



Theme: Are we ready for the next wave?

Are our current healthcare and wellness measures sustainable?

1st August 2021, New Delhi

Team Avant Garde Inc.





The Scenario



Noida gets 20 'auto ambulances' to help Covid-19 patients

1 min read . Updated: 18 May 2021, 10:38 AM IST HT Auto Desk

 The drivers of the Noida auto ambulances have also been given training to perform basic emergency health support for patients.

COVID-19 2nd Wave | Essentials become costlier due to hoarding, disrupted supply chains: Report

Delayed deliveries and rising demand due to anxious customers stocking for hard times has led to jump in prices of pulses, cooking oils, masks, sanitisers and oximetres.

As COVID-19 rages in India, scientist warns further waves 'inevitable'

How India's second wave became the worst COVID-19 surge in the world

The sudden spike in cases has brought the nation's healthcare system to its knees. There are no hospital beds, no oxygen, no medicines. And then there are the variants.

> Covid-19: 'Our moral fabric has been dismembered,' says Delhi HC on hoarding, black-marketing

COVID Warrior From Bhopal Converts His Auto-Rickshaw Into Ambulance, Sells Wife's Jewellery To Help People

Alassettay two visuals of CDAD partners and stock formilies tragging to find antischers and an medical treatment. The year out tratarential proof situs, an activity transition from linear

Delhi: Cremation ground makes space for 20 pyres in parking lot

Various hospitals under the East and North MCDs were directed to send hodles only to specified crematoriums/hurial grounds, as per a directive issued by the North MCD last week.

India's COVID crisis spawns black market for oxygen, drugs

As patients struggle to find available hospital beds, life-saving drugs and medical oxygen, a

Beds to cylinders, people lend a hand on social media

Many groups, previously engaged with blood donation, have also stepped up to the task. From fulfilling plasma needs, these volunteers are now working on getting ventilators, oxygen cylinders, hospitals beds and medicines.

Taking care of COVID positive patient at home? New AIIMS Guidelines for Home Isolation and Treatment

The All India Institute of Medical Sciences (AIIMS) and the Indian Council of Medical Research (ICMR) have jointly released a new guideline, which provides information on the treatment of three different levels of 'cornered, moderate and severe' corona cases.

Post March 2021, Coronavirus engulfed our nation into a deadly second wave, with the daily cases reaching up to

414000

and reported deaths of more than

2.08 lakhs

The Scenario



As society as a collective was trying to battle this humanitarian crisis, the gaping holes in our healthcare system were evident to the public.



ventilators

Source: Hindustan times; Union health ministry

b

Source: The Deccan Herald

Source: The Deccan Herald

Source: countrymeters.info

Source: livemint.com

17.9% Of people with comorbidities	472 million children In India under The age of 18	23000 Practicing paediatricians in India	77,756 Live births per day in India	5,05,800 non-emergency, 51,100 cancer, and 27,700 obstetric surgeries
Succumb to the irus. With the risk eing 15-20X more for people with comorbidities, are they being prioritized?	With unvaccinated minors being the supposed target in the next wave, how might we ensure that they are being catered to?	The norm being 1 pediatrician for 10,000 population, there should be 1.21 L practicing pediatricians. How might we ensure minors get access to hospitals with paediatricians?	How might we ensure pregnant women aren't being neglected in the midst of a surge of Covid patients?	Could have been delayed across India. How might we ensure patients with ailments apart from Covid have access to medical amenities?

The Scenario



Problem Identified





How Might We allow priority patients to find and receive timely medical assistance and care based on their unique medical history in a Covid-19 struck India?

Urgency of the problem

According to Mike Ryan, WHO's Health Emergencies Programme Executive Director

"Delta variant is faster, fitter, it'll pick off the most vulnerable more efficiently. It'll eventually find vulnerable individuals who will fall severely ill, and will need to be hospitalized."

If we don't cater to this : Hospitals will continue to be overbooked like the second wave.

If we don't cater to this: Low-priority patients will get access to beds before high priority patients.

If we don't cater to this: Children would be running at a high risk during the next wave.

