



POVs, HMWs, Experience Prototypes

Nate Fleischli, Brenden Koo

A person wearing blue nitrile gloves is holding a petri dish containing a pinkish-purple substance. The background is blurred, suggesting a laboratory or clinical setting. The entire image is overlaid with a semi-transparent blue filter.

“

**It feels like a social norm in society,
where people don't really want to
know how you're doing.**

Megan

Meet the Team!

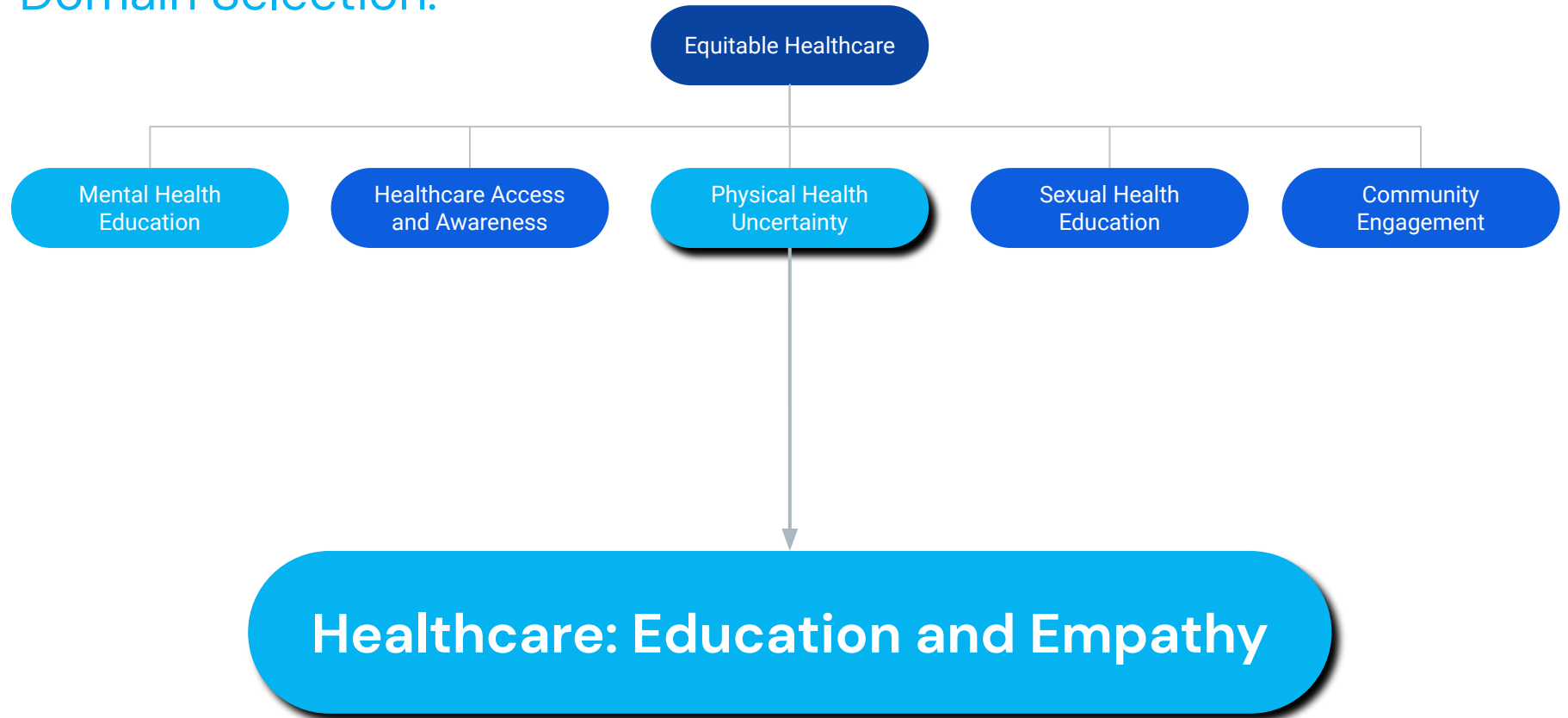


Brenden Koo
'23
Sunnyvale, CA



Nate Fleischli
'23
Menlo Park, CA

Domain Selection:



1

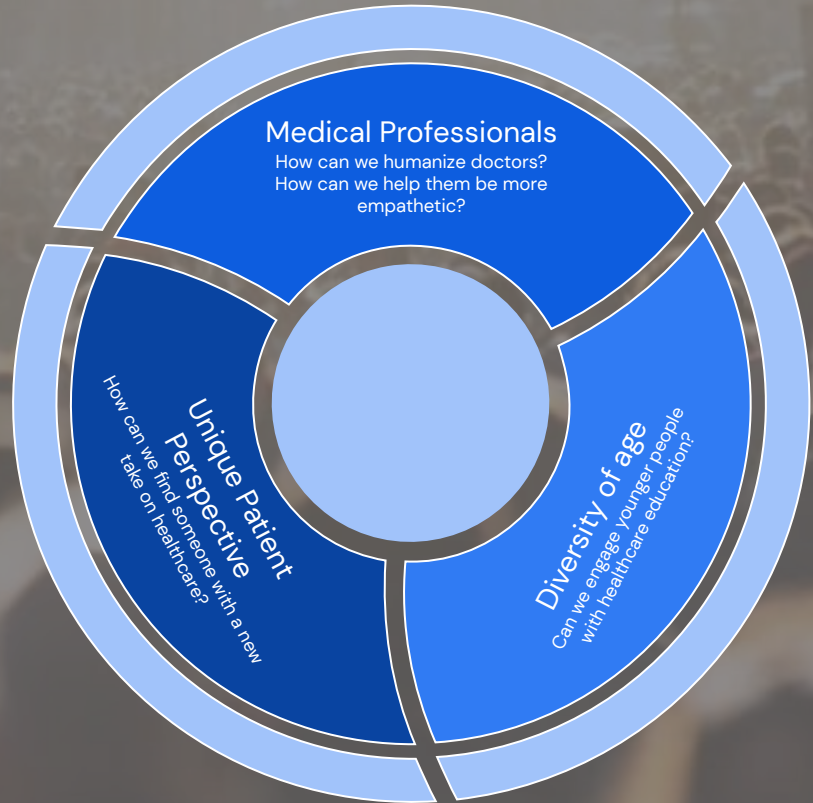
Additional Interviewees

Who else did we talk to?

Looking for participants, we focused on

We consulted:

- **Doctors and Medical Professionals**
- People who have had **varying experiences** going to the doctor (positive and negative)
- Private equity healthcare expert



Homestead High School, **Cupertino, CA**
Interview conducted in a private classroom



"Megan"

Cupertino, CA
High School Teacher
Interviewed by Brenden
Audio Transcribed

Menlo Medical Clinic, **Menlo Park, CA**
Interview conducted in a private office setting



"Dr. Garay"

Menlo Park, CA
Internal Medicine Doctor
Interviewed by Nate
Transcribed by Nate

Additional Learnings:



“...[doctors] don’t really listen to you [and they] don’t take you seriously...”

