



2018 IMPACT REPORT

Care for the person. Systems for the population. Innovation for the planet.

CONTENTS

2 Letter from the Executive Director

4 What We Do

6 Five Years of PIVOT

8 Care for the Person

18 Systems for the Population

24 Innovation for the Planet

30 Publications

32 Partnerships

35 Supporters

38 Financials

PIVOT's community health team hikes with local officials to attend the inauguration of a community health post (pictured in the distance) in the fokontany of Ambodirotra.

Letter from the Executive Director

Dear PIVOT friends and family,

I am writing during an epic rainstorm while here in Ranomafana celebrating PIVOT's 5th birthday. The familiar voices of staff, who have come to feel like family over the course of my journey from PIVOT's first employee to Executive Director, carry through our breezy office as I reflect on all we have accomplished together during the last five years.

In 2018, we surpassed a quarter million patient visits.

This number fills me with awe. During our first week on the ground in 2014, we had neighbors knocking on the office door with sick loved ones in their arms. We explained we were here to partner with the government and walked down to the public health clinic to accompany them through care. Most were skeptical at best. We began by transforming the health centers, ensuring that they were places where clinical staff could be found, essential medicines were in stock, and no one would ever have to pay to access care. Within months, people were showing up at triple the rate they were before. Today our work is to maintain public trust in the system where it's been established and to cultivate it among communities we've yet to reach.

In 2018, we expanded care to greater distances than ever before.

In January, I joined an early delegation of PIVOT staff to make the trip to Ambohimanga du Sud, a commune located just 67 kilometers off the paved road, but requiring a full day's motorcycle ride across muddy slopes and rivers without bridges. At the end of this hard road is a bustling population center of the north – our gateway to serve an area of Ifanadiana District previously unreachable.

At the health center there, I met midwife Tsaratiana, who attends all facility deliveries on her own, with only candles for light at night. Before PIVOT, there was no backup or alternative – and yet she soldiered on. That kind of dedication astounds me. I am proud to report that now, Tsaratiana has a clean, electrified maternity ward in which to carry out her work, and PIVOT's assurance that her health center, with additional staff in place, will be truly supported to meet the needs of her community.

In 2018, we joined the Minister of Health on a global stage.

Forty years ago, WHO's Alma Ata Declaration identified primary health care as the key to achieving the goal of #HealthForAll. I came up in the public health world holding it as a pinnacle of hope that the kind of change we envision in the world is possible. To be the NGO to accompany Madagascar's Minister of Health to Kazakhstan for the 40th anniversary renewal of this commitment was a tremendous honor – and a sign that our partnership is on the right track. We are not only a key implementing partner, but a team that has earned its seat at the table for conversations about integrated primary care and so much more.

As we look to the next five years, I am filled with hope for what PIVOT's next chapter holds: doubling down to reach people farthest from the formal health system; determining with the government how to expand our reach to other districts; reaching our millionth patient; and continuing to work alongside our incredible staff who dedicate their lives to breaking cycles of poverty and disease.

I thank you for walking in solidarity with us and with everyone we serve.

My best,


Tara Loyd
Executive Director



Grandmother Soa, mother Paquerette, and baby Zolicia during a visit to Ranomafana Health Center for basic primary care.



What We Do

In partnership with the government of Madagascar, we are building an **adaptable, scalable, district-level model health system**.

This model is based on integrating **clinical care, system readiness, and scientific innovation**, at all levels of the health system.

IFANADIANA DISTRICT

Population: 209,000

71% must walk more than 5km to reach the nearest health facility; 49% more than 10km.

PIVOT's Catchment Area:



- 1 hospital equipped to serve the entire district population with inpatient, outpatient, and emergency care



- 15 primary health care centers
 - 7 receiving expanded support package
 - 8 receiving support to personnel (to receive full package by 2022)



- 60 community health posts staffed by 120 Community Health Workers (CHWs) serving 92,000 people

CARE FOR THE PERSON

WE ADDRESS MADAGASCAR'S MOST URGENT HEALTH THREATS

We do whatever it takes to serve the needs of every individual. Our comprehensive clinical services provide care to those most vulnerable to Madagascar's biggest killers. These programs include **child health, maternal and reproductive health, and preventable illness**. Even with progress made over the last 5 years, we still see:



1 in 7

children dying before the age of 5 in Ifanadiana District



7 in 10

premature deaths caused by preventable illness in Madagascar



1 in 24

women dying during child-bearing years in Ifanadiana District

SYSTEMS FOR THE POPULATION

WE ENSURE HEALTH SYSTEM READINESS



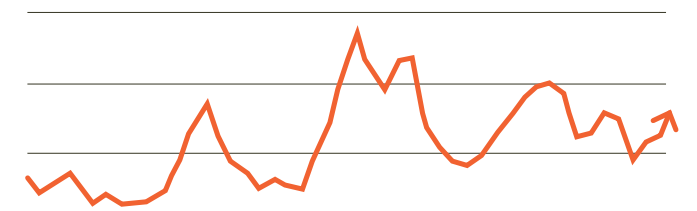
From the community level, to health centers, to the district hospital, we are ensuring the public health system's capacity to meet the needs of the population, requiring availability of:

- trained personnel
- essential medicines
- necessary equipment
- dignified infrastructure
- diagnostic capacity
- infection control
- integrated data systems

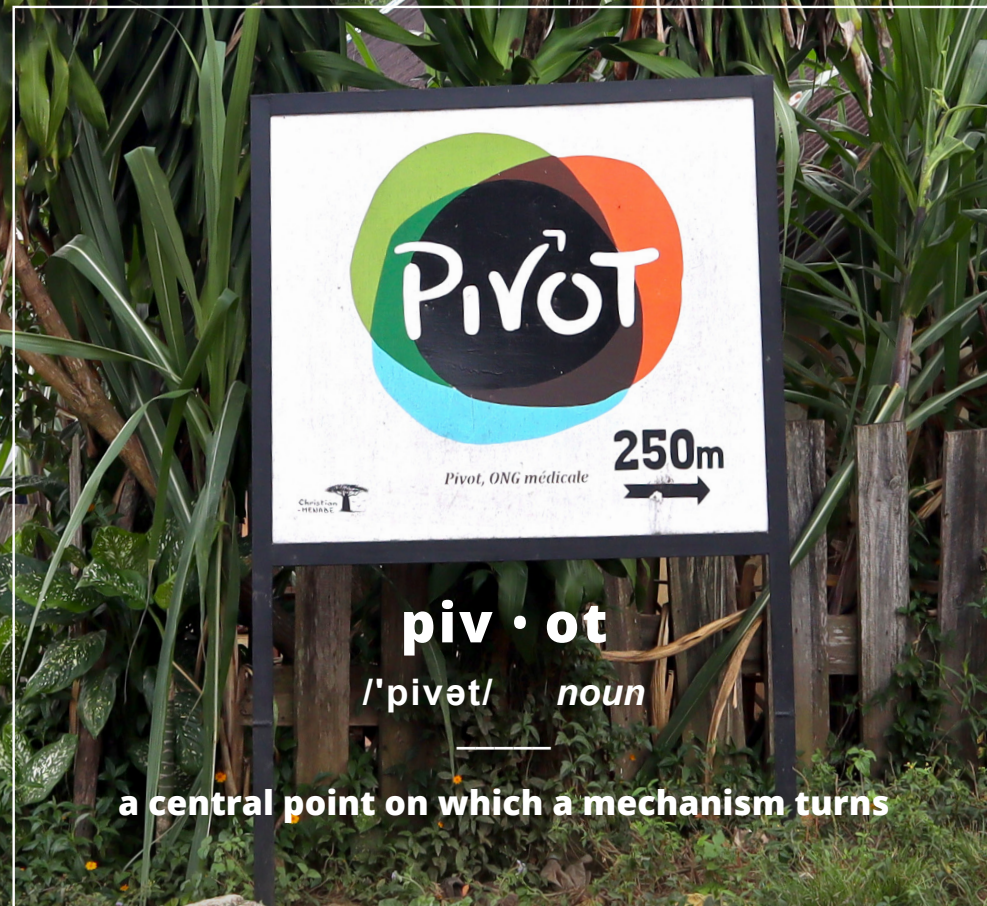
INNOVATION FOR THE PLANET

WE INTEGRATE DATA AND SCIENCE IN EVERYTHING WE DO

We rigorously **collect and analyze data** throughout the system to improve our programs, maximize our impact, and **advance a new science of health system transformation** for Madagascar and beyond.