If we don't cater to this: Patients with other medical issues/emergencies/pregnancies wouldn't be able to find a hospital bed in time.

If we don't cater to this: Doctors would continue getting harassed by crowds outside hospitals for beds.

If we don't cater to this: People will have to continue to rely on social media to check for resource availability.



Stakeholder map





"I need to get prioritized if my current condition/ medical background is more critical"

HOSPITAL

"Out of the hundreds of people outside, how can we decide who is more at risk? What about critical patients who don't have Covid?"



"I need to be able to monitor my patients' condition and medical background to be able to treat them properly and flag emergencies remotely"



"How do I let customers know that I have the supplies that they need? How do I let them know when I am out of supplies? How do I manage overcrowding outside my store?"

ARVIND MUKHERJEE

Elderly with comorbidity

ABOUT:

Age: 65 years Education: Undergraduate Hometown: Kolkata, Urban Family: Wife and brother Occupation: Business owner Income: 12 lac per annum

Mr. Rai has been running his family's paper production business since the past 40 years. He suffers from hypertension, and quite recently, was detected with a minor heart ailment as well. He tested positive for Covid 3 days back, and his oxygen levels have been dangerously low, close to 85. He is unsure when and whether at all to get hospitalized, and which hospital to even approach.



"It's not just Covid, I'm scared that my heart condition would be the end of me if they don't find a hospital bed for me soon"

GOALS:

- To find a hospital bed as a Covid-19 patient in a timely manner.
- To receive medical care as a priority patient, as he is both aged, and has co-morbidities.

- He doesn't know which hospital has a vacant oxygen bed and can immediately hospitalize him.
- Even if he reaches his nearest hospital, he doesn't know whether they will be able to accommodate him.
- He doesn't know whether the hospital would have an on-call cardiologist to monitor Covid's impact on his heart condition.



Minor with comorbidity

ABOUT:

Age: 10 years Education: Currently in High school Hometown: Bangalore, Urban Family: Parents Occupation: High school student Income: Dependent

Caro is a zesty young girl who might have caught Covid when she visited the playground a couple of days back. Her parents have been checking her vitals, but they're quite scared themselves, and at times forget to check that her oxygen levels have dropped in the midst of all the confusion. They're concerned that due to her asthma, her condition might suddenly deteriorate, and that they wouldn't be able to find a hospital bed in time.



"I'm really scared of Covid, why aren't they vaccinating me?"

GOALS:

- To find a hospital bed as a Covid-19 patient in a timely manner
- To receive medical care as a priority patient
- To receive special paediatric assistance.

- He doesn't know which hospital has a vacant oxygen bed and can immediately hospitalize him.
- Even if he reaches his nearest hospital, he doesn't know whether they will be able to accommodate him.
- He doesn't know whether the hospital would have an on-call cardiologist to monitor Covid's impact on his heart condition.

SIMRAN GREWAL

Helpless doctor

ABOUT:

Age: 35 years Education: Post graduate Hometown: Lucknow, Urban Family: Husband Occupation: Doctor Income: 7 Lac per annum

Simran has been working as a general physician at a govt. hospital since the past 4 years. Due to the influx of patients during the pandemic and the lack of a centralised database showing patient's medical history, she and her colleagues have been having a hard time prioritising patients in terms of who would need immediate care. She feels helpless due to the unorganised management and lack of critical information.



"Everyone outside my hospital wants to be treated first, it's so gut-wrenching to see people feeling so helpless"

GOALS:

- To be able to provide medical care to those who require it more than others
- To receive an idea of patients' medical histories in order to treat them in a systematic manner.

- Citizens have started harassing doctors as everyone thinks their case is more critical
- When the hospital is over occupied, people show up outside, but for 2 days they had vacant beds, and no one knew

R. AHMED Apprehensive heart patient

ABOUT:

Age: 58 years Education: Graduate Hometown: Noida, Urban Family: Son and daughter-in-law Occupation: College professor Income: 9 Lac per annum

Prof. Ahmed has been teaching at a prestigious university since the past 12 years. She suffers from a heart condition wherein regular check ups are mandatory for her. The severity of her condition, due to lack of medical care during the lockdown has led to the requirement for an immediate heart surgery, which furthermore makes her situation vulnerable. She is apprehensive whether she will able to find a hospital bed incase of an emergency.



