



**MEDTRONIC
LABS**

**MEDTRONIC
LABS
FY19
IMPACT
REPORT**

MEDTRONIC LABS

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Minneapolis, MN 55432, USA

www.medtronic.com/medtroniclabs

An aerial photograph of a densely packed village built on a steep hillside. The houses are colorful and built closely together. A network of white dots connected by thin lines is overlaid on the left side of the image, suggesting a digital or technological theme. In the background, a mountain range is visible under a clear sky.

MEDTRONIC
LABS

BUSINESS INNOVATIONS FOR GLOBAL HEALTH

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ABOUT US

At Medtronic LABS, our mission is to expand access to healthcare for underserved patients, families and communities across the world. We do this by designing, building and scaling technology-enabled healthcare delivery models that address critical barriers across the care continuum. To amplify our impact and reach scale, we partner with local tech entrepreneurs, healthcare providers, NGOs, governments and other stakeholders. All of our models are built with financial sustainability at their core, ensuring that our impact – our ultimate measure of success – continues for generations to come. Medtronic LABS has already expanded access for over half a million people and treated over sixteen thousand patients throughout South Asia and Africa. Our work is just beginning.

A MESSAGE FROM OUR TEAM

DEAR FRIENDS,

As we highlight our successes and impact at Medtronic LABS over the past year and set the stage for an even greater future, we want to take a moment to reflect on the journey that brought us here.

It all began with a challenge from Omar Ishrak, the CEO of Medtronic, in 2012. He asked us: how might we leverage Medtronic's technical expertise, operational footprint and global platform to expand access to healthcare for the 5 billion 'underserved' patients across the world?

Over the ensuing years, dedicated employees across the company spent countless hours on the ground across South America, Africa and Asia to understand the barriers to access, awareness, availability and affordability.

It is through this process of discovery, experimentation, failure and iteration that we have reached this critical stage in our journey at Medtronic LABS.

Today, our social ventures in India, Kenya and Ghana have already touched half a million lives and are set to grow exponentially. Our pipeline is stronger than ever and we plan to launch several new ventures over the next fiscal year. We have built a world-class team and are making significant investments to strengthen our core competencies. To facilitate our continued growth and flexibility, we have made the decision to incorporate Medtronic LABS as a public benefits corporation. Our transition to this new legal entity will be finalized in early FY20.

We would like to extend our sincerest gratitude to our passionate team of volunteers, supporters, advisors and partners – you make it all possible! We are depending on you as FY20 brings us new challenges and opportunities as we work towards our goal to impact 10 million lives over the next decade.

WITH GRATITUDE,

MEDTRONIC
LABS



OUR PLEDGE TO THE GLOBAL HEALTH COMMUNITY

At Medtronic LABS, we believe that healthcare is a human right. Since the 1978 Alma Ata declaration, the global health community has recognized primary healthcare as critical to achieving health for all. Since then, we have seen global frameworks and goals reaffirm and strengthen this declaration, from the publication of the WHO Model Lists of Essential Medicines to the UN Millennium Development Goals. Together, major progress has been made towards improving the efficiency and effectiveness of health systems around the world. But we have a long way to go. Today, as traditional funding contracts, as disease burdens rise and as demographics shift, private sector participation in the global health community is more important than ever. Medtronic LABS is committed to doing our part as we work together towards the UN Sustainable Development Goals and ultimately make the right to healthcare a reality for all.