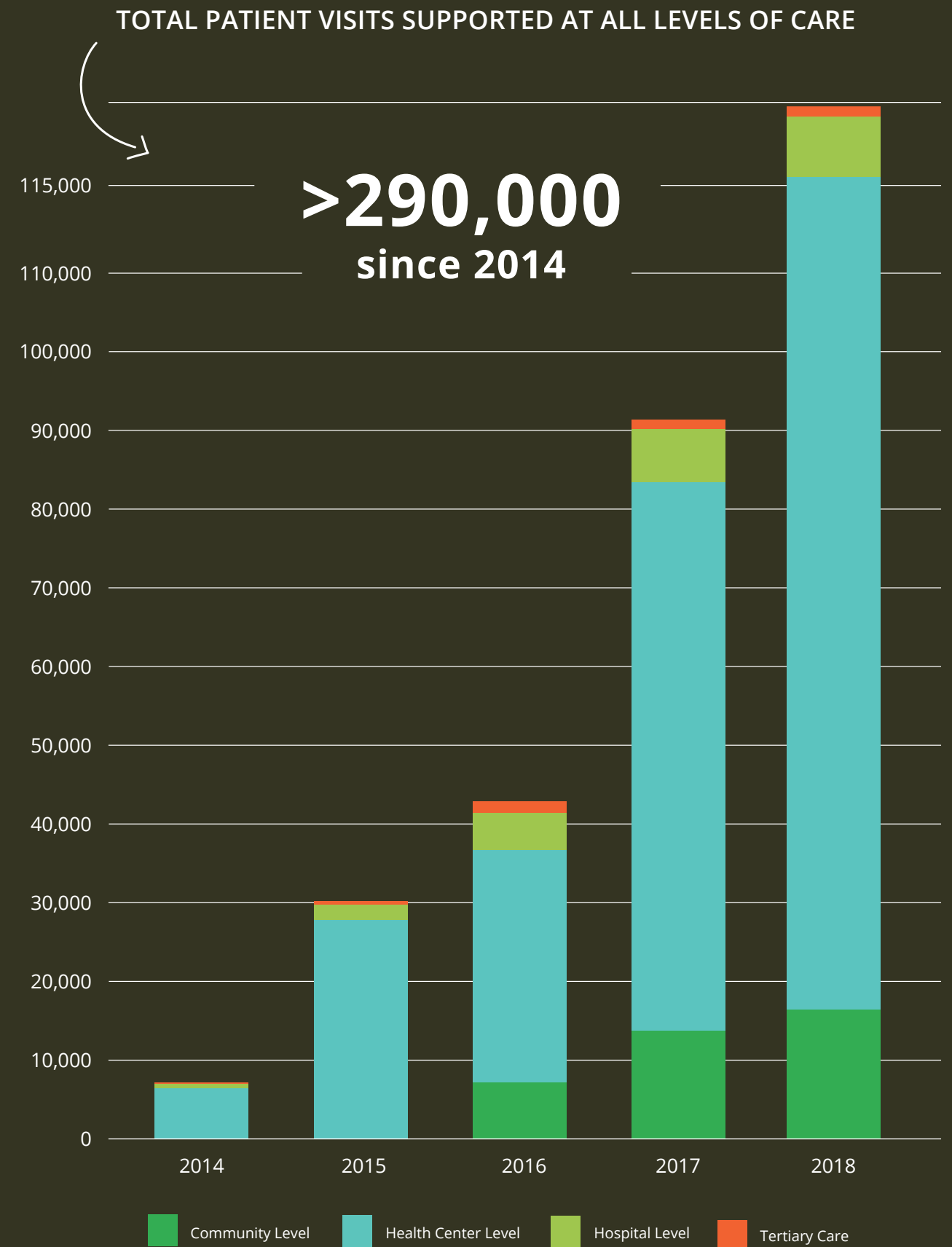
Five Years of



OUR BEGINNING PIVOT was founded with the vision of transforming healthcare in Madagascar, one of the poorest and most ecologically unique places on earth, where both the population and the environment face major, interrelated threats. We see health care not only as a human right but also as the pivot point for economic development.

OUR FIRST STEPS In 2014, while designing our clinical programs, we conducted a baseline survey to establish an understanding of the population's health and economic conditions. We return to the same 9,000-person cohort every two years in order to evaluate progress, identify areas for improvement, and build evidence for scale.

OUR FIVE YEARS Over the past five years, the relationships that we have had the opportunity to be a part of – between people and place, service and science – have guided our efforts to increase quality care across Ifanadiana District. And it's working. There is still much work to do, but we believe that **if we can solve it here, we can solve it anywhere.**

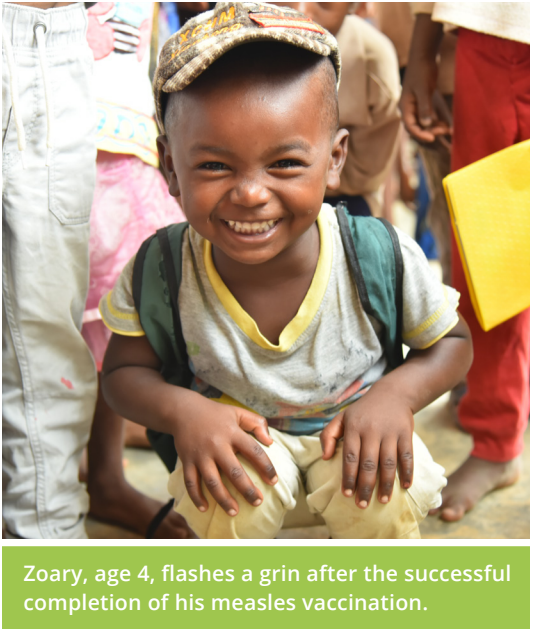
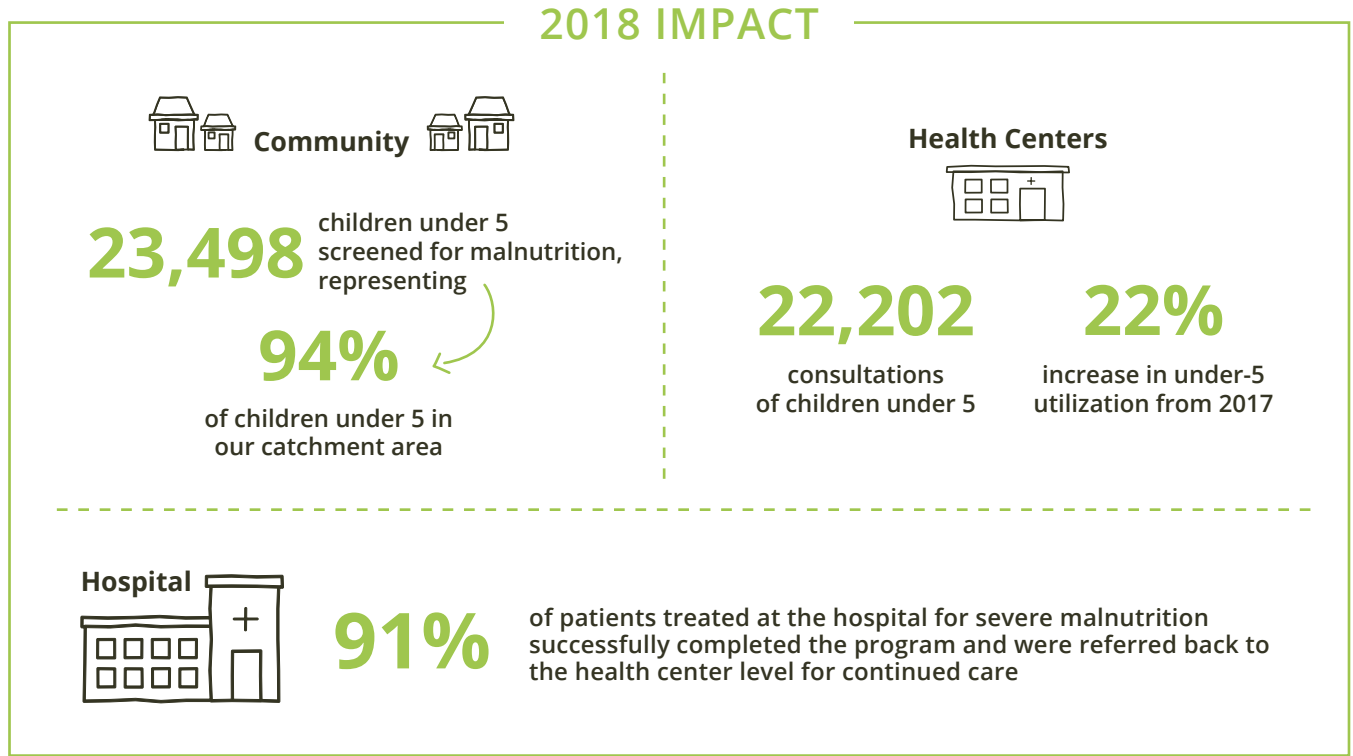


Mother Delphine shows off baby Nasandratra's certificate of completion after receiving his vaccinations at Tsaratanana Health Center.