"What if my heart stops working tomorrow, how can they neglect my issue like this, is my life less important?"

GOALS:

- To receive her impending heart surgery as soon as possible
- To receive medical care as a priority patient
- To receive immediate medical help in case of an emergency, without having to sift through prospective hospitals that might take her in.

- Due to Covid, all hospital beds and medical staff are occupied, and no one has the space or time for her imperative heart surgery.
- Her family has contacted multiple hospitals, and all facilities have refused to operate on her.

RAHUL KHANNA Paranoid milennial

ABOUT:

Age: 27 years Education: Under-graduate Hometown: Mumbai, Urban Family: Parents and a younger sister Occupation: Prospective MBA student Income: Dependent

Rahul tested positive for Covid two days ago and has been panicking as he is unaware of how to deal with his sickness due to lack of clarity about the effects of the virus. He is unsure of what symptoms must he track or when he must get appropriate medical care. He has been unable to find assurance whether his vitals have been improving or not, furthermore leading to his anxiety. His parents are insisting that they secure a hospital bed for him.



"Are you crazy, I need help, let me call Venu uncle and find a bed"

GOALS:

 To receive medical care as a Covid patient

- Not knowing whether he needs to be hospitalized or not
- Panics easily, hence needs assurance that his condition is manageable

Explorations brainstormed



Digitizing medical records

Converting years' worth of medical records to a digital repository, thereby making the onboarding process easier at hospitals for patients during an emergency like Covid-19.

Why was this omitted?

- Would have been a read-only application.
- Records might be in any format, would require excessive online storage space.



Medical social platform

A medical social media platform that allows citizens to openly disclose their ailments, thereby reducing the stigma associated with acquiring diseases like Covid-19, as well as mental ailments, and talking about them. This would further allow citizens to openly share resources and information.

Why was this omitted?

 While this solution would help immensely in the long run, it wouldn't particularly help ready us for the next wave.



Application for rural healthcare workers

An application that would allow rural healthcare workers to feed Covid vitals and data for the population. This would aid immensely in the next wave as the rural population would mostly be unvaccinated, with more limited infrastructure than urban areas in case of emergencies.

Why was this omitted?

• Limited scope and impact of the intervention.

Final solution



Real-time Vital Repository and Tracking

An application that allows users to **track and monitor their vitals** and feed their **medical history** and comorbidities into the system, thereby allowing them to get **prioritised while booking medical amenities** such as hospital beds, doctors, and supplies such as medical oxygen and homecare units.



Prototype link

Priority matrix



Users will be prioritized on the basis of:

- Medical History collected through the initial questionnaire
- • Through the vitals that the users will input

Regression:

Supervised machine learning technique of regression will be applied on the data collected for each user.

How does Regression work?

The goal of regression is to identify the linear pattern between Input & Output parameters and to find the equation that best fits that pattern.

Modeling:

The regression model will require two datasets:

- · Training dataset
- · Testing dataset

Priority matrix

Training Dataset: The training dataset will be used to create a model to figure out the best approach to apply the equation that gives you accurate output.

The following input data parameters will be collected through each user's personalized profile:

- First Name
- Last Name
- Age
- Gender
- Vaccination
- Temperature
- Oxygen Level
- Flagged by a Registered Doctor
- Verified through Aadhaar Card
- Pre-existing Condition (Can have more than one)

Output Data Parameter: Through discussions with multiple doctors, the pertinent parameters were given speculative weightage values and each user will be given an output parameter **Rating** based on the weightage applied on the parameters of their individual record.

