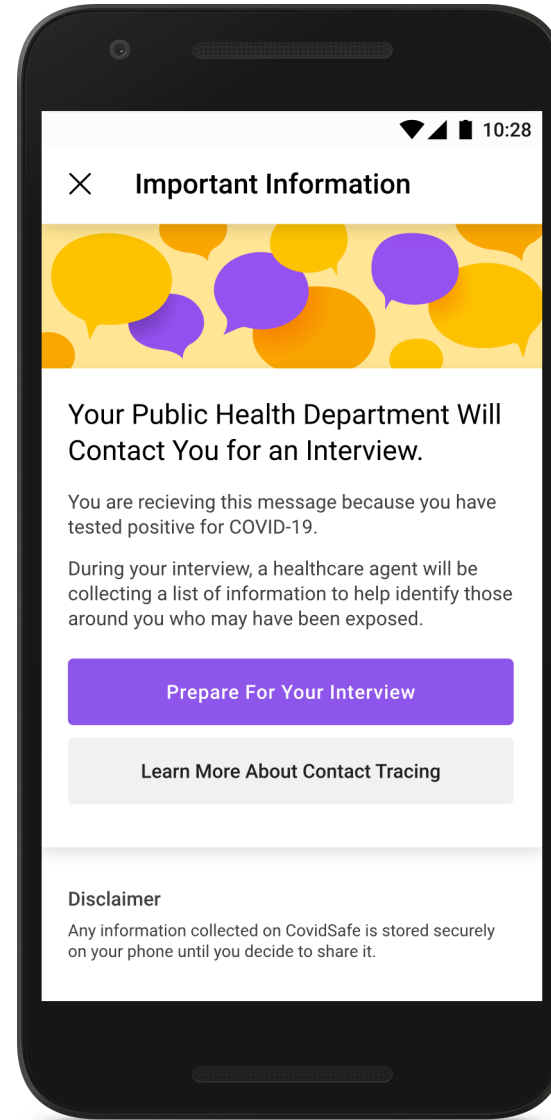




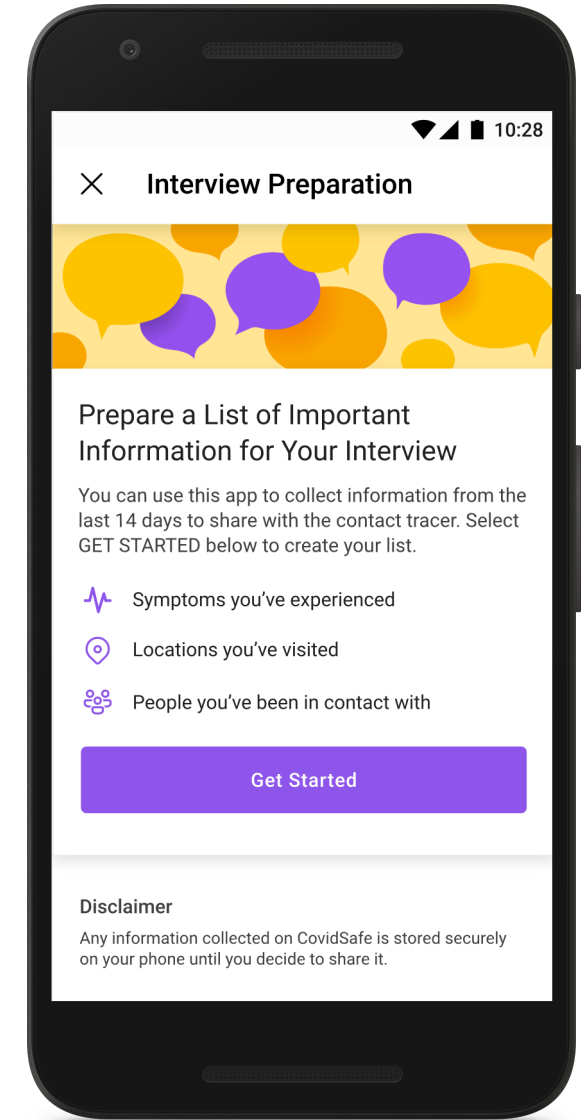
Lock screen notification



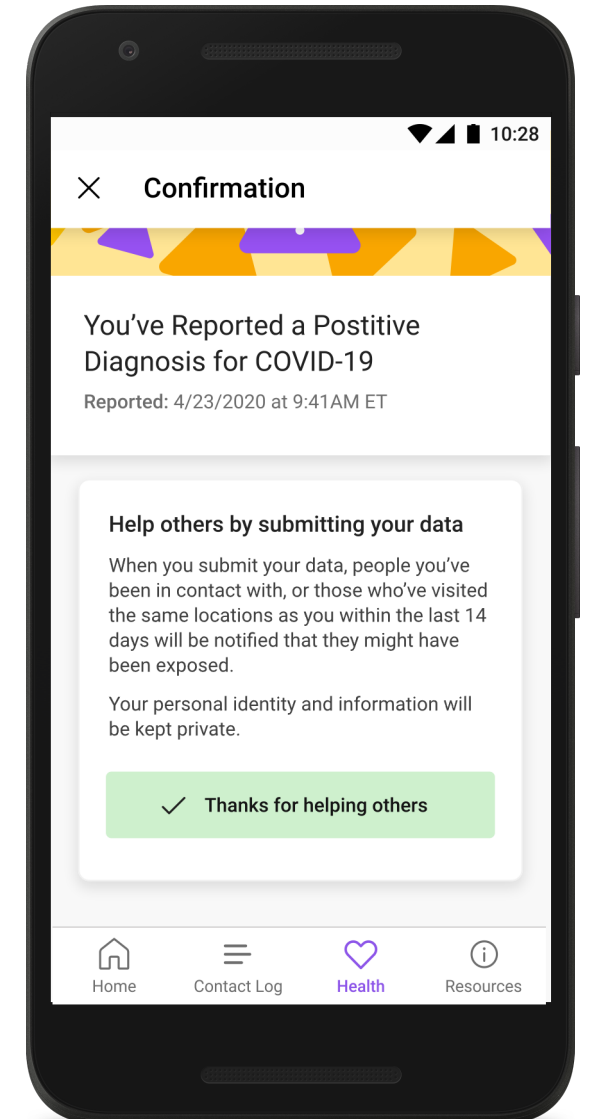
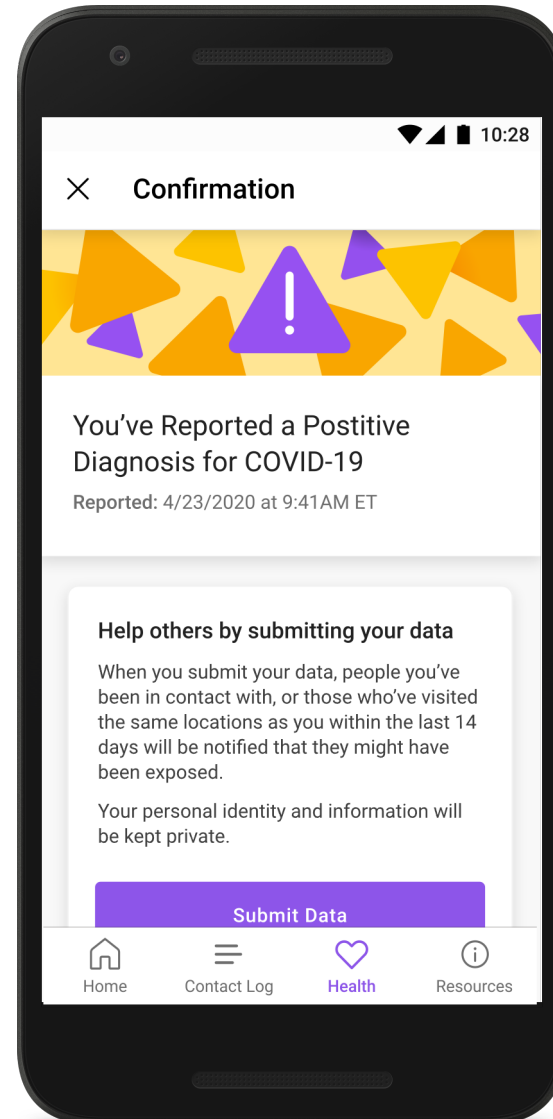
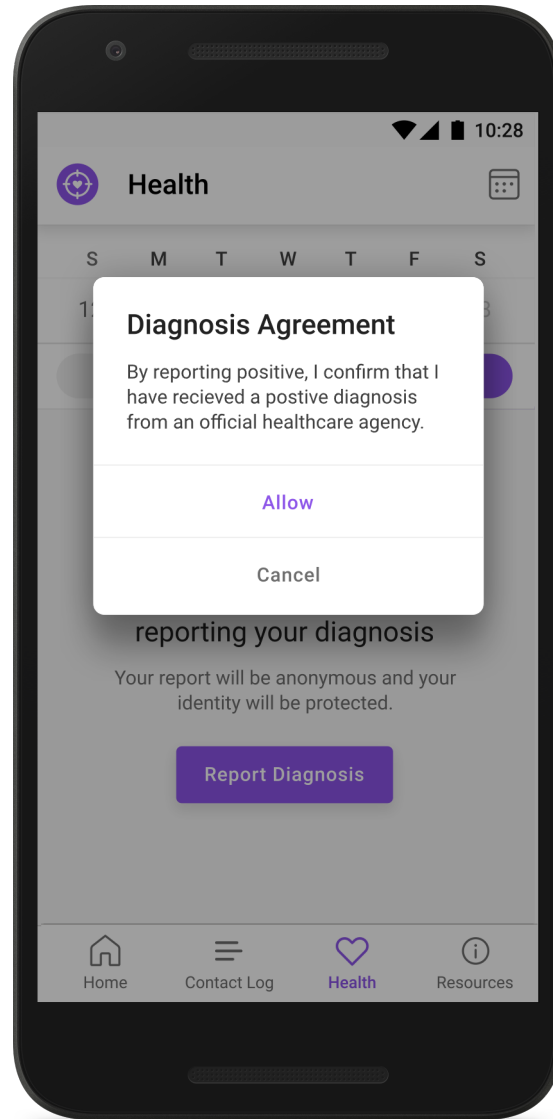
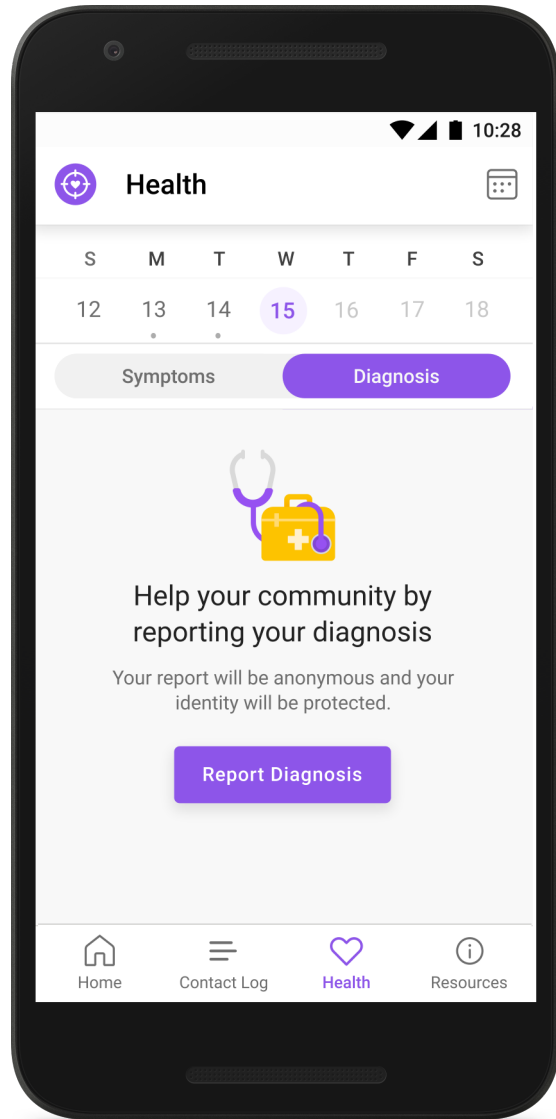
App launch