CELEBRATING MORE 5TH BIRTHDAYS

As we mark our fifth year, too many children in Madagascar are still losing their lives before reaching the same milestone. This is largely due to preventable illnesses such as malnutrition, diarrhea, and malaria. To combat Madagascar's most common childhood killers, **we are ensuring adherence to international health protocols for every child under 5** who enters the public health system in Ifanadiana District.



Zoary, age 4, flashes a grin after the successful completion of his measles vaccination.

CARE FOR THE PERSON

Meet Ferdino

Ferdino was nine months old when his father Lita Benoît brought him to Tsaratanana Health Center to be treated for malnutrition in June of 2018 (left). His mother was ill and unable to produce enough breastmilk to feed Ferdino. He didn't demonstrate an appetite for any other type of food, and weighed about nine pounds upon arrival to the health center.

Soon after beginning treatment for malnutrition, Ferdino's mother passed away, leaving Lita Benoît to look after their six children alone. He struggled to balance finding an income while looking after his family.

Weekly visits to the health center became an enormous challenge, requiring a three-hour walk each way, but Lita Benoît was determined to support his son's health, and turned to his older children to look after their younger siblings while he made the weekly trek with Ferdino.

In addition to receiving their weekly supply of nutritionally-fortified food for Ferdino to eat at home, Lita Benoît spent time at the health center with PIVOT clinicians and social workers, who provided nutritional guidance and supplies essential to the health of Ferdino and his family.

"Before I came to the health center, I was too ashamed to show people how Ferdino looked. If I had not followed the doctors' advice, Ferdino would never have been healed."

By September of 2018, Ferdino had gained enough weight to be discharged from the malnutrition program, healthy and happy (pictured below on the right with Lita Benoît on his final day of treatment).

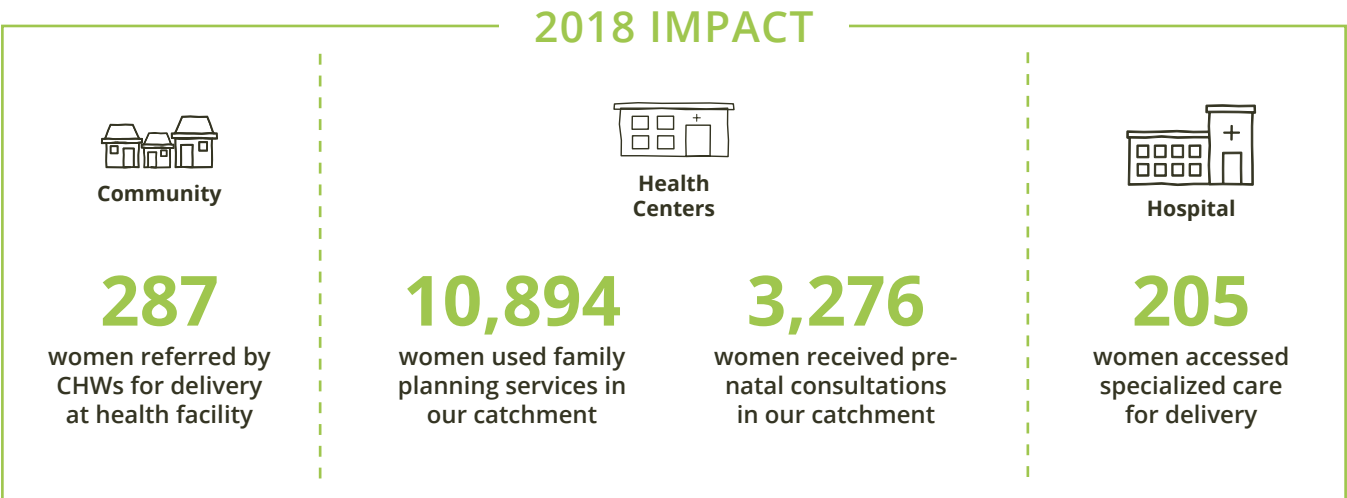
"If I had not brought my son [to receive care], I know he would be dead by now. Today, I am very proud to show that he is totally cured."



SUPPORTING REPRODUCTIVE HEALTH

When we began work in Ifanadiana District, 1 in 14 women died during her reproductive years. After 5 years of work, that likelihood has dropped to 1 in 24 in our catchment area. Even with this progress, there are still far too many mothers dying due to lack of access to care.

Today, we offer comprehensive maternal health services from prenatal, delivery, and postnatal support, to family planning at all levels of care.



After a safe delivery at Tsaratanana Health Center, newborn baby Ephrasia rests next to mother Catherine in the maternity ward. Grandmother Manganirina, who was present for the birth and observed the benefits of her daughter receiving care at the health center, commented that she planned to encourage more community members to go there when in need of care.



ADVANCING COMMUNITY HEALTH THROUGH RADICAL COLLABORATION

All communities, no matter how remote, deserve access to quality care. And yet, no matter how strong Ifanadiana District's health facilities become, we know a majority of the population will still need to travel many hours on foot to reach the nearest primary health care center. This is why **integrated health service delivery at the community level is an essential part of strengthening the public health system**, not only in Madagascar, but across the globe.



In 2018, PIVOT became a member of the Community Health Impact Coalition (CHIC), which defines itself as a “field catalyst to accelerate the adoption of high-impact community health systems design.” Comprised of like-minded, high-performing, community-based organizations, we share the central commitment to radical collaboration in order to advance progress in community health more than any one organization can do alone.

Together, we can *more* effectively reach *more* people in *more* remote communities. Together, we can amplify our message and create change on a global scale.

2018 IMPACT

CHWs
provided care for
14,415
children under age 5

expanded services to
20,000
more people living in
remote communities

supported construction of
22
health posts where
CHWs receive patients



CHW = Community Health Worker



120

**CHWs
supported
by PIVOT**

>92,000

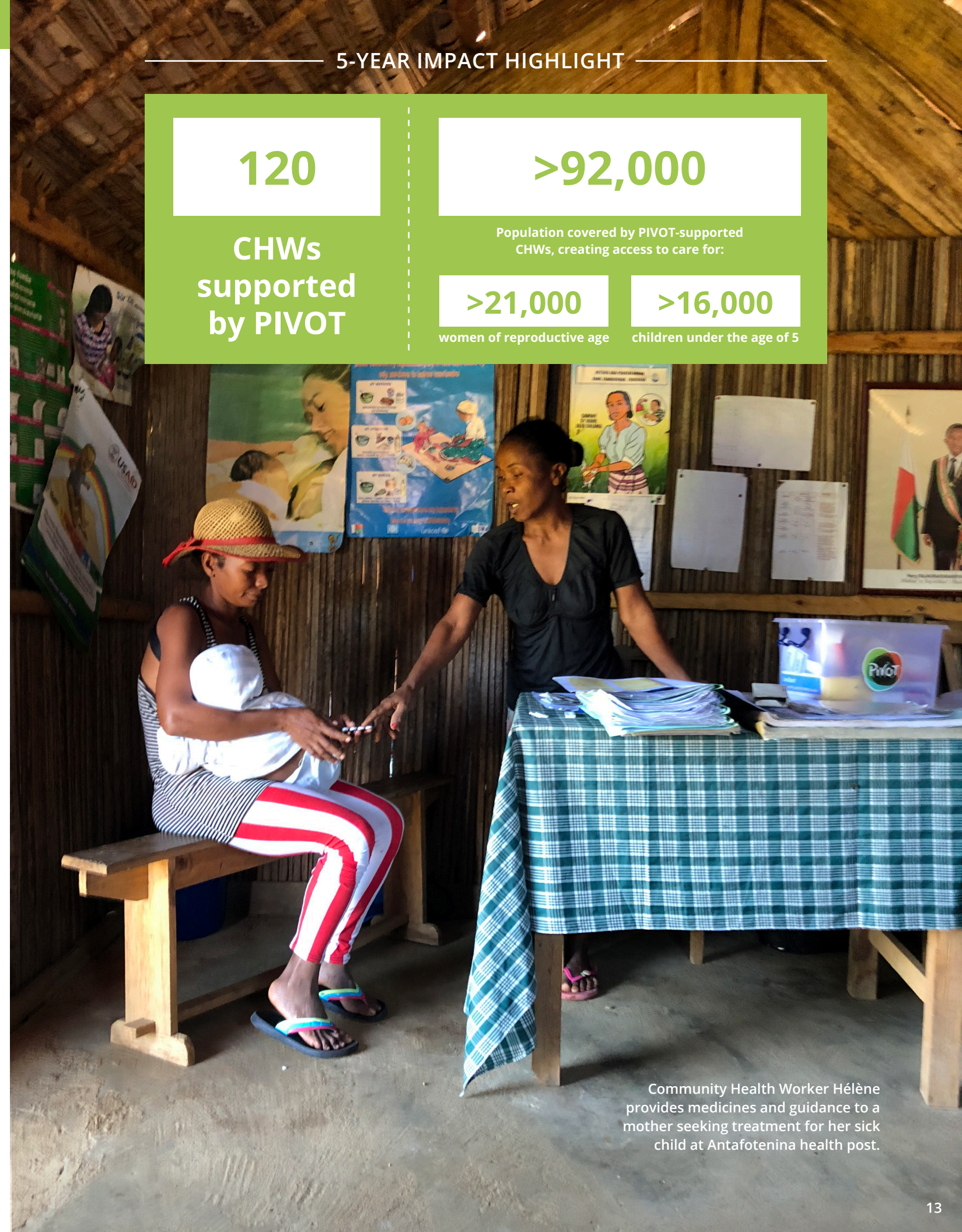
Population covered by PIVOT-supported CHWs, creating access to care for:

>21,000

women of reproductive age

>16,000

children under the age of 5

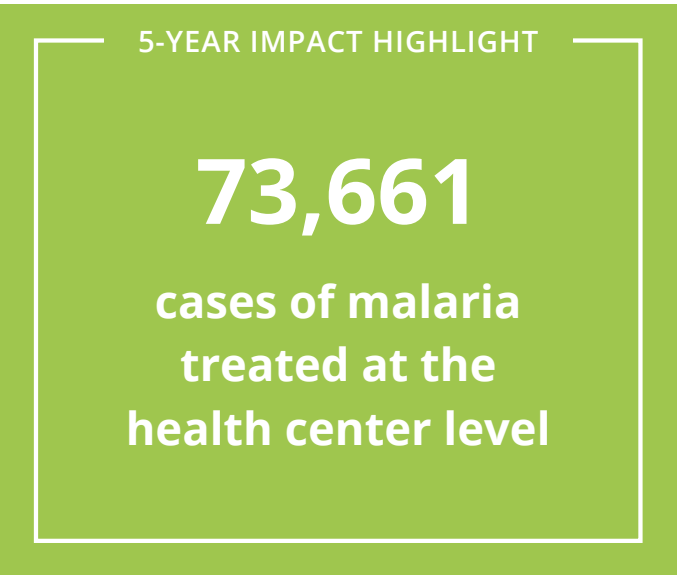
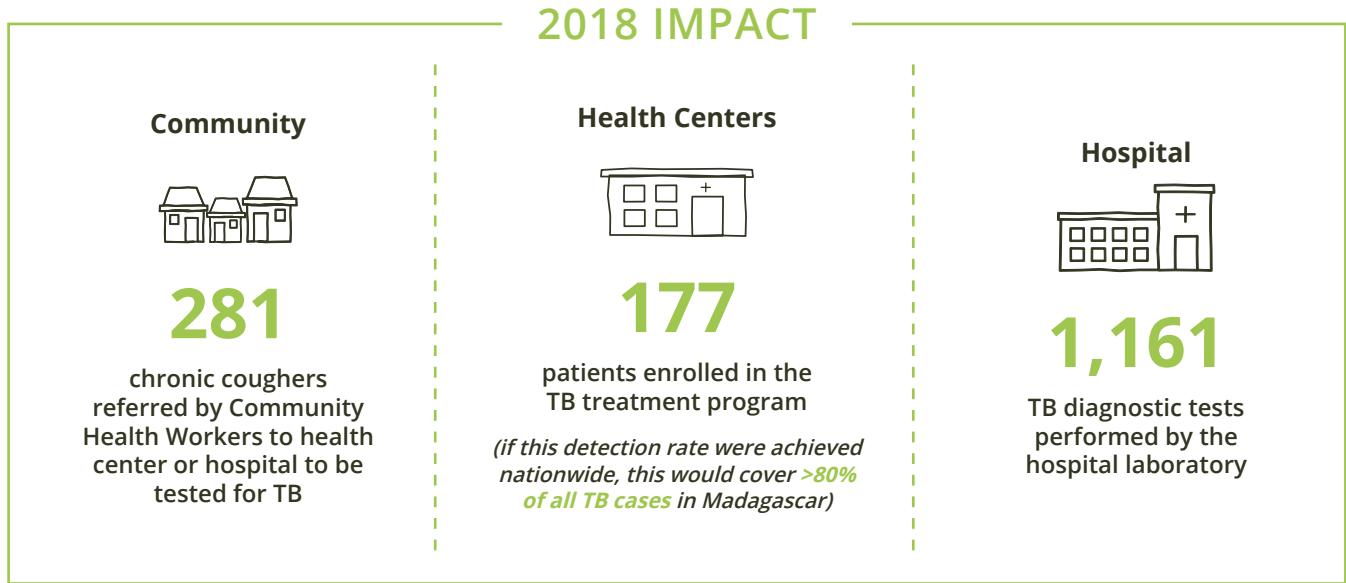


Community Health Worker H       provides medicines and guidance to a mother seeking treatment for her sick child at Antafotenina health post.

ENDING PREVENTABLE ILLNESS

Though often easy to prevent and affordable to treat, infectious diseases are among the most prevalent killers in Madagascar. Diarrheal diseases alone have been responsible for the greatest number of annual deaths in Madagascar for the past decade. Tuberculosis (TB), malaria, and lower respiratory infections are also among the country's top 10 cause of disease-related fatalities.

In 2018, clinical staff at the community, health center, and hospital worked together to identify and treat 177 patients with TB, which is the **greatest number of cases ever detected in Ifanadiana District in one year**. The Ifanadiana District Hospital is the first in Madagascar piloting the modern diagnostics of the GeneXpert platform, which detects the DNA of TB in a patient's sputum, and is already demonstrating the power of this technology in finding undiagnosed cases of TB.



Meet Claudia

Claudia was 18 months old and weighed just 10 pounds when her parents, Levelo and Soatsara, first brought her to PIVOT-supported Ranomafana Health Center (pictured above, left). After an evaluation by PIVOT nurses, she was enrolled in the health center's malnutrition program. The parents were given nutritionally-fortified foods to feed her at home throughout the coming week and advised to return to the health center each following week to monitor Claudia's growth and to receive another supply of supplemental food.

Soon after this initial visit, Claudia's family was one of thousands whose homes were destroyed by Cyclone Ava. This made things even more difficult for Levelo and Soatsara – compromised by the need to work for money to rebuild their home, they were unable to consistently attend the prescribed weekly health center visit.

By May, Claudia, now 2 years old, still weighed barely more than 12 pounds. She was referred

to the District Hospital to be treated for severe malnutrition. But, after a week of round-the-clock nutritional support, Claudia showed no signs of improvement and was diagnosed with tuberculosis.

What would have been a one-week stay for most malnutrition patients turned into 48 days for Claudia. During this time, PIVOT's social support team made a point to understand the challenges Claudia's family was up against. We provided necessary bedding, food, and supplies to support her father's stay at the hospital, and coordinated delivery of food supplies for the rest of the family at home. This removed the pressure for her parents to return to work while Claudia was undergoing treatment.

Reflecting on PIVOT's support, Claudia's parents say, **"If she had not received the care she did, we are sure Claudia would have died."**

As of July (above, right), Claudia has graduated from the malnutrition program, and returns to the health center for weekly TB treatment sessions which she is responding to as hoped. Her family will continue to receive support until she is fully recovered.



EXTENDING CARE BEYOND THE FACILITY

As the heart of our work, our social support team extends care past the confines of the health facility. A day in the life of our social workers might include delivering "kits" of food staples to the family home of a TB patient, or setting out on foot to find the parent of a child who has stopped showing up for malnutrition treatments and help them to return. From reimbursing taxi fares to arranging specialized care outside of Madagascar, **our social workers are patient advocates who are breaking down barriers at all levels of the health system to ensure every person has access to the quality care they deserve.**

2018 IMPACT

1,272 social counseling sessions provided

30,658 meals served to patients and families

5-YEAR IMPACT HIGHLIGHT

2,957 social "kits" distributed to patients in need

depending on the needs of the person, these kits may contain items ranging from food, to soap, blankets, and other essential housewares

OVERCOMING GEOGRAPHIC BARRIERS

In 2014, PIVOT established Madagascar's first ambulance referral network comprised of 3 ambulances accessible 24/7. But with **49% of the district population living more than 10km from the nearest health center**, still too many in Ifanadiana District face an impossible set of options: travel on foot, while sick, to get to the nearest health facility, or remain home with no treatment. Our referral team is committed to finding ways to overcome these obstacles and, in 2018, launched two new initiatives to help improve our continuum of care:

The Village Phone project provided 11 of the district's 15 health centers with network connectivity to aid in the coordination of ambulance transfer between drivable and non-drivable routes.

