



WHAT HAPPENS WHEN THE FRONT LINE FAILS?

Theme: Are we ready for the next wave?

Are our current healthcare and wellness measures sustainable?

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TEAM



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PROBLEM IDENTIFIED

What happens when the front line fails?

Problem Description:

How might we sustain a high level of medical care during future waves of Covid-19 when the front line depends on the severely pressured and depleted mental physical health of healthcare workers worldwide?

Personal Level: Esther a 38-year-old is a primary care physician who works in a local community practice and day clinic. She deals with patients from all walks of life. During the pandemic, she's faced overwhelming numbers of patients that increase during peak infection times or waves. She works long hours, seven days a week. She's lost many colleagues and patients who she's built relationships with over many years to the virus, but there is no time for her to stop and grieve. Esther is married and has two children. The youngest, a daughter was recently diagnosed with Attention Deficit Disorder, but as much as Esther is dying to help her, she can't. When she is home, she is aware of her own self-isolation and withdrawal, but she can do nothing about it.

She's faced with impossible decisions every day that ultimately determine who lives and who dies due to lack of resources. She describes her 'new normal' emotional state as burned out, exhausted, emotional, irritable, with no energy, and she is expected to always remain calm and level-headed. She says she can't think of the future, because she doesn't know how she's going to face another wave.

Systems Level: On a systems level, Esther has run out of specialist physicians to refer very sick patients to [with Covid]. Many of them are sick themselves or have lost their lives. Others are completely overwhelmed by patient numbers. Very sick patients she refers to emergency rooms are waiting in excess of 15 hours in overcrowded areas before being attended to. There are no more beds available in hospitals and many temporary field hospitals have closed or are also over capacity.

Esther cannot find oxygen to give her patients so that they can manage their recovery at home. Medication is in short supply and in some instances depleted. There isn't enough equipment in hospitals to treat all the patients. Esther's job is made a lot harder by inaccurate tests that are delivering many false negatives. She's also frustrated with inaccurate reporting. Esther currently has a patient who has Covid for the third time and it angers her that mask wearing, and basic Covid hygiene measures are still ignored by a lot of people, and there's a lot of fake news and conspiracy theories circling vaccines. She wishes it was possible to upscale vaccination.



Healthcare workers are not an infinite recourse. A great number of healthcare workers have been lost to the pandemic and there are no skilled people to take their place. Society expects healthcare workers to be there when they get sick and expect the best care possible – not unreasonable. It does become unreasonable when that expectation extends to personal sacrifice to the effect of someone's mental and physical health and their lives. We interviewed several healthcare workers in pursuit of understanding this problem.



Global Level: Esther represents many doctors out there. Globally they face a barrage of misinformation and conspiracy theories around preventative measures and treatment that are shared virally through various channels and circulated industriously, while scientific information is published to be found and consumed. Social platforms are traffic dependent and have no vested interest in clamping down on traffic generating content like 'panic media' or sensationalised misinformation.

In many communities, healthcare workers face the stigma of 'bringing the disease home' to the community. Interviewing public sector health workers proved a challenge because they seem to be fearful of speaking up about what they're going through.

Global shortages of resources impact health workers from all walks of life and have a profound impact on the survival rate of them and their patients. We are faced with the stark reality that our global healthcare networks may not weather another wave or more, which is a probability at the rate the virus is evolving. With all of the challenges health workers are confronted with every day, how much more can they weather? There's no support or help for them to speak of.





URGENCY & IMPORTANCE

Why is this an urgent problem?

Without a sustainably healthy community of healthcare workers, there are no healthcare systems. There is no help for those fighting for their lives and we face death tolls of unprecedented levels. The impact of the latter cannot be overstated. If we don't start looking after our healthcare workers, we face an escalation of the current global crisis of unimaginable proportions. These are mothers, fathers, sons, daughters, husbands, wives. People.

How long would you be able to weather such challenges under such conditions before you collapse?

With our solution, we hope to alleviate some of the pain points felt by healthcare workers and to show them that they are highly valued while providing them with as much support as we can.





TARGETED USERS & OUR APPROACH

The users we have targeted are those identified as crucial frontline role players in the care of patients with Covid.

They are the primary caregivers and interact with and around covid patients on a day-to -day basis providing both health care and emotional support to patients and their families.

