

New wave of Pivot/MoPH joint recruits gather for orientation in preparation for their deployment across Vatovavy Region.



QUARTERLY IMPACT REPORT

October 1 - December 31, 2023

Dear Pivot community,

It is my honor to kick off FY24's Quarterly Impact Reports with an update about our latest progress toward regional expansion. For the last decade, we've concentrated our efforts on transforming Ifanadiana District's public health system into a replicable model for universal health coverage. The past year was one of major progress as we worked hand-in-hand with the Ministry of Public Health (MoPH) to define what the first steps of regional expansion will look like. Together, our first priorities include: co-recruiting government healthcare personnel to ensure all facilities are staffed to norms; removal of user fees for target populations (pregnant women and children under 5); establishing a strong referral system to facilitate patients' continuum of care; and fortifying community-level service delivery with the rollout of the new enhanced national strategy that we helped author. We are looking forward with great anticipation to launching these activities over the course of 2024.

This incoming era of region-wide implementation has raised fundamental questions about how our team must evolve to rise to the challenge. As Pivot's National Director, I have had the pleasure of collaborating with our **Executive Leadership and Human Resources teams to take a deep dive into these questions, designing a strategy that will leverage the talents of our existing team and identify areas for growth.** With expert guidance provided by Rippleworks (who gave Pivot catalytic inflection funding in our earliest days of expansion talks), we have been able to invest time and effort into developing a staged decentralization plan. The aim is to ensure all three district offices are staffed by a team of "Doers" that oversee, implement, and keep district-level activities operating smoothly, with the ability to adapt and respond to the unique needs of each setting's population, geography, etc. Meanwhile, our headquarters office of "Thinkers" will centralize feedback from the field and, combined with routine data, use findings to inform strategy and improve program design.

This journey has been both an exciting challenging and healthy exercise to hold ourselves accountable to maintaining quality throughout our growth. It has been a unique privilege to be able to take space and time as a team to think differently about our structure, and dream big about what it could look like at scale. **The process has not only been critical to our imminent expansion - it has also generated morale among our team, cultivating a renewed sense of ownership over the approach to achieving organization-wide priorities through the lens of human resources.** From thinking in terms of economies of scale to innovating new solutions to workflow challenges, we are collectively reinvigorated to advance Pivot's mission and the MoPH's vision, maximizing impact on both the population as well as the health system itself.

As always, we invite you to think of this report as a tool by which you can engage with our work, as we use it to foster our own transparency and accountability. Mankasitraka amin'ny fiaraha-miasa! (We appreciate your partnership!)

In solidarity,

Sarah-Anne Barriault
National Director

IFANADIANA DISTRICT

In partnership with Madagascar's Ministry of Public Health, we are transforming Ifanadiana District's public health system into an evidence-based model for universal health coverage that can be sustained, replicated, and scaled.

Pivot's current support to the health system at each level of care:



District referral hospital ¹



Primary care health centers ²

21 receiving Pivot support



Community health ³

197 community health workers (CHWs) ⁴



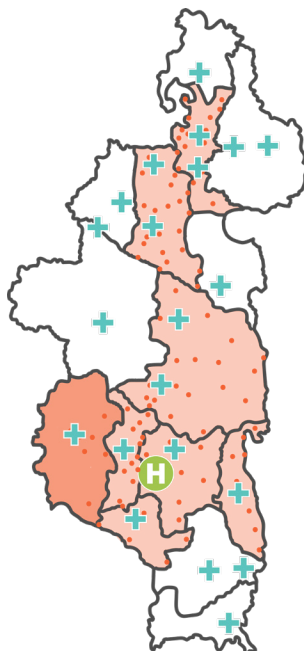
Enhanced community health

Including case-finding and household-level care



Community health sites

93 structures where CHWs receive patients



Total District Population: 210,212

- Hospital catchment: 210,212
- Health center catchment: 210,212
- Community health catchment: 102,456
– which includes –
- Proactive care catchment: 13,768