Full screen interview message



Get started

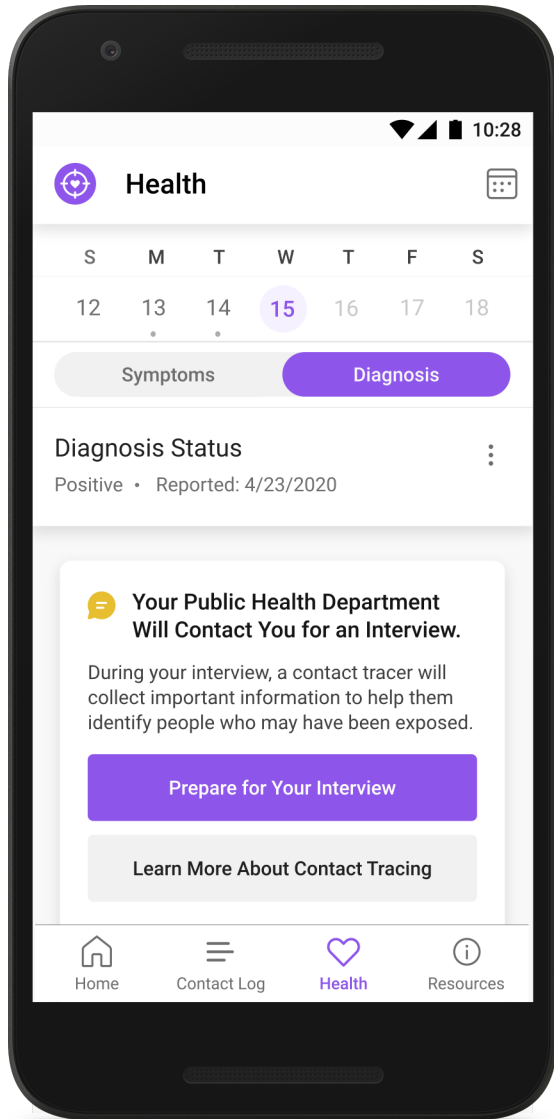


From Diagnosis Screen

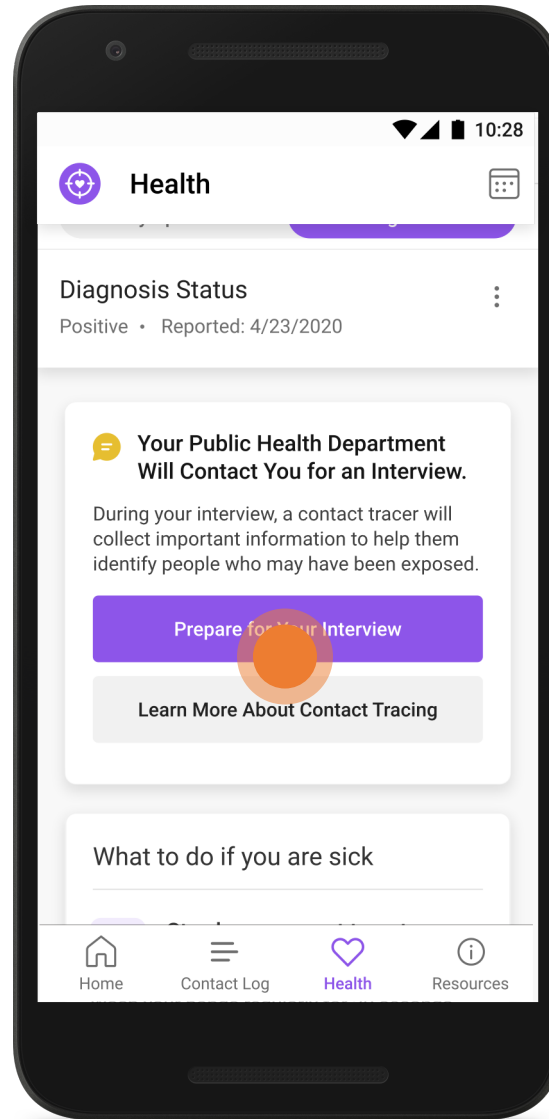
Diagnosis agreement OR authentication by code

