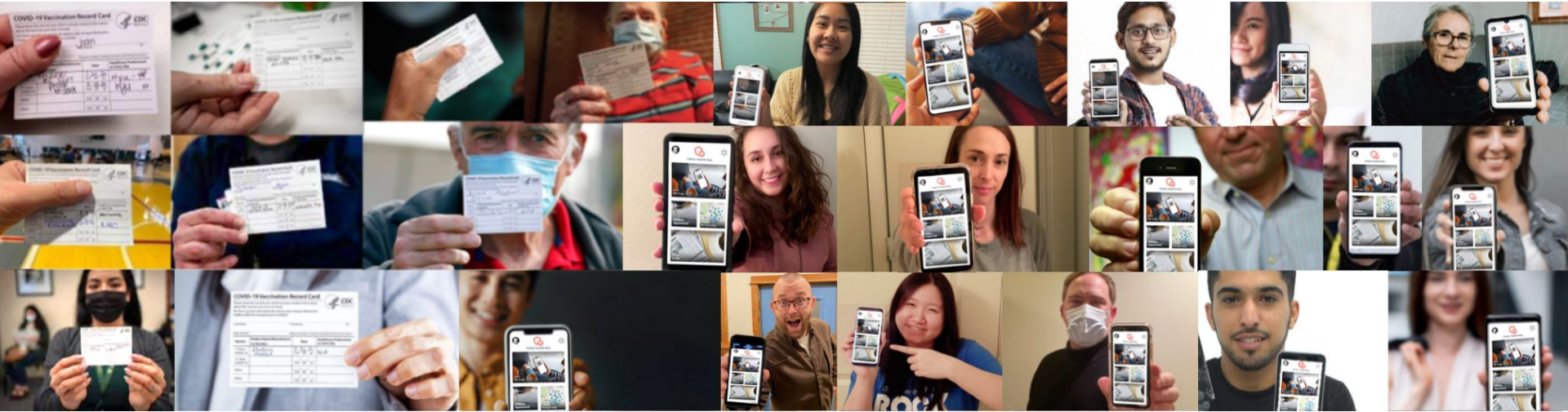


#PublicHealth Pass: A Coronavirus vaccination, testing and verification user experience study



Design Management Team

Justin Brown
Denise Chiao
Tanya DeVries
Mika Kline

Interaction Design Team

Monica Can
Alyssa Gonzalez
Caleb Meadows
Luke Sabus

Eryn Godwin
Johnna Harrison
Phuthi Ranooe
Shant Thomas
Stephanie Truong

Michael Eckersley, PhD
University of Kansas
Department of Design
Fall 2021

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experience study

Table of Contents	Page
1. Introduction	3
2. Executive Summary, Problem Context, Research Question	4
3. Methods and Process, Project Intent	5
4. Contextual Research: Knowing Mindset, Media Scan	6
5. Human User Research: Knowing People, Modeling Users	8
6. Analysis: Framing Insights, Formulating Ideas for Innovation	15
7. Synthesis: Exploring Ideas, Framing Solutions, Prototyping Features	18
8. Conclusion and Review	29

This study poses a modest alternative history to the US public health response to the Coronavirus (COVID-19) pandemic that broke out worldwide in 2020.

It documents a combined effort of a team of 12 Interaction Design and Design Management students at the University of Kansas over four months in the Fall 2021. They set out to study and imagine plausible improvements upon the US Centers For Disease Control 2021 regime for recording and verifying public vaccination records. The effort yielded a set of practical recommendations for better administering and managing the process from an integrated public health perspective across the US.

We took an integrated systems, user-centered design approach to afford individuals greater control and confidence in scheduling vaccination and testing, better options for presenting documentation, and receiving local public health alerts, etc. All of it within a single official public health system app (#PublicHealthPass), sanctioned and administered jointly by Federal, State and Community governments.

Executive Summary: In Fall 2021 two design teams at the University of Kansas undertook a program of research and analysis to breakdown the current state of public health-administered COVID-19 vaccination, testing and verification in the United States. Described is a proposed model for enabling individual adults to better self-manage their own vaccination, testing and verification experience.

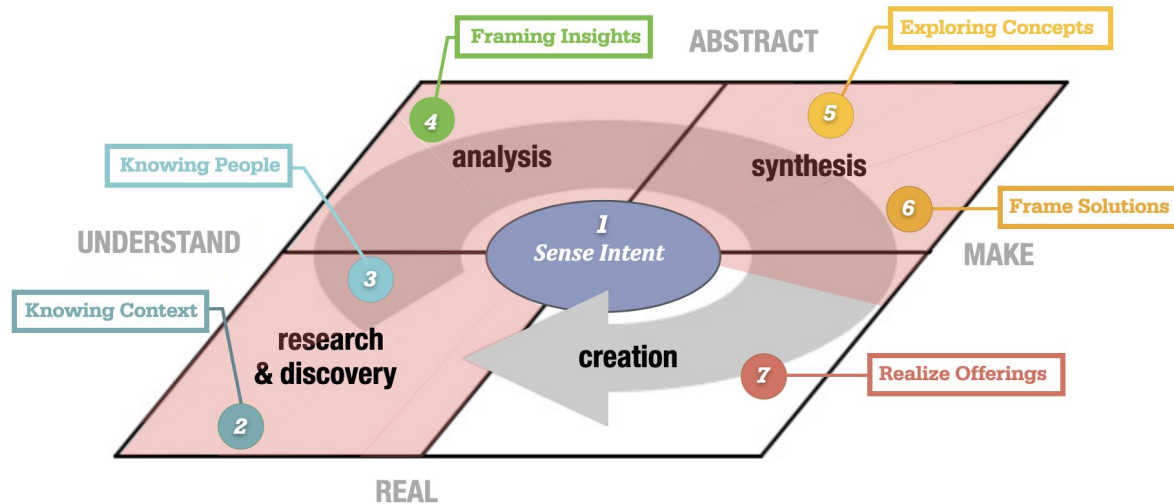
Problem Context: As of December 2021 72% of the US population has received at least one COVID-19 vaccine dose, according to the U.S. CDC. That leaves about 28% of Americans still unvaccinated, though the number of vaccine holdouts continues to drop. Unfortunately, the US Public Health System has shown an unfortunate failure of coordination in the

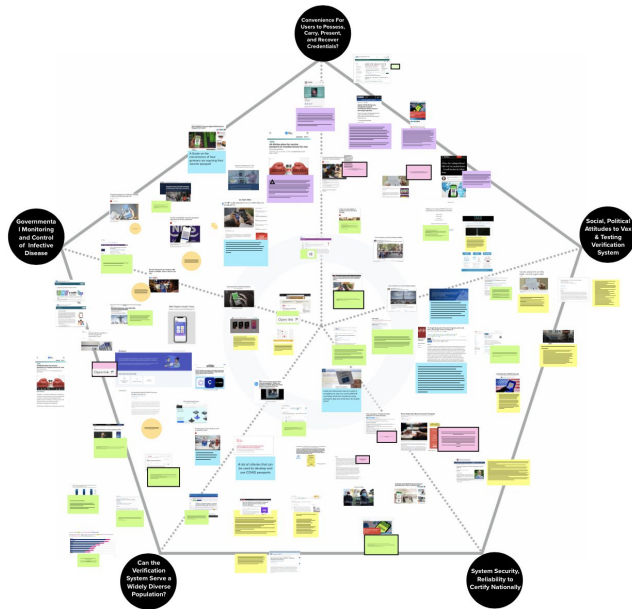
Research Question: How should broad-based public vaccination, testing and verification be better integrated and managed to increase long-term social buy-in, ease of use and health security in years to come?

Project Sponsor (hypothetical): A US Public Health Consortium, headed by the USCDC in coordination with State and Community Public Health Departments across the United States. This in recognition of the unfortunate lack of central operational leadership over the program in 2020-21.

Methods and Process: Assorted methods and process adapted from Kumar: “A Process For Practicing Design Innovation”, Journal of Business Strategy, Vol 30, No 2/3 2009.