OUR VISION



NCDs

KILL MORE PEOPLE
THAN COMMUNICABLE
DISEASES

2/3

OF ALL DEATHS IN LMIC
ARE DUE TO NCDS

1%

OF HEALTHCARE
SPENDING GOES
TOWARDS NCD CARE

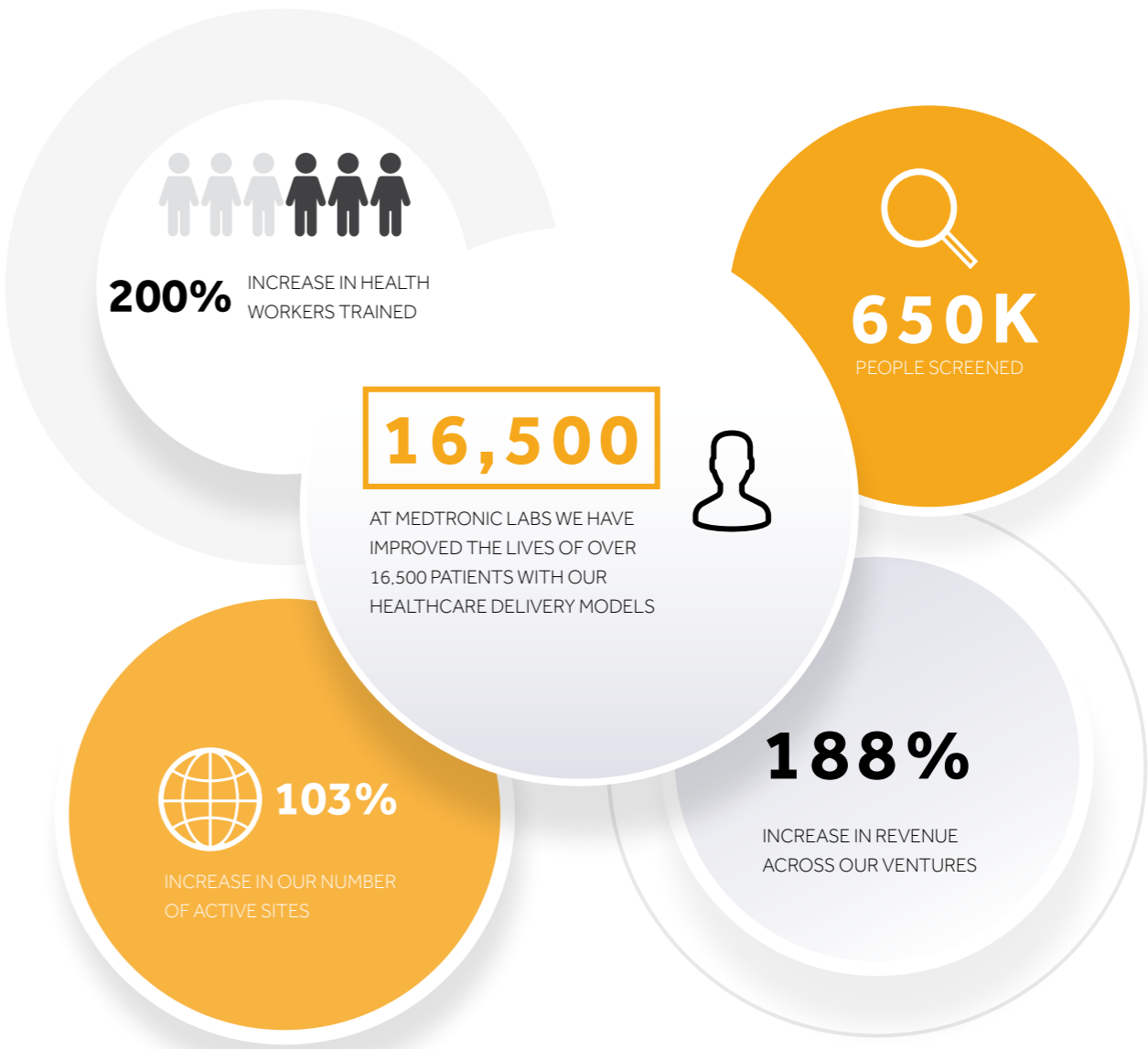


10M

OUR GOAL IS TO
IMPROVE THE
LIVES OF MORE
THAN 10 MILLION
PEOPLE LIVING
WITH NCDS

We envision a world where all people – no matter the circumstance of birth or station – can live a healthy life, free of chronic disease. For the first time, noncommunicable diseases, or NCDs, kill more people than communicable diseases. In low and middle-income countries (LMIC), two thirds of all deaths are due to NCDs, and yet, only 1% of health spending goes towards NCD care. In this equation, it is the poor and the vulnerable who suffer disproportionately. At Medtronic LABS, we are changing this narrative. Over the next decade, our goal is to reduce the burden of NCDs and move the needle on the UN's Sustainable Development Goals by improving the lives of more than 10 million people. To achieve this, we believe that we need a fundamentally new approach to healthcare delivery.

