D-Rev believes that good health is a human right. The need for quality healthcare spans the economic spectrum. Regardless of where you are from and what you do, health is critical to wellbeing, productivity, and autonomy. For people to live their best lives, they must be healthy.

We exist to design and deliver solutions that close the quality healthcare gap for underserved populations.
Dear Friends,

D-Rev made excellent progress this year—increasing our impact by 50% over 2016—with the goal of closing healthcare gaps globally. In 2017, we also took time to reflect on organizational strategy, the exciting progress in the social sector, and how we can further build on D-Rev's model to amplify our positive impact with the people who most need it.

We resolved to expand D-Rev's product portfolio to four health areas over the next three years, demonstrating our repeatable model that delivers world-class, disruptive innovation that saves and improves lives.

We see the future of D-Rev as transforming the face of the Neonatal Intensive Care Unit. This vision was the result of articulated needs of medical professionals across D-Rev's target geographies. It also led to the selection of our two additional issue areas: respiratory support and newborn nutrition, both leading causes of infant prematurity-related mortality. In addition to prototyping novel approaches to respiratory support, we have identified key aspects of lactation support and breastmilk gathering and storage that can be strengthened with a user-centered design lens.

We believe even small changes can have outsized results in improving health outcomes for mothers and children.

Innovations only become solutions once they create impact. With support from USAID’s Development Innovation Ventures this year, we started testing how to strengthen health delivery channels that serve high-need populations. Our Expanding and Strengthening Program (ESP) allowed us to build greater presence in India and East Africa and test approaches that leverage the market for scale. By year end, our products were sold in 62 countries, and we expect to continue to scale.

As we look forward and grow, we continue to remain true to our roots. Displaying our commitment to the design process, we continue to iterate on our past successes. We are motivated by all the exciting work and recognition we received in 2017 and are entering 2018 strong and inspired, determined to shift what is possible in healthcare.

In gratitude,

Krista Donaldson

Photo credit: Sara Severns
2017 D-Rev By The Numbers

317,300
Babies who would not have otherwise received effective treatment

5
Medical devices launched

375,000+
Patients treated

62
Countries with D-Rev products

$26
Per DALY averted
Cost effectiveness to D-Rev donors

1.0M
Patients we project our products will treat by the end of 2020

18
D-Rev staff in India and the US
(We also leverage our partners well!)

12
Scientific, business, and impact advisors
(Thank you!)

6+1
Board members
Observer

$2.05M
Annual budget

317,300
BABIES WHO WOULD NOT HAVE OTHERWISE RECEIVED EFFECTIVE TREATMENT

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Medical devices launched

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(Thank you!)

$2.05M
Annual budget

3
New products in development

6+1
Board members
Observer

20+
Innovations D-Rev was approached to take over, develop, and/or scale by other organizations in 2017

5
Medical devices launched

375,000+
PATIENTS TREATED

62
COUNTRIES WITH D-REV PRODUCTS

$26
Per DALY averted
Cost effectiveness to D-Rev donors

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$2.05M
Annual budget

3
New products in development
• Partners in Health placed their 8th order of Brilliance this year—for a hospital in Haiti. Previous orders have been in Malawi, Liberia, and Sierra Leone.

• Clinics in Guatemala and Ecuador run by the Range of Motion project represent over one-third of ReMotion fittings.

• Guatemala and Peru were among the top 5 countries in the world by unit sales of Brilliance this year.

• In 2017, D-Rev sold ReMotion to customers in 4 US states: California, New Jersey, Louisiana, and Texas, and one Canadian province, British Columbia.

• By early 2018, all of Rwandan public referral hospitals will be using Brilliances. The Rwandan Pediatric Association and UC-Merced kicked off an assessment of the program this year.

• D-Rev was one of six DFID/IDEO Mobility Open Challenge winners. As part of that work, we are characterizing delivery challenges faced by prosthetists in South Africa, Nigeria, and Kenya.

• D-Rev kicked off a partnership and study with One Heart Worldwide in Nepal to supply Brilliances to 30 hospitals (29 of which are government hospitals) in 26 districts.

• D-Rev partnered with Exceed, a highly respected prosthetics organization, to serve amputees in Cambodia with ReMotion Knees.