The Rolling Stretcher designed by our team equipped communities with a safer and more efficient way to transport sick loved ones, who previously would be carried to care in makeshift slings over rough terrain.

2018 IMPACT

1,877 patients referred to higher levels of care

5-YEAR IMPACT HIGHLIGHT

8,163 patients referred to higher levels of care

SUPPORTING PATIENTS FROM **HOME** TO **HOSPITAL** AND BACK AGAIN

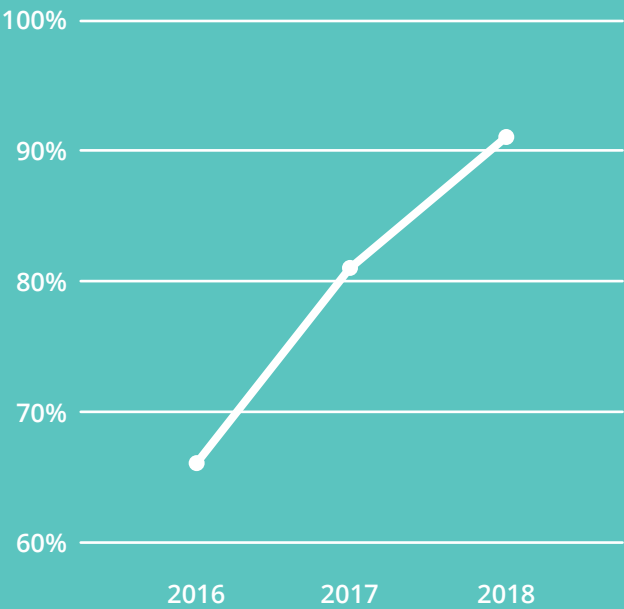


PIVOT's community health team arrives in Ambodirotra for the inauguration of a new community health post.

IMPROVING THE HEALTH SYSTEM'S CAPACITY TO SERVE

PIVOT was founded on the belief that lasting improvements in population health require addressing every aspect of the health system. This means that, in addition to delivering high-quality clinical services and integrating data at all levels, it is necessary that the health facilities be physically ready to serve the population. This is why PIVOT is working to ensure “readiness” components – such as **infrastructure, equipment, personnel, and availability of medicines** – throughout the continuum of care, from the community, to the health center, to the hospital.

AVAILABILITY OF ESSENTIAL MEDICINES



In 2018,
we achieved a

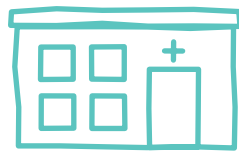
91%

availability rate of
essential medicines at
health centers*

*Rate calculated monthly using 15 essential tracer medications

// In order to achieve global convergence in child and maternal mortality rates, the current focus on vertical interventions should be integrated with substantial investments in stronger health systems rooted in primary care. //

Andres Garchitorena, et al. (2018)



BRINGING INTEGRATED PRIMARY CARE TO THOSE WHO NEED IT MOST

In 2018, we expanded our "model" package to two more health centers. Through a combined focus on improving infrastructure, equipment availability, supply chain, and personnel trainings, we worked to ensure that basic primary care became available in some of the district's hardest-to-reach areas. As a next step in our journey toward achieving Universal Health Coverage in Ifanadiana District, this expansion included the full **removal of user fees for the additional 20,000 people** living in the rural communities that these two health centers serve.

2018 IMPACT

96,336
patients received
essential medicines
at no cost

5-YEAR IMPACT HIGHLIGHT

230,147
outpatient consultations
given at health
centers at no cost

Meet Onja

Though malnutrition and tuberculosis are both affordable to treat, their co-occurrence can quickly put a child's health at risk, requiring care too expensive for many families in Ifanadiana District to afford. For Onja (age 3, pictured below), whose parents earn their income through agricultural work, cost of treatment would have been prohibitive. But, knowing they would not have to pay for care, Onja's mother walked with her for six hours to care. Onja was hospitalized for a month at no cost, and then discharged. For the next six months, she and her mother made the six-hour journey for TB treatment – weekly and then monthly – until Onja was cured.

A STRONG HEALTH SYSTEM REQUIRES Removal of Fees & Dignified Space

Early expeditions to Ambohimanga du Sud (AdS) quickly revealed health facilities in urgent need of infrastructural repair, updated equipment, personnel support, and improvement to supply chain. Addressing infrastructure was a crucial first step in preparing this health center

to serve as a "gateway" to reach the population in the northern part of Ifanadiana District. Our teams coordinated a major renovation (pictured underway below), and were determined to see it through even when faced with the challenge of an eight-hour journey from the district's only paved road. Since its renovation, the facility has already seen an uptick in patients accessing care.





LAYING THE FOUNDATIONS OF A MODEL DISTRICT HOSPITAL

The district referral hospital offers the highest level of care in the Ifanadiana District health system. Over the last five years, PIVOT has helped to establish its emergency care unit, a pediatrics ward including a center for treatment of severe malnutrition, and to support an operating room that performs both urgent and routine surgical procedures, including C-sections. This year, **the hospital served 8,548 patients** – 78% via outpatient consultations and 22% via inpatient hospitalizations – while focusing on improvements to protocol, quality of care, and diagnostic capacity.

2018 IMPACT

>9,000

lab tests performed

by the hospital laboratory, which
previously would have required
referring patients outside the district

5-YEAR IMPACT HIGHLIGHT

>5,000

training hours logged

in topics ranging from health facility
leadership, to diagnosis and treatment
protocols, to quality of care

A STRONG HEALTH SYSTEM REQUIRES Diagnostic Capacity & Qualified Staff

A strong hospital laboratory requires trained lab technicians, strong supply chain, availability of cold storage, and up-to-date equipment to ensure diagnostic capacity.

In 2018, PIVOT ramped up efforts to establish a hospital laboratory that could meet the needs of the population. With an infrastructural upgrade, the hire of a new lab tech, and updates to key equipment, our hospital laboratory achieved a **95% rate of successful response to the diagnostic needs of hospital patients**. This greatly reduced the need to refer patients to facilities outside the district for diagnosis and treatment as in the past, and allowed for better, more efficient delivery of care.

Meet Dr. Vero

Dr. Vero Irina Ramanandratsiory, attending physician at Ifanadiana District Hospital, loves patients and protocol. When she started at PIVOT, Dr. Vero noticed significant inconsistencies in patient care at the hospital. "A doctor would prescribe one drug that would often get replaced with another by his colleague the next day," she explains. "Making rounds to hospitalized patients also was not a systematized process." In her time at PIVOT, Dr. Vero has been key to improving quality of care through establishing systems and protocol.

// I like putting protocol
in place and seeing the
ways in which it directly
improves patient care. //



A team of PIVOT staff – including members of the community health, monitoring and evaluation, and research teams – break for lunch overlooking rice fields during an expedition in Antaretra.

SCIENCE MAGAZINE REPORTS:

"A PRESCRIPTION FOR MADAGASCAR'S BROKEN HEALTH SYSTEM: DATA AND A FOCUS ON DETAILS"

Five years ago, PIVOT set out on an ambitious journey to deliver care to those who need it most, using data to build an adaptable, scalable model health system for Madagascar and beyond. In so doing, **we have been creating a new science of health system transformation.**

This year, *Science Magazine* took notice.

Today, with a team of nearly 200 Malagasy staff working side-by-side with the Ministry of Health in Ifanadiana District, we have served over a quarter million patients. Since the start, what Science describes as an “almost obsessive focus on data” has been our lifeline to understanding the successes and failures in our journey to deliver care to anyone in need.