FY19 ANNUAL REPORT AT A GLANCE

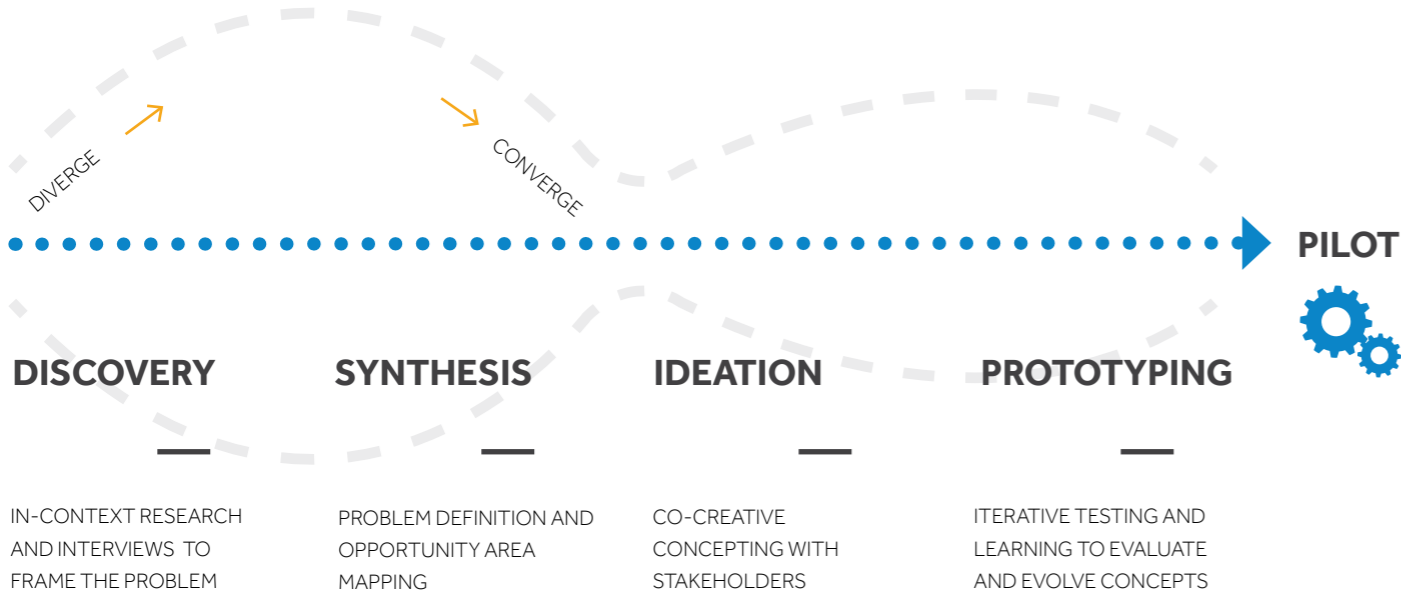


IMPACT	TEAM	OPERATIONS	FINANCE
We have screened over 650,000 people and treated or managed over 16,500.	Medtronic LABS has 57 employees, and we continue to expand our health workforce.	We have 65 sites and continue to drive efficiency, with a 55% improvement in FY19.	Our FY19 revenue was approximately \$300K, a 188% increase over FY18.



OUR APPROACH

We take a design-led approach to developing our healthcare delivery models, co-creating our ventures with local stakeholders and communities. From our early in-context discovery through to our commercial launch we continually evolve our models to better achieve clinical and social outcomes for our patients.



OUR SOLUTIONS ARE BUILT UPON FIVE PRINCIPLES



First, we design with and for communities to address local barriers across the care continuum.



Second, we employ evidence-based practices and protocols for uncompromising clinical excellence.



Third, we address the social determinants at the root of poor health.



Fourth, we integrate digital and product technologies for high-tech, high-touch models of care.



Fifth, we innovate operational models that enable efficiency at scale.

OUR TEAM

At Medtronic LABS we know that our strength is in our diversity. We take seriously the notion that our team should reflect and represent the diversity of the patients, families and communities we serve.

OUR LEADERSHIP

BUILDING ANTIDISCIPLINARY EXPERTISE

Designing, building and scaling technology-enabled healthcare delivery models requires a team that can operate at the intersection of seemingly disparate fields. Our Leadership Team brings together diversity of expertise, including technology, design, operations, global health, finance, public policy, and philosophy, among others.

COMMITMENT TO DIVERSITY

In FY19, we have continued to shift our center of gravity to the regions where we work: Kenya, Ghana, and South Asia. We are committed to expanding our local presence in FY20.