• One of our first Brilliance orders of 2017 was a 119-unit order to equip 14 public hospitals throughout the Indian state of Orissa. One of the last Brilliance orders of the year, was 48 units to public hospitals in Maharashtra state.

• Over half of D-Rev’s ReMotion Knee sales in 2017 were in India.
Focus on Newborn Health

The need for new solutions.

At D-Rev, we believe everyone should have the chance to survive and thrive, especially humanity’s smallest and most vulnerable. That’s why we are turning our focus to newborn health.

We do this by closing health gaps and by changing the markets.

Kemigabo Grace, 34, holds her newborn while her mother admires besides them in the Kibiito Health Center 4 Maternity Ward, Western Uganda. This yet to be named baby boy is Kemigabo’s ninth child.

Photo credit: Sara Severns
We design solutions for people, for markets, and for impact. We measure impact throughout.

D-Rev's Proven Model of User-Centric Design

IDENTIFY
Identify key priority health problems that disproportionately affect low-income populations.

SCALE
Scale the solution globally, wherever it is needed—shaping markets and systems so other options are now also available to target users.

DESIGN
Design solutions working with users and partners, testing and iterating, for mass production.

DELIVER
Deliver the solution, addressing gaps that prevent the product from reaching the people who need it and will use it.

We see the design process as cyclical. We are continuously integrating new learning into our work.
How do we design for delivery, ensuring that our products reach the hospitals and patients that most need them?

We design for delivery from the earliest stages of product development, vetting potential partners. For example, we ask doctors and nurses "Which companies are reliable?" “Which distributors respond quickly when you have a servicing problem?” Great partners are key to our approach, and part of this work is ensuring motivation alignment.

D-Rev’s delivery model is based on how we can best serve our target facilities: referral hospitals and clinics serving low-income populations—everywhere the product is needed.

All of our products are designed to scale sustainably via the market—meaning that although our devices are radically affordable, they must be priced to include margins for manufacturing, distribution, marketing, and sales. We believe this approach, compared to traditional aid models, holds us accountable to our users.

Licensed manufacturing, sales, and distribution: D-Rev partners with an established company to manage manufacturing, sales, and distribution to customers and resellers.

Contract manufacturing: D-Rev manages a contract manufacturer

Direct sales: D-Rev sells directly to customers and distributors.

Contract distribution: D-Rev contracts with logistics companies for warehousing, inventory management, shipping, and customs clearance

Feedback from users is integrated into impact assessments, sales and distribution strategies, and future design work.

Products are delivered to health facilities, where they are put into use.
Newborn Respiratory Distress

A smart CPAP to help premature babies breathe.

The Need: Newborn respiratory distress affects over 2 million newborn babies per year and results in nearly 100% mortality if left untreated. Continuous positive air pressure (CPAP) increases survival rates for these babies by 50%, but high costs prevent clinicians in under-resourced markets from accessing these devices.

CPAP and other advanced therapies have revolutionized treatment in high-income regions, but India, for example, lags.

| 20% mortality | <2% mortality |

The Solution: D-Rev is designing a next generation CPAP device that leverages advances in medical research and sensor technology to provide superior respiratory support while lessening the burden on already thinly-stretched Neonatal Intensive Care Unit (NICU) and Special Neonatal Care Unit (SNCU) nursing staff. Our user-centered design includes the responsive technology hardworking clinicians need to save lives. In recognizing and designing for every day challenges, we will end the impossible dilemmas nurses have reported to us that they face every day: deciding to care for one baby at the cost of ignoring another.

Launch date: 2020.
Newborn Nutrition

Helping babies get the milk they need.

The Need: The spread of infection is a major challenge in low-resource hospitals and can lead to a baby’s death or disability. Human breast milk prevents infection in a way that other food sources cannot, helping a newborn’s digestive system to colonize healthy bacteria. **Exclusive breastfeeding in the first months of life can save over 800,000 babies globally each year.** However, some babies—specifically those in neonatal intensive care units (NICUs)—lack access to their mother’s milk due to being orphaned, maternal sickness, or low milk supply.

Pneumonia, diarrhea, and sepsis are together responsible for almost one-third of all under-5 deaths.