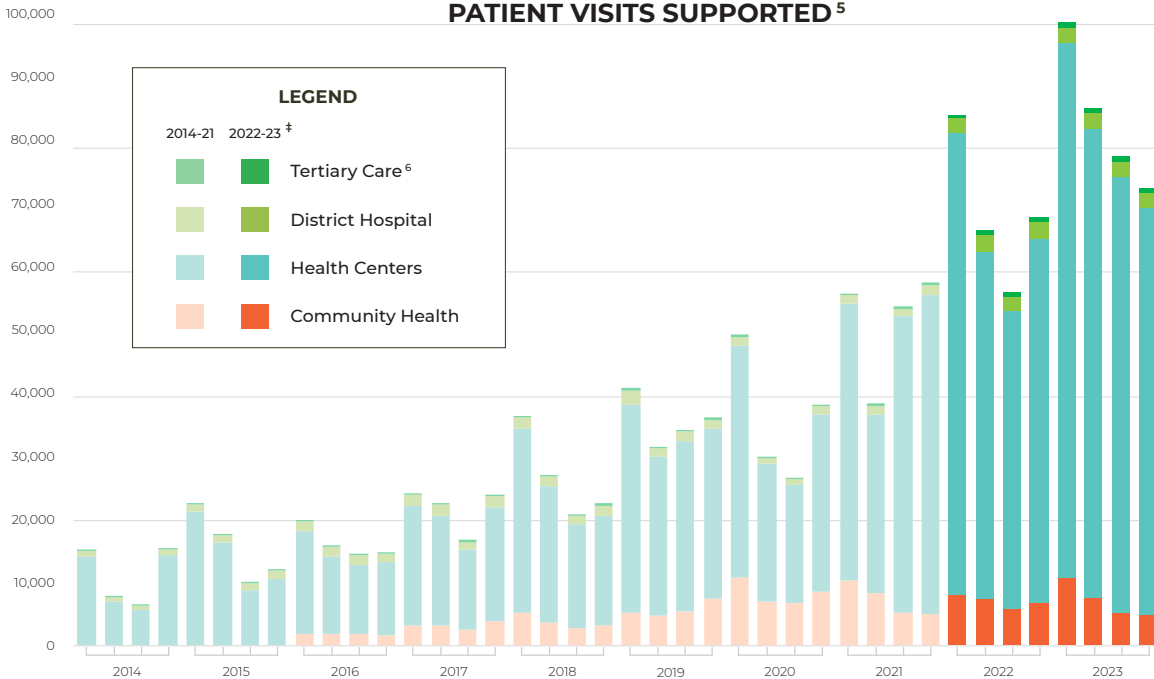
Baseline Statistics (2014):

- 1 in 7 under-5 mortality
- 1 in 14 maternal mortality
- 71% of the population lives >5km walk from nearest health facility
- 49% of the population lives >10km walk from nearest health facility

HIGHLIGHTS & CHALLENGES

- **Completed the 1st wave of joint recruitment as part of regional expansion**, adding 5 doctors, 7 lab technicians, 1 technical engineer, and 57 paramedical staff to the public health system (*pictured on page 1*). This is a critical step to launching expansion activities that center Human Resources as the heart of health system strengthening.
- **Supported DHIS-2 training across expansion districts** to ensure that heads of health facilities as well as district and regional health office representatives are able to use this tool for aligned data management - an essential part of ensuring data quality and timeliness as we start looking at health information system data at a regional level.
- In response to continued supply chain shortfalls, **launched financial support for the systematic transport of medicines** from the district pharmacy to health facilities across Ifanadiana District. Conversations are ongoing at a regional and national levels to identify long term solutions.
- Continuing engagement in central-level working groups, **participated in updating key reference documents for malnutrition and reproductive health protocols**.
- Following two years of engagement to strengthen noncommunicable disease policies at the national level, **held trainings on new health center-level protocol for personnel involved with delivering care to patients with NCDs**.
- CHW and community health supervisors' engagement in critical training sessions this quarter contributed to lower-than-usual community health utilization and CHW supervision rates.
- **Continued urgent malnutrition response** efforts by providing specialized training in case identification and management for 405 community health workers across 9 communes.
- **Renewed our participation in Madagascar's Country Coordinating Mechanism**, which advocates for how Global Fund money is distributed to aid initiatives throughout the country.
- Led by members of the Pivot Science team, **produced 3 new research manuscripts** on geographic barriers to maternal care, novel disease surveillance methods, and COVID-19 morbidity and mortality (authored by Ihantamalala, Evans, and Garchitorea, respectively).
- **Supported specialized reproductive health training** in neonatology (premature births) and internal medicine (gestational diabetes) as part of the SAFER project, which aims to address maternal mortality through a combination of reproductive health interventions focused on improving the identification and management of high-risk pregnancies.
- **Inaugurated a new maternal waiting home** in Analampasina Commune and donated materials for the construction of another in Fasintsara Commune. With 3 more structures to be constructed by the end of 2024, we aim to complete this project by having a maternal waiting home at every level-2 health center in Ifanadiana District.
- Supported activities organized by the Ministry of Population, Social Protection, and Promotion of Women in their **16 Days of Activism campaign against gender-based violence** with sensitization sessions led by Pivot social workers to raise awareness about newly-established walk-in centers for survivors to access resources.
- Celebrated the **completion of a collaboration with Ny Tanintsika to install latrines and sensitize community members** in Ambohimiera Commune, culminating in its certification as an open-defecation free zone. The project was an exemplary journey of partnership and collaboration from which we are drawing many lessons for community engagement for expansion.