Project Intent: *Create a significant, systematic improvement upon the current CDC “COVID-19” record to enable adults to better manage the vaccination experience (i.e., scheduling, documenting, receiving local public health notices, and verifying their vaccination or testing status), for individuals and families*





Media Scan, Research Wall,
Fall 2021

Published Literature, Media: The Design Management team read and annotated over 75 COVID-19 pandemic and vaccine passports-related articles, then mapped them along five axes (click to enlarge):

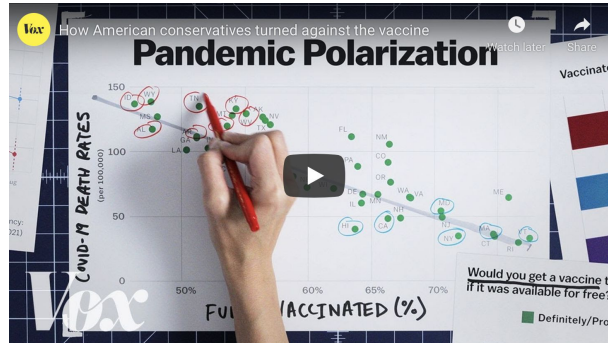
1. [Convenience For Users to Possess, Carry, Present, and Recover Credentials?](#)
2. [Social, Political Attitudes to Vax & Testing Verification System](#)
3. [System Security, Reliability to Certify Nationally](#)
4. [Can the Verification System Serve a Widely Diverse Population?](#)
5. [Governmental Monitoring and Control of Infective Disease](#)

Below we cite a few of the more informative ones:

- [“What Collective Narcissism Does to Society”](#), by Scott Barry Kaufman. In everyday settings, it can keep people from listening to one another. At its worst, it might fuel violence. Atlantic
- [“V-safe After Vaccination Health Checker”](#), Use your smartphone to tell CDC about any side effects after getting the COVID-19 vaccine. You’ll also get reminders if you need an additional dose.
- [“COVID-19 vaccination passport: prospects, scientific feasibility, and ethical concerns”](#), Khan Sharun, Human Vaccines & Immunotherapeutics
- [“WHO: Covid-19 vaccine passports could be considered when vaccine coverage improves”](#). US News, Sep 14, 2021
- [“Vaccine Passports UnderSCORE the Necessity of US Privacy Legislation”](#). Brookings, June 28, 2021

Selected Published COVID-19 and vaccine passports-related articles, media:

- "Five Ways to Get Digital Proof of Covid Vaccination Status", Forbes, July 28, 2021
- "Vaccine Passports: Are They Legal, or Even a Good Idea?", Berkeley Public Health, August 2021
- "Vaccine hesitancy: the next challenge in the fight against COVID-19", Amiel A. Dror, Lindholt, et al. European Journal of Epidemiology , V35, pages 775–779 (2020)
- "How can the public be persuaded to accept vaccine passports?", LSE's School of Public Policy, July 19, 2021
- "These States Have Banned Vaccine Passports"– based on COVID-19 inoculation status, by Elliott Davis Jr., June 1, 2021
- "Vaccine passports are a technical and ethical minefield", Financial Times, Feb 2021
- "IBM Digital Health Pass" Offers a secured, voluntary, digital alternative to paper vaccination cards or test results for COVID-19,



The partisan pandemic, explained in 15 charts

By Joss Fongjoss@vox.com, Feb 23, 2022

<https://youtu.be/sv0dQfRRrEQ>



Compiled Primary User Research Notes: Scroll down to find your page and edit your table rows

RESEARCHER: ALEXIA	WHAT I SAW AND HEARD FROM THIS INFORMANT: OBSERVATIONS, STORIES	WHAT I LEARNED: INSIGHTS OR IMPRESSIONS I TOOK AWAY	WHAT IT MEANS: MEANINGS OR INTERPRETATIONS I MADE	WHAT CAN WE DO WITH IT? IDEAS, CONCEPTS OR ACTIONS WE SHOULD APPLY
INFORMANT 1: Riley, Male, White, 30, Biopsychiatrist, Resident	Riley highlighted the screen for him with his second hand. He showed the screen to the researcher and we both looked at it together. He said that the screen was not as clear as it could be. He said that the screen was not as clear as it could be. He said that the screen was not as clear as it could be.	It is clearly not intuitive for the resident and we need to find a way to make it more intuitive. It is clearly not intuitive for the resident and we need to find a way to make it more intuitive. It is clearly not intuitive for the resident and we need to find a way to make it more intuitive.	It is clearly not intuitive for the resident and we need to find a way to make it more intuitive. It is clearly not intuitive for the resident and we need to find a way to make it more intuitive. It is clearly not intuitive for the resident and we need to find a way to make it more intuitive.	It is clearly not intuitive for the resident and we need to find a way to make it more intuitive. It is clearly not intuitive for the resident and we need to find a way to make it more intuitive. It is clearly not intuitive for the resident and we need to find a way to make it more intuitive.
INFORMANT 2: Hannah, Female, Hispanic, 32, Tech Consultant	She is in a hurry to get the information and she is not sure if she can get it. She is not sure if she can get it. She is not sure if she can get it. She is not sure if she can get it. She is not sure if she can get it.	She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive.	She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive.	She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive.
INFORMANT 3: Vanessa, Female, Hispanic, 25, Marketing Associate	She got her reaction as soon as it was possible. Liking it for the first time. She was not sure if she could get it. She was not sure if she could get it. She was not sure if she could get it. She was not sure if she could get it.	She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive.	She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive.	She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive. She is clearly not intuitive for the resident and we need to find a way to make it more intuitive.

Sample n=29
Ethnographic Informants
Ave age= \bar{X} 37
Males 14, Females 15
Distilled into four user persona models
(our units of optimization)



"Edgar"



"Briana"



"Abigail"



"Randall"

Ethnographic Interviews:

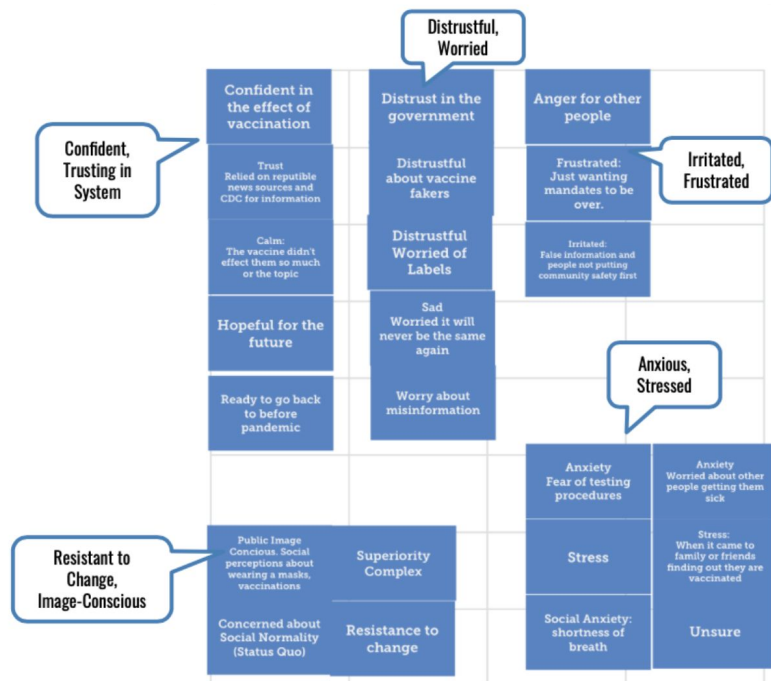
Our informant sample (n=29) consisted of 14 males and 15 females averaging 37 years of age. Analysis was done to ascertain their observable modes of behavior and their expressed needs.

Informants were interviewed by eight (8) graduate and undergraduate-level Interaction Design students in October of 2021. Informants were selected quasi-randomly, primarily from the Lawrence and Kansas City metropolitan areas. Interviews were not recorded.

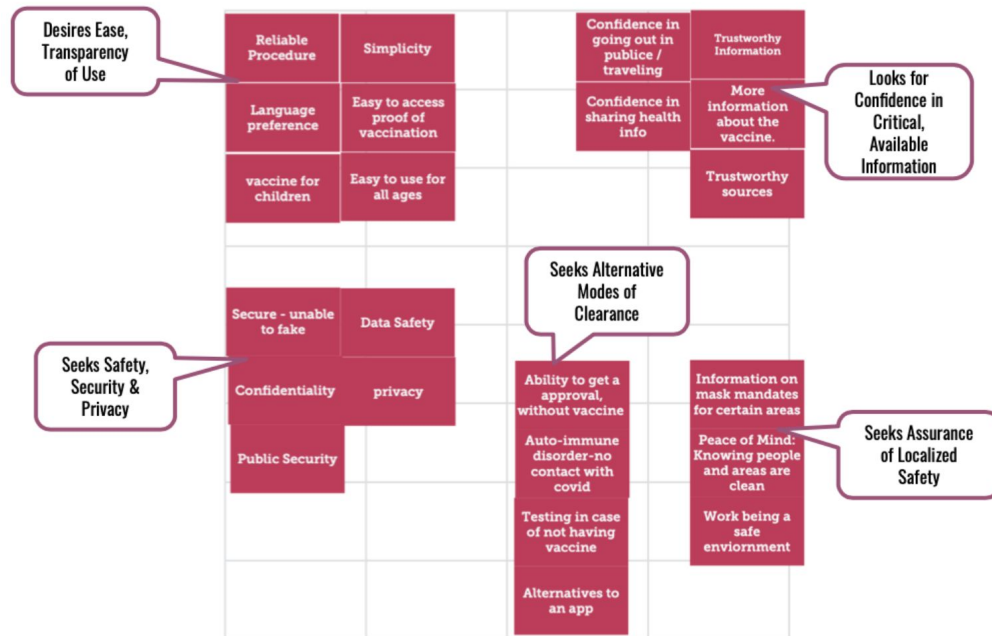
Analysis of the interview data yielded information relating to observed behavioral modes as well as ascribed user needs or requirements (over)