Megan has an aversion to going to the doctor—despite medical complications—because of **poor experiences** with doctors, citing “**smugness**” of communication style.

**Megan is not a patient of Dr. Garay*



“...I see more patients than I have time for each day...”

Dr. Garay is often overwhelmed by the volume of patients she sees every day. This is mostly due to patient who come in to a “follow up” appointment with a new need that she is not aware of—which takes more time than allotted. Like most physicians, Dr. Garay is **burnt out** after a long day of seeing patients!



Gladys



John



Chris



Anjana



Megan



Dr. Garay

2

POVs and HMWs

Who **are** these people, what do they **want**, and how do we **help**?

WE MET: John, a 25 year old Wildseed employee with **shoulder complications** who wants a **job with good benefits**.

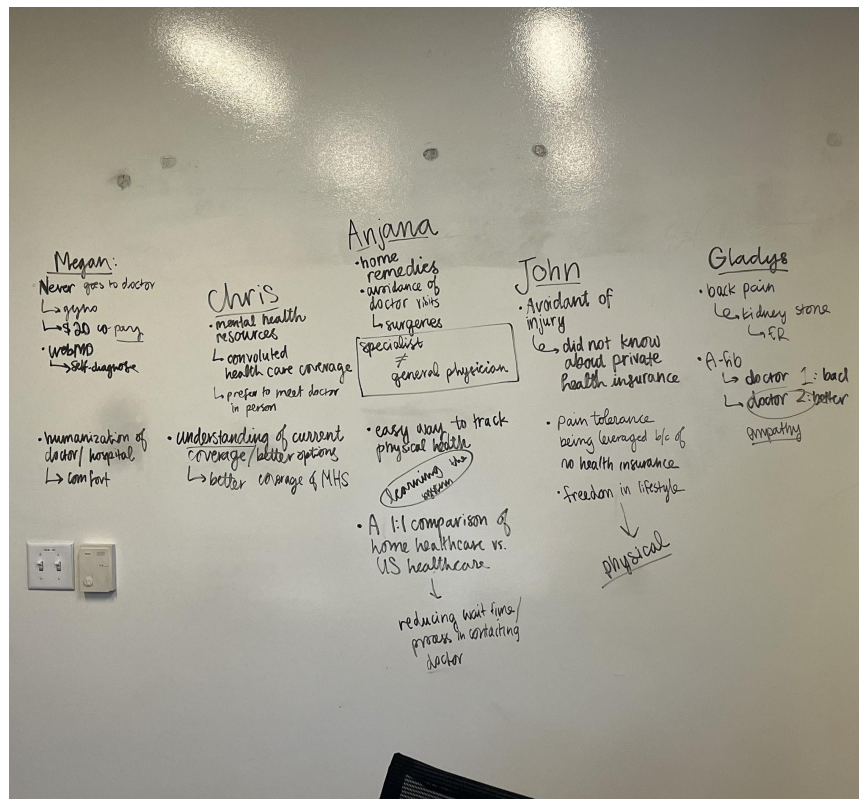


WE WERE SURPRISED TO NOTICE: that he changed his **lifestyle**, not his **healthcare coverage**, due to his medical experiences.

WE WONDER: if **John is happy** having made these **drastic changes** to his lifestyle.

IT WOULD BE GAME-CHANGING TO: find a way to allow people to **avoid sacrificing their physical enjoyment** out of **fear** of injury or medical bills.

POV Revision Process

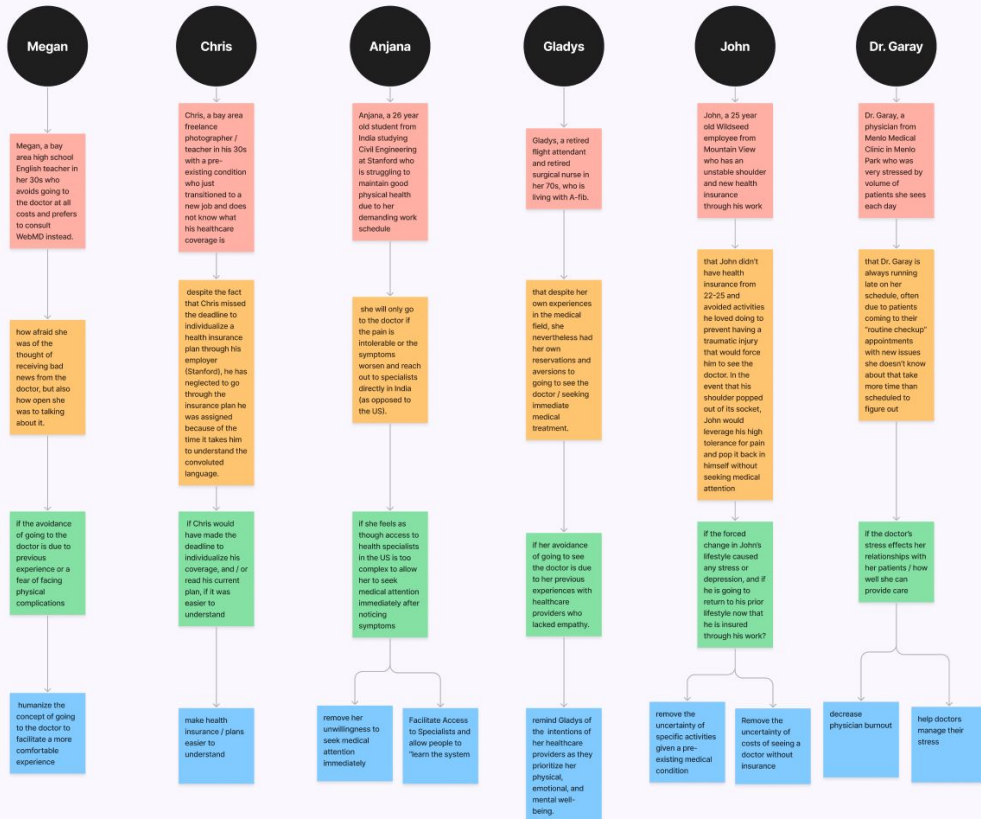


We met...

We were surprised to notice...

We wonder...

It would be game changing to...



We met Gladys, a retired flight attendant and retired surgical nurse in her 70s, who is living with A-fib. **We were surprised to notice** that despite her own experiences in the medical field, she nevertheless had her own reservations and aversions to going to see the doctor / seeking immediate medical treatment. **We wonder if** her avoidance of going to see the doctor is due to her previous experiences with healthcare providers who lacked empathy. **It would be game-changing to** remind Gladys of the intentions of her healthcare providers as they prioritize her physical, emotional, and mental well-being.



