

# User types, needs, and problems in the Path Check ecosystem

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## Definitions

### Health authority (HA)

Health authority (HA) is a broad term used to encompass public health officials responsible for making policy recommendations to government officials, epidemiologists determining public health strategy for combating infectious diseases, contact tracers attempting to determine/identify close contact of infected individuals and disease investigators attempting to follow up with potentially infected or exposed citizens.

The Patch Check Ecosystem of products is currently targeted for use by Contact tracers within the Health Authority sub-groups.

### Contact tracer (CT)

Member of an HA (volunteer or employed/paid worker) whose role is to use a web-based client to reach contacts of anyone diagnosed with COVID-19 to document a symptom check, refer them for testing according to established protocols, and provide them with instructions for quarantine. Contact Tracers are required to follow scripts, policies, and procedures provided by the HA including any confidential information related to personal information.

### Community members (CM)

Members of the public, residents, citizens, denizens who may opt to provide their tracking data in order to add the HAs in their ability to trace the disease.

### Public space (PS)

Public spaces could include employers looking to safely re-open offices and places of business to a safety-conscious workforce, venue operators looking to ensure public safety during mass gatherings, and building managers wanting to provide confidence to tenants on public health issues.

TODO(Clare and @ Patty Michaud, cc @ Ali Raizin ):

- Define distinction and usage between "HA admin" and "HA official"
- Clarify public space terminology / find something better more descriptive

## User needs and problems

User needs can be thought of using the "jobs to be done" framework. Statements should start with "I need" or "I want." Problems are the issues a particular user faces when trying to satisfy one or more of their needs.

### Community members (CM)

Community members are an individual or group of users who would download the Safe Paths mobile app for sharing their data in order to learn if they have been exposed to someone diagnosed with C19.

#### Needs

- I want to feel safe going out and about.
- I want to know before I take a risk that it's risky and be able to determine whether it's worth it to me.
- I want to get help if I'm symptomatic (implying that I would also want to track my symptoms.)
- I want to receive timely announcements and guidance from health authorities, both so I know what to do and I don't break the law.
- I want my data to be protected as a private citizen.
- I want to aid my community by contributing to my testing information.
- I want to feel in control of me and my family's/roommate's health
- I want to have all available abilities that seem useful to combat COVID-19

## Problems

- CMs need to inform others in a confidential manner if they have been infected with C19
- CMs have no way of knowing their risk of spreading the infection to vulnerable populations or their household unless they know someone who has been diagnosed positive and that they've had close contact, as determined by manual contact tracing, based on followup from investigators or infected individuals.
- Community Members may have little knowledge regarding the infection rate(s) at their workplaces.
- Community Members have no way of knowing that the public places they visit are C19 free.
- CMs have no way to inform people they have recently crossed paths with if they have tested positive for C19
- CMs have trouble finding trusted sources of information - or are inundated with too much information
- CMs aren't very data literate
- CMs might be selfish and wary of trust with technology (not mutually exclusive by any means but relates to why would they download this app?)

## Contact tracers

### Needs:

- I need to perform a (usually remote) contact trace interview for and collect data from my patients.
- I need to be assigned a "case" when a CM has tested positive.
- I need to notify anyone that crossed paths with a CM who tested positive that they should get tested.
- I want to help the CM who tested positive maintain their privacy (because that's what I would want in their shoes).
- I need to follow up with the CM to determine their final health outcome, so that we can learn better procedures or collect data for research purposes.

### Problems:

- I can't trust the memory of the diagnosed CM I'm tracing. Contact Tracers are relying on the memories of diagnosed positive COVID-19 patients to reveal close contact or fomites over a 10-day period within a contact tracing interview. Patients may be extremely stressed, anxious and/or have high fevers. They may struggle to remember all relevant contacts without an aide to memory.
- I have no way to identify close encounters of an infected carrier which the carrier doesn't know the contact details of.

## Health and government officials

These are the folks that make policy decisions and enact local orders. They are usually the final decision maker when we make the sale to health authorities.

### Needs:

- I want to keep my constituents informed about the requirements of new health orders and other guidance.
- I want my citizens to feel safe going back to regular economic activity.
- I want to manage my contact tracing resources and ensure they have tools for success.
- I want to have the data to make decisions about the next steps in my health orders and guidance.

### Problems:

- I have no way of knowing what will be most effective.
- There are a lot of technology options and I don't know what axes to prioritize (privacy? Comprehensiveness? Maturity of technology?)
- Will the product be easy to use and for my employees to adopt?
- Require lots of individuals data for it to be meaningful and "automate" as well as enhance existing processes for them
- Are trying to mitigate fear mongering and panic

## Managers of public spaces

### Needs

- I want to return to regular economic activity (such as being able to have my employees return to work).
- I want to ensure there's a safe environment so people will have confidence when coming into my space.

### Problems

- Employers are completely reliant on relationships between employees or public health authorities performing manual contact tracing to determine if infected carriers have spent time at their facilities.
- Employers don't have a way to confidently declare their workspaces as COVID-19 free to alleviate the concerns of their workforce.
- Employers don't have a way to determine whom an infected individual may have come into contact with, within their facilities.

- Businesses that are frequented by the public such as grocery stores, restaurants and the like may not be aware of the visit history of covid19 positive carriers in their establishments.