SWEATING THE SMALL THINGS

Science



Check out the full article here:
bit.ly/PIVOT-Science-Magazine

// Key population health indicators for Ifanadiana District in Madagascar show progress toward ambitious goals. //

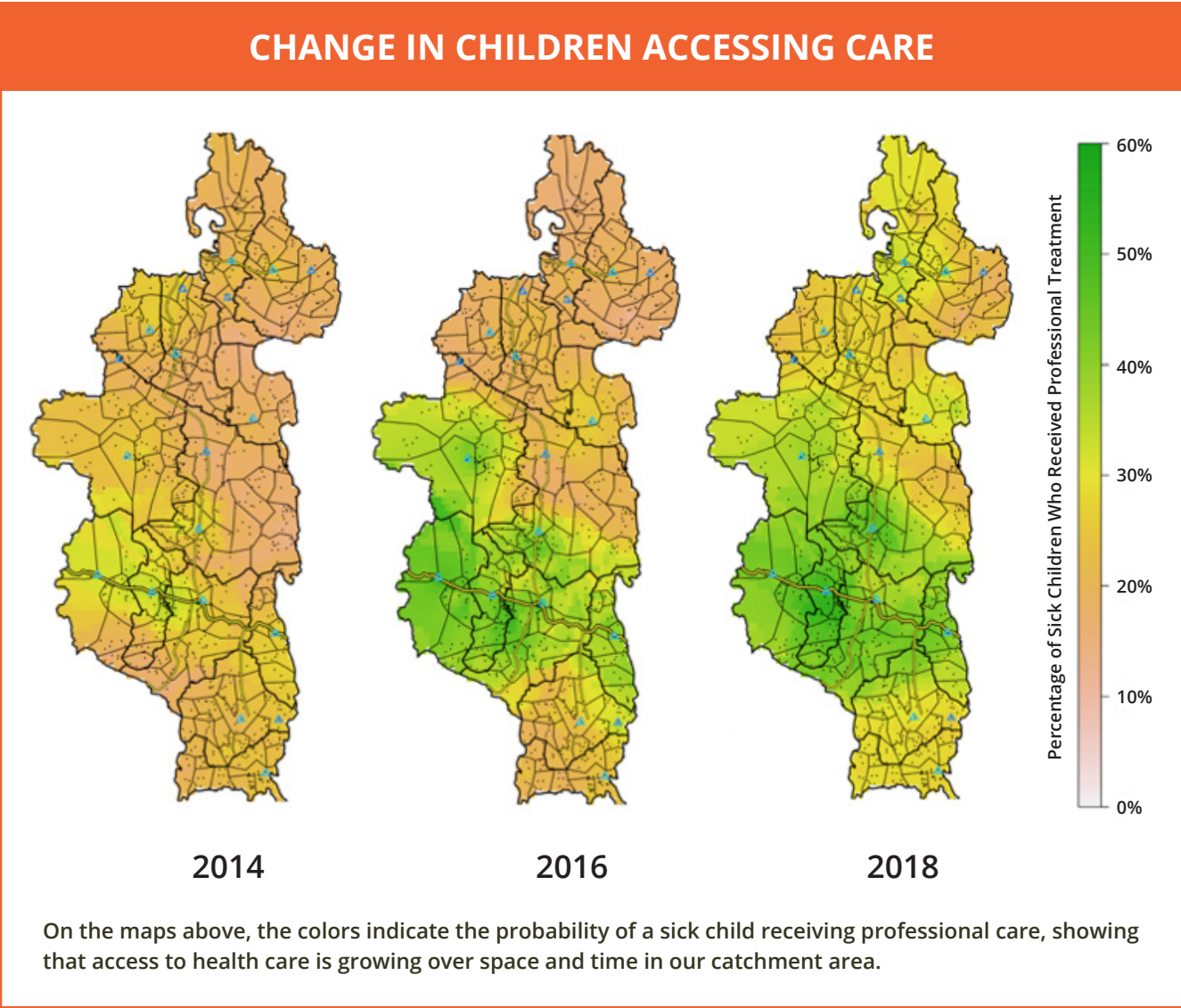
Science Magazine

EVALUATING OUR IMPACT

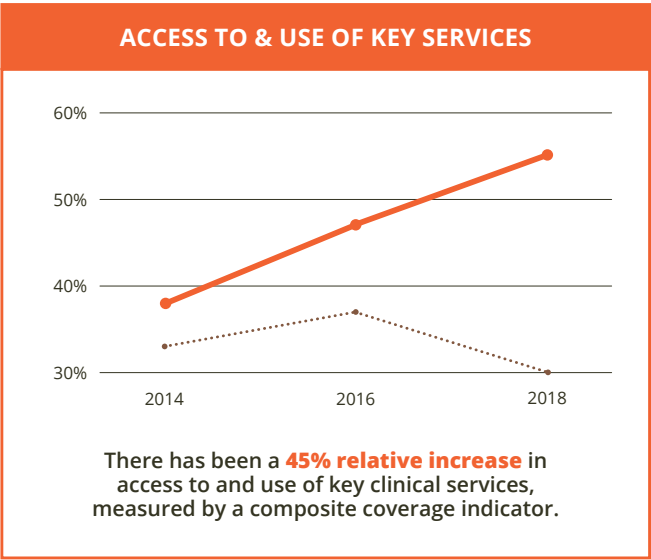
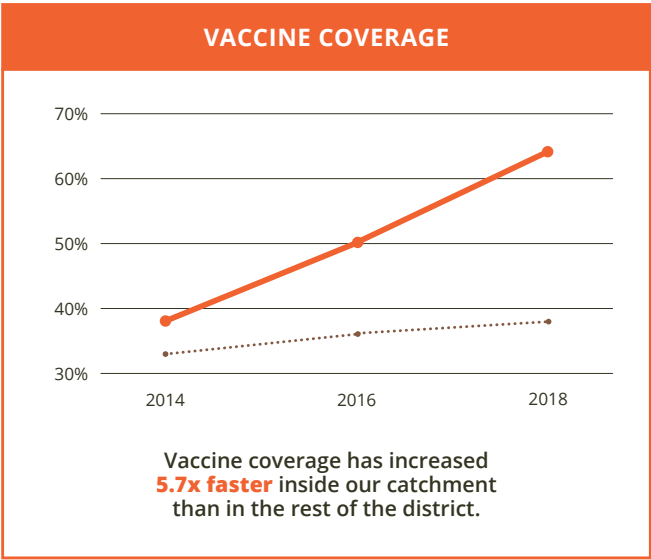
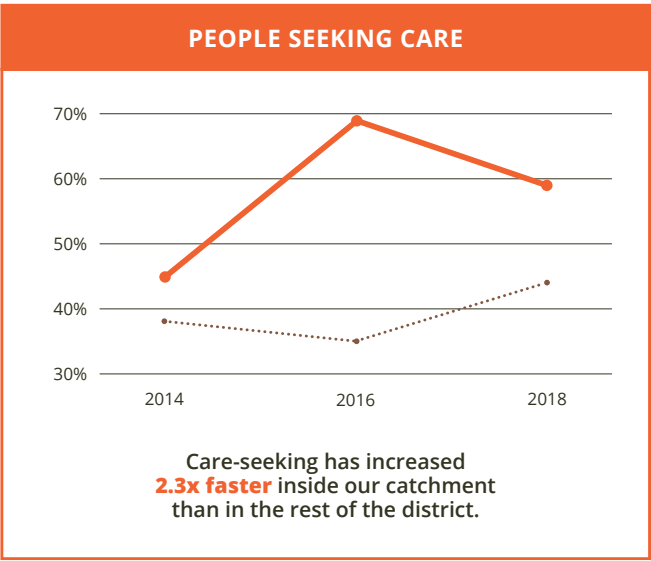
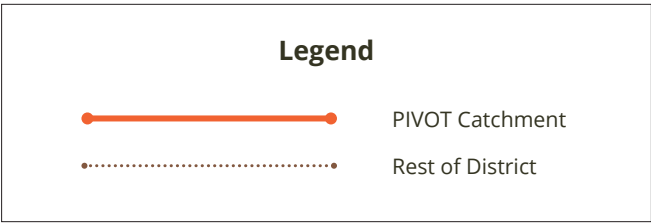
When we talk about our "integrated" model, we mean that we are building a health system that both addresses population health needs across a continuum of care, and embeds **comprehensive data feedback loops** that allow us to pinpoint where services are thriving or falling short.

In 2014, in partnership with the Madagascar Institute of Statistics, we conducted a baseline survey of 1,600 households with 9,000 individuals across Ifanadiana District, gathering data about the population's health conditions to establish an understanding of the district's most urgent health needs. Every two years, we survey the same cohort of people in order to measure the impact of our work on those supported by our integrated model, and those we have yet to reach.

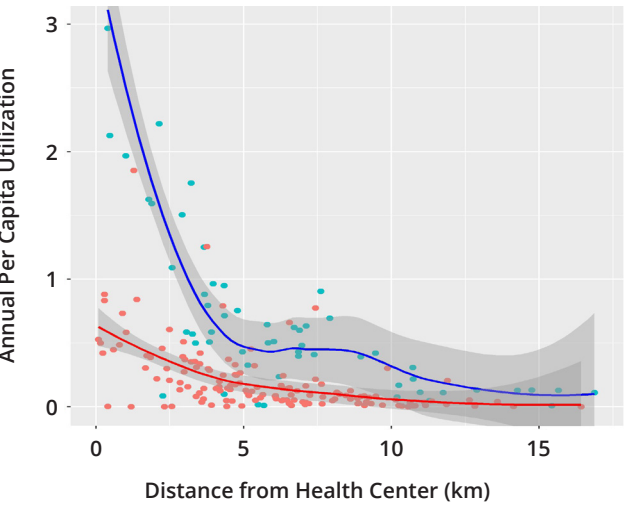
Our 2018 survey results are another marker for tracking our progress and adjusting our approach to better serve the population's needs and to produce evidence for scaling up.