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- HMW help patients and doctors get to know each other better and stay up-to-date on each other's lives?
- HMW help doctors handle stress?
- HMW establish rapport between doctors and patients outside of medical context?
- **HMW help patients avoid feeling neglected by or disconnected from their doctors?**

We met Chris, a bay area freelance photographer / teacher in his 30s with a pre-existing condition who just transitioned to a new job and does not know what his healthcare coverage is. **We were surprised to notice** that despite the fact that Chris missed the deadline to individualize a health insurance plan through his employer (Stanford), he has neglected to go through the insurance plan he was assigned because of the time it takes him to understand the convoluted language. **We wonder if** Chris would have made the deadline to individualize his coverage, and / or read his current plan, if it was easier to understand. **It would be game-changing to** make health insurance / plans easier to understand.



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- HMW give kids/teens/young adults the initiative to learn more about health insurance policies earlier?
- HMW make people CARE about their health insurance policies proactively?
- HMW make health insurance policies fun?
- **HMW make healthcare more engaging for a broader audience?**

We met Anjana, a 26 year old student from India studying Civil Engineering at Stanford who is struggling to maintain good physical health due to her demanding work schedule. **We were surprised to notice** she would only go to the doctor if the pain is intolerable or the symptoms worsen and reach out to specialists directly in India (as opposed to the US). **We wonder if** she feels as though access to health specialists in the US is too complex to allow her to seek medical attention immediately after noticing symptoms. **It would be game-changing to** facilitate access to specialists and allow people to “learn the system.”



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- HMW help people optimize/navigate the current healthcare system they are in?
- HMW reduce wait time and number of steps for seeking medical attention from medical specialists?
- **HMW ease a person’s uncertainty when transitioning healthcare systems in a new country?**

3

Solutions and Experience Prototypes

What ideas did we come up with?

Top Solutions:

1. A way to **dynamically schedule appointments** based on patient's current issues/needs and doctor's workload, while **tracking** and **helping doctors manage their stress**.
2. A **scavenger hunt game** that **quizzes** people on health and healthcare
3. A system where people **receive a daily fun fact** about their health/health insurance policy

Solution

A way to **dynamically schedule appointments** based on patient's current issues/needs and doctors workload, while **tracking** and **helping doctors manage their stress**.

Assumption

Doctors have the **time** to do this in between patients.

All doctors have **similar stressors** when relating to patients.

Experience Prototype

Participant: Dr. Garay, Internal Medicine

Recruited from Menlo Medical Clinic

Please answer the following questions by leaving an X on the line:

1. How long did you spend with your last patient?
(Not very long) _____ (Extremely long)
2. How difficult was it to treat their problem(s)?
(Not difficult) _____ (Extremely difficult)
3. How difficult were they to deal with?
(Not difficult) _____ (Extremely difficult)
4. How well did you connect on a personal level?
(Not well) _____ (Extremely well)
5. How stressed are you right now?
(Not stressed) _____ (Extremely stressed)
6. How tired are you right now?
(Not tired) _____ (Extremely tired)
7. How busy is your schedule right now?
(Not busy) _____ (Extremely busy)
8. How flexible is your schedule right now?
(Not busy) _____ (Extremely busy)
9. How much would you like a break?
(No break) _____ (Stop now)
10. How much are you looking forward to your next patient?
(Bring it on!) _____ (Not Ready)

Set up:

- Stanford Doctor's Office
- In-between patient appointments
- Had doctor fill out form



Experience Prototype

Findings:

- Doctor felt the survey was **too long**
 - Couldn't be done in between patients
- One question unclear
- Use of sliders was **too subjective**
 - need more quantitative options/boxes to select

- **Easy to use**, nothing didn't work for her
- Had no feelings of opposition or frustration when filling out
- Felt that she **could answer honestly**



Solution

A **scavenger hunt game** that **quizzes people** on health and healthcare

Assumption

Young adults (aged 17–22) are **interested** in learning more about their healthcare policies

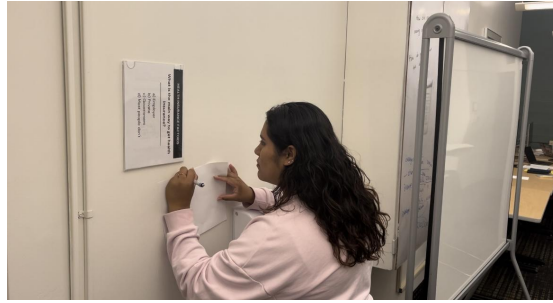
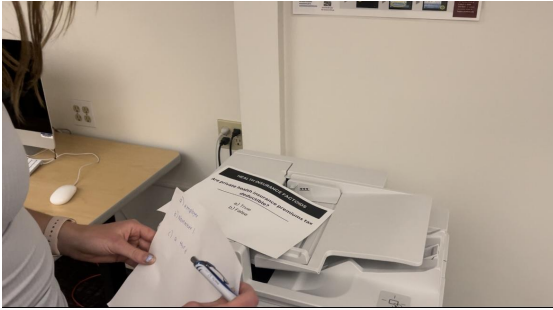
Experience Prototype

Katie Heffernan

Recruited for target age demographic

Airin Brittany Valdez-Monroy

Recruited for target age demographic



Checking Answers for Comprehension



Experience Prototype

Findings:

- Participants seemed **stressed about scoring/question** accuracy
- Most participants got questions **incorrect**, indicating a **need** for education about healthcare

- People **enjoyed** engaging with the game
- Checking answers at the end helped **memory retention**
- Participants stated that they **wished** they knew more about healthcare and were **interested** in learning more

Solution

A system where people **receive a daily fun fact** about their health/health insurance policy

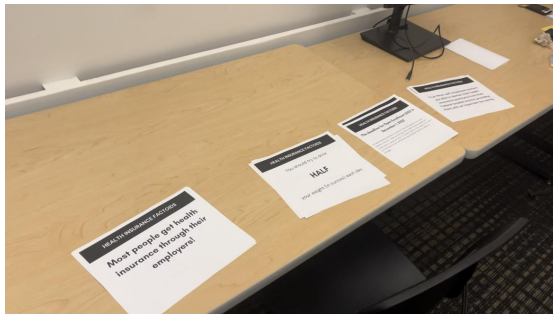
Assumption

People will be able to retain short facts or pieces of information for a longer period of time after their initial read

Experience Prototype

Yara Elian

Recruited for target age demographic



Experience Prototype

Findings:

- Participant also seemed **stressed about scoring/question** accuracy
- Surprised that the participant **returned on their own** the second time without asking

- **10 minutes after** initially reading the information, the participant remembered **questions**, but not **answers**
- **After another 10 minutes**, the participant returned and **could recall 100% of both** questions and answers
- Reviewing answers facilitated **memory recall**
- Participant also stated they **wished** they knew more about healthcare and were **interested** in learning more

What does this mean going forward?