Full screen confirmation message

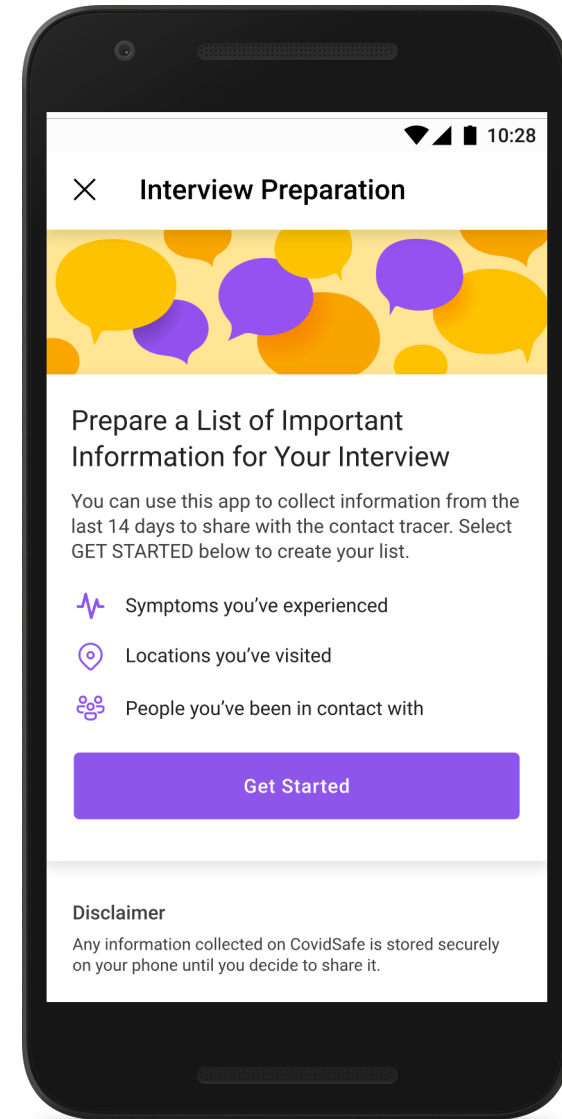
Submit your data



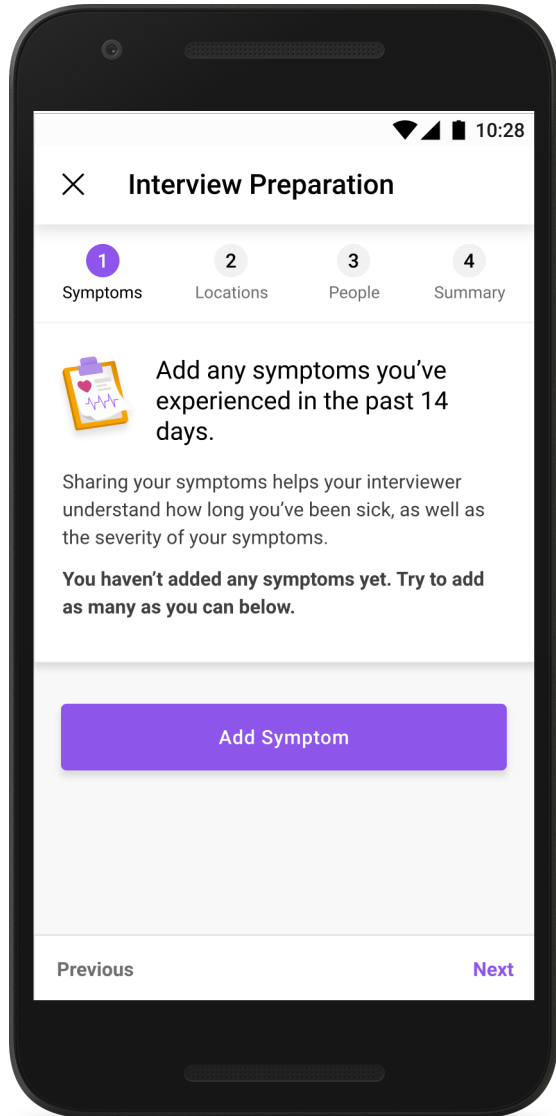
After diagnosis



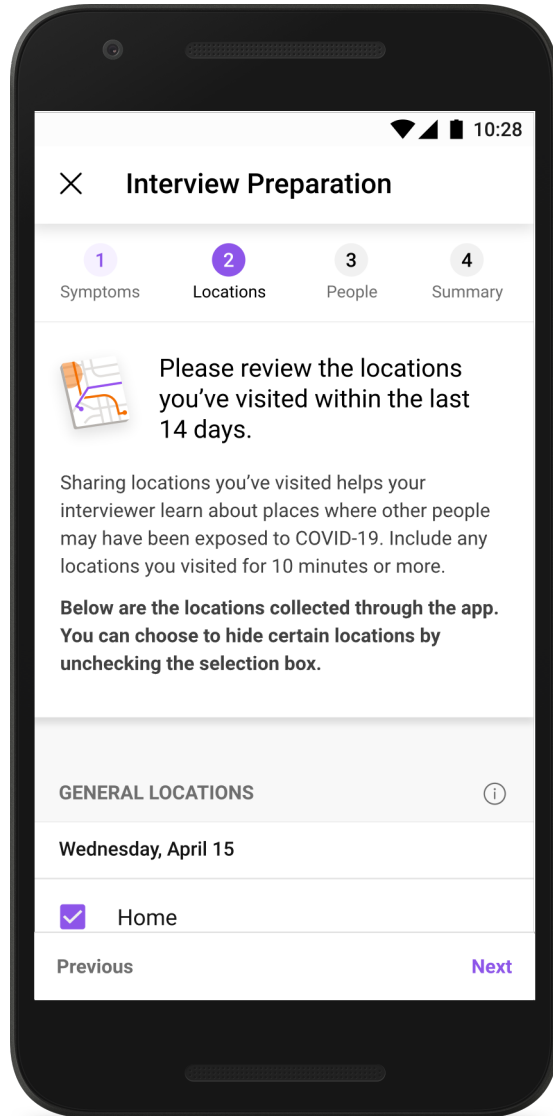
Module “



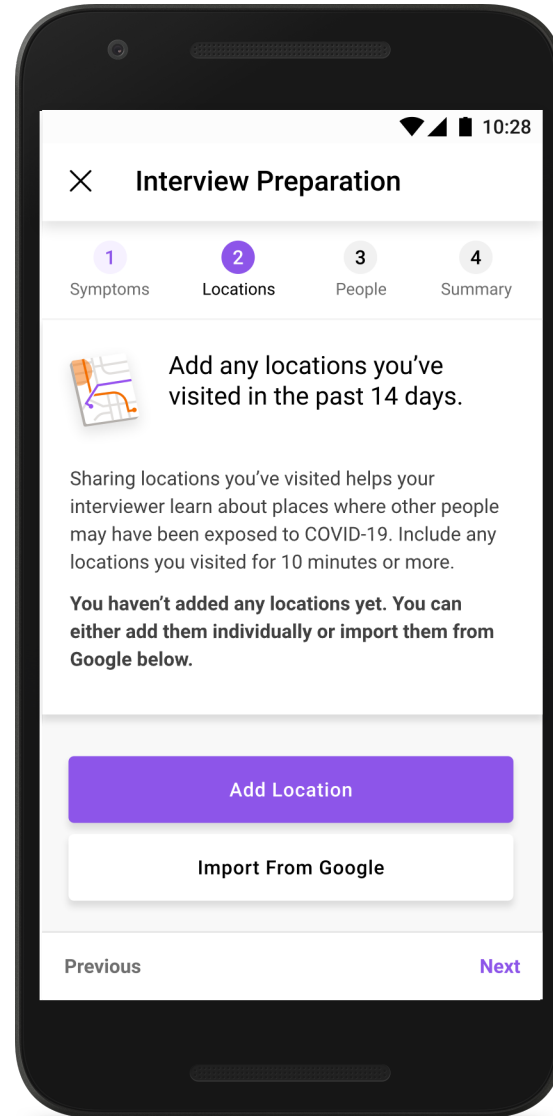
Get started