Training dataset

First Name	Last Name	Age	Gender	Pregnancy	Vaccination	Temperature	Oxygen	Registered Doctor Fla	g Verified User	Pre-Existing 1	Pre-Existing 2	Pre-Existing 3	Rating
Mukul	Sharma	34	M	N/A	1 Dose	97.7	99	No	Yes	Diabetes Type 2	Obesity	N/A	35
Tara	Singh	26	F	N/A	No	98.6	97	No	Yes	Asthma	N/A	N/A	38
Agnibhito	Choudhory	48	M	N/A	1 Dose	97.6	99	No	Yes	N/A	N/A	N/A	20
Nipun	Alok	62	M	N/A	2 Doses	99	98	No	No	Hypertension	N/A	N/A	39
Alina	Kumar	15	F	N/A	No	96.9	98	No	No	N/A	N/A	N/A	20
Satyamev	Jayate	74	м	N/A	2 Doses	101.4	94	Yes	Yes	Chronic Kidney Diesase	N/A	N/A	80
Francesco	Totti	42	M	N/A	1 Dose	97.2	98	No	Yes	N/A	N/A	N/A	20
Rajpal	Yadav	48	M	N/A	1 Dose	98.3	98	No	Yes	N/A	N/A	N/A	20
Rai	Madho	33	м	N/A	No	102.5	82	Yes	Yes	Cardiovascular Condition	Obesity	N/A	106
Chris	Martin	25	M	N/A	2 Doses	97.4	99	No	Yes	N/A	N/A	N/A	12
Mango	Dolly	29	F	2nd Trimester	2 Doses	98.6	97	No	Yes	Emphysema	N/A	N/A	45
Vasudha	Singhee	12	F	N/A	No	96.8	99	No	No	N/A	N/A	N/A	25
Devender	Yadav	68	М	N/A	2 Doses	97.4	98	No	Yes	Cardiovascular Condition	N/A	N/A	43
Ali	Haidar	27	M	N/A	No	101.5	84	Yes	Yes	N/A	N/A	N/A	95
Mala	Singh	52	F	N/A	1 Dose	100.2	94	No	Yes	Malignacy on Chemo	N/A	N/A	55
Dolly	Bindra	38	F	N/A	No	99.5	98	No	Yes	Hypertension	N/A	N/A	42
Pushpa	Chandra	86	F	N/A	2 Doses	101.4	72	Yes	Yes	Diabetes Type 2	Obesity	N/A	105
Monty	Chaddha	44	M	N/A	No	98.1	98	No	No	N/A	N/A	N/A	20
Neha	Sharma	28	F	N/A	2 Doses	97.2	99	No	No	N/A	N/A	N/A	7
Alia	Sadh	26	F	3rd Trimester	No	102.5	90	No	No	Hypertension	N/A	N/A	72
Vanshika	Ahuja	32	F	1st Trimester	No	96.5	96	No	Yes	Cardiovascular Condition	N/A	N/A	46
Rajkumar	Chopra	71	М	N/A	2 Doses	97.9	98	No	Yes	Transplant recepient	N/A	N/A	32
Parth	Dalał	45	M	N/A	1 Dose	103.5	60	Yes	Yes	Asthma	N/A	N/A	108
Riya	Kumar	20	F	N/A	No	97.5	98	No	No	N/A	N/A	N/A	15
Dharini	Dharmesh	51	F	N/A	2 Doses	98.2	99	No	No	N/A	N/A	N/A	17
Shashi	Sharma	89	M	N/A	2 Doses	98.6	99	No	No	N/A	N/A	N/A	22
Tony	Fernandes	67	м	N/A	1 Dose	100.1	92	No	Yes	Cardiovascular Condition	Hypertension	N/A	78
Saad	Chisty	23	M	N/A	No	98.9	97	No	Yes	N/A	N/A	N/A	20
Tara	Raad	17	F	N/A	No	97.3	99	No	Yes	Down syndrome	Obesity	N/A	40
Munshi	Bansilal	36	M	N/A	No	102.6	80	Yes	No	N/A	N/A	N/A	85
Shreya	Jaisinghani	33	F	N/A	No	97.6	96	No	Yes	N/A	N/A	N/A	20
Akshit	Gupta	28	M	N/A	1 Dose	96.9	96	No	Yes	Chronic Bronchitis	N/A	N/A	33
Nitish	Singla	45	M	N/A	No	98.4	95	No	Yes	N/A	N/A	N/A	25