Solution 1:

- Questionnaires have to be short so that doctors can quickly do them in between patients
- Schedules are very hard to adjust on the fly, but we CAN do a better job of predicting patient needs and factoring that into scheduling

Solution 2:

- A quiz format might act as a stressor in that participants might feel penalized for inaccuracy
- People are willing to learn more about their health and healthcare if presented in a game format

Solution 3:

- People are able to retain completely new information if it is presented over time
- A daily fun fact might be useful and it might actually serve its purpose in educating people

4

What's Next?



OUR SOLUTION:

shift

Scheduling Health in From Thought

What is shift?

scheduling health in from thought

A solution for:

- Relieving doctors' stressors
- Mediating Compassion collapse between patients and doctors

56 seconds

Please answer the following questions by leaving an X on the line:

1. How long did you spend with your last patient?
(Not very long) _____ X _____ (Extremely long)
2. How difficult was it to treat their problem(s)?
(Not difficult) _____ X _____ (Extremely difficult)
3. How difficult were they to deal with?
(Not difficult) X _____ (Extremely difficult)
4. How well did you connect on a personal level?
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10. How much are you looking forward to your next patient?
(Bring it on!) _____ X _____ (Not Ready)

Who does it serve, and who does it leave out?

Serves:

- Doctors
- Patients
- Nurses

Leaves Out:

- People without health insurance?
- People who don't have a primary care physician

5

Appendix

Meg/Gladys Chris Anjana John?

POV:

HMW:

John Died Here
→ Employ In

3 Best Profile, Instantaneous Communication,

★ HMW help patients + doctors get to know each other, better and stay up to date on each other's lives!

Meg/Gladys

POV:

HMW:

Chris

Anjana

Megan:
Never goes to doctor
↳ no insurance
↳ not so poor
↳ no money
↳ bad diagnosis

Anjana
- home remedies
- avoidance of doctor was
- surgery
- general physician

Chris
- avoid health insurance
↳ complicated
↳ health care coverage
↳ prefer to meet doctor in person

John
- Avoidant of injury
↳ did not benefit
↳ social privilege
↳ health insurance

Gladys
- back pain
↳ debilitating
↳ worse
- P-Fo
↳ doctor 1 best
↳ doctor 2 better
↳ generally

- understanding of current
↳ better coverage of NHS

- easy way to track
physical health
(insurance use)
- A H comparison of
home healthcare vs
US healthcare
↳ reducing cost/loss
pressure, maintaining
water

Physical

Solution

A platform where doctors and patients can provide anonymous feedback for one another to facilitate greater understanding of how to strengthen patient/doctor relationships

Assumption

Doctors are **comfortable** assigning their experiences with their patients with a **numerical rating**

Experience Prototype

Participant: Dr. Jennifer Randall Crosby


Recruited from Stanford Department of Psychology, Social Psychologist

Participant: Daniela, MA

Recruited from Vaden Health Center, Stanford University

Patient Feedback Form
Please take a moment to fill out this anonymous feedback form

How was your experience with this person?
(please circle one)


Excellent Good Medium Poor Very Bad

How would you rate your experiences with this person on a scale from 1-10?

What are some good qualities about this person?

What are some not-so-good qualities about this person?

Set up:

- In a room 1:1
- Example to the right →



Why are we scrapping this?

Findings:

- Concerns about discrepancies between what is described as “polite” or “good behavior” (due to psychological and behavioral differences)
- Concerns about rating a patient after having provided care, especially due to confidentiality agreements
- Overall concern about the idea, as it is difficult to provide qualitative feedback without disclosing personal information and difficult to provide quantitative feedback without generalizing or simplifying
- Also the lack of initial feedback will eliminate anonymity



GAMECHANGERS -> HMW's:

It would be game changing to:

HMW:

Profiles

Instantaneous

Communication

Megan / Gladys

Establish Empathy in Healthcare

HMW Break down any communication barriers between doctors and patients

HMW Help doctors get to know their patients, and vice versa

HMW help doctors stay up-to-date on patients' needs/ personal lives

HMW establish rapport between doctors and patients outside of medical context

HMW help doctors handle stress?

HMW make patients more comfortable with the actions/ process of seeking help/ treatment

HMW better communicate our stories

HMW foster a sense of GENUINE connection between patients and doctors that isn't fake

HMW decrease the feelings of patient anonymity

HMW allow doctors to know exactly what the patient is trying to say

Chris

Make Health Insurance Understandable

HMW Make insurance policies easier to read

HMW make health insurance policies fun

HMW find optimal health insurance based on family history / risk factors

HMW Make options clearer for different plans

HMW reduce the negative connotations surrounding health insurance

HMW learn more about private health insurance

HMW make people CARE about their health insurance policies proactively

HMW make it easy to compare different health insurance policies

HMW find optimal health insurance based on previous medical histories

HMW give kids/ teens/young adults the initiative to learn more about health insurance policies earlier

HMW make kids care about health insurance

HMW provide a way for people to define unknown terms in their health insurance policy

HMW access better resources for understanding policy

HMW translate medical/technical jargon in layman's terms

HMW present health insurance like a game/ interactive activity

Youth / age of introduction

Engagement, fun, accessibility

Anjana

Remove Unwillingness to Seek Medical Attention Immediately

Facilitate Access to Specialists and allow people to "learn the system"

HMW help people get direct access to medical specialists without referrals

HMW Motivate people to seek immediate medical attention

HMW Motivate people to seek professional medical advice over home remedies

HMW utilize resources to help people understand the viabilities of different remedies

HMW reduce wait time and number of steps for seeking medical attention from medical specialists

HMW leverage tech to make specialists more accessible

HMW draw connections between domestic and international health insurance policies

HMW help people utilize home remedies to avoid a trip to the doctor

HMW make specialists more efficient

HMW educate people on health insurance policy benefits and detriments

HMW motivate people to see specialists in the US over their home country

HMW provide people with areas of similarities / differences between their existing / new health insurance policies

HMW help people optimize dual coverage

HMW educate people of the system and their options

HMW leverage comfort with home countries to facilitate international health provider coverage

HMW help people understand the degree of necessity for different home remedies vs doctors

HMW help people see specialists outside of the US

John

Remove the uncertainty of specific activities given pre-existing medical conditions

Remove the uncertainty of costs of seeing a doctor without insurance

HMW ease the risk-induced anxiety that people might have about certain physical activities