OF OUR EMPLOYEES ARE BASED REGIONALLY



OF THE LEADERSHIP TEAM IS FROM OUR REGIONS

57 EMPLOYEES



30 %

OF OUR EMPLOYEES IDENTIFY AS FEMALE



RUCHIKA SINGHAL
HEAD OF MEDTRONIC LABS

CHEMU LANG'AT
AFRICA REGION

KAUSTUBH BHATNAGAR
SOUTH ASIA REGION

HAL BECKHAM
FINANCE

ANNE STAKE
STRATEGY & INNOVATION

MOLLY GUY
IMPACT & POLICY

KANNAN KASE
PORTFOLIO

EMPOWER HEALTH

EFFICIENT AND EFFECTIVE CHRONIC DISEASE MANAGEMENT

Empower is a technology-enabled model of care that allows clinicians and providers to manage a cohort of hypertensive or diabetic patients remotely. It extends the reach of the health system directly into the community, improving both the efficiency and effectiveness of care.

OUR WORK

AFRICA REGION



HOW EMPOWER HEALTH WORKS

The Empower model consists of a mobile device, an automated blood pressure machine, a glucometer and a proprietary software application — combined in a platform for efficient screening and longitudinal management of a patient cohort.

Empower-trained community health workers (CHWs) screen patients for hypertension and diabetes, and partner providers enroll eligible patients into the Empower model.

Patients can access regular blood pressure and blood glucose checks at community-partner locations, through CHWs or at home where they receive real-time feedback on their measurements.

Physicians provide patients with tailored management plans supported by Empower clinical protocols. They can view patient data, provide direct patient feedback on their conditions via SMS and write electronic prescriptions.



I used to miss at least a day of work every month before joining the Empower program. Now I go to the farm every day, and I have a better understanding of my health.



PIPELINE VENTURE



Maisha Mapya is a technology-enabled model of care that aims to manage and mitigate complications for high-risk, pregnant women. Maisha Mapya provides patients and clinicians with ongoing risk-assessment, access to education and timely referrals. In FY20, Maisha Mapya is integrating group-based community support, based on the Centering Pregnancy principles, into the model.



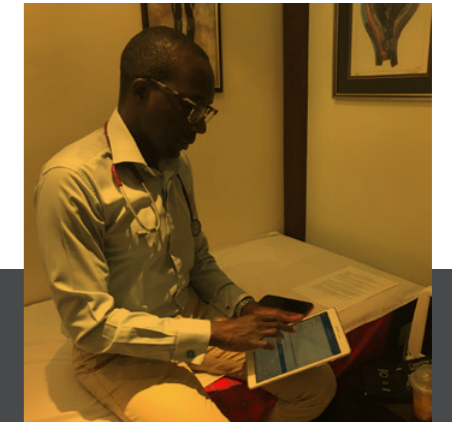
SCREENING & ENROLLMENT

Empower-trained community health workers (CHWs) screen patients for hypertension and diabetes, and partner providers enroll eligible patients into the Empower model.



COMMUNITY MANAGEMENT

Patients can access regular blood pressure and blood glucose checks at community-partner locations, through CHWs or at home where they receive real-time feedback on their measurements.



PROVIDER INTELLIGENCE

Clinicians can view patient data, provide direct patient feedback on their conditions via SMS and write electronic prescriptions.

SHRUTI

THE POWER OF TECHNOLOGY AND PARTNERSHIPS APPLIED TO EAR DISEASE AND HEARING LOSS

Shruti addresses ear diseases and hearing loss in underserved populations utilizing a community health worker (CHW) based service model, enabled by point-of-care diagnostics, hearing implants and digital tools.

HOW SHRUTI WORKS

Shruti-trained CHWs use our Screening Kit to identify and diagnose patients directly in the community. Our kit includes a proprietary mobile otoscope and low-cost hearing aids integrated with an intuitive mobile application.

CHWs collect patient history, take a photograph of the ear drum and conduct a test for hearing loss to provide a preliminary diagnosis.

Based on the preliminary diagnosis, CHWs refer patients to appropriate care at Shruti partner clinics. Shruti Telecounselors follow up with patients to ensure that they have the information and support they need.

Our partner clinics support Shruti patients with discounted treatments or therapies, including surgeries, medicine, hearing aids and more.