Priority matrix

EQUATION 1: OUTPUT VARIABLE = f[INPUT VARIABLE] EQUATION 2: RATING = & [AGE, VACCINATION, TEMPERATURE OXYGEN, FLAGGED BY REGISTERED DOCTOR, VERIFIED THROUGH AADHAR CARD, PRE-EXISTING CONDITIONS T EQUATION 3: B. + [B, #GE] + [B2 X VACCINATION] + [P3 X TEMPERATURE] + [P4 X OXYGEN] + [P5 X FLAGGED BY REGISTERED DOCTOR T+ [B6 X VERIFIED THROUGH AADHAR CARD] + [BT X PRE-EXISTING-CONDITION 1] + [P&X PRE-EXISTING COUDITION a] + [Bg X PRE-EXISTING CONDITION 3] + ERROR TERM

Testing Dataset: The Testing dataset will have the same input parameters as the training dataset and an unknown output parameter. The training model when applied on the input variables will be used to predict the outcome variable **rating** of the testing dataset.

Conclusion:

Any new user data that will be fed into the application, will run through the model and receive a rating.

The rating ranges will be used classify a user as the following:

- 0-20: Lowest
- · 20-40: Low
- 40-60: Medium
- · 60-80: High
- · 80 and above: Highest

Track vitals

- Easily add multiple trackable ailments/conditions
- Track vitals for Covid-19, such as Temperature, oxygen levels etc and allow a caregiver/guardian to feed these details for you through their phone as well.
- Feed your vaccination due dates, set alerts for medicine consumption, feed details of reports and share tracking details with your doctor/s
- Graphics and iconography make actions easy to understand.





Find and book resources

- Book amenities for every step of your ailment through highly graphical and self explanatory screens.
- Share your location to find the resources nearest to you. View the details of the available resources around you on a live map.
- Choose to book amenities for anyone who grants you access, such as distant family or friends who might not be in the condition to book them for themselves.







Find and book resources

- Self explanatory filters help you select your type of emergency, as well as facilities required, such as specialists for surgery, gynaecologists for labour, or even paediatricians for minors.
- Based on your filters and rating on the priority matrix, get connected to the amenity providers automatically without having to sift through hundreds of hospitals, doctors and suppliers, and helplessly trying to contact them.
- Sharing your medical profile before hand as well as showing a scannable QR code at the medical facility allow for a **smooth onboarding process** at the entrance of the hospital, allowing users to override the **tedious form filling** process.





Get tracked by verified doctors

- Sending request feature allows doctors to only onboard patients as per their own bandwidth, and after viewing their medical history in order to prioritise high risk patients. This feature also only allows patients to message and not call doctors till their request has been accepted, since doctors have been receiving an unprecedented number of calls.
- Reduce anxiety associated with uncertainty by allowing your doctor to monitor your vitals in real time and add prescribed medicines to your alerts.
- Doctors get alerted in case their patients' vitals reach dangerous levels, thereby **allowing them to flag them as priority patients**. This would help hospitals accept patients who have been asked to get admitted by a verified doctor.





Set up your medical profile

- Choose who can view, edit and feed data into your medical profile [doctors/ family/ caregivers], and share it quickly using a QR code.
- Secondary actions nested behind a hamburger menu.
- Bottom navigation is easy to understand with icons and labels, has the primary functions and has the emergency "Find" function highlighted.







Design process



The Stanford Design thinking process was followed for this project





User interviews



- User interviews were conducted across demographics, genders and economic status.
- Most interviews were remote, while on site interviews were conducted in a safe environment, through non leading questions.

Some of the questions were:

- 1. How/Where do you usually store your medical records?
- 2. If I asked you to take some time and feed all your medical history into an application, would you do it? Why or why not?
- 3. Did you/someone close to you get infected with Covid? Were you able to easily access amenities like medicines, oxygen, medical tests etc?
- 4. Did you/someone close to you require non-Covid related medical help post March 2020? Were you able to easily get medical assistance?
- 5. What facilities/administrative policies do you think would have helped you during this ordeal?