HMW evaluate the risk of activities

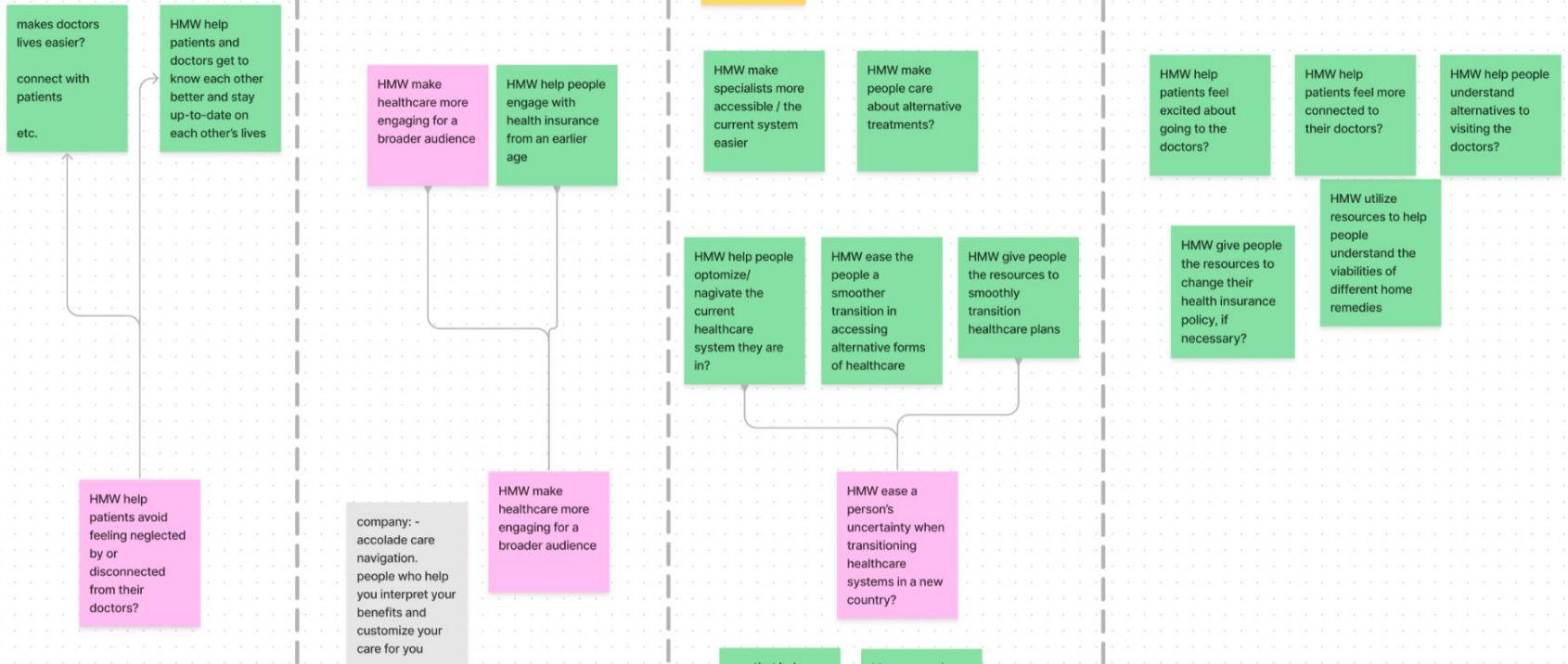
HMW make a quick visit cheap

HMW make the cost of seeing a doc available

HMW notify people of their physical activity as it is presented in a monetary fashion (present a \$ in damages)

TOP 3 HMW's:

Top 3 HMW:



Chris's Solutions:

Health insurance for dummies
Picture book

Create an interactive flipbook about health insurance

6 second videos informing you about health insurance plans



Games that engage younger people to learn about healthcare



Recommend coverage based on needs

posting updates on how people navigated their insurance or experiences with injuries and recovery



tracking health, booking appointments, health insurance, etc in one



Adding/featuring information articles about health insurance in existing health apps

Introducing mandatory "health insurance" subject/ workshops in curriculum (college/ corporates (at first few days of joining the company- more like 'knowing your benefits' session))



Online crashcourse on health insurance

being able to track how efficiently you are using benefits from health insurance

Make a game where participants can go around "catching" facts about health insurance



Healthcare daily digest-sends people a daily reminder with fun facts about health/insurance (?)



Random daily reminders to partake in a wellness activity (and it gives you insight into your healthcare); like BeReal but its like "Do ____ to avoid ____ (which would incur a medical bill of ____)"



game for children where they can pretend to be the doctor (but it actually teaches them about healthcare policies subtly)

quiz yourself w flashcards on what is covered or not!

Anjana's Solutions:

app that helps you optimize your plan

blog comparing all different options for selecting healthcare plans

App that informs people on home remedy alternatives

App that helps people find alternative medicine specialists in their area

Building something like doordash, where you can see all available appointment (both online and offline) (having filters- distance, concern type/ examination type, etc) and booking appointment right away. (Maybe integrate this with Uber for booking rides to hospitals)

Connecting with health expert with same demographic background- more to like suggesting plans considering their current status

Doctors near you in your area!

Duolingo for Healthcare policies

Easier ways to translate healthcare policies for people with language / communication barriers

Dictionary / Glossary of key terms people might be interested in when communicating to their doctor

