Dear PIVOT community,

We are pleased to share with you the third edition of our Quarterly Impact Report. We hope this will serve as a tool to not only highlight our data and analytics, but also to promote transparency, foster accountability, and generate conversation surrounding our work.

This quarter was one of exciting transitions. With momentum building in support of Universal Health Coverage (UHC) at the central level in Madagascar, our leadership team has developed a comprehensive plan for scaling our model health system guided by the principles of UHC – above all, removing barriers to care, prioritizing community health, and ensuring the availability of high-quality facilities and services for every person in Ifanadiana District. With support for this plan from the Ministry of Health, we are on track to achieve our goals of replication at scale by 2022 and, most importantly, for prioritizing the needs of the most vulnerable by implementing universal principles for advancing health as a human right.

Another opportunity to live out our vision for equity came internally this quarter, as we filled two of PIVOT’s most senior staff positions with women. In July, we welcomed Dr. Alishya Mayfield into the position of Chief Medical Officer. In August, Laura Cordier – after five and a half years of directing PIVOT’s Monitoring & Evaluation team in Madagascar – took the role of Country Director. Together with Executive Director Tara Loyd, this trio is leading a managerial team that is over 50% female. We are thrilled to be doing our part to move this needle in the global health field, where women are vastly underrepresented in positions of influence.

Please read on for more highlights from the quarter! Thank you for your continued partnership and, as always, we welcome your questions and feedback.

In solidarity,

Tara Loyd  
Executive Director

Matt Bonds  
Co-Founder & Scientific Director
— Q3-2019 HIGHLIGHTS —

• Observed higher utilization rates at the community and health center levels than ever before as compared with Q3 rates of years past, nearly doubling health center targets and perhaps indicating a heightened awareness of and trust in the strengthened system.
• Established the District Hospital’s first blood bank, now stocked for use in cases of urgent care.
• Partnered with Operation Fistula to run an awareness-raising and repair campaign, which supported corrective surgeries for 24 women suffering from fistula.
• Further reduced financial barriers to care for the district population by initiating the coverage of the cost for all medicines at health centers (rather than most), as well as all transportation fees incurred by patients and families referred to the District Hospital.
• Recruited 13 new community health workers and trained 30 for the upcoming launch of a community health pilot program in Ranomafana commune to proactively manage malnutrition and childhood illness.
• Received a high-level delegation led by the Minister of Health Pr. Julio Rakotonirina to discuss our ongoing partnership, approach, and plans for the future.
• Strengthened maternal and reproductive health activities at the health center level to include continuous trainings and improved delivery equipment.
• Identified and implemented new supply chain solutions to reduce stockouts.

— Q3-2019 CHALLENGES —

• Ongoing increases in utilization rates have led to a higher burden of work for facility staff; we are collaborating with the Ministry of Health to improve recruitment and retention, increase capacity, and distribute workload.
• Inconsistent utilization of maternal waiting homes; we are working with traditional home birth attendants to establish an incentive for bringing pregnant women to deliver in facilities.
• Stockouts at the community and hospital levels revealed gaps in supply chain policy; our operations and clinical teams are actively working across teams and with suppliers to resolve the issue.
• Major infrastructure projects are taking longer than expected to complete, creating challenges with patient flow at facilities where construction remains underway; we estimate that all ongoing projects will be complete before the end of December.
HEALTH SYSTEM OVERVIEW

PATIENT VISITS SUPPORTED

SINCE 2014, PIVOT HAS SUPPORTED 397,523 PATIENT VISITS

STAFF

247 clinical personnel supported in Ministry of Health facilities

172 Community Health Workers
32 Health Center Clinicians
43 District Hospital Clinicians

251 hours of training logged

SUPPORTED 34,116 PATIENT VISITS IN Q3, INCLUDING:

VISITS (CHILDREN UNDER-5)

5,304 (Target: 3,348)
158% of target achieved

PER CAPITA UTILIZATION
1.45 visits per child under 5

EXTERNAL CONSULTATIONS (ALL AGES)