Expert interviews



 Two rounds of expert interviews were conducted with doctors across demographics and genders, HODs of Hospitals and oxygen suppliers.

Some of the questions were:

- 1. Were you ever in a situation wherein you had to choose who to admit into your facility, and whom to not? What did you have to make this decision on the basis of?
- 2. What is the process that is usually followed once a Covid patient has been accepted into the facility? How do you get access to each patient's unique medical history before you start the treatment? Are there any challenges that you face with respect to accessing these records?
- 3. According to you, which patients should be prioritized the most once they're infected with Covid, based on their prior medical history/comorbidities?
- 4. Is there a particular group of people that you think might be most affected during the next possible wave? Is there any specialized treatment or medical facilities that they might require? What would it be?









User stories





- As an aged hypertensive Covid-19 patient I want to get prioritised over patients with lesser fatality risk than me so that I can receive timely medical assistance and avoid being in grave danger.
- As a minor asthamatic Covid-19 patient I want to get prioritised as a non-vaccinated patient requiring paediatric assistance so that I can receive specialized and timely medical assistance and avoid being in grave danger.
- As a flustered and helpless doctor **I want to** be able to treat as many patients as possible in an order of priority **so that** I don't end up neglecting patients who are at a higher risk.
- As a patient with a chronic heart ailment requiring surgery **I want to** not get sidelined in the midst of rising Covid cases and get operated upon **so that** I can receive specialized medical assistance and avoid being in grave danger.
- As an anxious millennial Covid-19 patient **I want to** be reassured that my condition is improving **so that** I don't end up panicking and scouting for hospital beds.



Problem Statement



Anxious and confused Pregnant lady Hypertensive

How Might We allow priority patients to find and receive timely medical assistance and care based on their unique medical history in a Covid-19 struck India?

Needs heart

surgery

COVID -VE

Asthamatic minor

COVID -VE

COVID +VE

COVID +VE



Competitive audit



We analyzed both direct and indirect competitors to understand their strengths, figure out gaps and assess opportunity areas based on UVP, features, accessibility, user flow, visual design etc.

The competitors were:

- 1. Apollo 24 X 7
- 2. Find a bed
- 3. Healow
- 4. Intellin
- 5. Simple
- 6. Remedo
- 7. Covid-19 AP

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Competitive audit link

How Might We



- How Might We allow patients to receive medical care on time?
- How Might We ensure non-covid patients don't get neglected?
- How Might We allow the healthcare system to predict the number of beds that might be required?
- How Might We make monitoring their patients' medical progress an easy process for doctors?
- How Might We make finding a hospital bed a fast and stress free experience for patients?
- How Might We make citizens feel eager to feed their medical records into an application?
- How Might We ensure patients don't need a hospital bed in the first place?



Ideation exercises



Mindmapping, stakeholder mapping and flow outlining group exercises.









Ideation exercises





Card sorting



Card sorting exercises conducted with dozens of potential users helped us define the user flow, and arrive at the information architecture.

Some of the common insights were:

Tracking vitals separate from medical history, segregating everyday input from fed data. Onboarding separate and specific for each user type VS the same overarching onboarding Messaging as a separate feature VS navigating to each doctor's profile in order to message them







Information architecture







Lo-Fidelity wireframes



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Multiple lo-fidelity iterations for each screen were created, followed by a group starring exercise.



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Hi-Fidelity wireframes





Graphic design



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- Inspiration was taken from the Kalighat paintings for our graphics in order to make them contextually relevant.
- All demographics, abilities and genders were captured in the graphics.
- Modals were cartoonified to add lightness to an otherwise stressful process.
- Color palette inspiration was taken from the ancient Indian concept of "Doshas" from ayurvedic medicine.