OUR WORK

SOUTH ASIA REGION



PIPELINE VENTURE



Perna is a comprehensive healthcare delivery model for people living with, or at risk for, type II diabetes, hypertension and co-morbid diseases. The model integrates social and clinical interventions in a group-based setting, close to home. Once enrolled, a Perna patient receives everything they need to live with their condition for the long-term — point-of-care lab testing, doctor visits, medication, education and behavioral coaching — all in the comfort of their community. In FY20 we plan to commercially launch Perna in India, expand the offering to include mental health, and explore applications in urban Kenya.



Now I am able to listen to the smallest of sounds which was not possible prior to this surgery



SCREENING

Shruti-trained CHWs use our Screening Kit to identify and diagnose patients directly in the community.



REFERRAL

Based on the preliminary diagnosis, CHWs refer patients to appropriate care at Shruti partner clinics.



TREATMENT

Our partner clinics support Shruti patients with discounted treatments or therapies including surgeries, medicine, hearing aids and more.

FY19 MILESTONES

M A Y
2 0 1 8

Shruti initiates tele-audiology pilot in partnership with Sivantos

Shruti launches first Advisory Forum with leading Indian physicians

Shruti initiates collaboration with All India Institute of Medical Sciences (AIIMS)

Perna co-creation and prototyping starts in Bangalore localities



Perna launch planned for September 2019



Empower adds telecounseling services

Maisha Mapya launches pilot



Empower initiates study in collaboration with Johns Hopkins University and Kwame Nkrumah University of Science and Technology (KNUST) in Ghana



LABS LAUNCHES OUR TELE-AUDIOLOGY OFFERING IN PARTNERSHIP WITH SIVANTOS

TELE-AUDIOLOGY



In FY19, Medtronic LABS launched our tele-audiology offering to provide affordable last mile hearing care in partnership with Sivantos. The Sivantos technology includes high quality, affordable hearing aids integrated with a digital application for remote fitting and tele-audiology. Before Shruti, patients with ear

disease and hearing loss had to navigate a siloed and unaffordable system of specialists. Now, with our integrated offering, Shruti patients receive comprehensive, community-based diagnosis for ear diseases and hearing loss as well as targeted referrals to our network of affordable therapies.

Empower launches patient-facing application on Google PlayStore

Empower integrates diabetes management

A P R I L
2 0 1 9

PPP LAUNCH

LABS LAUNCHES FIRST PPP WITH NOVARTIS SOCIAL BUSINESS, MANAGEMENT SCIENCES FOR HEALTH, THE MINISTRY OF HEALTH OF KENYA AND THREE COUNTIES



In April 2019, Medtronic LABS launched our first public-private partnership (PPP) including stakeholders from the private, public and social sectors. The partnership, called Afya Dumu, aims to manage large cohorts of hypertensive and diabetic patients to improve patient outcomes and reduce county health system costs. The program leverages the Empower technology and model

of care, affordable medications through NSB, health system strengthening through MSH, and implementation, community engagement and oversight by the Kenyan Ministry of Health and county governments. After the 2-year program, Medtronic LABS and partners are committed to a shared vision to scale the program across Kenya.

OUR IMPACT & FINANCIALS

At Medtronic LABS, our focus on achieving measurable outcomes for the patients, families and communities we serve sets us apart.





LOOKING AHEAD

FY20 AND BEYOND

At Medtronic LABS, we believe that everyone, regardless of circumstance, should be able to access quality, affordable healthcare. Yet, we know that delivering healthcare to billions of underserved patients in resource-limited settings demands fundamental shifts at a system level. First, we need to transform our healthcare delivery models to address chronic diseases alongside communicable diseases. Second, we need to shift our health systems towards value-based care models to pay for outcomes rather than inputs. Third, we need to build inspired partnerships across the public, private and social sectors to amplify, rather than duplicate, efforts.

Looking ahead, these system-level shifts will underpin our work at Medtronic LABS. In FY20, we plan to build on our success with key investments in an integrated technology platform and operational infrastructure to enable scale, community-based models, and value-based care. We are also expanding our offerings in new clinical areas, like mental health and COPD, to address co-morbidities in the NCD space. In addition, our transition to the newly created public benefits corporation will be completed, and we will seek investors who want to be a part of our pathway to scale. At Medtronic LABS, we look forward to continued innovation and collaboration with the entire global health community, including the patients, families and communities we serve.



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Medtronic LABS FY19 Impact Report was edited and designed by Anne Stake.