After this third round of surveys, we continue to see strong improvements in access and outcomes for women, children, and patients of all ages. These results are especially strong in the areas of Ifanadiana District where PIVOT is providing our expanded model support package.



MAPPING GEOGRAPHIC BARRIERS



Detailed geographic analysis demonstrates who benefits from changes in the health system and who does not. The blue dots represent villages within the PIVOT catchment area while the red dots show villages in areas of the district we have not yet reached. After four years, **households living near health centers are 6 times more likely to access care if they are in the PIVOT catchment versus in the rest of the district**. However, these benefits drop off significantly for people living further than 5 kilometers from a health center, revealing the urgent need for an even stronger community health strategy.

INVESTING IN HOME-GROWN RESEARCH

This year, we co-hosted the third *Ecological and Epidemiological Modeling in Madagascar (E²M²) Workshop* with our partners at Centre ValBio (CVB) and Institute Pasteur of Madagascar. Malagasy graduate students and professionals gathered for two weeks for training in statistical and mathematical modeling from experts in the field. **We were honored to have Professor Julio Rakotonirina, who was appointed as Madagascar's new Minister of Health in 2019, among the course mentors.** Below, the 2018 class of E²M² participants gathers outside of CVB research station at the edge of Ranomafana National Park.

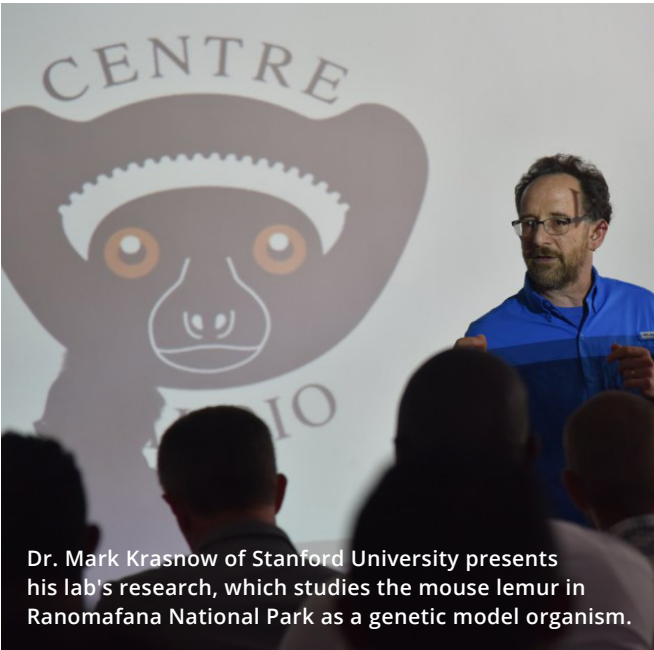


A CRUCIBLE FOR PLANETARY HEALTH

Ifanadiana District includes Ranomafana National Park, a UNESCO World Heritage Site, which sits protected amid the rapid deforestation that Madagascar is experiencing as a whole, affecting humans as well as the ecosystem. This year, PIVOT and CVB co-hosted *A Crucible for Planetary Health*, a **research symposium to explore unique opportunities for scientific discovery in the ecozone around Ranomafana National Park**. Participants included world class scientists and innovators who presented work on systems of organisms, health care, the environment, big data, and more. These innovators, who are simultaneously tackling complex challenges from many dimensions, convened in Madagascar to field test their proposed solutions on the ground.



Dr. Patricia Wright, Centre ValBio Director and PIVOT Board Member, welcomes participants to Ranomafana for the Crucible research symposium.



Dr. Mark Krasnow of Stanford University presents his lab's research, which studies the mouse lemur in Ranomafana National Park as a genetic model organism.



TOGETHER, PIVOT + PIH PROVIDE EVIDENCE FOR LIFE-SAVING HEALTH SYSTEM TRANSFORMATION

In 2018, PIVOT published our first major impact analyses, which demonstrated some of the most rigorously evaluated population health impacts in the world. In back-to-back issues of *BMJ Global Health*, a similar study, also co-authored by PIVOT leaders, was published on Partners In Health's impact in Rwanda. Considering the differences in political and economic context, these results together demonstrate a replicable model of health system transformation in areas of rural poverty.

Read the full articles:

EDITORIAL

Integrated health system strengthening can generate rapid population impacts that can be replicated: lessons from Rwanda to Madagascar

bit.ly/PIVOT-BMJ-Editorial

RESEARCH

Early changes in intervention coverage and mortality rates following the implementation of an integrated health system intervention in Madagascar

bit.ly/PIVOT-in-BMJ

“ It is time to stop asking whether or not these initiatives can be replicated. With improved data systems that are integrated locally and amplify the evidence internationally, let us instead invest in finding the answers to how to scale them faster. ”

Matt Bonds and Michael Rich (2018)
PIVOT Co-Founders

2018 Publications

PIVOT pediatric nurse Emmeline (left) consults with instructor Dr. Rasoamananoro Vololona (right) during a training at the university hospital in Fianarantsoa.

Ballard, M., et al. 2018. "Community health worker assessment and improvement matrix (CHW AIM); updated program functionality matrix for optimizing community health programs" Community Health Impact Coalition, DOI:10.13140/RG.2.2.27361.76644.

Bonds, M.H., Rich, M.L. 2018. "Integrated health system strengthening can generate rapid population impacts that can be replicated: lessons from Rwanda to Madagascar." *BMJ Global Health*, 3:e000976.

Garchitorena, A., Raza-Fanomezanjanahary, E.M., Mioramalala, S.A., Chesnais, C.B., Ratsimbaoa, C.A., Ramarosata, H., Bonds, M.H., Rabenantoandro, H. 2018. "Towards elimination of lymphatic filariasis in southeastern Madagascar: successes and challenges for interrupting transmission." *PLOS Neglected Tropical Diseases*, 12(9): e0006780.

Miller, A.C., Garchitorena, A., Rabeza, V., Randriamanambintsoa, M., Rahaniraka Razanadrakato, H.T., Cordier, L., Ouenzar, M.A., Murray, M.B., Thomson, D.R. and Bonds, M.H. 2018. "Cohort profile: Ifanadiana health outcomes and prosperity longitudinal evaluation (IHOPE)." *International Journal of Epidemiology*, 47(5), pp.1394-1395e.

Garchitorena, A., et al. 2018. "Early changes in intervention coverage and mortality rates following the implementation of an integrated health system intervention in Madagascar." *BMJ Global Health*, 3:e000762. DOI:10.1136/bmjgh-2018-000762.

Bonds, M.H., Garchitorena, A., Farmer, P.E., Murray, M.B. 2018. "Ecology of poverty, disease, and health care delivery: lessons for planetary health," in *Ecology and Evolution for the Control of Infectious Diseases in Low Income Countries: Broadening the Scope of Public Health*, eds Roche, Broutin, Simard. Oxford University Press.

McCuskee, S., Garchitorena, A., Miller, A.C., Ouenzar, M.A., Rabeza, V.R., Ramananjato, R., Razanadrakato, H.T.R., Randriamanambintsoa, M., Barry, M., Bonds, M.H. 2018. "Child malnutrition in Ifanadiana District, Madagascar: associated factors and timing of growth faltering ahead of a health system strengthening intervention." *Global Health Action*, 11:1. DOI: 10.1080/16549716.2018.1452357.

Bonds, M.H., Ouenzar, M.A., Garchitorena, A., Cordier, L.F., McCarty, M.G., Rich, M.L., et al. 2018. "Madagascar can build stronger health systems to fight plague and prevent the next epidemic." *PLOS Neglected Tropical Diseases*, 12(1): e0006131.



Partnerships

PIVOT Country Director Dr. Ali Ouenzar (right) accompanies Madagascar Minister of Health Professor Yoël Rantomalala (left) at the WHO's Global Conference on Primary Care in Astana, Kazakhstan in October 2018.



STRENGTHENING MADAGASCAR TOGETHER

Since day one, building and maintaining a close partnership with Madagascar's Ministry of Health (MoH) has been one of PIVOT's central priorities. In order to ensure our longevity in serving the needs of the population, we focus on implementing national and international health protocols in Ifanadiana District, working side-by-side with government officials at all levels.