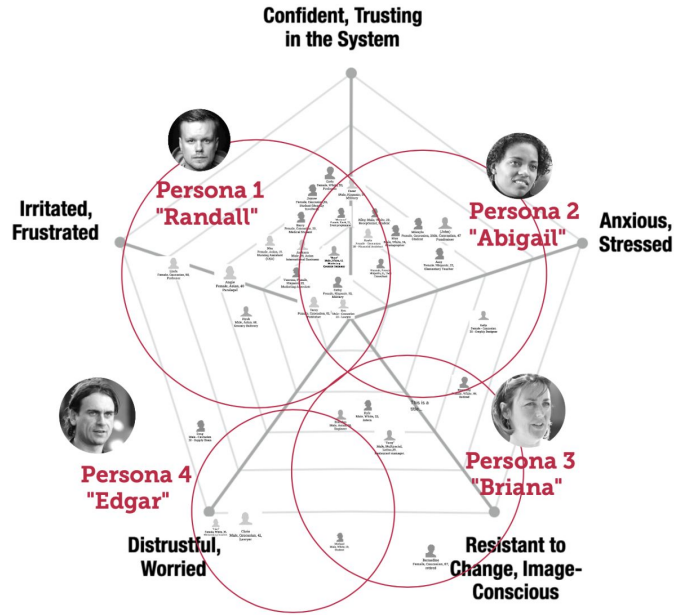
4-OBSERVED BEHAVIORAL MODES IN ETHNOGRAPHIC SESSIONS

Behaviors: physical or emotional verbally expressed by informants



5-USER NEEDS/REQUIREMENTS.
Explicit or implicit needs regarding vaccination or testing documentation





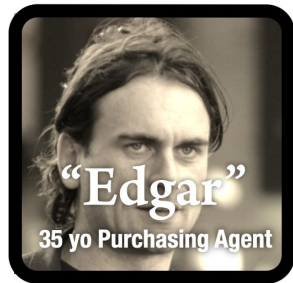
Analysis of Ethnographic Interview Data:

Based primarily on our extrapolation of observed behavioral modes, we mapped our 29 informants along five primary axes (click to enlarge):

1. [Confident, Trusting In the System](#)
2. [Anxious, Stressed](#)
3. [Resistant to Change, Image-Conscious](#)
4. [Distrustful, Worried](#)
5. [Irritated, Frustrated](#)

Mapping indicated four (4) divergent clusters of informants, but most (22)—whether “irritated-“frustrated” or “anxious-stressed” trended toward the axis of “confidence-trust” in the system.

These four clusters we shaped into four distinct user persona models: “Edgar”, “Randall”, “Abigail”, and “Briana” (over)



Improving “Edgar’s” experience

- Reduce misinformation on media platforms
- Direct and goal-driven government policy for vaccination and testing



“EDGAR”

“I would rather have some restrictions as opposed to continuing shutting our lives down.”

User Persona Model: “EDGAR”

AGE: 35

HOMETOWN: Des Moines

WORK: Agricultural Purchasing Agent

FAMILY:

Wife: Georgia Moore

One Son 4 year old (Jake)

CHARACTERISTICS:

Skeptical, Distrustful, Frustrated, Homebody

NEEDS/REQUIREMENTS:

- Personal privacy
- Ability to go out without getting the vaccine
- Persuasive Evidence
- Safety for himself and his family

JOBS TO BE DONE:

- Personal Errands
- Ordering parts to fix his car, instead of purchasing a new one (due to high market prices)
- Son to start school

HIS STORY

Edgar was more extroverted prior to the pandemic but the combination of a more intensive job and working from home has turned him into a “homebody”. This has resulted in him spending a lot of time with his young family. Edgar finds joy in this new lifestyle because he enjoys cooking dinner for his family and as of more recently hosting a small friend group for poker nights. However, the combination of Edgar having to go back into work more frequently and his son starting school soon has led to a lot of stress for him. Having to be away from his family and having to be exposed to so many more people is not an ideal situation. The vaccine requirements that his work and son’s school have led to frustrations with the system.

HIS GOALS, DESIRES, MOTIVATIONS

- Ability to go out and socialize with people
- Wants to be able to go to extended family gatherings again without vaccine requirement
- Having his son start school safely soon
- Making sure his family is safe

HIS FRUSTRATIONS

- Misleading news and information about the vaccine
- Prefers to keep his vaccination record private
- Does not like the idea of being labelled with a vaccine passport
- Does not view the vaccine as a necessity
- Does not like the idea of restrictions based on vaccination
- Will comply to certain restrictions in order to avoid further shutdowns and stricter mandates

WHAT WOULD IMPROVE HIS EXPERIENCE?

- Reduce misinformation on media platforms
- Direct and Goal driven local government agenda vs. central



Improving "Randall's" experience

- Majority of people getting vaccinated
- Making the vaccine mandatory at school to protect kids
- Places asking for the app to enter
- His family members would get vaccinated too
- Stop misinformation in social media about vaccines



"RANDALL"

**"PERSONAL FREEDOM
ENDS WHEN IT COMES
TO PUBLIC HEALTH"**

User Persona Model: "RANDALL"

AGE: 38

HOMETOWN: EUDORA

WORK: TEACHER, ARMY VETERAN

FAMILY:

SPOUSE: ASIAN: 35

SON: 10

DAUGHTER: 6

MOM: 78

CHARACTERISTICS:

-ADAPTABLE TO CHANGE, FOLLOWS ALL THE GUIDELINES, SENSE OF COMMUNITY.

NEEDS/REQUIREMENTS:

- PARTICIPATING IN SCHOOL EVENTS WITHOUT WORRYING OF GETTING INFECTED
- GOING OUT WITH HIS FAMILY TO ENJOY FAIRS, RESTAURANTS, FAMILY ACTIVITIES

JOBS TO BE DONE:

- WANTS HIS KIDS TO BE ABLE TO GET VACCINATION.
- TRAVEL TO SEE FAMILY MEMBERS

HIS STORY

RANDALL IS A ELEMENTARY TEACHER IN EUDORA KANSAS, HE LIVES WITH HIS WIFE ANGIE AND HIS 2 KIDS, HE IS A VERY FAMILY ORIENTED PERSON, HE MISSES VISITING HIS MOM EVERY WEEK, HE IS PRO VACCINE, AND PRO APP. HE BELIEVES IS TIME TO GET BACK TO OUR LIVES WITHOUT EXPOSING OTHERS OR GETTING INFECTED. RANDALL IS A VERY SOCIAL GUY, AND THIS PANDEMIC HAS AFFECTED HIM A LOT BECAUSE HE CAN'T DO EVERYTHING HE USED TO DO, INCLUDING TAKING HIS KIDS TO SOCIAL ACTIVITIES

HIS GOALS, DESIRES, MOTIVATIONS

- WANTS TO GO BACK TO PLAY BASKETBALL WITH HIS FRIENDS EVERY WEEKEND
- MISSES VISITING HIS MOM AT NURSING HOME
- GOING BACK TO LIFE PRE PANDEMIC

HIS FRUSTRATIONS

- ABOUT NURSING STAFF GETTING VACCINATED AT HIS MOM'S NURSING HOME
- DOWNLOADING TOO MANY APPS FOR GETTING STUFF DONE
- SOME OF HIS STUDENTS PARENTS DON'T BELIEVE IN VACCINATIONS
- FALSE INFORMATION BEING SHARED ON SOCIAL MEDIA AND NEWS

WHAT WOULD IMPROVE HIS EXPERIENCE?