OUR APPROACH

Because of the complexity and variation of roles within the health care segment we have approached the problem by defining archetypes first.

They have been a necessary tool to help us identify the issues faced and context experienced by these groups and defining the key problem to focus on.





SOLUTION DEFINITION

ADDRESSING THE PROBLEM

We will create a digital support ecosystem that enables healthcare workers to engage with vetted volunteers across multiple dimensions:

- Psychological support: Direct access to psychologists through appointment or immediate access if required
- Spiritual support: Access to members of religious and spiritual communities.
- Daily activities: Assisting with everything from grocery shopping and meal preparation and delivery to transport solutions for children and house maintenance activities.
- Family support: Providing psychological and spiritual support to the family members of healthcare workers
- Professional support: Access to advice from medical professionals globally on demand.
- Patient care support: Allowing patients and their family access to people who can support their mental health through diagnosis and beyond.

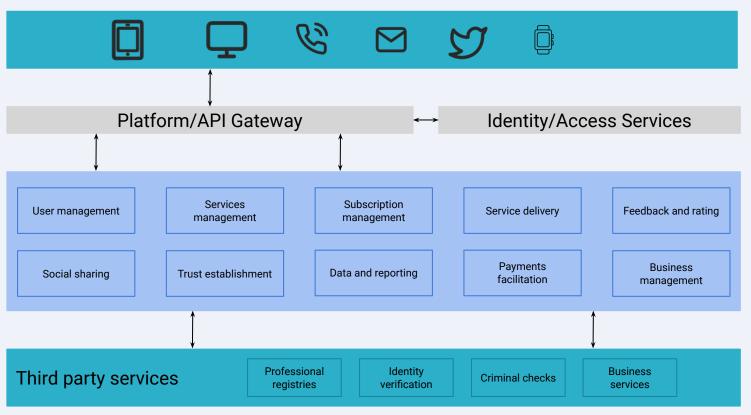
The solution is premised on two pillars:

- Mental health:
 - Healthcare workers: Direct access to psychological and spiritual support on demand and through appointment.
 - Families of healthcare workers: The impact of the pandemic on healthcare workers families weighs heavily on them creating additional dimensions of stress. By providing support for their families, we will be helping them as well.
 - Patients: Patients are affected both mentally and physically by the disease with doctors and nurses being expected to support on both fronts.
- Reducing individual load:
 - Smoothing the demand curve: The waves of the virus hit countries across the world at different times and with varying intensity. The peak periods are where healthcare workers are at most risk. By digitally enabling volunteers from multiple countries to engage on the platform, the impact of localised country peaks can be reduced.
 - Extending skill supply: Not all activities performed by healthcare workers require their level of skill and specialisation. Conversely, some of what they are
 required to do falls outside of their core skill-set (eg. patient psychological support) and can be better delivered through alternate professionals. The ecosystem
 will enable the appropriate skills to be accessed on demand.
 - Managing home-life: Part of the challenge faced is balancing home-life with the demands of the pandemic volunteers can assist with managing the load on the home front.



SOLUTION DEFINITION

REFERENCE ARCHITECTURE



Data and platform security and governance



FINAL SOLUTION AND INNOVATION

By providing mental health support for healthcare workers and actively reducing their daily load, our solution will improve their mental and physical health and equip them to better face the next wave.

Stewart Butterfield (Slack) postulates that innovation can be measured by "the amount of change in human behaviour". Our solution is innovative in that it shifts behaviour for all participants in the ecosystem. Healthcare workers will ask for support and volunteers will be able to provide meaningful assistance that goes beyond well-intended gestures. This will drive a more community centered approach to solving wicked systemic problems.

Enabling people's inherent altruism to rally practical support for healthcare workers leveraging gamification, community and social concepts will take ethical design to a new level, providing a unique community engagement platform based on shared benefit.