25,171 (Target: 13,560)
186% of target achieved

PER CAPITA UTILIZATION
1.24 visits per person

OUTPATIENT VISITS (ALL AGES)

1,494 (Target: 1,928)
77% of target achieved

HOSPITALIZATIONS
538 (Target: 655)
42% average

CONTINUUM OF CARE

593 patient referrals
including:

• 362 standard referrals to higher level of care
• 231 transfers by ambulance or stretcher

AVAILABILITY OF ESSENTIAL MEDICINES

QUARTERLY IMPACT REPORT: Q3-2019
MATERNAL & REPRODUCTIVE HEALTH

This quarter, we saw a 97% maternal survival rate\(^{15}\) at PIVOT-supported health facilities.

In addition to this, we saw:

- **40.3%** contraceptive coverage rate\(^{16}\) (Target: 45%)
- **27%** facility-based delivery rate\(^{17}\) (Target: 41%)
- **35%** antenatal 4-visit delivery rate\(^{18}\) (Target: 60%)

SINCE 2014, PIVOT HAS SUPPORTED **6,269** FACILITY-BASED DELIVERIES

MALNUTRITION

- **63 children** began treatment for acute malnutrition\(^{19}\)
- **45 children** were discharged from treatment

OUTCOMES

<table>
<thead>
<tr>
<th>Cured</th>
<th>Lost to follow-up(^{21})</th>
<th>Unresponsive to treatment(^{22})</th>
<th>Required transfer</th>
<th>Deceased</th>
</tr>
</thead>
<tbody>
<tr>
<td>87%</td>
<td>7%</td>
<td>0%</td>
<td>7%</td>
<td>0%</td>
</tr>
</tbody>
</table>

(Target: >80% (Cured), <15% (Lost to follow-up), <10% (Deceased))

TUBERCULOSIS

This quarter, **70 patients** were enrolled for TB treatment.

- 77% smear positive
- 14% smear negative
- 7% extrapulmonary

Cohort Outcomes

for the **48 patients** who enrolled in Q3 of 2018:

<table>
<thead>
<tr>
<th>Success rate</th>
<th>Lost to follow-up(^{23})</th>
<th>Unresponsive to treatment(^{24})</th>
<th>Required transfer</th>
<th>Deceased</th>
</tr>
</thead>
<tbody>
<tr>
<td>58%</td>
<td>21%</td>
<td>0%</td>
<td>19%</td>
<td>2%</td>
</tr>
</tbody>
</table>

(Target: >90% (Success rate), <5% (Lost to follow-up), <2% (Unresponsive to treatment), <3% (Deceased))

SOCIAL SUPPORT

- **409** social kits (food and household essentials) distributed to vulnerable patients
- **11,387** meals served to hospitalized patients and their accompagnateurs\(^{25}\)
- **1,005** psycho-social sessions provided for patients
- **6** visits to patients’ homes to provide specialized support

**Lab technician Jean Mamy draws blood from Dr. Lova, Deputy Director of Primary Care, who was one of 20 volunteers to donate during the District Hospital’s first-ever drive to establish a new blood bank.**
For over 10 years, Joeline has suffered from obstetric fistula resulting from a complicated labor in which she lost her first child. Fistula is a widely stigmatized disease in many parts of the world, including Madagascar, where women with the condition often face being ostracized from their communities. Fortunately, Joeline had the support from her husband, family, and community as she sought corrective surgery on three different occasions, all of which were unsuccessful. In July 2019, PIVOT partnered with Operation Fistula to find and help women living with fistula. Joeline was one of twenty-four women who received the surgery. She will return to the District Hospital in December 2019 for a final follow-up surgery that should allow her to return to work for the first time in a decade.

In a recent publication in PLOS Medicine, Camille Ezran et al. report on the content of maternal and child care in PIVOT’s intervention area compared with areas not yet receiving PIVOT support, showing how health systems such as those in rural Madagascar can rapidly increase access to and quality of care.

Want to learn more about the women leading the PIVOT team? Check out our latest blog post, “With Women at the Helm” to read about our leaders and what we’re doing to be the change we wish to see with regard to the underrepresentation of women in public health leadership worldwide.