- MAJORITY OF PEOPLE GETTING VACCINATED
- MAKING THE VACCINE MANDATORY AT SCHOOL TO PROTECT KIDS
- PLACES ASKING FOR THE APP TO ENTER
- HIS FAMILY MEMBERS WOULD GET VACCINATED TOO.
- STOP MISINFORMATION IN SOCIAL MEDIA ABOUT VACCINES



Improving “Abigail’s” experience

- Her husband feels confident enough to get the vaccine
- Her anxiety is lessened because she is fully aware of all travel requirements
- She knows that she is ready go to Spain
- No masks for vaccinated people (providing it’s safe to do so)



“ABIGAIL”

“For everything to go back to normal, everyone needs to take part in reducing the curve”

User Persona Model: “ABIGAIL”

AGE: 30

HOMETOWN: Cincinnati

WORK: Accountant

FAMILY: Married, no kids

CHARACTERISTICS:

- Friendly
- Active
- Honest
- Sceptical
- Tech savvy, loves instagram

HER NEEDS/REQUIREMENTS:

- Strong evidence
- She needs to research into travel requirements for international flights

JOBS TO BE DONE:

- She needs to gather her vaccine documents for travel purposes
- She needs to convince her husband that he needs to get a vaccine in order to travel

HER STORY

-Abigail has had a stressful time ever since the pandemic happened. She would like to have a vacation to Spain with her husband to destress. She is confident in the vaccine, but she worries that others don't take the pandemic seriously. She also wonders how the COVID situation is like in Spain and she wants to make sure she travelling responsibly.

HER GOALS, DESIRES, MOTIVATIONS

GOALS: Get her vaccine documents together so she can travel

DESIRES: -She would like a smooth and stressless experience when it comes time for her vacation.

-She doesn't mind wearing her mask, but she doesn't want them to ruin her pictures

MOTIVATIONS: -Finally being able to travel since the pandemic started.

-She wants to go to Spain to take a lot of pictures and share them on social media

HER FRUSTRATIONS

- She is unsure of how to show her vaccine proof
- She is scared of losing the original vaccine pass.
- She isn't sure of how tight the travel restrictions are internationally
- Her husband is anti vaccine and she wishes he would open his mind.
- She feels like the pandemic won't end for a while because everyone is not playing their part

WHAT WOULD IMPROVE HER EXPERIENCE?

- Her husband feels confident enough to get the vaccine
- Her anxiety is lessened because she is fully aware of all the requirements for travel
- She knows that she is ready to go to Spain
- No masks for vaccinated people (as long as it is safe to do so)



Improving "Briana's" experience

- Better communication with mandates and schools opening back up
- Finding ways to talk with family doctor about concerning questions during pandemic
- Knowing whether her children or husband were exposed



"BRIANA"

"I wish things can go back to how they were before 2020."

User Persona Model: "BRIANA"

AGE: 45

HOMETOWN: Kearny, MO

WORK: Stay at home mom

FAMILY: Husband and 2 kids (middle school and high school)

CHARACTERISTICS:

Generally isolated, or at home alone - uses church, family gatherings and clubs for her social health

Selfless and family-oriented, putting her family's health above her own

Safe and health conscious

--

HER NEEDS/REQUIREMENTS:

- Peace of mind regarding family's exposure at work/school
- Privacy for her family's medical data or status information
- Clear and Open Communication

HER STORY

-Briana has been a stay at home mom since her first child was born. She was a social butterfly before 2020. She loved to travel with her family and go on date nights with her husband. Since COVID, Briana has been terrified to step outside of her house worrying her family might get COVID. Even though her family is vaccinated, Briana is still worried about her family getting COVID. Briana and her husband feel that they are trying to make the best decisions but there is no solid communication. Briana now has social anxiety due to not being able to go back to the normal or adjusting to the "new normal."

HER GOALS, DESIRES, MOTIVATIONS

- Safety for her two kids
- Being able to attend social gatherings
- Traveling with the family - where mandates are gone or are not confusing depending on city of travel.
- Safety when shopping for her family

HER FRUSTRATIONS

- Misses frequent family gatherings - Feeling isolated
- Local and city mandates aren't aligned
- Being able to take her kids to the doctor if they become sick - Possibility of them getting COVID during the visit
- All gyms closing and shortage in workout gear at sporting good stores.
- Toilet paper shortage to provide for her family.
- Her children sports events got canceled (lost of improvement)

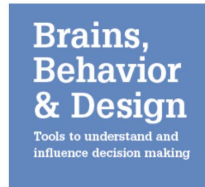
WHAT WOULD IMPROVE HER EXPERIENCE?

- Better communication with mandates and schools opening back up
- Finding ways to communicate with the family doctor during the pandemic with concerning questions
- Knowing whether her children or husband were exposed through open communication with schools/work

#PublicHealthPass Prospective Features and Functionality

Based on insights gathered from our contextual research related to digital vaccine passports, and human research involving user needs, requirements and observed behaviors, seven design ideas emerged. These ideas we set out to conceptually prototype and set out reasonable use cases:

- Secure user account setup and multi-factor authentication to access account records and information (“Edgar” use-case)
- Vaccination and testing appointment scheduling for local sites
- Text messaging enabled to receive notifications, solicit user feedback, and receive local Covid-19-related news
- Family-inclusive #PublicHealthPass accounts incorporating household heads and minor children (“Abigail” use-case)
- Designated in-app location for digital photo of analog COVID-19 Vaccination Record Card (for analog image verification)’ (“Briana” use-case)
- Informative local content, FAQ, How-To’s.
- Contactless #PublicHealthPass access to secure areas (e.g., public events, airport gated areas), enabled by near-field communication (NFC), radio frequency identification (RFID) (“Randall” use-case)



Nikki Pfarr, Miguel Cervantes, Jerad Lavey, Jennifer Lee, Ann Hintzman, Van Vuong



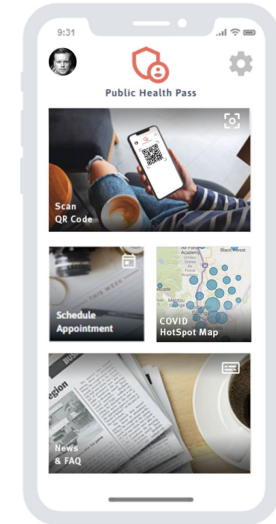
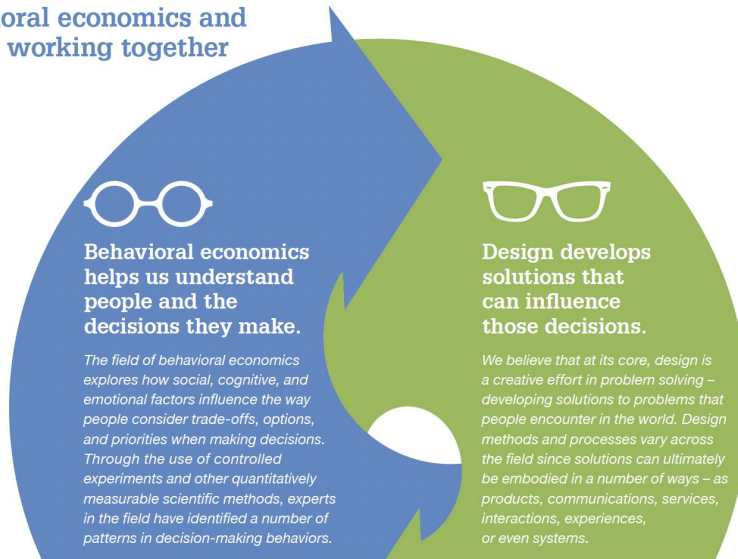
Co-authors: Nikki Pfarr, Miguel Cervantes, Jerad Lavey, Jennifer Lee, Ann Hintzman, Van Vuong,

<http://www.brainsbehavioranddesign.com/aboutus.html>

Motivating People to Download and Use the #PublicHealthPass

The Design Management team approached the #PublicHealthPass project from a perspective of Behavioral Economics, exploring ways to incentivize people to download and use the app.