PARTNERS / VOLUNTEERS

Provide services

- Small to large companies
- Communities
- Professionals
- Individuals

Services Products Donations

Volunteering Guidance / advice

Rewards

GiveBack Platform



HEALTHCARE WORKER

Use services

- Doctors
- Nurses
- Specialists

Role needs

Wellness needs

Personal needs



HOW IT WORKS



Feedback channels: Feedback on the platform and partners/volunteers OR health care workers

Measuring the experience, adoption & user happiness



#GIVEBACK | PROVISIONAL IA

HOME/LANDING	FIND A SERVICE	OUR PARTNERS/VOLUNTEERS	BECOME A PARTNER/VOLUNTEER	SIGN UP / SIGN IN
About the #GiveBack initiative	Service listing	Partner/volunteer listing	Partner/volunteer value proposition	Sign up
Find a service	Service sections	View a partner/volunteer	Link to sign up as a partner/volunteer	As a health care professional
Recommended services	Services	Get incontact with a partner / volunteer		As a partner/volunteer
				Sign in
Become a partner				Oigir III
	Rewards			
Donate to the initiative	View a service			
	View the partner/volunteer			





HEALTH CARE WORKER

Use services

- Doctors
- Nurses
- Specialists

Role needs

Wellness needs

Personal needs

NEEDS TO FULFILL

Primary needs

- Physical & psychological support
- Protection products and services to ensure they and their families are safe from Covid
- Sufficient tools & resources within hospitals, clinics etc.
- Sufficient staff within hospitals, clinics etc.

Secondary needs

Help with personal tasks/needs that healthcare workers can't get to doing or cannot afford.

For example:

- Grocery shopping
- Safe transport to work and back
- Picking up kids from school
- Cleaning the house/apartment
- Renewing driver's license
- Airtime or data to keep in contact with family & friends
- Etc.





TARGET ARCHETYPE 1

DOCTOR

Doctors sit within a high pressure role. Working long hours and risking themselves and their families to treat patients with Covid.

Their role is crucial in diagnosing illnesses, determining appropriate treatment and providing psychological support to patients and their families.

PROFILE AND DEMOGRAPHICS

Role Titles: Primary Care Physician / General Practitioner / Specialist Physician

Gender: Female & male

Family & Social Setting: Rural and urban contexts within state and private hospitals, private practices and clinics

Income: R239k - R1m/year (Average base salary for doctors in South Africa).

Education: Highly educated and experienced.

RESPONSIBILITIES, GOALS AND VALUES

Role & Responsibilities

Identifying and diagnosing medical problems. Prescribing appropriate medication or treatments. Treating patients of varying ages. Building relationships and providing support to patients and their families. Providing both health care and psychological support to patients and their families. Interpreting lab results. Providing care during treatment and follow up care to patients. Recommending or performing appropriate procedures. Provide counselling and health care education to patients.

Goals

Doctors strive to help their community through the execution of their role and make a difference in the day-to-day lives of patients by providing high quality medical care.

Values

Mastery, Strong Work Ethic, Empathy, Diligence, Ethics.

Motivations

Being a doctor is a vocation and passion for many. They find fulfilment and a sense of achievement when they successfully help patients on their journey to recovery. Family, community, and the desire to help people achieve a better quality of life through quality health care.

FEELINGS

Worries

Contracting covid or passing on covid to family and friends with possible mortal outcome. Losing more colleagues, patients and friends to the virus. Dwindling resources – skills (doctors, nurses, specialists), medical equipment (specifically ventilating equipment), beds in hospital, medication. There is an uncertainty of what to expect and how to face the next wave due to physical and mental burnout and exhaustion.

External Influences

There is a growing stigma and mistrust within communities fueled by fake news. The lack of infrastructure and access to clean water and electricity poses a crucial issue for most rural and state hospitals. Limited financial support from the government poses an issue when trying to pay salaries, keep hospitals equipped and staffed. Communities not taking precautionary measures (such as social distancing, wearing masks etc.) to avoid contracting Covid.

Needs

Access to sufficient tools and resources to provide quality care. Physical and spychological support. Protective measures to lower the risk of contracting Covid or spreading it to their families. Enablers to assist them in looking after themselves and their own families. To receive the same physical and psychological care they provide to their patients.

PAIN POINTS

Fears

Collapse of the health care front line. Collapsing under the immense pressure, stress and anxiety. Passing on Covid or losing family & friends. Making the wrong diagnosis or decisions that could greatly impact patients. Not being able to provide the right care to patients due to factors out of their control (limited resources, equipment and staff).

Frustrations

Inaccuracy of tests (lots of false negatives). Inaccuracy of reporting. Ignorance and fake news.

People who are still refusing to wear masks and ignorance around the practice of basic hygiene. Not being able to look after their own wellbeing. Lack of control over factors that impact their role, the rate of infection and their delivery of quality care to their patients. Variations in Covid symptoms and illnesses caused by it.

Challenges

Risks of interacting with covid patients or those not aware they have Covid on a day-to-day basis.

Required to make level-headed decisions when in dire need of psychological support. Limited resources, medical equipment and staff.

Sacrificing (and the expectation to sacrifice) their personal lives and time with their families. Inability to look after their own physical

Sacrificing (and the expectation to sacrifice) their personal lives and time with their families. Inability to look after their own physical and psychological well being. Burnout from long hours and caring for overwhelming numbers of patients worsening in peak periods of infection. Inaccurate Covid testing and reporting.





TARGET ARCHETYPE 2

NURSE

Nurses are the patient's primary health care and emotional support provider.

While doctors often specialize in one area, it has become the norm for nurses to be able to care for all aspects of the patient's overall health.

They work in an unpredictable space, requiring them to be highly adaptive, cool under pressure, skilled in critical thinking and most of all skilled in providing emotional supportive to their patients.

PROFILE AND DEMOGRAPHICS

Role Titles: Registered nurses / Nursing specialists.

Gender: Female & male.

Family & Social Setting: Rural and urban contexts within government and private hospitals, private practices and clinics.

Income: R136k - R355k / year (Average base salary for nurses in South Africa).

Education: Highly educated and experienced.

RESPONSIBILITIES, GOALS AND VALUES

Role & Responsibilities

Continuously monitoring vital signs and evaluating patients. Coordinating with multiple specialists. Physical exams. Taking detailed patient histories. Listening to patients and identifying their physical and emotional needs. Providing counselling and health care education to patients. Drawing blood, and performing other health-related testing. Building relationships and trust with patients and their families.

Goals

Nurses work hard to ensure that every patient receives the right amount of care and support to help them along their recovery journey.

Values

Empathy, Diligence, Hard work, Ethics.

Motivations

Many nurses are self motivated and driven by their sincere desire to help others. They sacrifice their own personal lives for the fulfilment of providing care and support to those who need it.

FEELINGS

Worries

Contracting covid or passing on covid to family and friends with possible mortal outcome. Losing more colleagues, patients and friends to the virus. Dwindling resources – skills (doctors, nurses, specialists), medical equipment (specifically ventilating equipment), beds in hospital, medication. Mental and physical exhaustion leading to an inability to provide care to their patients. Loss of control over factors that impact their ability to care and the recovery of patients. Monetary concerns over whether they can earn enough to support their families

External Influences

There is a growing stigma and mistrust within communities fueled by fake news. The lack of infrastructure and access to clean water and electricity poses a crucial issue for most rural and state hospitals. Limited financial support from the government poses an issue when trying to pay salaries, and keeping hospitals equipped and staffed. Communities not taking precautionary measures (such as social distancing, wearing masks etc) to avoid contracting Covid.

Needs

Access to sufficient tools and resources to provide quality care. Sufficient nursing staff to alleviate the strain of the ever increasing amount of patients. Physical and psychological support - To receive the same care they provide to their patients. Protective measures to lower the risk of contracting Covid or spreading it to their families. Enablers to assist in looking after their own families. Monetary support. Education, guidance and counselling when forced to take on roles they are not trained for.

PAIN POINTS

Fears

Inability to provide quality care when facing mental and physical exhaustion. Passing on Covid or losing family & friends to the disease. Collapsing under the pressure, stress and traumatic experiences of caring for patients with Covid.

Frustrations

Ignorance and fake news. People still refusing to wear masks and ignorance around the practice of basic hygiene. Not being able to look after their own wellbeing. Lack of control over factors that impact their role, the rate of infection and their delivery of quality care to their patients. Variations in Covid symptoms and illnesses caused by it. Handling panic and aggression from patients who are ill-informed, scared and isolated. Sacrificing their personal lives and time with their families. Overworked in an unpredictable, thankless job.

Challenges

Risks of interacting with covid patients or those not aware they have covid on a day to day basis.

Inability to care for their families from a monetary and time perspective. Inability to look after their own physical and psychological well being. Burnout from long hours and caring for increasing amounts of patients worsening in peak periods of infection. Having to take on nursing roles they are not sufficiently trained in to compensate for the limited nursing staff and increasing amount of patients. Insufficient or no access to facilities such as clean water and electricity.



#GIVEBACK | BASE FLOW



Feedback channels: Feedback on the platform and partners/volunteers





Esther is a 38-year-old primary care physician who works in a local community practice and day clinic.

She is married and has two children. Her youngest daughter was recently diagnosed with Attention Deficit Disorder which often weighs heavily on her mind

She deals with patients from all walks of life and works long hours to ensure her patients get quality care. She is overworked and stressed and feels isolated from her family - barely having the energy to look after herself and interact with her family.

During the pandemic, she's faced an overwhelming number of patients that increase during peak infection times or waves.

She has lost many colleagues and patients who she's built relationships with over many years to the virus, but there is no time for her to stop and grieve.

She's faced with impossible decisions every day that ultimately determine who lives and who dies in a high pressure, under-resourced and under-staffed environment.

She describes her 'new normal' emotional state as burned out, exhausted, emotional, irritable, with no energy, and she is expected to always remain calm and level-headed.



Esther needs help coping with the trauma of caring for patients with Covid or dealing with patients passing away from Covid and the high pressure, tense environment.



She hears about #GiveBack from a colleague and their experience of it.



Curious, she goes onto the site to find out what it's all about



Looking through the list of offerings she sees there is a psychologist offering sessions for free



Skeptical, she reads about what the sessions are and all about the psychologist



She clicks to sign up for the free sessions and is prompted to sign up for the portal



Esther has very little time in the week and needs to be on call for her patients so she sets up a digital appointment



the psychologist's

Esther is contacted by receptionist and is offered to set up an in person or digital appointment



She receives an email stating that the request for the sessions has been sent and when to expect a call shortly to set up her appointment



She lands on her dashboard where she can see she has been signed up for the free sessions.



She receives an email and clicks on the link to validate her email address and signs in.



She enters in details about herself, her role and the things she has been struggling with at work





After her sessions she starts feeling a lot better and well-equipped to handle the next Covid wave.





She is requested to provide feedback and provides feedback on the service received



While on break from a heavy morning, Esther receives an email notification on her phone with some service offerings she might find useful.



She scrolls through the email and comes across a volunteer in her area that is offering to cook dinners for a couple nights. This would help her greatly with dinners when she's working long nights.



Interested, she clicks on the link and is taken to the #GiveBack site and reads about the service and about the volunteer.



Happy and feels she can trust the volunteer she signs in and signs up for the service.



Some time passes and Esther is contacted by the volunteer. They discuss food preferences, dietary requirements and when would be the best time to deliver and how to contact the volunteer.



Relieved that her family is fed and her husband can take a break she can continues her shift with one less worry on her mind



Late afternoon the next day, While working a long shift in the evening, Esther is notified by the volunteer that the dinner was delivered to her family.





PARTNERS / VOLUNTEERS

Provide services

- Small to large companies
- Communities
- Professionals
- Individuals

Services Products Donations

Volunteering Guidance / advice

Rewards

ATTRACTING & MOTIVATING OUR PARTNERS/VOLUNTEERS

Gamification

Earning badges & awards for the quality of the services provided, frequency of volunteering or servicing activities, feedback of their services and participating in various volunteer work.

Bragging rights

Ability to share on Instagram, Facebook and Twitter the earned badges, services offered and feedback from health care workers.

Improved customer perception

By providing much needed services, products etc. to health care workers companies can use that to do good in the community and improve customer perception.

Tax incentives / ability to reclaim

The ability to reclaim the monetary spend on servicing health care workers.



#GIVEBACK | BASE FLOW





Company / individual is looking to help support the much needed frontline workers in the Covid- 19 pandemic.



Sees a post on a social media platform on the #GiveBack initiative.



Goes onto the site to find out what it's all about and how they can contribute.



Reads through the value proposition of becoming a partner/volunteer.



Decides to participate in the initiative and clicks to sign up.



Enters in details about the company / self and the service offering that will be provided.



Gets in contact with the health care worker to determine preferences etc.



Signs onto the site and views the request as well as the health care workers details.



Some time passes and the user is informed that a health care worker has requested to use their service offering.



Receives a second email detailing their approval and the service offering will be featured on the platform.



#GiveBack team receives the sign up request then vets and validates the user.



Receives an email stating they and the service offering is under review and the next steps.



The user/company delivers on the service offering and indicates on the site the completion of the service delivery.



Receives a badge or award on the site for delivering great service based on feedback received.



Chooses to share the achievement and / or service delivery on Facebook/Instagram/Twi tter



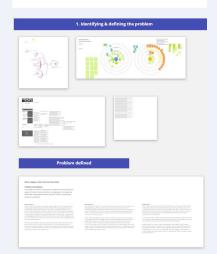
DESIGN PROCESS

DISCOVER

Performed primary desktop research into trends and factors impacting the sustainability of treating COVID. Secondary research interviewing healthcare workers provided additional insight into their reality.

DEFINE

Themed the insights from the research and defined opportunities through a series of workshops. Determined the opportunity underlying factors and refined the HMW statement to address a broad set of factors for maximum impact.



DEVELOP

Workshopped potential solutions with the team developing a solution landscape. Prioritised the solutions across dimensions of ability to execute, business viability, magnitude of and time to impact and sustainability.



DELIVER

Elaborated on top right quadrant solutions to iteratively refine the ideas and converge on the final solution. The next step will be to rapidly build an MVP and test in the market.





IMPACT ON SOCIETY

Supporting front line workers do cannot be viewed as a single event or wave concept. All front line workers continue to bear a higher burden of impact from health pandemics.

They put themselves directly in the path of the pandemic - and are expected to do so without question, while also dealing with lifestyle, family and other societal impacts imposed on the populations they form part of.

Solving for why people would remain engaged in these roles and activities hinges on how as a society we support and venerate these roles.

It is not simply reward through pay that would suffice, it is caring for and supporting these heroes and organisations at every level of society.

By sharing the load of support, recognition and veneration amongst communities, and organisations and industries in their environment, **there is no single pressure point of burden**, rather from individuals in simple acts of care and support through to major corporations providing broad based benefit, access or concessions.



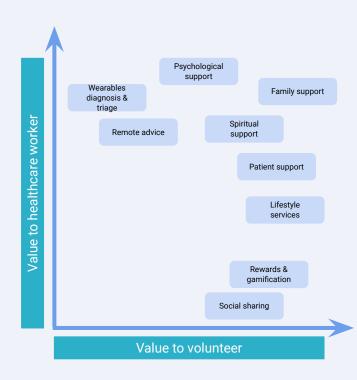


SUSTAINABILITY

By providing mental health support for healthcare workers and actively reducing their daily load, our solution will improve their mental and physical health and equip them to face the next wave.

Our solution provides value for all participants, an exceptional experience and speaks to the basic human needs of caring and being cared-for. By understanding these fundamentals, we address the emotions and core desires of the ecosystem participants creating sustainability on all dimensions.

The solution roadmap will extend into leveraging wearables and artificial intelligence video monitoring to manage patients with less severe COVID, escalating to human intervention when required. The continued increase in utility of the ecosystem will encourage ongoing engagement.





EXECUTION AND BUSINESS VIABILITY - AGILITY EMBEDDED

PLANNING AND ARCHITECTURE

User journey development Information architecture Interaction model Feature design Experience design Graphical design Backlog management Ongoing research INITIAL LAUNCH

DEVOPS

Development patterns and standards Backlog elaboration Development Copywriting Testing
Usability testing
Incident and problem management
Continuous delivery

Features identified for MVP launch:

- Healthcare worker registration
- Volunteer registration
- User verification
- Psychological support services
- Patient support services
- Family support services

RELEASE AND OPERATE

Marketing Social media System monitoring User support System maintenance
User management
Ratings management
Usage analysis and feedback

TEAM

The team of founders will be augmented with a development team till launch and then extended to include an operations team. User support and ratings management will be managed on a volunteer basis with only select roles being employed.

FUNDING

The initial development will be managed through the team of founders as a passion project with ongoing funding through corporate and individual donations post implementation. The company will be set up as an NPO enabling tax deductions for donations and leverage of corporate CSI initiatives.