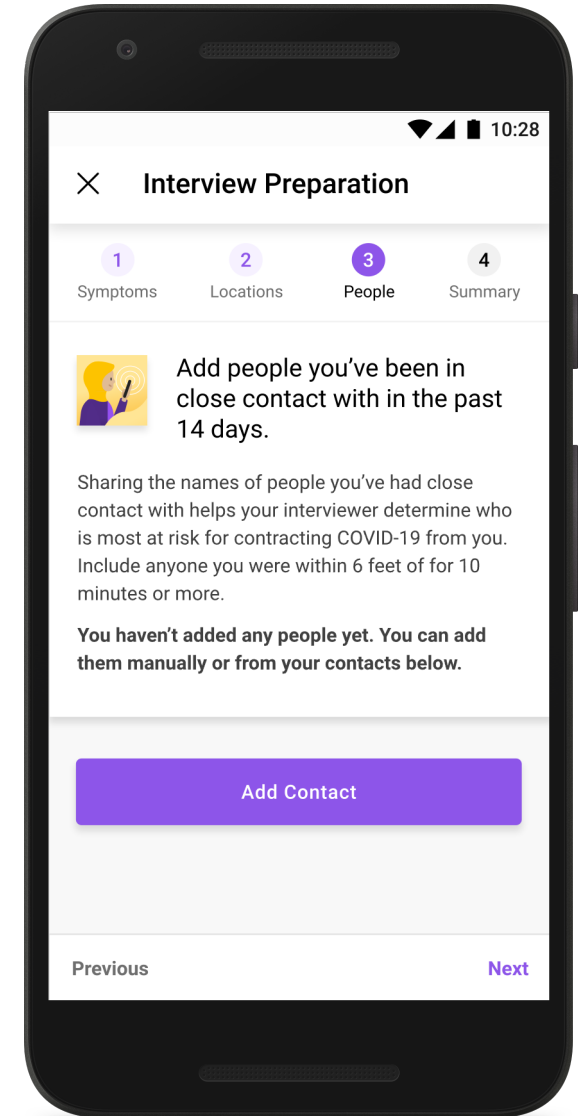
Symptoms



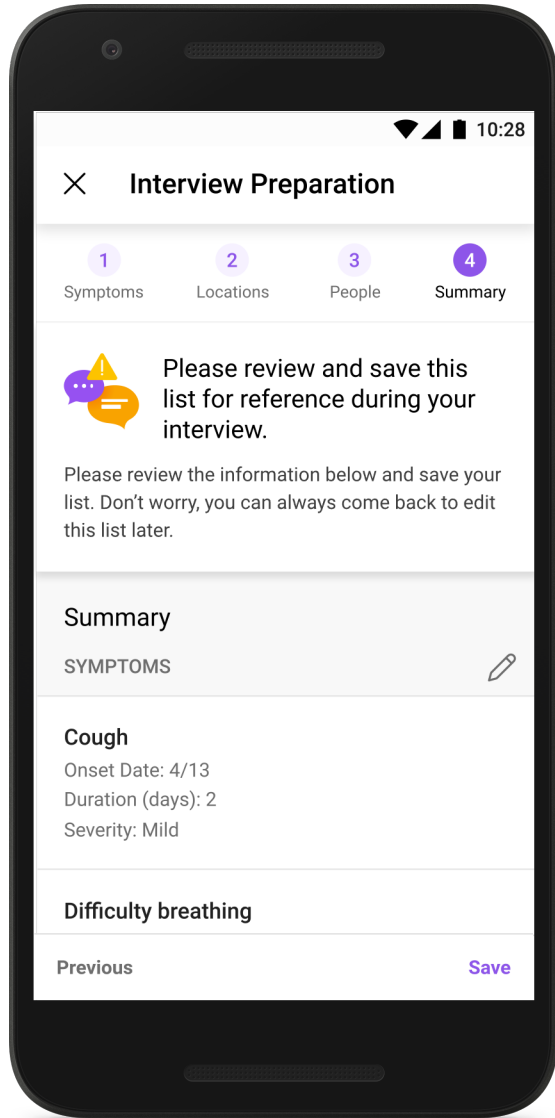
Locations – CovidSafe, Pre-populated



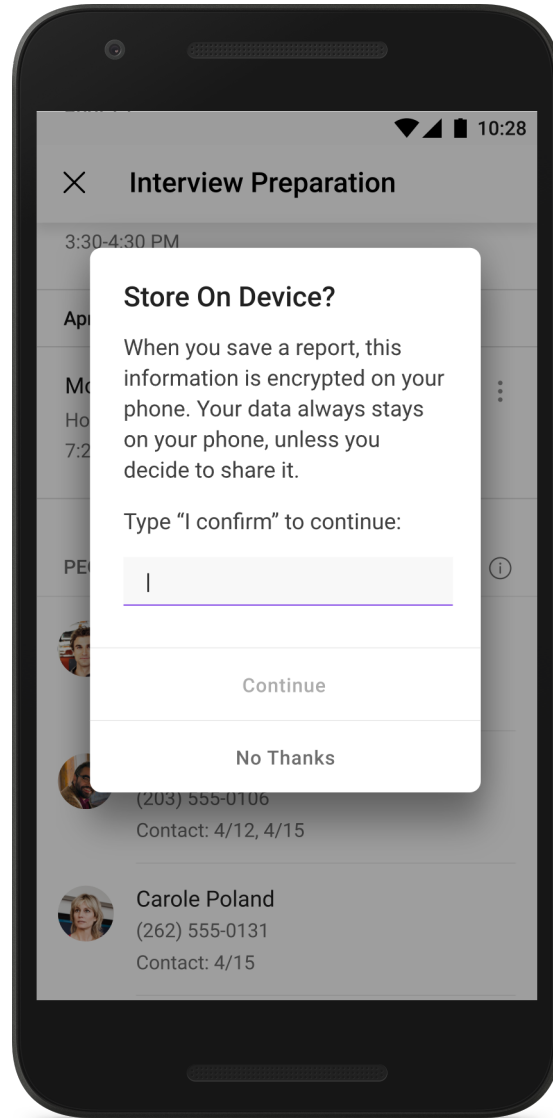
Locations – Add or Google Import



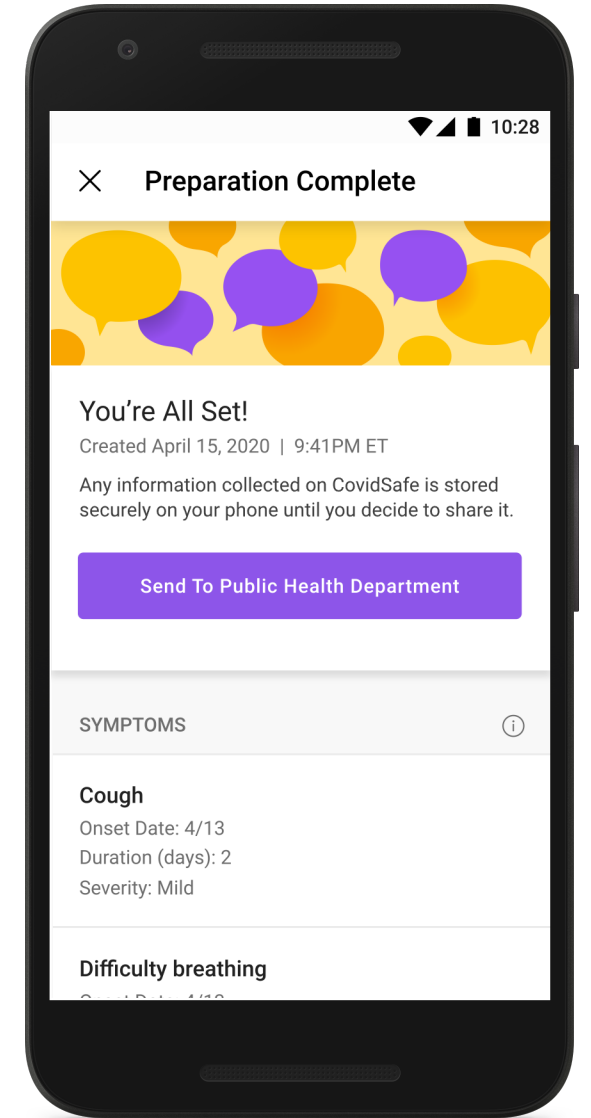
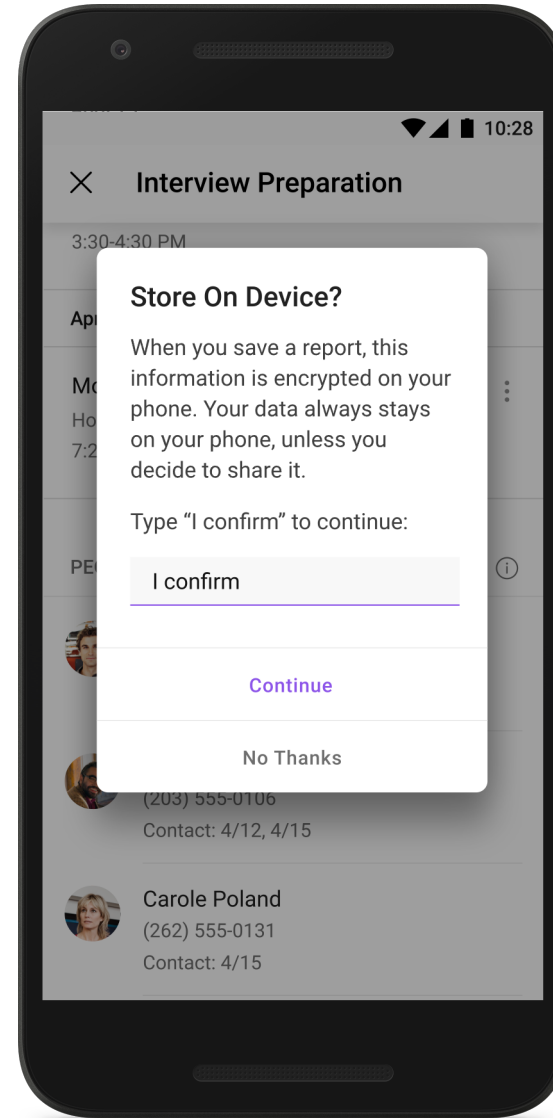
People