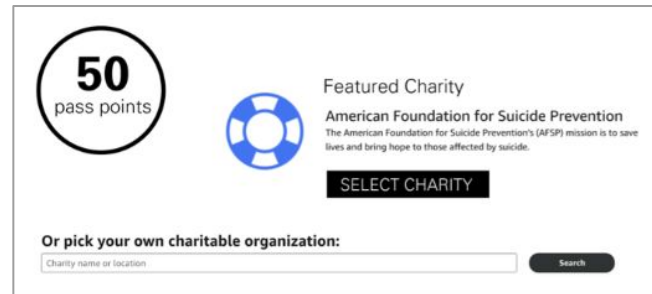
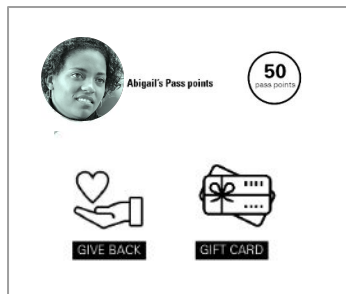
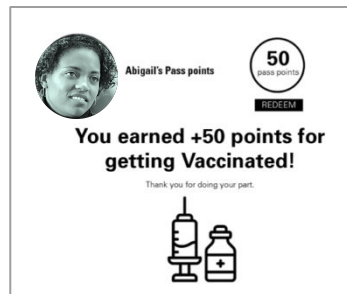
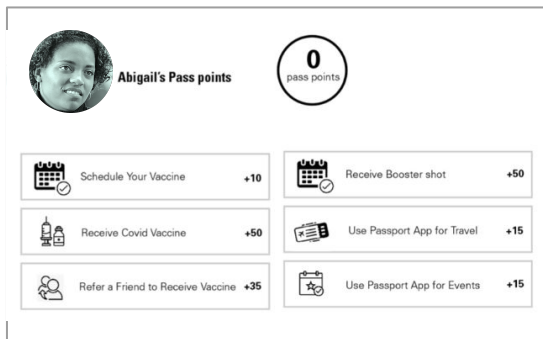
Behavioral economics and design working together



Incentives to Participate

After considerable brainstorming, the DM team centered on three means to encourage participation in the #PublicHealthPass app.

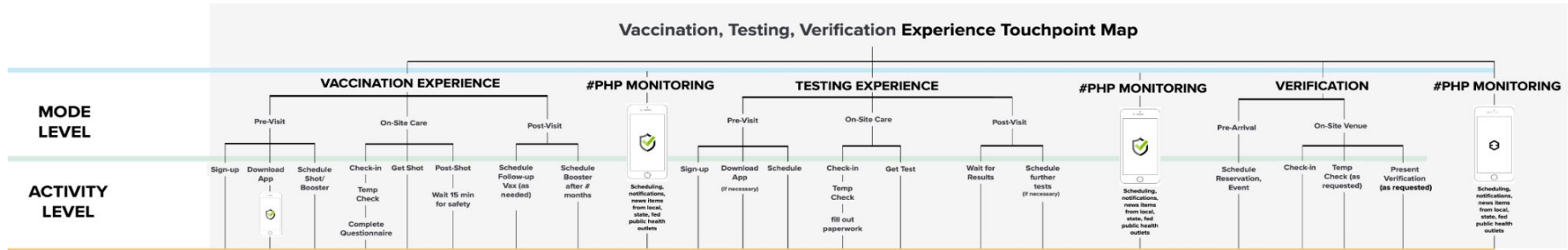
1. Offer users a means to setup and secure their #PHP account via easy multi-factor authentication.
2. Upon downloading, #PublicHealthPass users are gifted \$100 cash, or an easy way to donate that gift to a local non-profit charity.
3. Offer users a redeemable points system that rewards them for: a) scheduling a vaccination or booster; getting vaccination; getting a booster; referring a friend who gets vaccinated; using your #PHP for travel; using your #PHP for events.



A #PublicHealthApp System Perspective on Vaccination, Testing and Verification

FUNCTION STRUCTURE: MODES & ACTIVITIES*

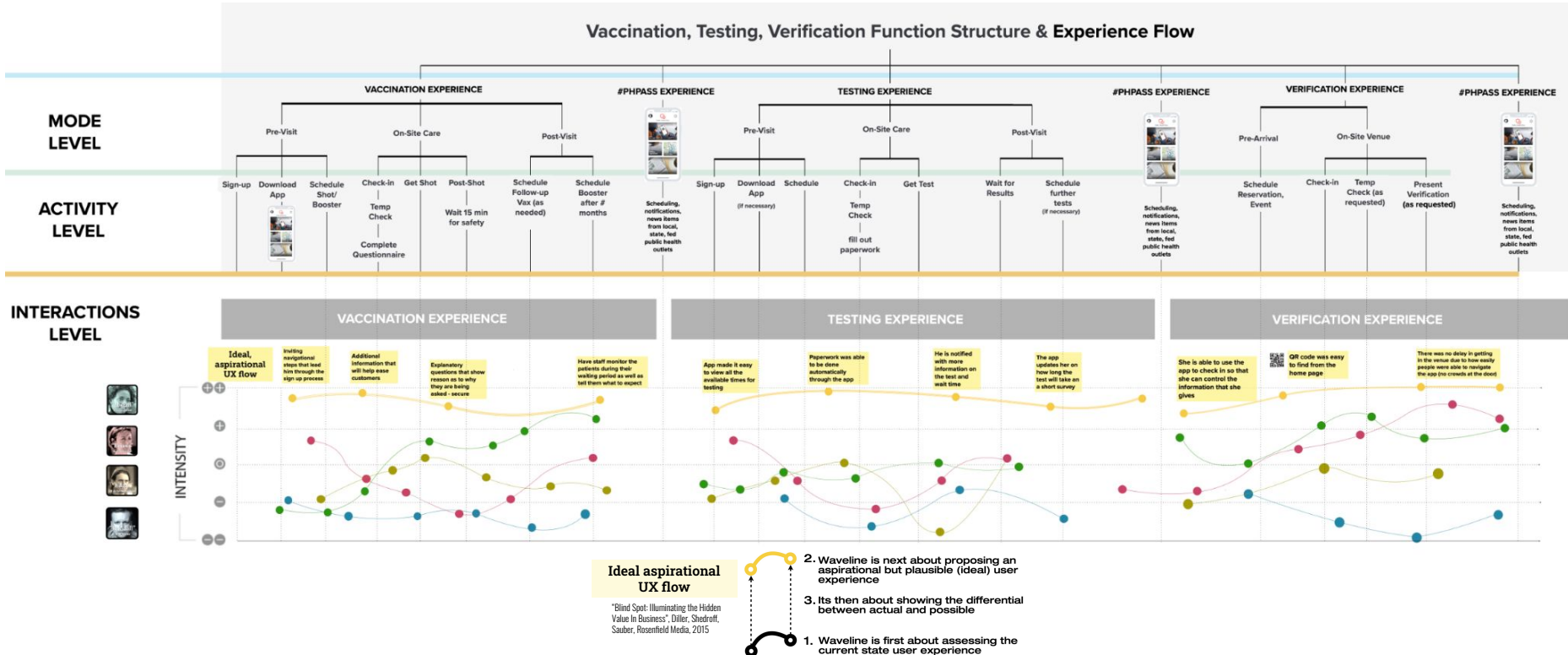
SYSTEM MODES: VACCINATION; #PHP MONITORING; TESTING; VERIFICATION
 ACTIVITY MODES: Sign-up, Download #PHP App; Schedule Vaccination, Booster, etc.



*Charles L. Owen, "Advanced Planning for Business, Institutions and Government", IIT

7 Synthesis: Exploring Ideas, Framing Solutions, Prototyping Features

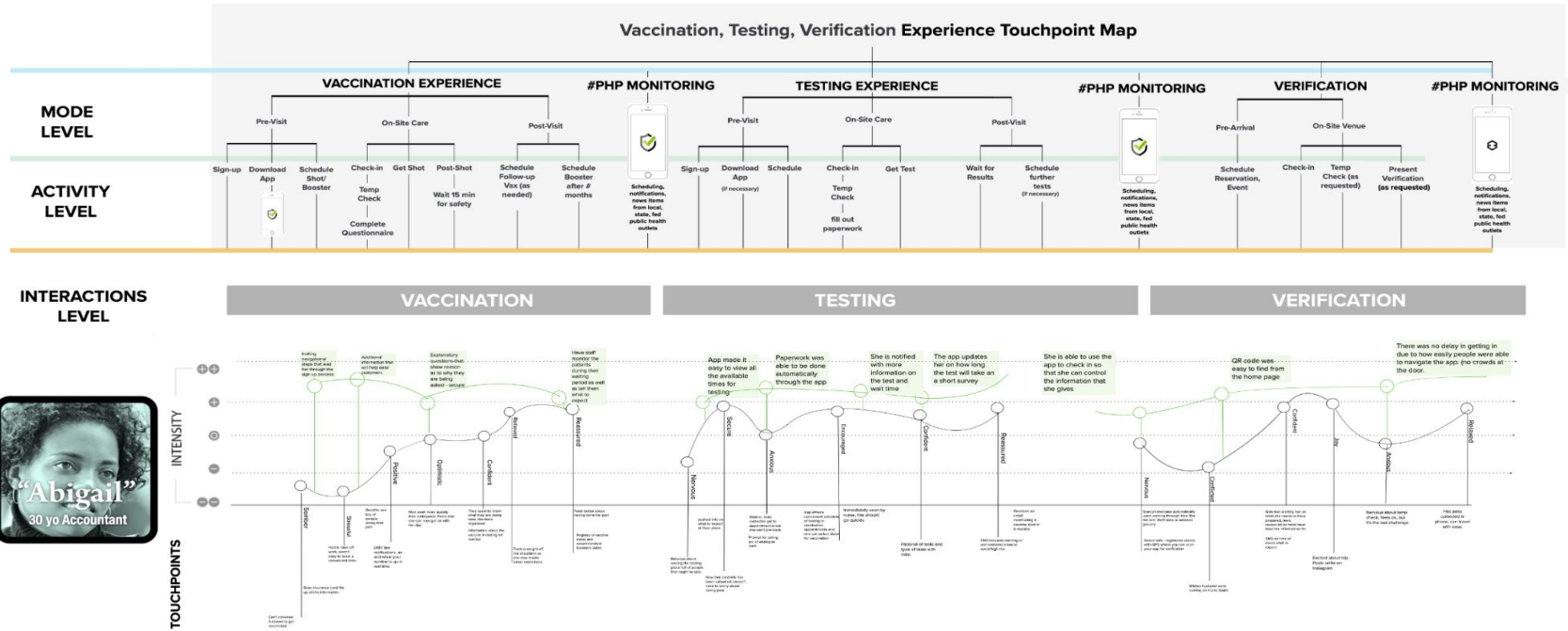
A composite journeymap integrating the experience of four different users, against an Ideal UX flow (yellow)