Logo design





Design system



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A design system was developed to ensure **consistency** and **scalability**

Accessibility considerations





The color palette has been checked for accessibility considerations, is color blind friendly, and has optimum contrast ratio. Content hierarchy for screen reader compatibility Language options for maximum reach across the country and voice based search options

ch



Offline features such as available medical history as per last refresh and fed vitals getting added to the server once connection is restored. A map showing details of nearby amenities also allows users to reach out through available details in case they are offline and can't make a booking.

Hi-fidelity prototype





The high fidelity prototype was developed on **Figma** to orchestrate remote group discussion and criticism.

Prototype link



Usability studies

2 DEFINE 2 DEFINE 3 IDEATE 4 PROTOTYPE 4 DEFINE 5 TEST

Usability studies were conducted to gather user insights and pain points









Insight iterations





- A. Users found the top navigation too crowded. Secondary features were nested under a hamburger.
- B. "User vaccinated" icon was made more obvious.
- C. Users were confused whether "Doctors" meant their current hired doctors or the facility to find one.
- D. Copy was made more descriptive.
- E. Button that allowed users to add new appointments was added.
- F. Users were confused whether the "+" icon meant "add". Hence the icon was altered for clarity.

Impact of the intervention



- Identifying the critical patients in immediate need of welfare would ensure **better case specific care**, reduce risk and ensure **those at a higher risk get catered to first.**
- Would create a direct and clear communication channel between healthcare workers and patients thereby reducing the mass hysteria and anxiety around acquiring contact with a doctor
- Ability to book doctors/hospitals/supplies/tests which will help people get medical help sooner and hence save lives, and also expand doctors' and hospitals' reach.
- Enabling better homecare through constant monitoring by doctors.
- Would centralize citizens' medical records instead of depending on the current HIS system, which is specific to each hospital and doesn't allow a doctor in one hospital to view a patient's ailment history which was treated at another hospital. This would also allow citizens to have their summarised medical history on their fingertips, instead of carrying years' worth of reports for each doctor visit.

Sustainability of the design

2

RVRT has been developed as a **one-stop-shop** for the medical needs of the Indian citizens. It's solid back-end analytics backed model would ensure that it continues to prioritise high-risk patients in the case of any future calamities such as Covid-19

In case of a subsequent wave, it would ensure that resources are not hoarded or **misused**, thereby ensuring that those in genuine need receive them in just a couple of clicks, without the anxiety of waiting outside hospitals or unanswered calls.

3

It would continue being in widespread use even after the pandemic, as it would continue to serve as a tracking application for citizens for other conditions, and a monitoring and flagging application for their doctors.

4

It's feeding and sharing of cohesive medical profiles feature would ensure that **years'** of medical history is summarised for hospitals and doctors to view in case of emergencies.

5

Execution and business viability

TECHNICAL REQUIREMENTS



- Data collected by users stored through AWS web hosting
- Regression and classification analytics generating apps such as SAS or Rapidminer
- Google map API for locations and
 navigation
- Accessing linked accounts feature allows users with only one phone in the house to feed vitals and book amenities for others.

INCENTIVIZATION



- Marketing campaign that incentivizes users to download the app and feed their medical history as a means to avoid the mass hysteria that ensued during the 2nd wave and receive equitable assistance regardless of privilege.
- Suppliers and doctors who sign up would expand their reach and increase client base.
- Hospitals would be unburdened

INVESTMENT



- Initial investment to develop the application.
- Swift development and delivery due to less strenuous technical requirements and pre-formulated Design System for scalability.
- Minimal commission from each booking from doctors, hospitals and suppliers [who have previously mentioned incentives] would fund further development

Marketing and launching the MVP; Doctor, supplier and hospital facing interface development

PHASE 1

LITE version for the population without smartphones as well as a helpline

PHASE 2

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Drive storage for heavy duty files such as X-rays, MRIs etc

PHASE 3

Locality-wise collation of data regarding prevalent ailments that would allow local infrastructure to equip themselves accordingly

PHASE 4

Creating a social change by normalizing sharing your mental and physical ailments with the RVRT community

PHASE 5

...

Future scope

Thank you!