ON A GLOBAL LEVEL we were honored in 2018 to accompany Minister of Health Professor Yoël Rantomalala at the World Health Organization's Global Conference on Primary Care. Acknowledging the progress that has been made in global health delivery since the 1978 Alma Ata Declaration, the global community took the 40th anniversary as a moment to recommit to the goal of achieving #HealthForAll. Professor Rantomalala, along with PIVOT Country Director Dr. Ali Ouenzar and Executive Director Tara Loyd, also attended a pre-conference hosted by Partners In Health, *Health Systems and Delivery Strategy to Achieve Universal Health Coverage*, where they had the opportunity to present PIVOT's work to peers and partners from across the globe.

AT THE NATIONAL LEVEL we continued to strengthen our partnership with the Ministry of Health, establishing our seat at the table for crucial conversations surrounding national policy on integrated primary health care delivery and Universal Health Coverage.

The government demonstrated its confidence in PIVOT through our re-election to the Global Fund's Country Coordinating Mechanism for Madagascar. We look forward to a second two-year term offering technical expertise in matters of public health.

AT THE LOCAL LEVEL we collaborated with district leaders to support capacity-building initiatives for public health personnel. Together we improved the district health administration's working conditions through upgraded means of communication and transport, increasing collaborative efficiency. Most importantly, we continued our work to amplify the most pressing local and regional needs by advocating for Ifanadiana District at the central level.

// **The scaling up of PIVOT's effective and efficient intervention is a model for our journey towards Universal Health Coverage. //**

Professor Yoël Rantomalala
Minister of Health, 2016-2018

PARTNERSHIP IN ACTION

Working within an ecosystem as fragile as Madagascar's, we recognize the inevitability of crises both explicitly health-related and otherwise.

Part of our responsibility as partners to Madagascar's communities is to respond to their most urgent needs to whatever extent we are able. As such, when faced with regional emergencies, we have become a steadfast collaborator in the government's emergency response strategies.

At the beginning of 2018, Madagascar faced two major cyclones – Ava in January and Eliakim in March – that ruined 80% of the agriculture that the district population depends on for both sustenance and income. Hundreds of homes were completely destroyed, displacing thousands of people across Ifanadiana District. PIVOT responded in collaboration with local authorities and fellow NGOs to ensure those most severely affected were provided staple food items (rice, beans, oil, etc.) and home supplies (soap, cooking utensils, etc.) that were lost in the storm.

Part of building a strong health system is ensuring that it is ready to endure such challenges, respond to the needs of the population, and be resilient enough to recover quickly – all while being able to maintain our regular pace of ongoing clinical activities at all levels of care.



A member of the emergency response team en route to deliver supplies and provide clinical support to cyclone victims in the furthest reaches of the district.

With Gratitude

We extend our sincerest thanks to supporters who made gifts from January 1, 2018 through December 31, 2018.

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PIVOT beneficiaries Christine and Marolahy sit outside their home with PIVOT supporters John and Sandy Mullman during a social support visit.

Meet the Mullmans

// PIVOT is a remarkable project that has narrowed in on an
exigent human situation – ensuring that people in a largely
neglected part of the world have access to basic health care.

Without seeing and experiencing it first hand, it is impossible to appreciate how awesome the challenges are that PIVOT and the population face in this part of Madagascar: the poverty, the geography, the climate, and the lack of basic infrastructure make for incredibly difficult context in which to improve a health care system. There are very few paved roads, so we trekked for hours over dirt paths, across bridge-less streams, and through rainforest just to visit a rural health clinic. This made us acutely aware of how these journeys must feel to someone in desperate need of care.

We view PIVOT as a uniquely good charitable investment because, rather than acting independently as a "band-aid" NGO, they are partnering with both local and national government to change the health care system together. Moreover, PIVOT has been incredibly methodical in their approach to documenting both the costs and outcomes of their strategies. This cost-benefit analysis is compelling to us because it provides evidence that they can not only sustain but also scale the transformation that they have created in Ifanadiana District.

After seeing the work first hand, we are confident that PIVOT will create lasting change for the people of this region and beyond. //

John Mullman and Sandy Logan Mullman
PIVOT Supporters

Financials

EXPENSES	2018	2017
Programs	\$3,084,592	\$2,850,795
Research	\$383,998	\$89,956
Administration & Fundraising	\$659,570	\$723,917
TOTAL	\$4,128,160	\$3,664,668

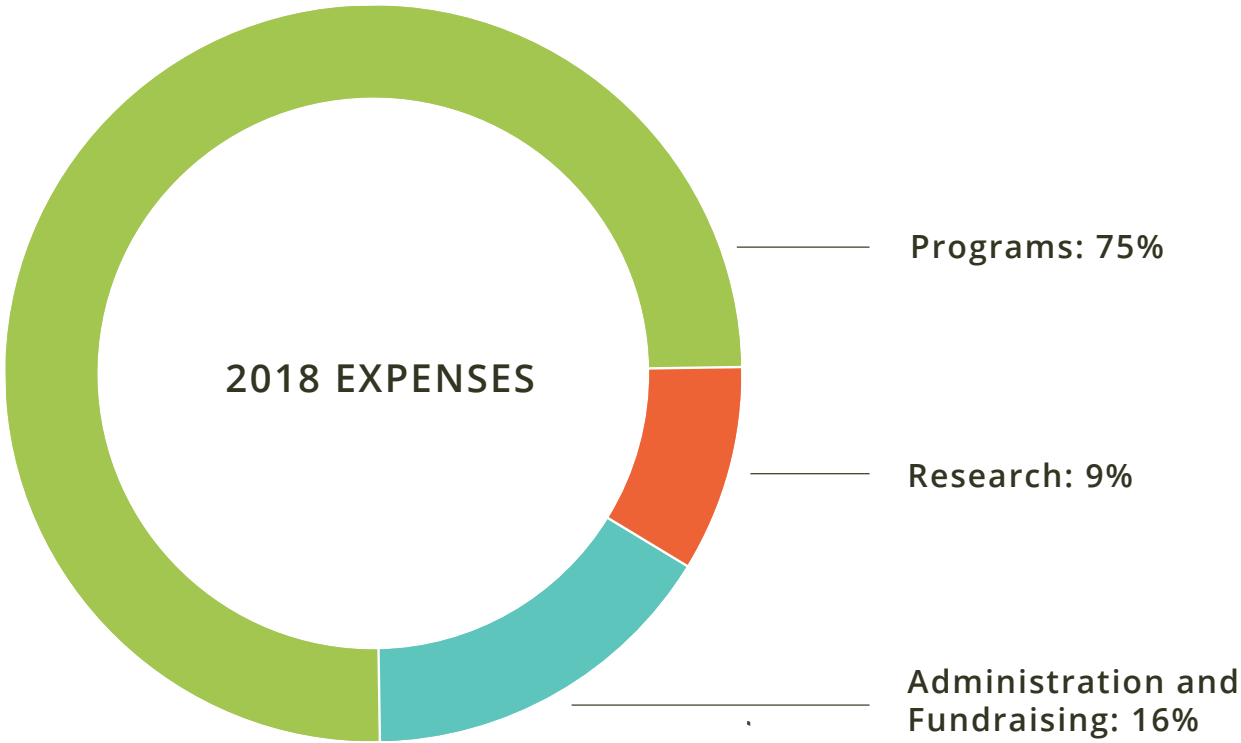
REVENUE		
Grants & Contributions	\$5,010,849	\$3,793,640
In Kind	\$210,054	\$15,755
Interest & Dividends	\$3,932	\$2,102
TOTAL	\$5,224,835	\$3,811,497
NET REVENUE	\$1,096,675	\$146,829

ASSETS		
Cash and Cash Equivalent	\$2,625,018	\$1,809,665
Pledges Receivable	\$250,000	\$26,732
Prepays & Other Current Assets	\$138,720	\$165,137
Fixed Assets, Net	\$314,780	\$304,031
Other Assets	\$125,644	\$131,365
TOTAL ASSETS	\$3,454,162	\$2,436,930

LIABILITIES & NET ASSETS		
AP & Accrued Expenses	\$153,351	\$235,496
TOTAL LIABILITIES	\$153,351	\$235,496
Net Assets		
Unrestricted	\$2,945,462	\$1,980,371
Temporarily Restricted	\$355,349	\$221,063
TOTAL NET ASSETS	\$3,300,811	\$2,201,434
TOTAL LIABILITIES AND NET ASSETS	\$3,454,162	\$2,436,930



PIVOT Community Health Supervisor Anjarasoa and Finance Assistant Rova dispense per diems in Tsaratanana.



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“ When we founded PIVOT, I never imagined we would make such significant progress in just five years. Our team’s commitment to comprehensively strengthening the system – to addressing every last detail necessary to provide quality care – is humbling, and it is the reason we are seeing results. ”

Robin Herrnstein
PIVOT Co-Founder and Board Member

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