These and other common infectious diseases are the leading causes of death among children under 5.

The Solution: D-Rev is developing a suite of technological solutions to support lactation and breast milk banking in under-resourced environments.

“Nutrition is the next frontier in improving mortality.”
– doctor at medical college in India
Neonatal Jaundice

The Need: Treating neonatal jaundice in its early stages means that no baby will suffer from complications like brain damage or death. Yet over 6 million babies every year do not receive adequate treatment. Many of these children live in low-income regions, where access to quality phototherapy is inadequate.

The Solution: In response, D-Rev developed Brilliance, an affordable quality phototherapy device for resource-poor hospitals. While performing on-par with high-quality phototherapy products in the market, it sells at a fraction of the competitors’ cost and can last for up to 20 years.

"After we received the Brilliance phototherapy units, baby deaths from jaundice dropped to zero."

– Dr. Winsome Scott, head pediatrician at the largest public hospital in Guyana
Brilliance
Phototherapy

To date, 374,400 newborns have been treated by D-Rev’s Brilliance devices in over 20 countries, almost all low-or middle-income. We estimate that over 80% of these children would not otherwise have received effective treatment.

We count devices toward our impact estimates only once we have confirmed their installation (date turned on, location, serial number). To calculate the numbers in our Impact Dashboard, we use an algorithm based on sampled “lamp hours”, the hospitals’ profiles, and medical literature.
Mobility

**The Need:** About 30 million amputees in low-income countries require prosthetic care. Many of them have daily activities involving complex movements, such as squatting, crossing their legs, and kneeling for prayers. However, 80% do not have access to modern quality devices.

**The Solution:** To address this deficiency, D-Rev launched ReMotion Knee, a top-of-the-line prosthetic knee tailored to support active amputees.

Agung Putra, a construction worker who lost his leg due to a motorcycle accident, wears his ReMotion Knee while going through his daily routine, including offering prayers, in Bali, Indonesia.
ReMotion Polycentric Knee

D-Rev’s ReMotion Knee launched globally in August 2017, and quickly scaled to 28 countries. We seek to remobilize amputees by addressing the gap in the availability of a quality prosthetic knee. Many of these patients are young people under the age of 25 years.

We won the IDEO Amplify Disabilities Challenge, funded by the UK Department for International Development, for our work on the ReMotion Knee. This collaboration with IDEO will support a new version of the ReMotion Knee that improves on current users’ experience, addressing their needs even better.
D-Rev’s
Experimental Sales Laboratory

Delivery is a key challenge for all global health solutions.

As part of our Experimental Sales Laboratory we are testing new ways innovative solutions can have greater impact in high-need markets. Five Business Development Executives were hired in India to execute what we call the Brilliance Enhancing and Strengthening Program (ESP) supported by USAID’s Development Innovation Ventures (DIV) program.

In 2017, using Brilliance as a test case, we started in the Indian states of Uttar Pradesh, Madhya Pradesh, and Bihar. These states represent nearly 10% of the world’s births and have among the highest infant mortality in the world. In 2018, you will see us move into East Africa to similarly test innovative delivery solutions.
As part of our Experimental Sales Laboratory program we are testing:

- **Supporting clinician education and empowerment:** We believe more doctors will provide quality treatment when they are linked with specialists. We are offering them free continuing medical education, and visiting frequently to build our partnerships in managing newborn health.

- **Design thinking meet sales:** Like our product design approach, we are testing user-centric sales approach, prioritizing listening and discovery over talking and pitching.

- **Reinventing distributor relationships:** We aim to rewrite the playbook for distributor “management” and usher in a new generation of impact-oriented value chains in our sector.

- **Overcoming financial barriers creatively:** We are piloting a new financial paradigm for small clinics to acquire life-saving medical devices by designing de-risking lease programs with incentives for usage.

- **Going where others haven’t gone before:** We are charting new ground for medical device distribution, focusing our sales in underserved communities and scaling what works best across products and sectors.

We are grateful to USAID’s Development Innovation Ventures program for supporting this work.
Measuring Our Impact

In 2017, two third-party assessments of D-Rev’s work launched: (1) an assessment of Brilliance in Rwandan public hospitals (2) a case-based evaluation of Brilliance in Eastern Nepal as part of a partnership with One Heart Worldwide.