As Senior Technical Advisor and member of our board of directors, Dr. Benjamin Andriamihaja has been regarded as an essential part of the PIVOT community since before the organization even had its name. Check out our latest spotlight for more about his contributions to PIVOT’s work.

The seven #PIVOTvalues ground us in who we are and who we aspire to be. To see how these values inform our strategy and drive our staff in their daily work, follow along and join the conversation: @pivotmadagascar
1. **PIVOT full support (for health center):** a health center that receives PIVOT's technical and financial support to ensure that: it is staffed at or above Ministry of Health standards; fees for patient visits are covered; facility infrastructure is improved; and the data system is supported through data quality assessments and feedback.

2. **PIVOT partial support (for health center):** a health center that receives PIVOT's financial and technical support to hire staff, perform routine data collection, and address urgent district-wide or facility-specific issues as needed.

3. **Supported patient visit:** a patient visit to community health worker, health center, or hospital for which costs of care are reimbursed by PIVOT; patients are not charged a consultation fee.

4. **Community health:** disease prevention and health promotion conducted by community health workers (CHWs) outside of health facilities and within a community.

5. **Health center:** a health facility offering primary care services for the population of a geographically-defined commune, ranging from 4,500 to 20,800 people (NOTE: In Madagascar, every health center or centre de santé de base (CSB) is designated as either a CSB1 or CSB2; CSB2s are larger and staffed with at least one advanced level clinician; CSB1s are staffed by nurses and midwives; PIVOT support currently focuses on CSB2s.)

6. **District hospital:** a secondary health facility offering inpatient care and specialized clinical services (including dentistry; emergency obstetric care, including caesarean sections; laboratory and radiology; infectious disease treatment; and inpatient malnutrition for children) for the district population; to access care at the district hospital, patients are referred from the health center.

7. **Tertiary care:** specialized medical care provided at regional or national health facilities outside of the district.

8. **Community health worker (CHW):** an elected community member trained to provide care for common illnesses in their home communities and to refer patients in need of higher levels of care to health facilities; patients served are primarily pregnant women and children under five.

9. **Per capita utilization:** annualized rate at fully-supported health centers is calculated using the total number of quarterly health center visits multiplied by four and divided by total catchment area population.

10. **External consultation:** new and follow-up outpatient visits with a clinician at a fully-supported health center or hospital.

11. **Bed occupancy:** percentage of total hospital beds available that are occupied by admitted patients.

12. **Essential medicines:** a subset of total medicines supplied (7 medicines at the community level, 15 medicines at health centers, and 31 medicines at the district hospital) that, informed by international standards, are necessary for providing basic health care in our setting.

13. **Baseline:** the assessment of the availability of essential medicines before PIVOT intervention, which was: 2018 at the district hospital, 2014 at health centers, and 2015 at the community level.

14. **Standard referral:** a non-emergency referral from a community, health center, or hospital in which patients are counseled to seek specialized care, but are not provided transport by ambulance.

15. **Maternal survival rate:** the percentage of health center births in the last quarter for which the mother was discharged alive following delivery.

16. **Contraceptive coverage rate:** the percentage of women between the ages of 15-49 in PIVOT's catchment area who use any method of birth control as documented at the health center for a three month period (adjusted for reporting delays).

17. **Facility-based delivery rate:** the percentage of the estimated number of infants expected to be born in the review period who were born at a fully-supported health center.

18. **Antenatal 4-visit completion rate:** the percentage of women who gave birth at a fully-supported health center who attended at least four antenatal care visits prior to delivery.

19. **Acute malnutrition:** weight for height between -2 and -3 z-scores according to growth standards.

20. **Severe malnutrition:** weight for height below -3 z-score according to growth standards.

21. **Lost to follow-up:** a patient whose treatment has been interrupted and who has not completed a program of care.

22. **Unresponsive to treatment:** a patient whose health outcomes do not improve with treatment for specified disease.

23. **Accompagnateur:** a family member, friend, or community member who accompanies a patient to seek care; often to cook, clothe, or otherwise provide necessary day-to-day support for the patient.