podcast on different health insurance plans

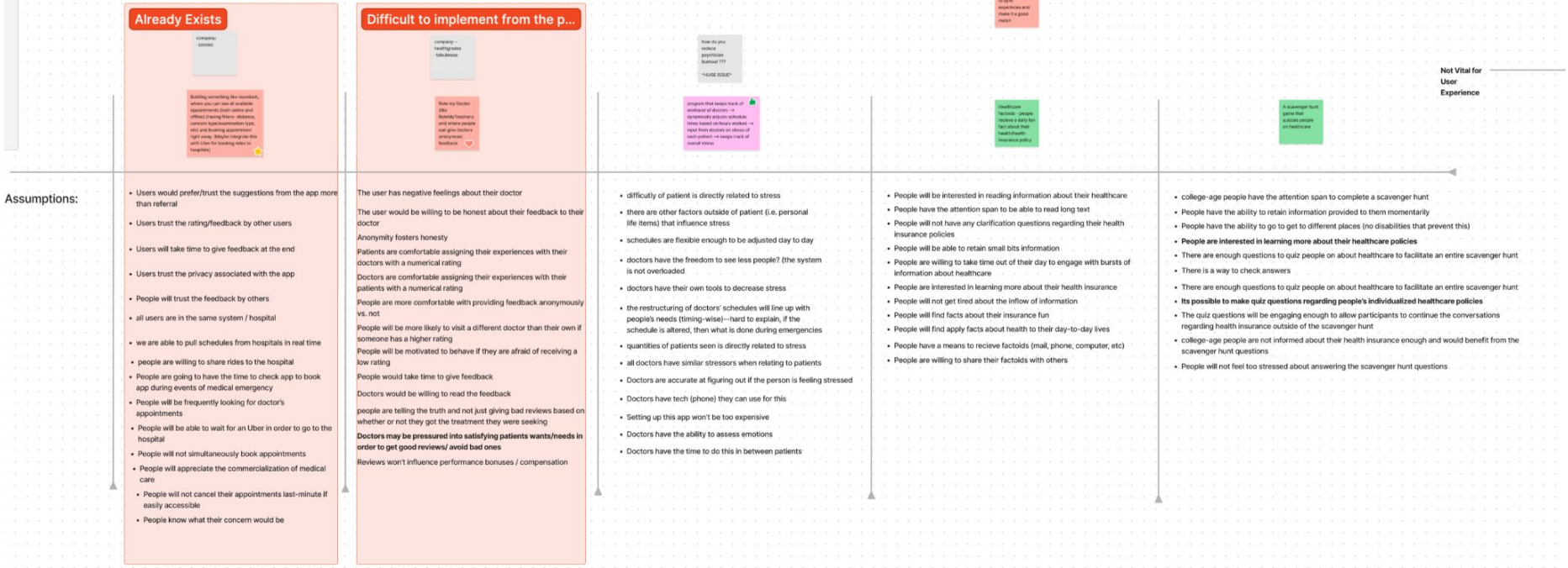
Direct audio-to-text or text-to-speech app people can use when communicating with the doctor

Health insurance similarity/ compatibility rating (kind of like Match.com)

"Is this covered/ protected?" virtual agent that provides insight on what is covered by insurance (so that people have a clearer understanding)

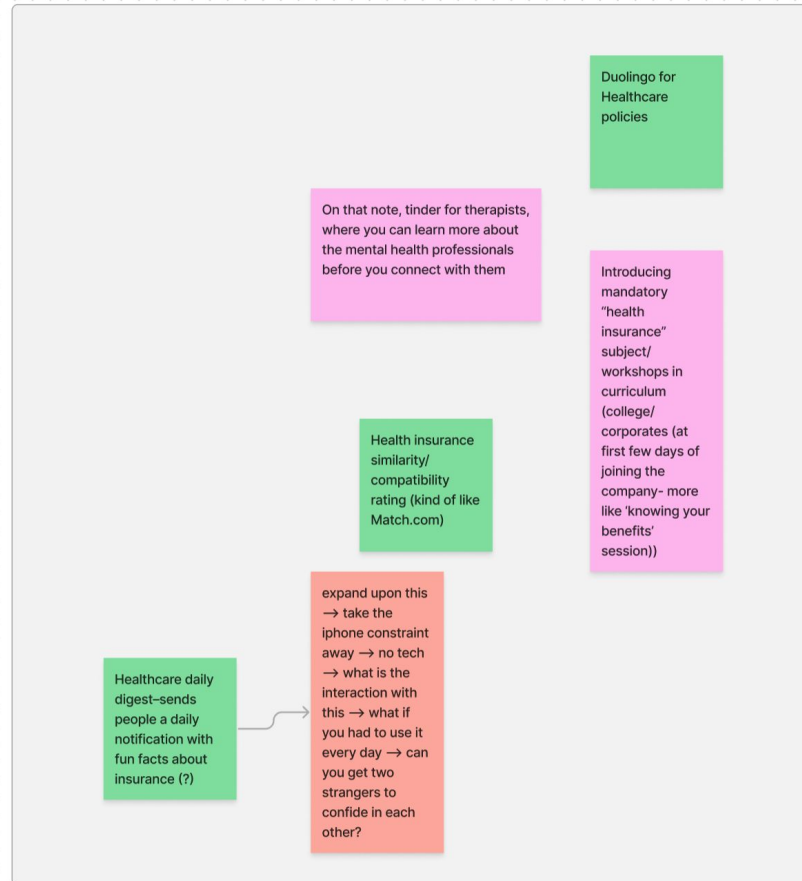
Website/app for international folks (visiting US/ immigrants)- suggesting health insurance plans considering specifics of the person (filters like budget/required benefits/stay period in US, etc, and to search doctors with same demographics)

Top Solutions / Assumptions:



Solution Finalists:

finalists



Assumptions (clearer):

Already Exists

company:
-zocdoc

Building something like doordash, where you can see all available appointments (both online and offline) (having filters- distance, concern type/examination type, etc) and booking appointment right away. (Maybe integrate this with Uber for booking rides to hospitals) ★

- Users would prefer/trust the suggestions from the app more than referral
- Users trust the rating/feedback by other users
- Users will take time to give feedback at the end
- Users trust the privacy associated with the app
- People will trust the feedback by others
- all users are in the same system / hospital
- we are able to pull schedules from hospitals in real time
- people are willing to share rides to the hospital
- People are going to have the time to check app to book app during events of medical emergency
- People will be frequently looking for doctor's appointments
- People will be able to wait for an Uber in order to go to the hospital
- People will not simultaneously book appointments
- People will appreciate the commercialization of medical care
- People will not cancel their appointments last-minute if easily accessible

Difficult to implement from the perspective of diff...

company: -
healthgrades
-tabularasa

Rate my Doctor
(like
RateMyTeacher.c
om) where people
can give doctors
anonymous
feedback ❤️

- The user has negative feelings about their doctor
- The user would be willing to be honest about their feedback to their doctor
- Anonymity fosters honesty
- Patients are comfortable assigning their experiences with their doctors with a numerical rating
- Doctors are comfortable assigning their experiences with their patients with a numerical rating
- People are more comfortable with providing feedback anonymously vs. not
- People will be more likely to visit a different doctor than their own if someone has a higher rating
- People will be motivated to behave if they are afraid of receiving a low rating
- People would take time to give feedback
- Doctors would be willing to read the feedback
- people are telling the truth and not just giving bad reviews based on whether or not they got the treatment they were seeking
- Doctors may be pressured into satisfying patients wants/needs in order to get good reviews/ avoid bad ones**
- Reviews won't influence performance bonuses / compensation

Assumptions (clearer):

how do you
reduce
psychician
burnout ???