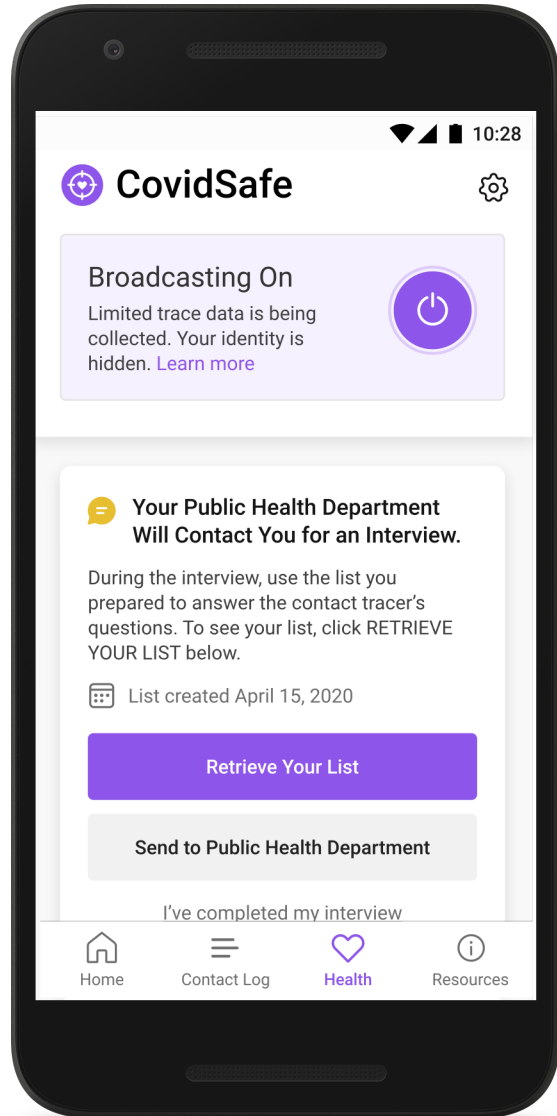
Summary



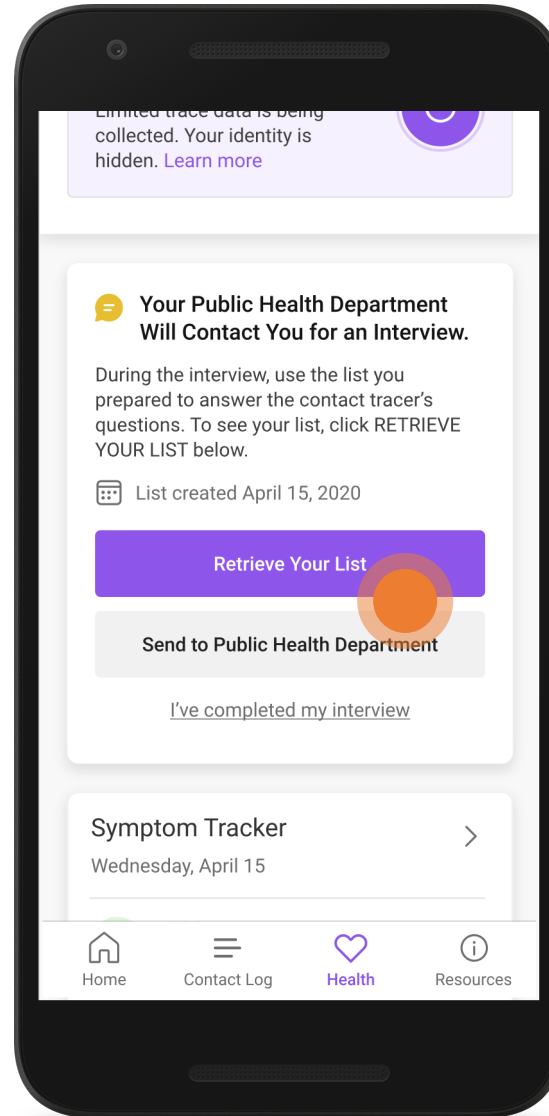
Confirmation



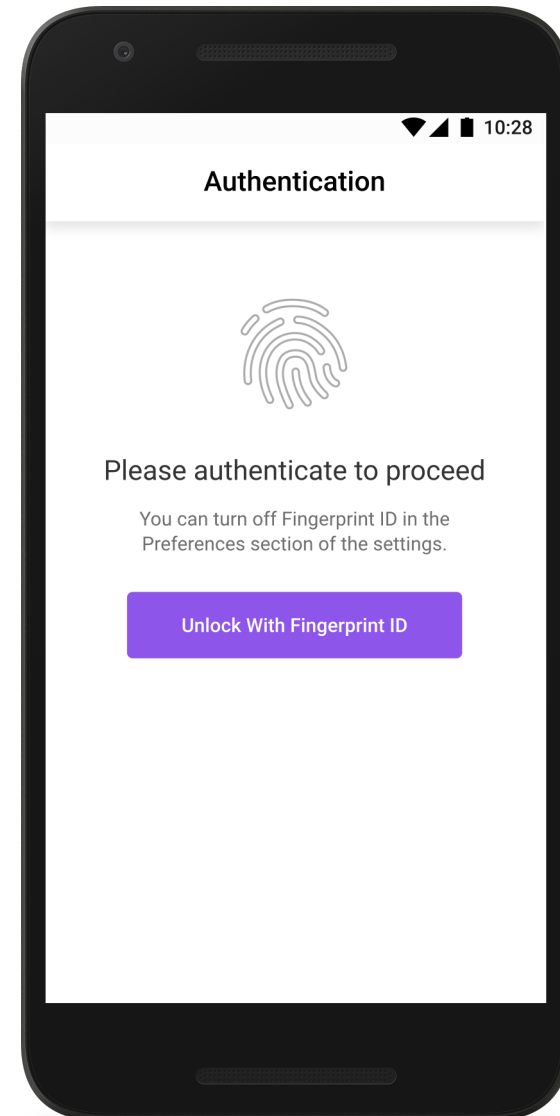
Confirmation + Send to Nurse



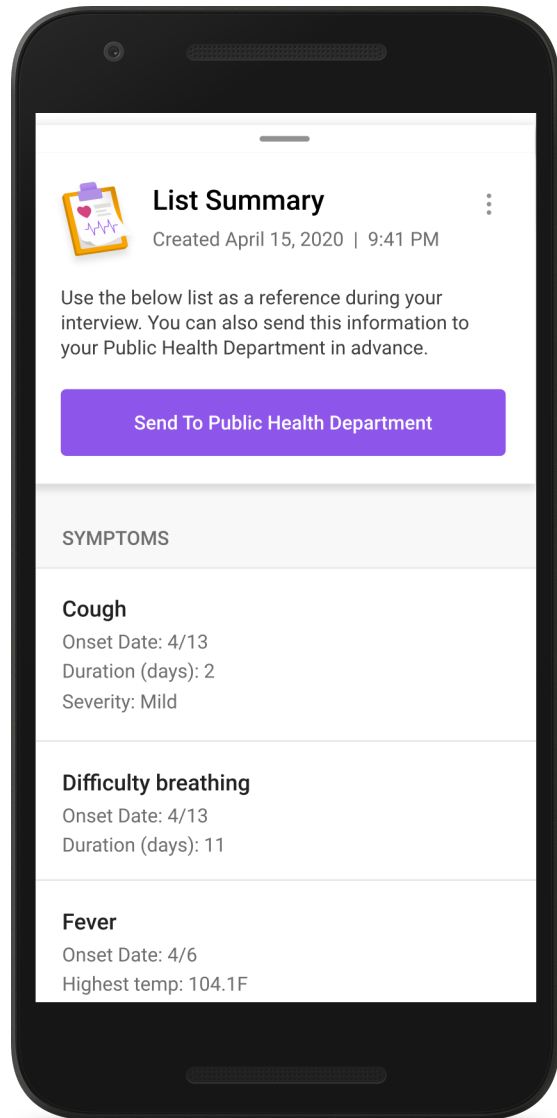
Interview module – Retrieve & Send



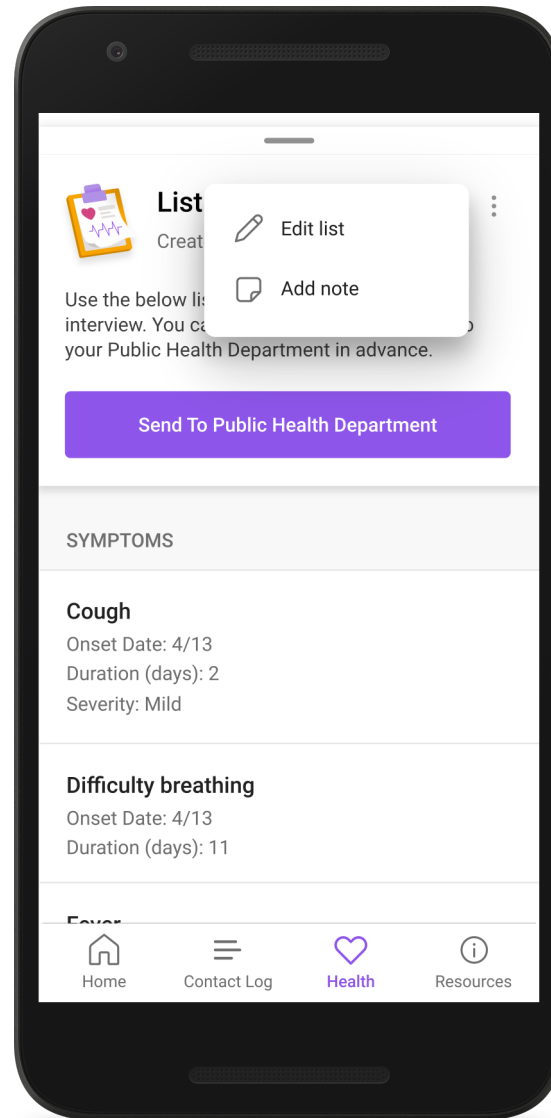
User initiates list retrieval



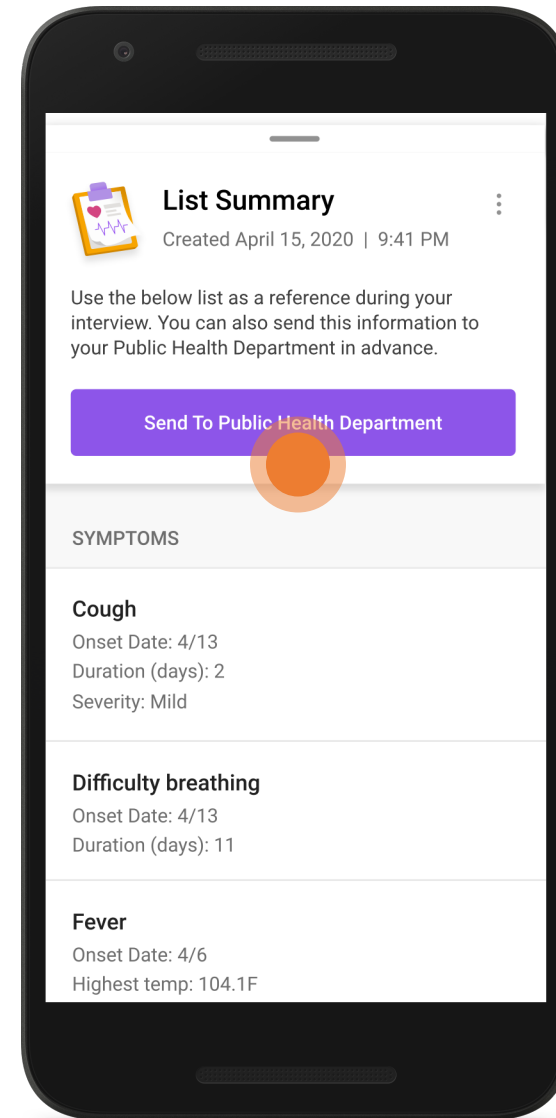
EXAMPLE Bio Authentication



Retrieved list view

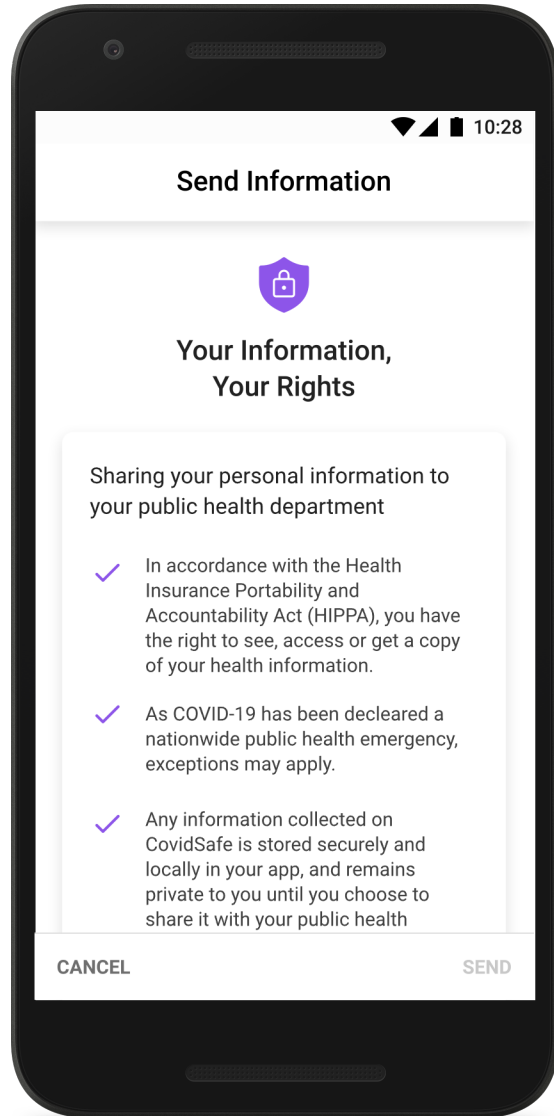


User control options

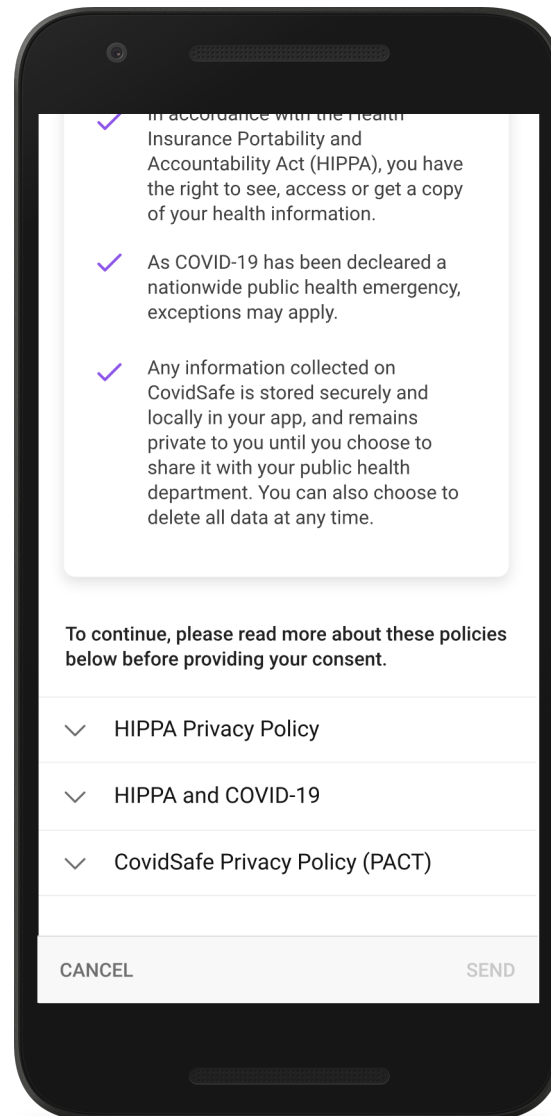


User initiates send to PHD

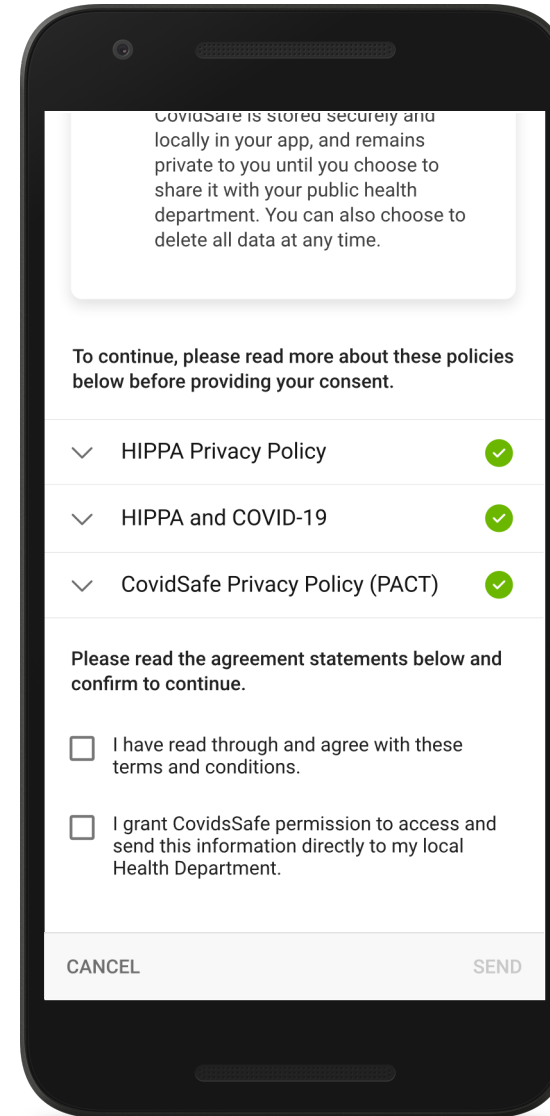
Prepare / Contact Tracing Preparation – Send to Health Department – Meaningful Consent