“We are driven by impact. We will serve millions of people.”
– D-Rev’s first core value

Photo credit: Sara Severns
We Had an Impact Audit

In 2017, ImpactMatters, an organization that audits nonprofit programs to help donors know how to be most effective in their giving, conducted an independent audit on our 2013-2015 impact relative to expenses. D-Rev scored very well! We were the smallest organization they had audited to date (in terms of staff and revenue), and we were rigorously judged in the most advanced stage of nonprofit development, “scaling.”

ImpactMatters rates D-Rev as “Very cost-effective” in India (our primary market).

<table>
<thead>
<tr>
<th>System cost effectiveness = $550 per DALY averted</th>
<th>Cost effectiveness to D-Rev’s donors = $26 per DALY averted</th>
</tr>
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Because D-Rev leverages the market to scale products, our cost effectiveness continues to improve over time.

Disability-Adjusted Life Year (DALY): One DALY can be thought of as one lost year of “healthy” life due to ill-health, disability or early death. A DALY’s can be defined as measurement of the gap between current health status and an ideal health situation. The current life expectancy in the region is the benchmark.

At $500/DALY averted (less than half of annual GOP), D-Rev is “very cost-effective.”

The World Health Organization CHOICE model sets thresholds based on the GOP per capita for a country. While above we show our cost effectiveness for India, our primary market, D-Rev is “very cost-effective” or “cost-effective” for all countries.

Photo credit: Sara Severns
“D-Rev has successfully built an R&D machine that is in constant motion and is meticulous enough to weed out interventions that are unfit for competitive markets and medical use...To achieve its strategic goal of becoming a portfolio "medtech" organization with a range of devices under its belt, D-Rev would do well to maintain and even scale up its excellent research and development.”

– ImpactMatters, 2017
ImpactMatters concluded that D-Rev is a lean, dedicated team, successfully leveraging limited resources to breathe impact global scale.

As a direct result of these findings, D-Rev was chosen as a favorite 2017 charity by Peter Singer’s organization, The Life You Can Save, and featured in its network of highly effective nonprofits. Peter Singer is the "father" of the Effective Altruism movement, which uses evidence to determine the most effective ways to benefit others.
2017 Financials

Total Revenue

$2.03M  $1.7M
2017  2016

Total Expenses

$1.84M  $1.5M
2017  2016

D-Rev undergoes an annual financial audit.

Revenue by source

- Foundations
- Earned Revenue
- Individuals
- Bilateral

Our support from bilateral donors doubled in 2017 with a grant from USAID Development Innovation Ventures for our Experimental Sales Laboratory in India and East Africa.

Expenses Allocation

- Program
- Fund Development
- Administration

In 2017, our Fund Dev costs slightly increased with the hiring of Andrea, our Director of Development. Our Admin costs decreased although we continue to build the necessary systems for growth, new projects, and our India-based team.

Program Allocation

- Mobility
- New Product Development (NPD)
- Bilateral
- Newborn Health

For the second year in a row, we more than doubled our investment in New Product Development (NPD).
Our Partners
Our Team

KRISTA DONALDSON
CEO

AJ VIOLA
Director of Operations & Strategy

AMIT VERMA
Business Development Executive

ANDREA COEN
Director of Development

CASEY TRUBO
Senior Product Development Engineer

CONNIE NG
Studio Coordinator

DANIEL WALD
Director of Sales

DANISH ULLAH FAROOQUI
Business Development Executive

DHEERAJ KUMAR MISHRA
Business Development Executive

DINA TO
Donor Relations Manager

KELLY BLANK
Graphic Designer

MAYANK BHUTANI
Business Development Executive

PARMINDER SINGH
India Country Manager

ROBIN PARRISH
Design Engineer

SARA TOLLEFSON
Director of Impact

SHAELEE HUCK
ReMotion Sales & Marketing Associate

VINESH NARAYAN
Director of New Product Development

VIPIN TYAGI
Business Development Executive

DINA TO
Donor Relations Manager
“It is my aspiration that health finally will be seen not as a blessing to be wished for, but as a human right to be fought for.”
—United Nations Secretary-General, Kofi Annan