HUGE ISSUE

program that keeps track of
workload of doctors →
dynamically adjusts schedule
times based on hours worked →
input from doctors on stress of
each patient → keeps track of
overall stress

Healthcare
factoids - people
receive a daily fun
fact about their
health/health
insurance policy

A scavenger hunt
game that
quizzes people
on healthcare

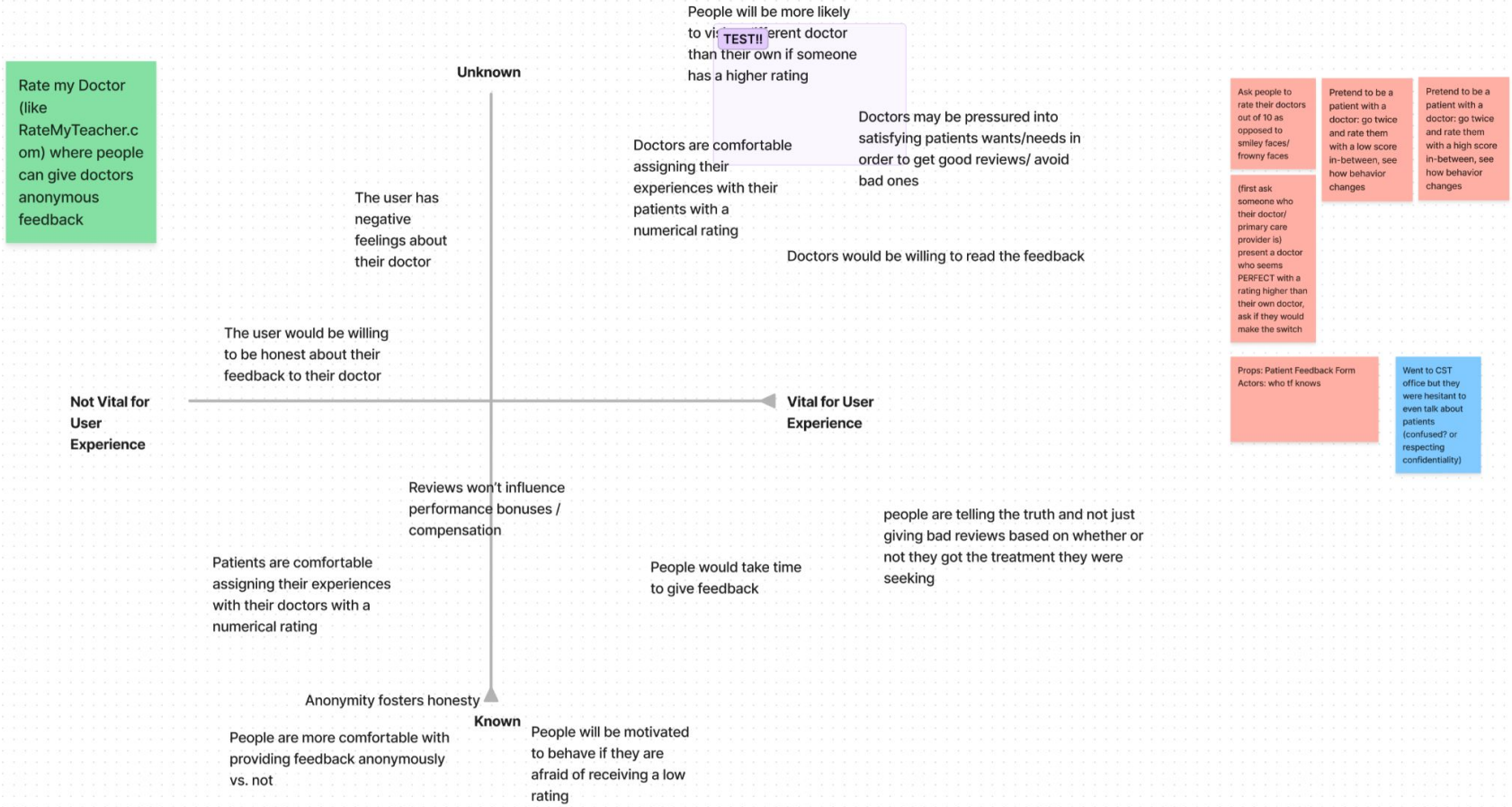
Not Vital for
User
Experience

- difficulty of patient is directly related to stress
- there are other factors outside of patient (i.e. personal life items) that influence stress
- schedules are flexible enough to be adjusted day to day
- doctors have the freedom to see less people? (the system is not overloaded)
- doctors have their own tools to decrease stress
- the restructuring of doctors' schedules will line up with people's needs (timing-wise)--hard to explain, if the schedule is altered, then what is done during emergencies
- quantities of patients seen is directly related to stress
- all doctors have similar stressors when relating to patients
- Doctors are accurate at figuring out if the person is feeling stressed
- Doctors have tech (phone) they can use for this
- Setting up this app won't be too expensive
- Doctors have the ability to assess emotions
- Doctors have the time to do this in between patients

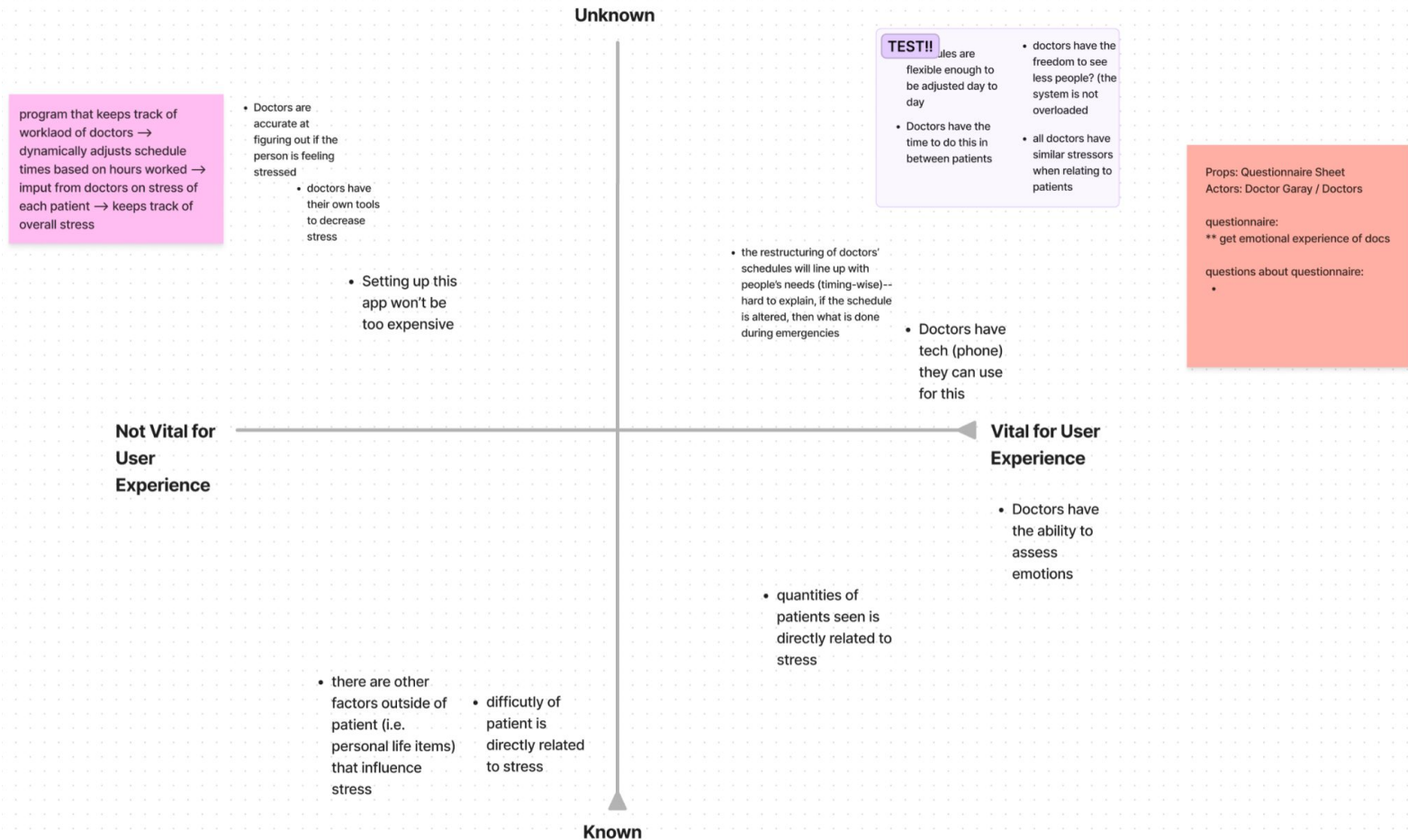
- People will be interested in reading information about their healthcare
- People have the attention span to be able to read long text
- People will not have any clarification questions regarding their health insurance policies
- People will be able to retain small bits information
- People are willing to take time out of their day to engage with bursts of information about healthcare
- People are interested in learning more about their health insurance
- People will not get tired about the inflow of information
- People will find facts about their insurance fun
- People will find apply facts about health to their day-to-day lives
- People have a means to receive factoids (mail, phone, computer, etc)
- People are willing to share their factoids with others