7 Synthesis: Exploring Ideas, Framing Solutions, Prototyping Features

A #PublicHealthApp System Perspective on Vaccination, Testing and Verification

We adapted three different journey mapping methods to model "Abigail's" pre-#PHP journey and her post-#PHP integrated experience

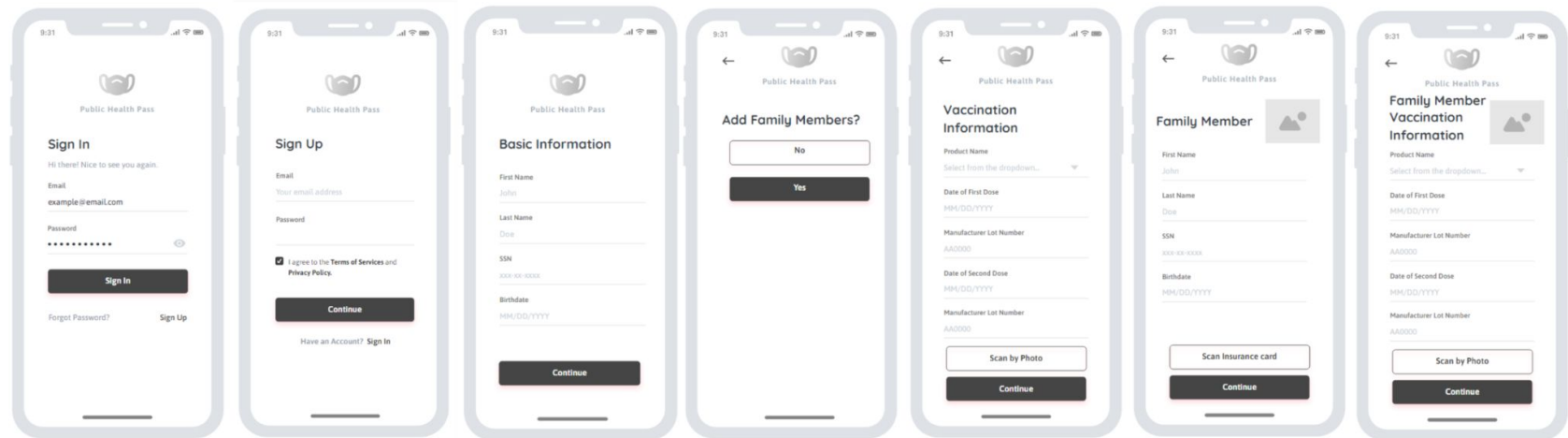


7 Synthesis: Exploring Ideas, Framing Solutions, Prototyping Features



"Abigail's" #PHP Screen-by-Screen Use-Case Story#1

"Abigail" who is vaccinated, schedules her vaccine booster with a local pharmacy. The pharmacy emails a confirmation of her next day appointment, with a QR code to scan and download the #PublicHealthPass

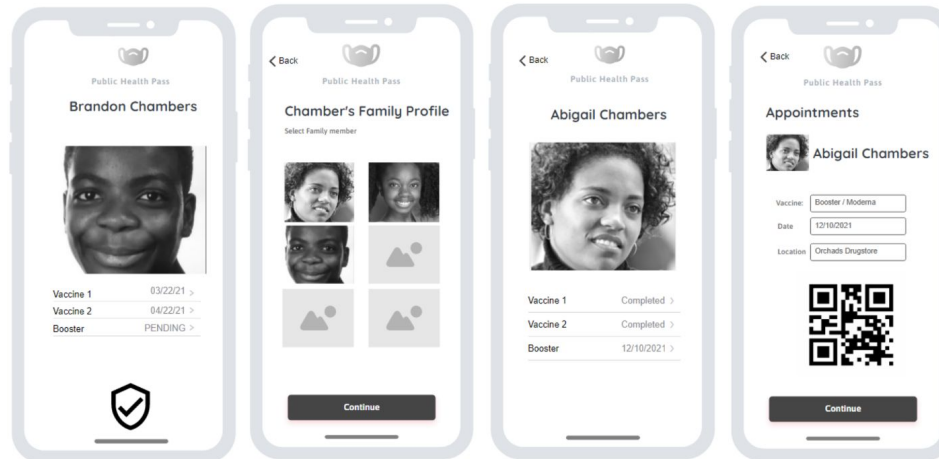


7 Synthesis: Exploring Ideas, Framing Solutions, Prototyping Features



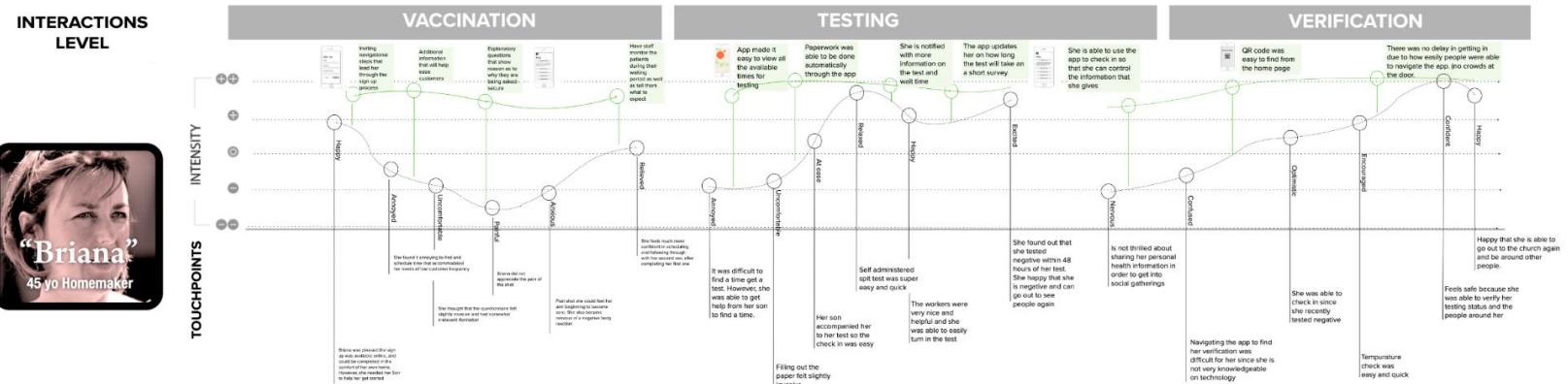
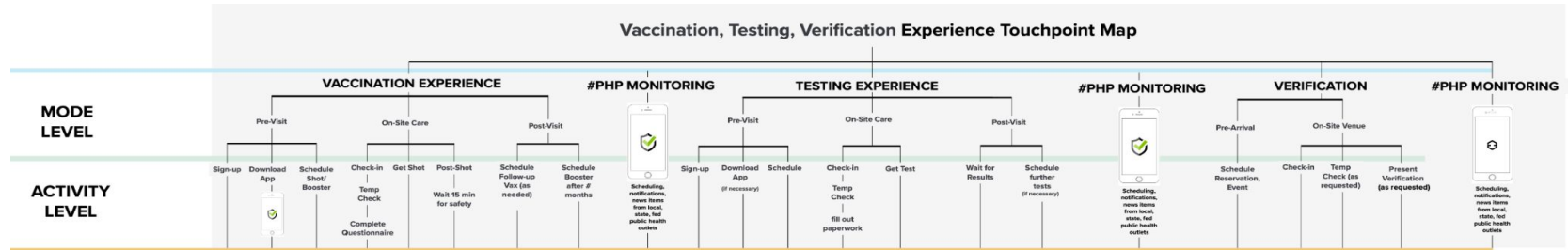
"Abigail's" #PHP Screen-by-Screen Use-Case Story#2

After downloading the #PHP app, Abigail" then sets up her secure, family-inclusive account for herself and her two children, ages 8 and 14.



A #PublicHealthApp System Perspective on Vaccination, Testing and Verification

We adapted three different journey mapping techniques to model “Abigail’s” pre-#PHP journey and her post-#PHP integrated experience

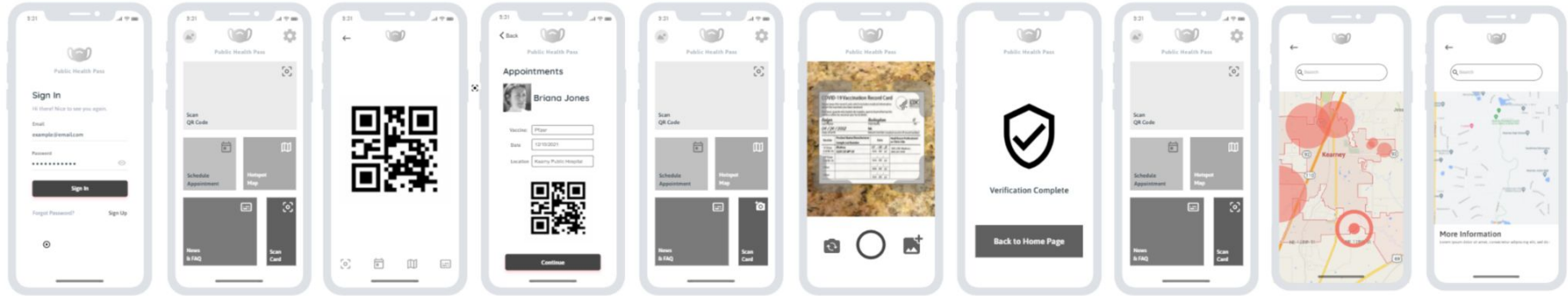


7 Synthesis: Exploring Ideas, Framing Solutions, Prototyping Features



"Briana's" #PHP Screen-by-Screen Use-Case Story

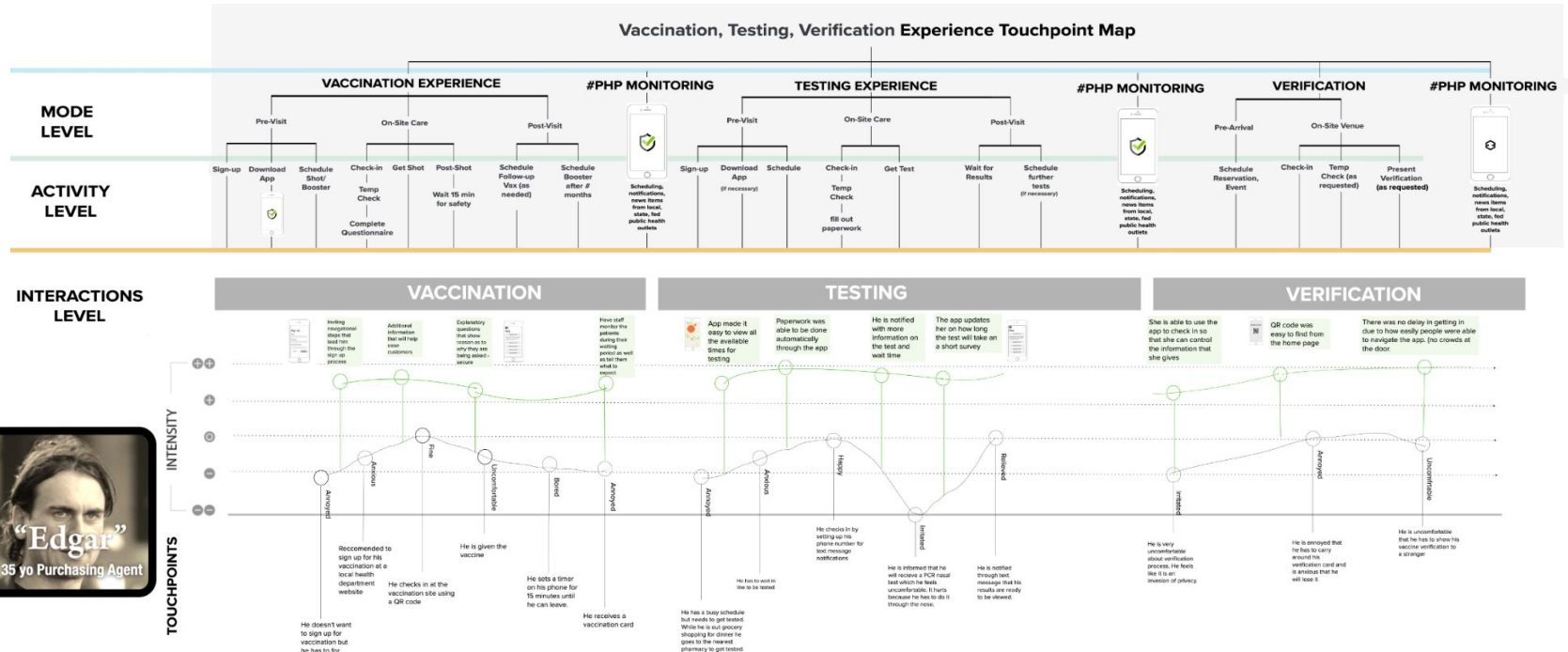
"Briana" (resistant to change, self-image conscious), schedules a Covid-19 test at her family doctor's office. She shows up the next day (masked), and gets tested. While there, her doctor counsels her to get vaccinated given her history with asthma. She thinks about it over night and goes in the next day. Now vaccinated, she takes a picture of her paper CDC Vaccination Record Card, which she uploads to her #PublicHealthPass. She also reads some of the informative local "hot spots" content on the app.



7 Synthesis: Exploring Ideas, Framing Solutions, Prototyping Features

A #PublicHealthApp System Perspective on Vaccination, Testing and Verification

We adapted three different journey mapping techniques to model “Abigail’s” pre-#PHP journey and her post-#PHP integrated experience



7 Synthesis: Exploring Ideas, Framing Solutions, Prototyping Features



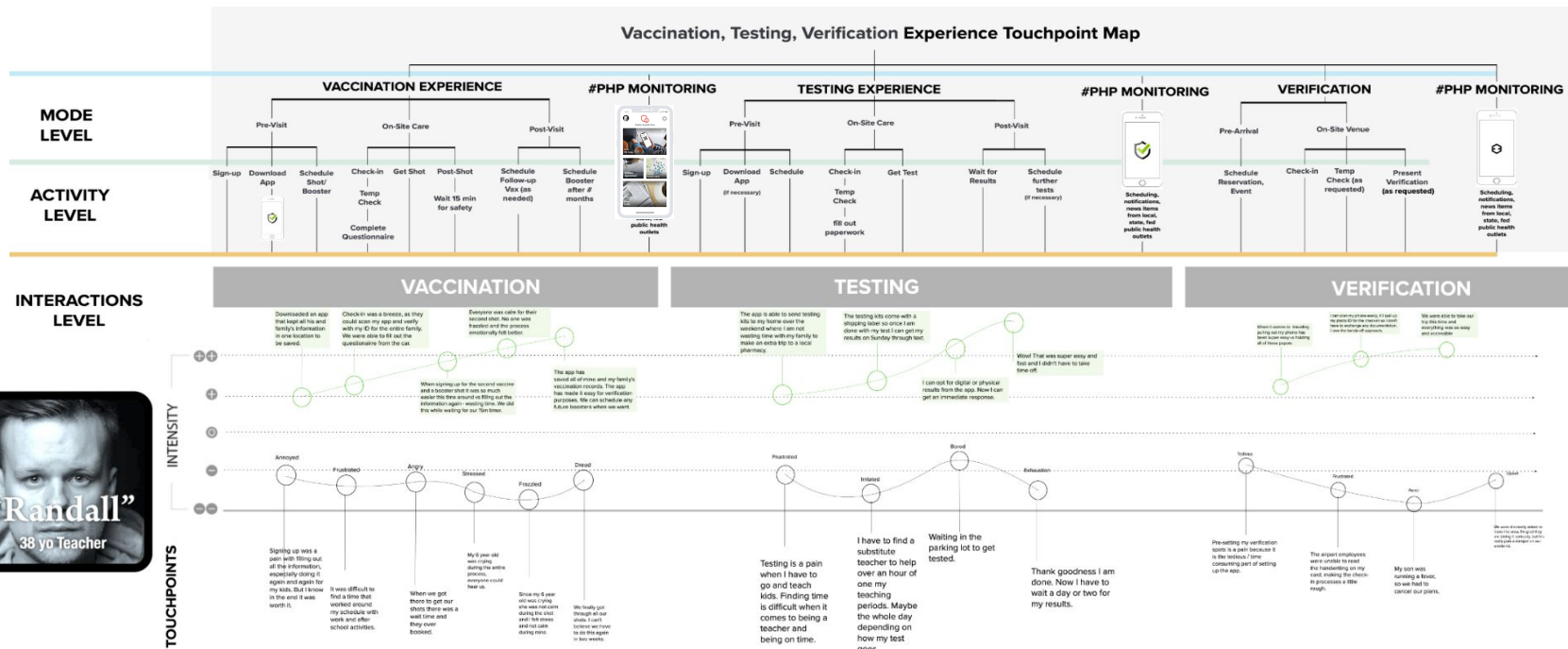
"Edgar's" #PHP Screen-by-Screen Use-Case Story

"Edgar" who is unvaccinated (worried, distrustful), decides to schedule a vaccination. He schedules his vaccination date/time/place through his local health department. They text him a link to download a #PublicHealthPass, which he downloads and creates his secure account, that links to his scheduled appointment. Next day his app pushes him a text reminder of his appointment time.



A #PublicHealthApp System Perspective on Vaccination, Testing and Verification

We adapted three different journeymapping techniques to model “Randall’s” pre-#PHP journey and her post-#PHP integrated experience

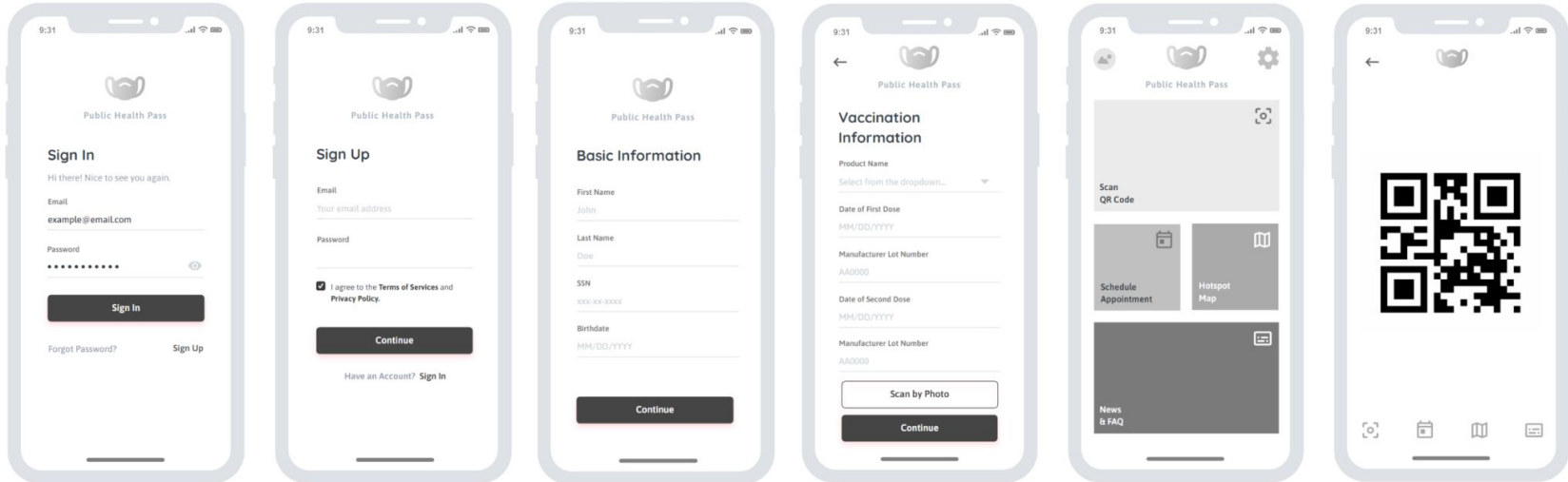


7 Synthesis: Exploring Ideas, Framing Solutions, Prototyping Features



"Randall's" #PHP Screen-by-Screen Use-Case Story

"Randall" (irritated, frustrated), schedules an airline ticket to visit a distant US client. He is notified that he must present verification of his having been vaccinated and boosted. All he has is a paper CDC Vaccination Record Card, so he downloads a #PublicHealthPass app and creates his account, connects it to his state Public Health Dept vaccination record. Two days later he arrives at the airport security gate, presents his contactless RFID #PublicHealthPass, the gate flashes GREEN and he passes thru freely.



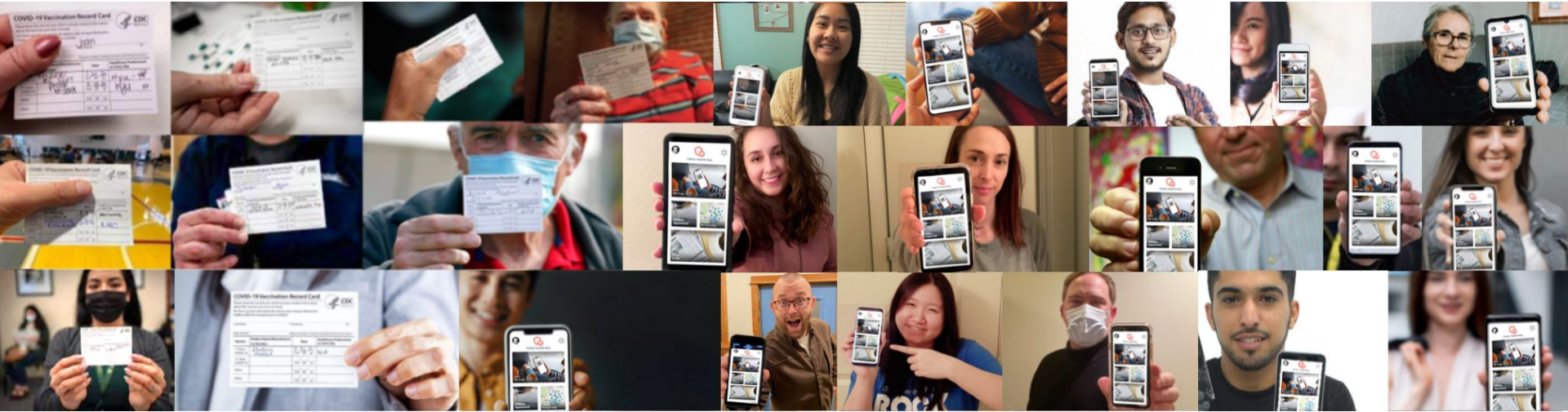
The above summarizes a coordinated team effort of 12 Interaction Design and Design Management students at the University of Kansas to research and develop improvements upon the US Centers For Disease Control's 2021 regime for recording and verifying public vaccination records.

Unfortunately, the US Government's minimal central operational leadership and coordination with State and Community Public Health Departments beyond issuance of the modest "Vaccination Record Card" contributed to disappointing levels of social buy-in.

The KU Team's design recommendations centered upon a single centrally administered #PublicHealthApp incorporating broader functionality than any of the "vaccine passports" released individually on the market.

- Secure user account setup and multi-factor authentication to access account records and information ("Edgar" use-case)
- Vaccination and testing appointment scheduling for local sites
- Text messaging enabled to receive notifications, solicit user feedback, and receive local Covid-19-related news
- Family-inclusive #PublicHealthPass accounts incorporating household heads and minor children ("Abigail" use-case)
- Designated in-app location for digital photo of analog COVID-19 Vaccination Record Card (for analog image verification)' ("Briana" use-case)
- Informative local content, FAQ, How-To's.
- Contactless #PublicHealthPass access to secure areas (e.g., public events, airport gated areas), enabled by near-field communication (NFC), radio frequency identification (RFID) ("Randall" use-case)

#PublicHealth Pass: A Coronavirus vaccination, testing and verification user experience study



Design Management Team

Justin Brown
Denise Chiao
Tanya DeVries
Mika Kline

Interaction Design Team

Monica Can
Alyssa Gonzalez
Caleb Meadows
Luke Sabus

Eryn Godwin
Johnna Harrison
Phuthi Ranooe
Shant Thomas
Stephanie Truong

Michael Eckersley, PhD
University of Kansas
Department of Design
Fall 2021