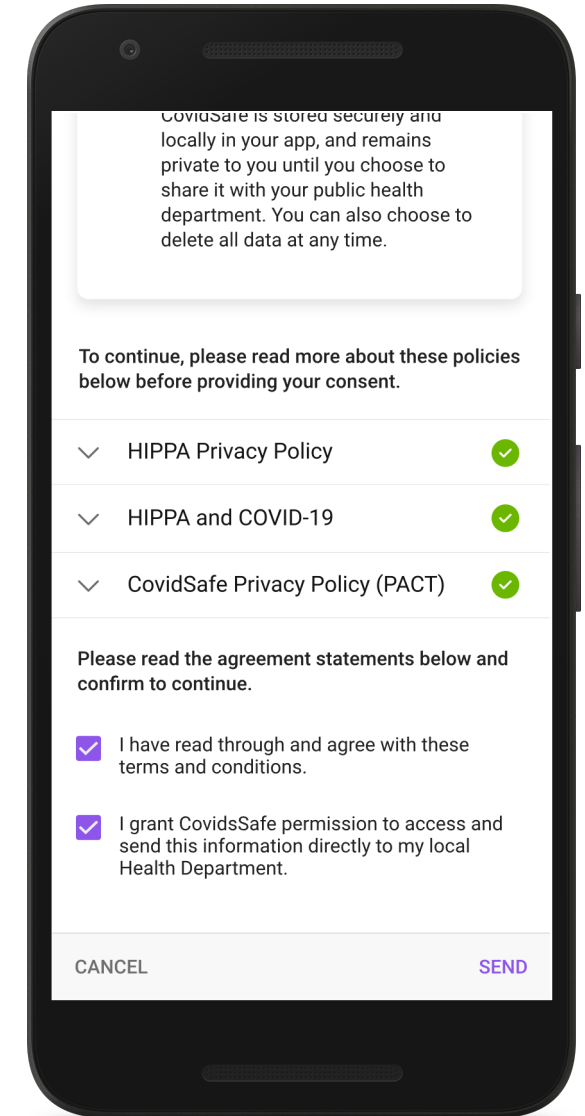
SAMPLE HIPPA consent



SAMPLE Scroll



SAMPLE Confirm read sections



SAMPLE Consent granted

Prepare / Contact Tracing Preparation – Authentication with PII

Covidsafe is stored securely and locally in your app, and remains private to you until you chose to share it with your public health department. You can also choose to delete all data

Identification

Please confirm your identity to continue. This information will only be shared with your public health department.

Items marked with (*) are required.

First name*

Last name*

Date of birth*

Phone

I grant Covidsafe permission to access and send this information directly to my local Health Department.

CANCEL CONFIRM

CANCEL SEND

SAMPLE PII Authentication

Covidsafe is stored securely and locally in your app, and remains private to you until you chose to share it with your public health department. You can also choose to delete all data

Identification

Please confirm your identity to continue. This information will only be shared with your public health department.

Items marked with (*) are required.

Calvin ✓

Nguyen ✓

11/23/81 ✓

(206) 555-0105 ✓

I grant Covidsafe permission to access and send this information directly to my local Health Department.

CANCEL CONFIRM

CANCEL SEND

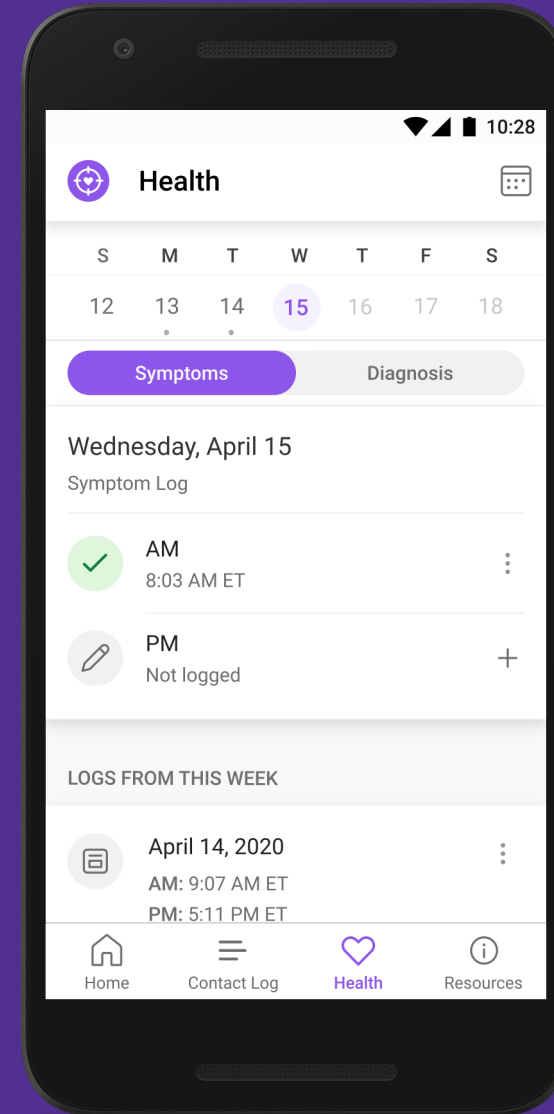
SAMPLE PII filled In

TRACK

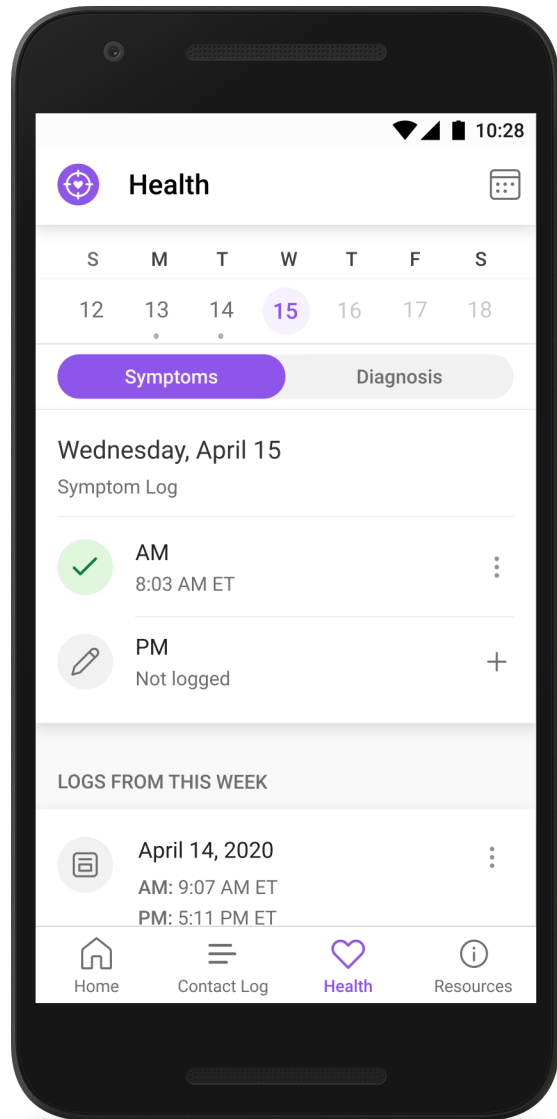
How do you track symptoms if you test positive or are symptomatic?

Track Your Symptoms

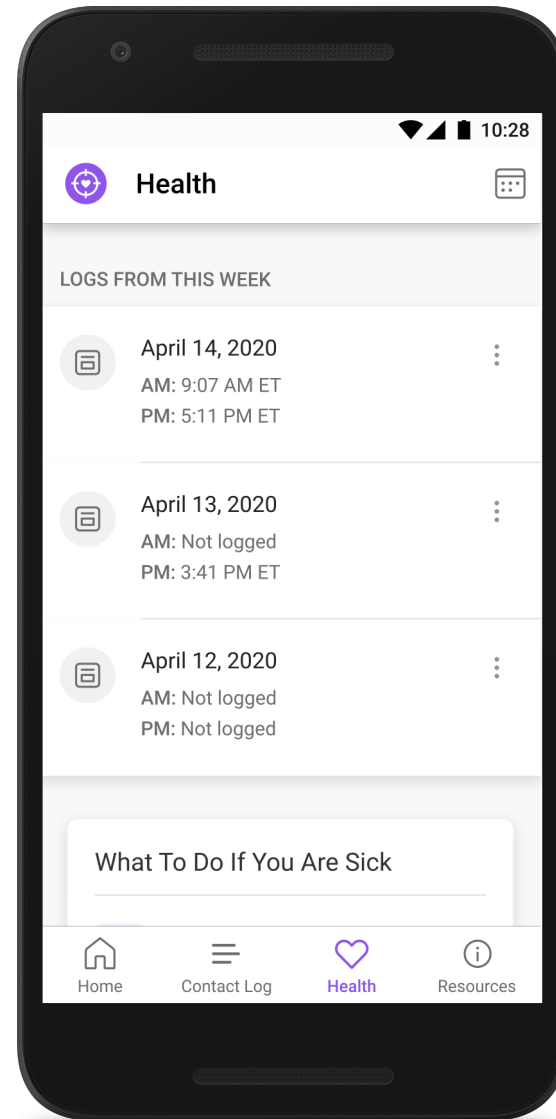
- Daily logs to help you track key symptom indicators
- You can opt-in to “submit” your symptoms to your local health agency if the app is connected to a case management tool



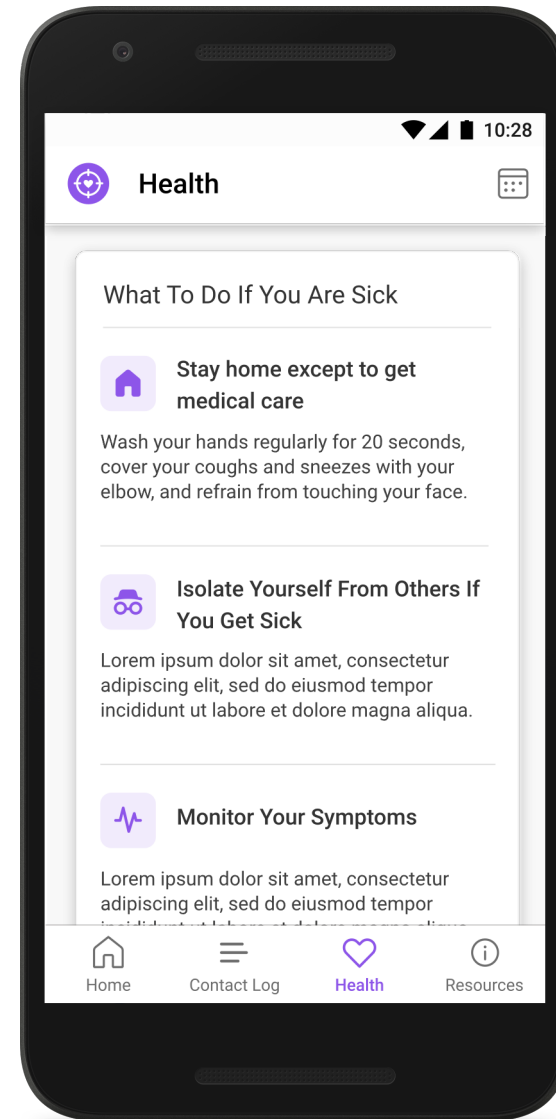
Prepare / Symptoms Tab



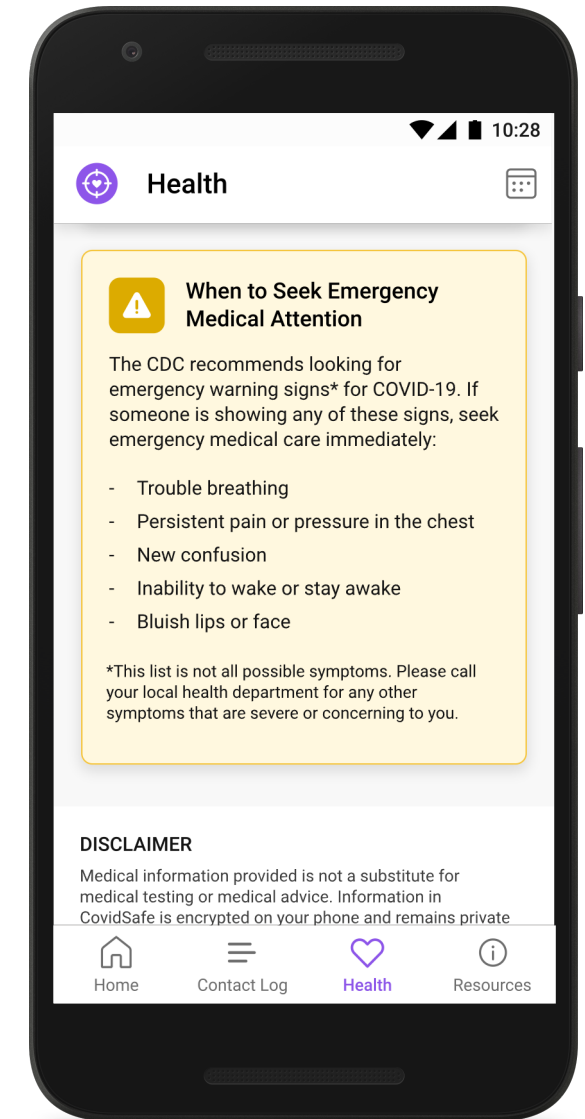
Health section – Symptoms tab



Current week's entries by day



CDC self-care guidance




CDC emergency info + disclaimer


Self-care tips, aka “What to do if you are sick”.

Information is pulled from the CDC site.


What To Do If You Are Sick

 **Stay home except to get medical care**


Wash your hands regularly for 20 seconds, cover your coughs and sneezes with your elbow, and refrain from touching your face.

 **Isolate Yourself From Others If You Get Sick**

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

 **Monitor Your Symptoms**

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

 Information based on [CDC guidance](#)



When to Seek Emergency Medical Attention

The CDC recommends looking for emergency warning signs* for COVID-19. If someone is showing any of these signs, seek emergency medical care immediately:

- Trouble breathing
- Persistent pain or pressure in the chest
- New confusion
- Inability to wake or stay awake
- Bluish lips or face

*This list is not all possible symptoms. Please call your local health department for any other symptoms that are severe or concerning to you.

Disclaimer

Medical information provided throughout CovidSafe is not a substitute for professional medical testing or advice.

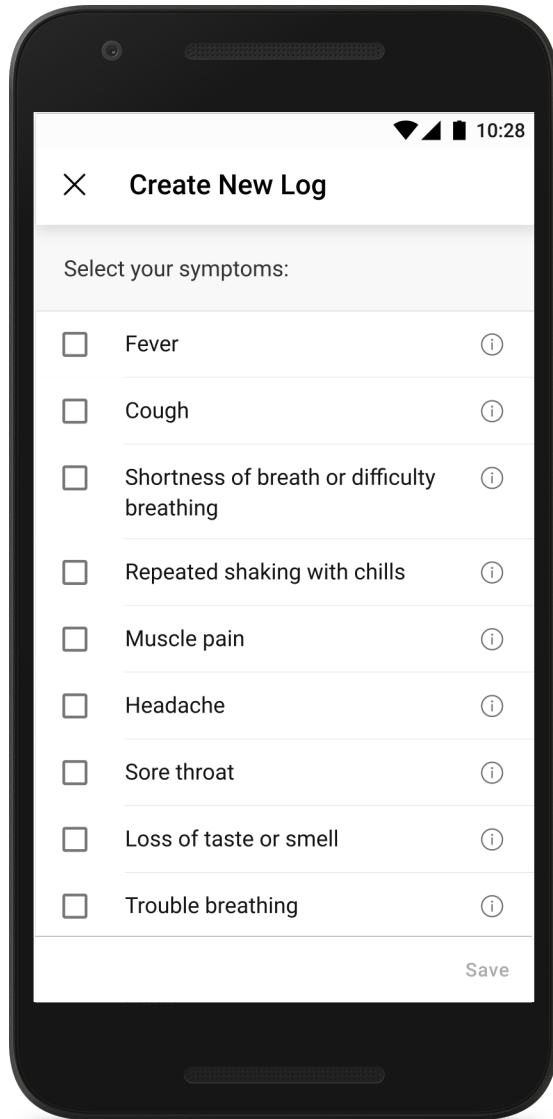
Medical emergency content

Information is pulled from the CDC, including (*) disclaimer.

CovidSafe disclaimer

Not replacing medical professionals, phone encryption, links for more information

Prepare / Symptom Logging



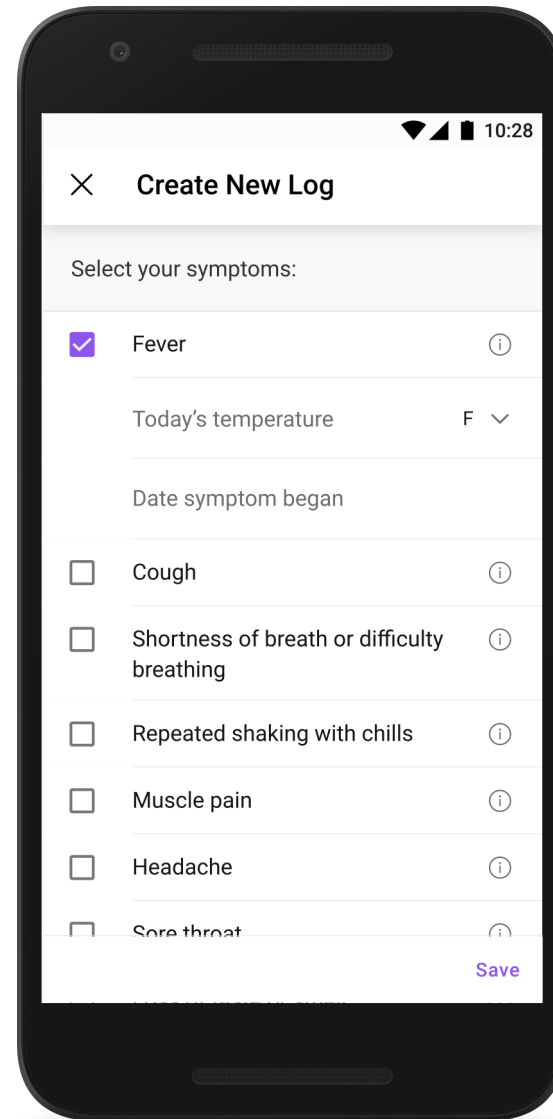
× Create New Log

Select your symptoms:

- Fever ⓘ
- Cough ⓘ
- Shortness of breath or difficulty breathing ⓘ
- Repeated shaking with chills ⓘ
- Muscle pain ⓘ
- Headache ⓘ
- Sore throat ⓘ
- Loss of taste or smell ⓘ
- Trouble breathing ⓘ

Save

SAMPLE Localized symptoms



× Create New Log

Select your symptoms:

- Fever ⓘ

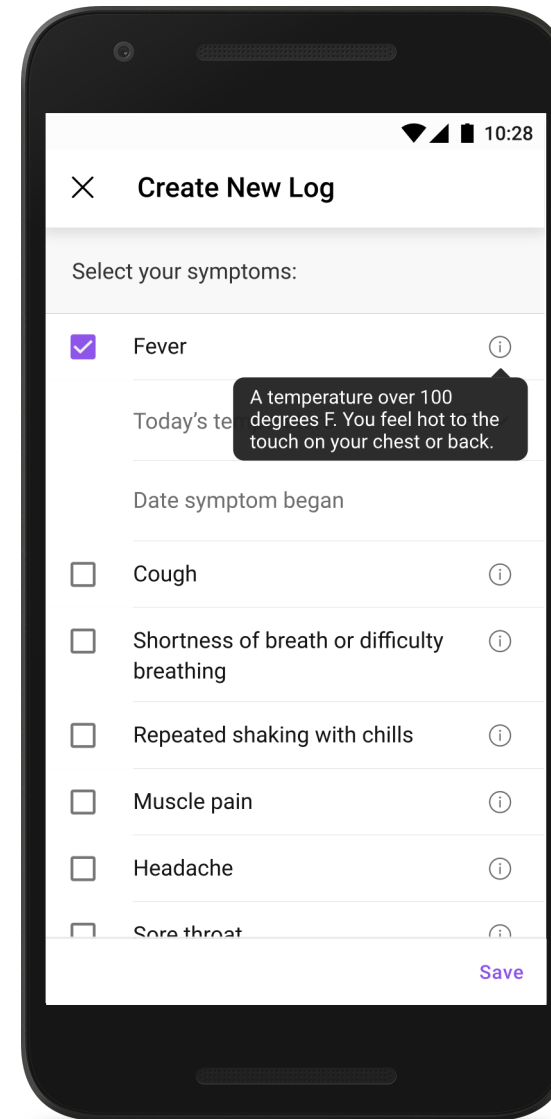
Today's temperature F ▾

Date symptom began

- Cough ⓘ
- Shortness of breath or difficulty breathing ⓘ
- Repeated shaking with chills ⓘ
- Muscle pain ⓘ
- Headache ⓘ
- Sore throat ⓘ

Save

SAMPLE Symptom details



× Create New Log

Select your symptoms:

- Fever ⓘ

Today's temperature 102.1 F ▾

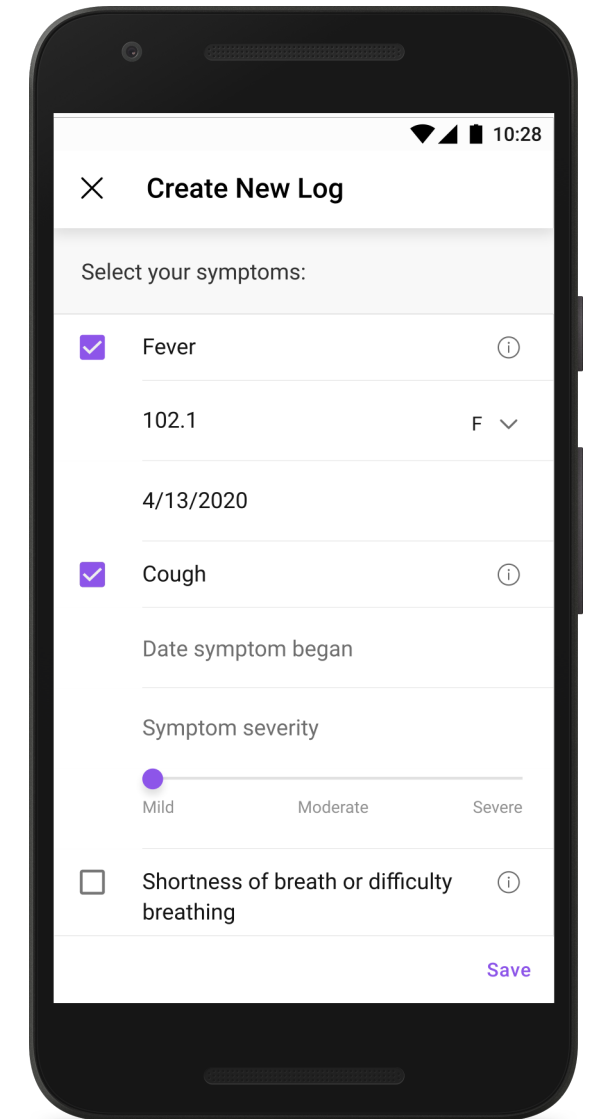
A temperature over 100 degrees F. You feel hot to the touch on your chest or back.

Date symptom began

- Cough ⓘ
- Shortness of breath or difficulty breathing ⓘ
- Repeated shaking with chills ⓘ
- Muscle pain ⓘ
- Headache ⓘ
- Sore throat ⓘ

Save

SAMPLE Symptom description



× Create New Log

Select your symptoms:

- Fever ⓘ

102.1 F ▾

4/13/2020

- Cough ⓘ

Date symptom began

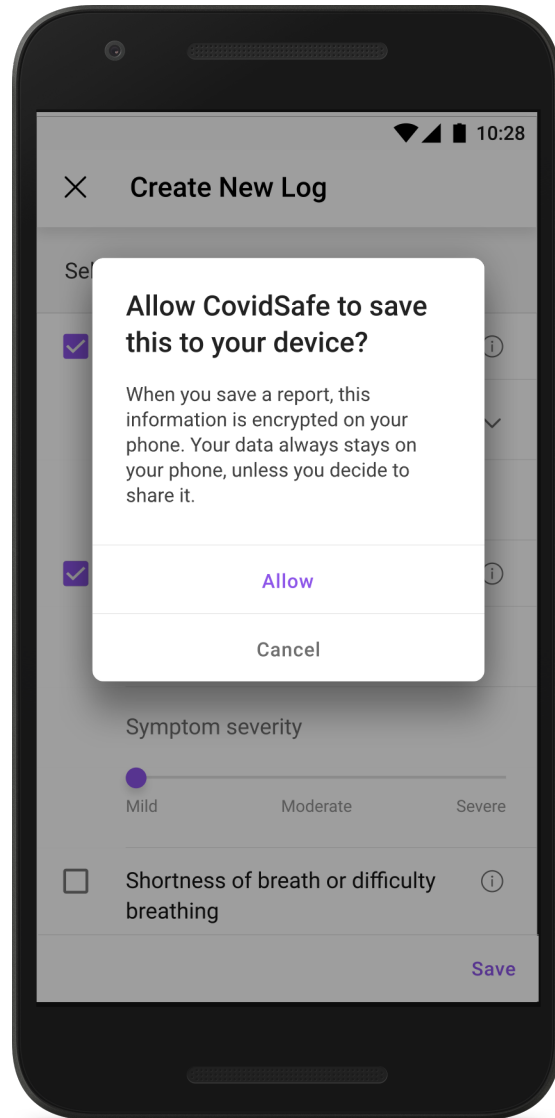
Symptom severity

Mild Moderate Severe

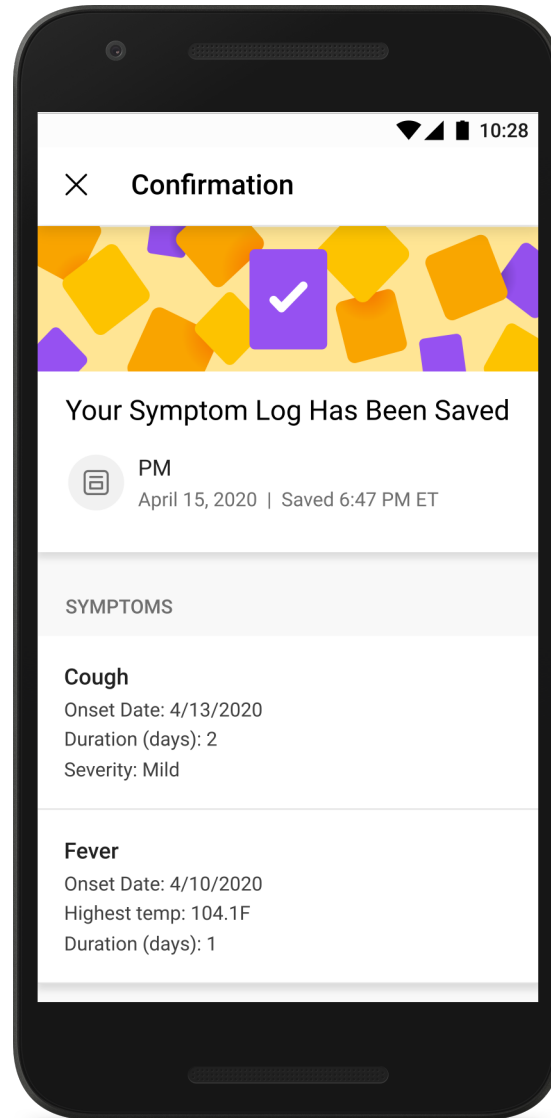
- Shortness of breath or difficulty breathing ⓘ

Save

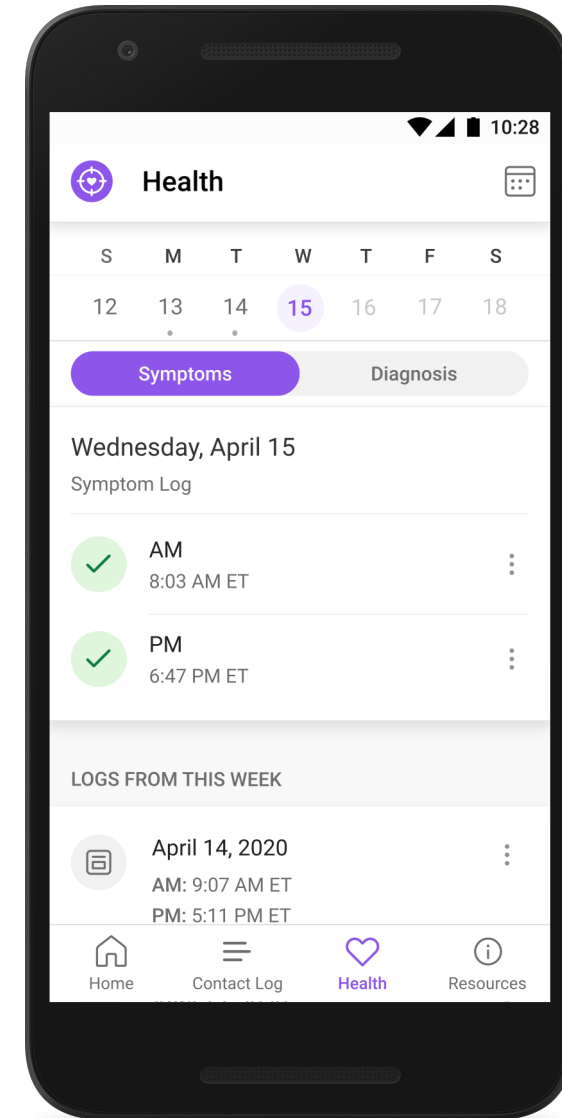
SAMPLE Detail examples



SAMPLE Detail examples



SAMPLE Confirmation



SAMPLE AM-PM logged

Thanks!

Contact: covidsafe@uw.edu

Website: <https://covidsafe.cs.washington.edu>