- college-age people have the attention span to complete a scavenger hunt
- People have the ability to retain information provided to them momentarily
- People have the ability to go to get to different places (no disabilities that prevent this)
- **People are interested in learning more about their healthcare policies**
- There are enough questions to quiz people on about healthcare to facilitate an entire scavenger hunt
- There is a way to check answers
- There are enough questions to quiz people on about healthcare to facilitate an entire scavenger hunt
- **Its possible to make quiz questions regarding people's individualized healthcare policies**
- The quiz questions will be engaging enough to allow participants to continue the conversations regarding health insurance outside of the scavenger hunt
- college-age people are not informed about their health insurance enough and would benefit from the scavenger hunt questions
- People will not feel too stressed about answering the scavenger hunt questions

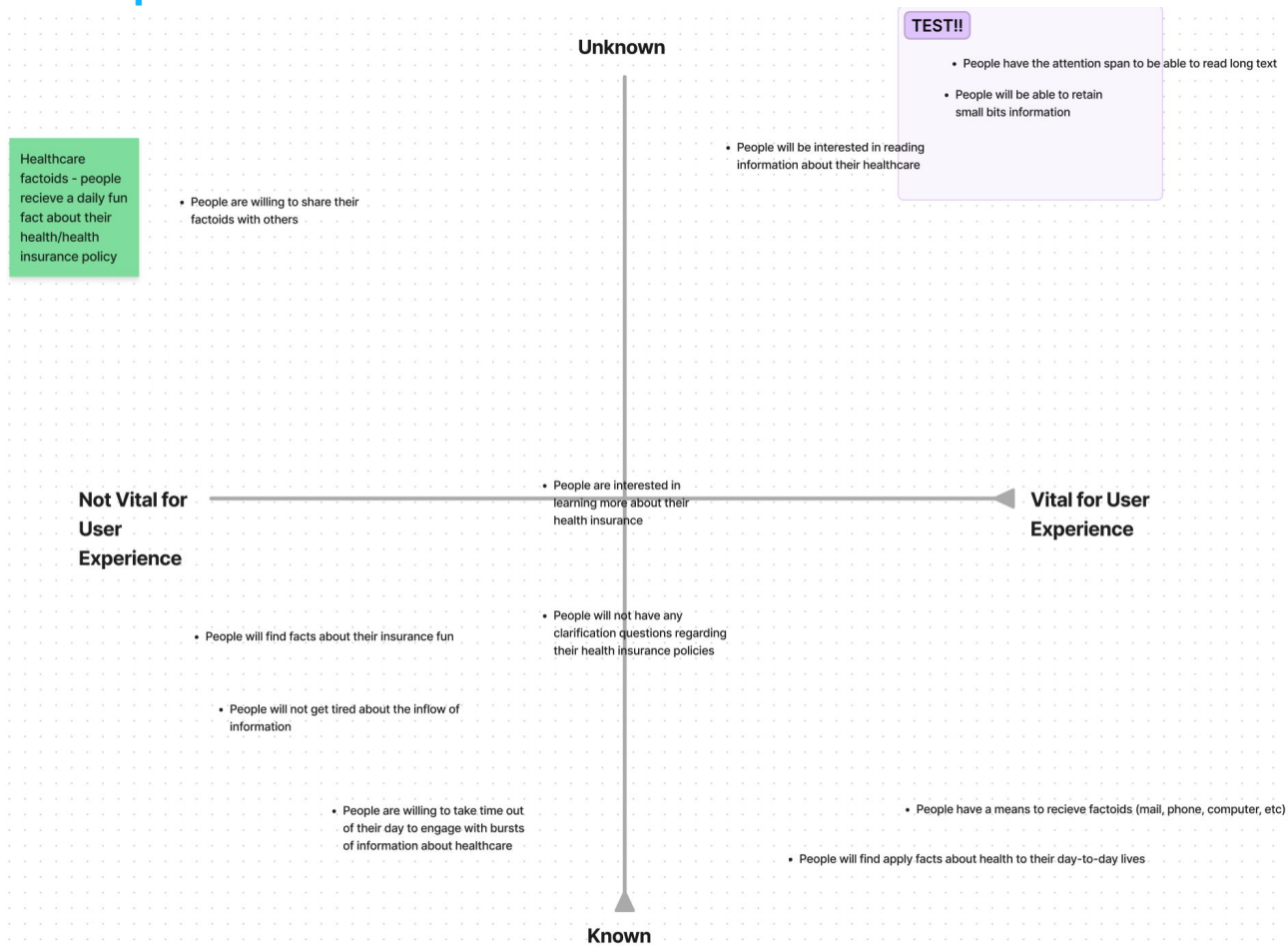
Assumptions Graph:



Assumptions Graph:



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Assumptions Graph:

