Equalize Health
(formerly D-Rev)

annual report 2020
We are Equalize Health. We create medical technology for everyone.

We believe in a world where we all have access to world-class medical treatment, no matter where we live.
This year we proudly re-introduced ourselves as Equalize Health. With our new name came a new look and a new mission: we create medical technology for everyone. Our new identity underlines our commitment to ensure that no matter where you live, you have equal access to world-class medical treatment.

This past year—a historic one in bringing healthcare to the front of the world’s collective conscience—has underscored, like never before, the urgent need for accessible medical technology that meets local needs in the local context.

Our Equalize Health 2030 strategy is built on the belief that by bringing a user-centered perspective we can close the gaps in the greatest health disparities that have only widened during the pandemic. We have proven that this is possible through an integrated, cross-sector collaborative approach. One where local needs and expertise are prioritized and are scaled globally. Addressing gaps at global scale requires a revolutionary end-to-end process focused on sustainable impact—from designing an elegant and reliable product and strengthening distribution to hard-to-reach clinics, to ensuring healthcare providers have the knowledge, spare parts, and skills to use it effectively.

Amidst the tragedy of the past year, we were fortunate to celebrate significant milestones with our new strategy. In late 2020, we surpassed treating one million patients with our medical devices. We also grew our team twice over, with most of our new colleagues based in India and East Africa. We established a new user and market intelligence “UQ” team dedicated to amplifying user voices in every facet of our work. Lastly, in response to COVID, we ramped up our tele-mentoring support for overburdened healthcare workers in India, increasing the number of healthcare workers trained 75x!

We are especially grateful to our partners and supporters who responded to the COVID-19 emergencies, allowing us to rapidly respond to clinicians’ needs to more effectively treat patients. Thank you to all of you for helping us reach over 1M patients with our world-class, affordable products and joining us on this journey as we seek to accelerate reaching the next five million in the next five years!

In health,

K. Donaldson

dear friends—
99% of devices sold to low- and middle-income countries

1,772 clinicians trained in COVID-focused tele-mentoring clinics

90% increase in EH staff in 2020

25+ potential products vetted by our New Product Development team

80% of Indian states and territories where Brilliance devices have been sold to date

4 time zones spanned by EH staff

1 million patients treated with Equalize Health devices

75 countries where Equalize Health products have been sold

10 research projects conducted by our User Intelligence (“UQ”) team

11 health-focused tele-mentoring clinics launched

32% of EH staff based in India and Kenya

16 hospitals in India where EH conducted usability interviews

10 new professional and governmental partnerships achieved through our tele-mentoring program

10,000 Brilliance devices sold through end of 2020

20 neonatal CPAP prototypes built

Brilliance devices sold to low- and middle-income countries

Of Indian states and territories where Brilliance devices have been sold to date

Brilliance devices sold through end of 2020

Neonatal CPAP prototypes built
In November 2020, we reached a monumental impact milestone. We surpassed 1 MILLION patients treated with our devices. When we think about impact at Equalize Health it is more than a number: we think about the families who have had a loved one survive and now thrive. We think about the communities with stronger, and healthier members. In thinking about scale, we also seek to strengthen local health systems for other treatments and tools, creating a virtuous cycle of user-driven impact.
to the many partners who enabled us to have this tremendous impact. We look forward to reaching the next millions of patients with you!

Reaching the Next Millions

With generous support from our partners, we were able to treat over one million patients through our integrated design and delivery model that prioritizes impact over everything else.

In 2020, we took this model and expanded on each stage as part of our Equalize Health 2030 strategy: to accelerate getting global health innovation to where it is needed most to save lives. Throughout this report, you will see how we’ve expanded on our model and how, in doing so, we expect to reach the next 5 million patients in half the time it took us to reach the first million.

We are committed to doing what it takes to equalize health not in our lifetime, but today.

thank you-

5 Million Patients by 2025

- 1M patients treated
- 2M patients treated
- 3M patients treated
- 4M patients treated
- 5M patients treated
identify—

We conduct research and partner with healthcare professionals around the world to identify the most critical needs in global health.
2020 made health disparities in global health abundantly clear. Our product development and user research (UQ) teams worked quickly with healthcare workers in South Asia and Sub-Saharan Africa to identify the most critical needs in both the short and long term.

Our research looked different in 2020, of course. When the world went into lockdown, hospitals saw an initial fall in patients, as they prepared for the influx of COVID-19 patients. During this brief window, doctors who in typical times wouldn’t have time to participate in interviews, were keen to engage with us. What was previously countless hospital visits, turned into hundreds of hours of phone calls and online meetings. As Gauri Singh, Commercial Manager states, “Our user research never stops, especially in a pandemic.” Through hundreds of interviews and conversations, our team identified what products local innovators are developing themselves, so that we could help accelerate getting high impact, high need products onto the market. There was also an overwhelming response from clinicians to use this time to educate themselves in specialized critical care and COVID-19 treatments.

In a year that was extremely reactive, we never took our eye off our long-term vision of bringing appropriate and sustainable products to market. Ongoing discussions with medtech partners ensured that our top identified opportunities for product development are commercially viable.
design—

We build on the most promising solutions we can find—and develop our own. At every stage, our design process is user obsessed.
CPAP (continuous positive airway pressure) is a proven technology for treating Respiratory Distress Syndrome (RDS), the leading cause of death in premature newborn babies globally.

CPAP for use on newborns has existed since 1971. But it is still not reaching the places—and people—that need it the most. There is still a huge disparity in survival rates of newborns with RDS. For example, less than 2% of newborns in the U.S. die from RDS, where in India the mortality rate is 20%.

We are in the late stage design phase of FlowLite: a neonatal CPAP device designed to ensure high-quality newborn RDS treatment is within most countries' capacity to implement and save more newborn babies' lives.
FlowLite’s Design Iterations

2020 was spent transforming the design of FlowLite based on user insights from Human Factors (usability) Testing conducted throughout 17 hospitals across India, Uganda, Rwanda, and Kenya. Over 80 doctors, nurses, and biomedical engineers interacted with our prototype and provided their feedback.

FlowLite Design Updates After Human Factors Testing:

- Made it compatible with O2 concentrators
- Improved portability (size and handle)
- Made it compatible with off-the-shelf humidifier chamber
- Increased screen size to accommodate more graphics and info
- Changed knobs in response to requests related to feel and “clicks”
- Added measures to prevent over-pressurization of baby’s lungs
- Added measures to prohibit increasing pressure if nasal prongs fall out of baby’s nose
- Device automatically detects blockages in the system
FlowLite & Oxygen: Designing for Variability in Resources

COVID-19 brought to light the issue of oxygen scarcity especially in low- and middle-income countries. We've seen in our user-research varying degrees of oxygen availability among types of hospitals and their locations. While we hope that oxygen availability won't always be a challenge, FlowLite is designed for a variety of oxygen sources or no oxygen at all.

FlowLite can be used with any oxygen source, ranging from a concentrator to central supply. When desired, it mixes room air with the oxygen to decrease the concentration of delivered oxygen. This is an important safety feature. Too much oxygen delivered through CPAP can cause blindness in newborn patients.
Engineering in the time of COVID-19

In 2020, Equalize Health tripled the size of our engineering team to add greater capacity to accelerate the design of our world-class, affordable products so we can get life-saving technology into the hands of healthcare workers faster. We now have in-house capacity in software, electrical, mechanical, design, and industrial engineering. However, local stay-at-home orders and supply chain disruptions presented our engineering team with numerous hurdles to overcome. Always ready to tackle a challenge, our team adapted quickly, with many creating labs and testing facilities in their own homes and with materials they had on hand.

“Engineering in the time of COVID-19

For the past year, my kitchen has consisted of a drawer of napkins, a drawer of silverware, and a drawer of CPAP. I literally built a CPAP into a drawer. What has been fun is that my family is more involved with my work. Usually there is no reason for my sister to be involved in engineering medical devices, but when it completely covers the dining room table they have to be involved.

-Robin Parrish
Senior Design Engineer

Everything feels scrappy. You just see what you have lying around the house. For example, I'll use this hanger to retool this part. One positive aspect is that some device testing takes really long. An upside is that I can set a test and go make dinner.”

-Tanner Shioshita, Mechanical Engineer

“Medical supplies are hard to receive at a home address. Why would someone need $600 USD worth of IV bags?”

-Dylan Guelig, Senior Design Engineer (IV Fluid Delivery)
innovate—

We conduct studies to adapt, improve, and innovate to ensure our products are effective in even the toughest of circumstances.
By the end of 2020, our early problem identification led us to several priority areas where there is a need for either re-design or new product development. One of these is postpartum hemorrhage.

Postpartum Hemorrhage

As healthcare systems became overwhelmed with the pandemic, 2020 threatened to reverse progress made in improving maternal health outcomes. As part of a global effort to prevent this from happening, our product development team identified an opportunity to partner with local maternal health innovator, Dr. Justus Hofmeyr, Obstetrics and Gynecology, University of Botswana. Dr. Hofmeyr developed an early concept of a postpartum hemorrhage (PPH) detection device to save mothers’ lives.

“Early diagnosis and treatment of hemorrhage after childbirth is a key factor in reducing the current high rates of maternal deaths from PPH in low-resource settings. Estimation of blood loss after birth is notoriously inaccurate.”

—Dr. Justus Hofmeyr, southern African OB-GYN
The Problem
PPH is commonly defined as the loss of >500mL of blood during childbirth. Up to 93% of cases are considered preventable, yet it is still the leading direct cause of maternal death worldwide.

The Innovation
The Blood Loss Monitoring Device is an objective, fast, and convenient way to quantify blood loss in real-time after childbirth to ensure timely diagnosis and treatment of PPH and improve maternal outcomes.

The Impact & Target Market
Of the 140 million births each year, more than 14 million will result in the mother bleeding too much. The Blood Loss Monitoring Device is designed to be globally relevant and in particular, create safe birthing experiences for mothers in regions with the highest rates of death from PPH, including Africa and South Asia. This innovation reflects an intentional focus where we aim to remove barriers to safe treatment and improve maternal health outcomes.
deliver—

We work with industry partners to deliver medical technology to hard to reach communities globally and ensure impact is driven by customer choice.
The need for a healthy ecosystem that facilitates delivery—and the continued usage—of medical technology is more vital than ever. We know the more sales we have, the more patients will receive life-saving treatment. But, we also recognize that real impact means thinking beyond the number of units sold. In 2020, we continued to link established world class brands with best-in-class manufacturing, and the most impact-driven in-country (local) distributors.

1M Patients Treated

Brilliance partner, Phoenix Medical Systems, was an early mover in the Make-in-India movement, which was aligned with our commitment to India-made for India and export. A leader in manufacturing and sales of maternal and newborn care products, they proved to be the right partner at the right time. By the end of 2020, Brilliance had treated more than one million patients and had been sold in 63 countries.
Impact-Driven Distribution

In 2020, we meticulously searched for partnership-oriented, impact-motivated, local distributors. Together, with partners like Joint Medical Store (JMS) in Uganda, we worked to deliver constantly improved training, service, maintenance, and consultative sales. Like us, JMS focuses on correct and continued usage, not just sales. We stood beside our distributors for marketing campaigns. We fed them sales leads. We conducted monitoring and evaluation and we assessed impact well beyond the sale of a device.
scale—

We scale through the market so that impact will be sustainable.
We were using incorrect drug doses on babies in our NICU. After the training I informed our doctor in charge and we were able to correct it.

-Nurse from Chhattisgarh, India

In 2020, we responded to the many additional challenges to scale that the pandemic brought with it. Shortages of supplies and an overburdened healthcare workforce, meant that any approach to scale had to include:

1. upskilling doctors and nurses so that they were prepared to leverage the technology that was available to them

2. increasing levels of maintenance of and training on vital medical products that were already in health facilities so that they could be used to their full potential

Tele-Mentoring Clinics Surged in India

At the start of the pandemic, demand for our Telementoring Clinics increased at a rate we could not have thought possible. As COVID cases began to increase and India went into lockdown, health ministries and professional associations turned to Equalize Health to provide new ways of training and supporting doctors and nurses suddenly managing new responsibilities.
Equalize Health Telementoring: 2020 scaling snapshot

Attendance grew from 31 to 1,722 participants.

Each treating an average of 27 patients per week—
an estimated reach of 130,000+ patients in 2020 alone.

Participating healthcare workers grew from representing 2 to 27 Indian states.

Offered 2x as many sessions on new topics:
- Post Natal Systemic Steroids
- Family Counseling for Babies with Respiratory Distress Syndrome
- Prevention of Ventilator Associated Pneumonia
- Caring for a Ventilated Patient
- Kangaroo Mother Care
- Much more!

to our donors who provided COVID-specific support to Equalize Health.
Without you, we would not have been able to respond to this need and others caused by the pandemic so quickly.

Thank you—
We believe the global health sector should be using and optimizing the existing market mechanisms to scale life-saving technology to the people who need it the most. MedTech has strong distribution channels but they are not incentivized to serve low-resourced areas because they don’t see it as profitable.

In 2020, Equalize Health built our capacity (via our in-market teams) to partner with established Medtech companies and facilitate the introduction of their brand to customers traditionally overlooked by for-profit companies. In doing so, we are building toward a partnership model that leverages the best of Equalize Health’s expertise designing and delivering medical technology in low- and middle-income countries with the leaders in global medtech commercialization. Together, we optimize and expand the good that is already there.

Leveraging MedTech for Global Health Innovation Scaling

We are forging a new model in global health—one that seeks to overlay impact-focused technology with global medtech companies. Together, we will sustainably extend the reach of life-saving technologies to populations who typically don’t have access to them. Equalize Health is positioned to become the partner of choice for MedTechs seeking to serve larger, underserved market segments while achieving important social goals.

– Daniel Wald, Chief Growth Officer

How we partner with MedTech to sustainably reach the hardest to reach patients:

- Design world-class, affordable medical technology appropriate for use in even the toughest of circumstances
- Partner with global MedTech companies to build and implement user centered sales and service channels, prioritizing hard to reach patients in traditionally under-served markets
- Use design-thinking to provide support services to strengthen device adoption and effective use of our products
- Fully transfer our products to the MedTech partner once they are scaling sustainably
Introducing UQ at Equalize Health

Equalize Health has formally launched our UQ (short for user and market intelligence) team! UQ leads Equalize Health’s in-market user-centered market research. UQ team members have expertise in human-centered design, biodesign, clinical testing, policy, market research, and impact assessment. Based in Delhi and Nairobi—and with plans to expand to other high-impact regions—UQ oversees regional data collection to inform organization-wide decision-making.

UQ is a cross-functional, continually-running engine for amplifying the user voice which leads Equalize Health’s projects, business model formation, and scaling strategy. UQ thoroughly understands the local markets and actors, such as Ministries of Health, medical associations, subject matter experts, and other local stakeholders.

Equalize Health’s UQ teams found that in India, most NICUs have inconsistent wall oxygen, whereas in Uganda, oxygen is still largely supplied by tanks (if at all). This information along with plans to increase oxygen availability in these regions indicated to the CPAP team that the highest impact devices need to work for a range of scenarios, as when there is no oxygen availability.

“The power in having UQ in multiple geographical locations is that we are able to solve for problems at global scale. UQ teams can compare findings to understand variance in requirements and constraints to make informed trade-offs.”

—Krista Donaldson, CEO
measure—

We measure beyond units sold to understand the health impact of our interventions.
Equalize Health takes measuring our impact seriously. At every stage of our process, we factor in our projected impact and make our decisions based on how we can achieve the highest positive impact on healthcare worker and patient lives.

In the early stages of our process, we balance global disease burden data with the needs we’re hearing from clinicians to narrow down the health areas that we will explore.

After we have a proposed intervention, we model projected costs and impact across different segments and geographies. This modeling informs not only individual product strategies, but the strategy across our portfolio of products.

The most satisfying part of measuring our impact is taking what we’ve learned through our monitoring and evaluation and applying those insights to new projects. Over time, we’re getting smarter and better at what we do.

— Sara Tollefson, Director of Impact
We recruit third-party researchers to rigorously study the impact of our devices on quality of care and patient health, and use what we learn to keep improving.

Once we know what product we will launch, we work with our commercial and UQ teams to gather related baseline market and clinical data that enables us to measure progress in closing gaps in device coverage and product quality. After market launch, we monitor sales, installations, and usage to update our impact estimates and strategies based on what we learn.

How we do it

Many of EH’s new devices will be “connected devices”—designed to provide us with real-time usage data that will help us understand our impact better and faster. Even EH products that are in use in the most rural areas will be able to transmit data about when they are being used and how, when a device is not functioning properly, or not being used at all. This information will allow us to solve problems quickly and constantly innovate to improve our devices so we can save more lives.

Brilliance Impact Study, authored by researchers at Stanford, UC Merced, and the University Teaching Hospital of Kigali (CHUK) in Rwanda and published in 2020, found significant improvement in the quality of care provided by hospitals that received Brilliance devices compared to control hospitals. The study documented ongoing lack of diagnostic capacity, however—a finding that will inform our product development priorities.
**Total Revenue 2020**

- $3.8m

**Total Expenses 2020**

- $3.0m

### Revenue by Source
- Foundations
- Bilateral
- Individuals
- Other

### Expenses by Allocation
- Programs
- Operations
- Fundraising
- NPD (CPAP + new products)
- Newborn health

### Program Allocation
- NPD (CPAP + new products)
- Newborn health

**Partners—**
- Academy Of Pediatrics, Gujarat
- Academy of Pediatrics, Uttar Pradesh
- Academy of Pediatrics and National Neonatology Forum, Punjab
- Autodesk Foundation
- Bill & Melinda Gates Foundation
- CRI Foundation
- Dartmouth College
- Department of Child Health, Chhattisgarh Government
- DHL
- Draper Richards Kaplan Foundation
- DRK Foundation
- Fidelity Investments
- Grand Challenges Canada
- GLG
- Himalayan Institute of Medical Sciences
- Independent Medical Practitioners from UP and MP
- India Academy of Pediatrics, Uttar Pradesh
- India Academy of Pediatrics, West Bengal
- Joint Medical Store
- Kangaroo Mother Care Foundation
- Mulago Foundation
- National Neonatology Forum
- New Opportunities Foundation
- National Neonatology Forum, Delhi Chapter
- Nursing College, AIIMS, Delhi
- PATH-India
- Peery Foundation
- Phoenix Medical Systems
- Ping and Amy Chao Foundation
- Project ECHO
- Risk Pool Fund
- ROMP: Range of Motion Project
- Rwanda Ministry of Health
- Rwanda Paediatrics Association
- Society of Pediatric Intensive Care, Kolkata
- Stanford University School of Medicine
- Syrma Technology: Electronics Manufacturing Services
- The Ray and Tye Noorda Foundation
- Transparent Fish Fund
- UNICEF, Chhattisgarh
- Vitol Foundation
- West Bengal Academy of Pediatrics
our dedicated team—
“We long to return to normal, but normal led to this.

To avert the future pandemics we know are coming, we MUST grapple with all the ways normal failed us. We have to build something better.”

—Ed Yong, The Atlantic