PATIENT VISITS SUPPORTED⁵



THIS QUARTER
(OCT-DEC'23)
73,571

ALL-TIME
(SINCE 2014)
1,484,849

⁵ As of January 2022, we are using a new method to calculate patient visits that better reflects all clinical encounters supported by financial, technical, or human resources from Pivot. Faded colors represent 2014-2021 totals calculated using the previous method.



Community Health

VISITS
(CHILDREN UNDER-5)

4,997
(Target: 6,916)

72% of target achieved

PER CAPITA UTILIZATION⁷

1.1 visits
per child under 5 (annualized)

Community Health Outcomes in Enhanced Care Commune vs. Non-Enhanced Communes

	Enhanced Care Pilot Commune	Non-Pilot Communes
Percent of Households Visited	94%	—
Per Capita Utilization Rate	1.1	1.1
CHW Adherence to Protocol	93%	96%
CHW Supervision Rate	61%	81%



Health Centers

EXTERNAL CONSULTATIONS⁸
(ALL AGES)

61,248
(Target: 72,411)

85% of target achieved

PER CAPITA UTILIZATION

1.4 visits
per person (annualized)



District Hospital

VISITS
(ALL AGES)

2,440
(Target: 2,660)

92% of target achieved

HOSPITALIZATIONS	BED OCCUPANCY ⁹
818 (Target: 620)	49% (Target: 65%)

PROGRAM SPOTLIGHT: LAUNCHING A NEW FINANCIAL PROTECTION STRATEGY

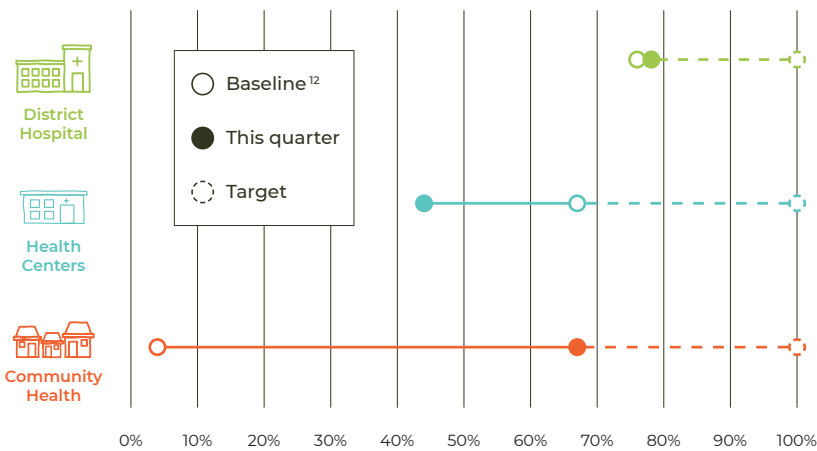


Financial and social protection for patients is one of Pivot's central strategic objectives in the journey to improve healthcare access for all in Vatovavy Region. This quarter, **after months of close collaboration with the district health office to design an improved approach for reimbursement of user fees, we were proud to roll out the Care 2.0 strategy.** Marking the official launch was the deployment of dedicated locally recruited staff to oversee patient reimbursement activities and ensure strong governance of this improved system - at all level-2 health centers in Ifanadiana District.

The Care 2.0 initiative's mission is to strengthen equitable access to quality care by strengthening the health system and reducing financial and social barriers. This means covering costs incurred across the continuum of care, including for: essential medicines, be they provided by CHWs or hospital specialists; transportation to and from facilities; and hospitalization room and board fees for both patients and their accompagnateurs.

Dr. André Andriamanday, Pivot's Director of Health Policies and Resources and the person leading the charge on this new initiative, explains that the new strategy "has the central level buy-in that we need. **The MoPH has been with us every step of the way to build a stronger system as we prepare to launch this approach across the region, ultimately make healthcare services more accessible for thousands of families.**"

AVAILABILITY OF ESSENTIAL MEDS¹⁰



CONTINUUM OF CARE



20%
transferred
by taxi bus
and ambulance

32%
transferred
by taxi bus
with transport fees
covered by Pivot

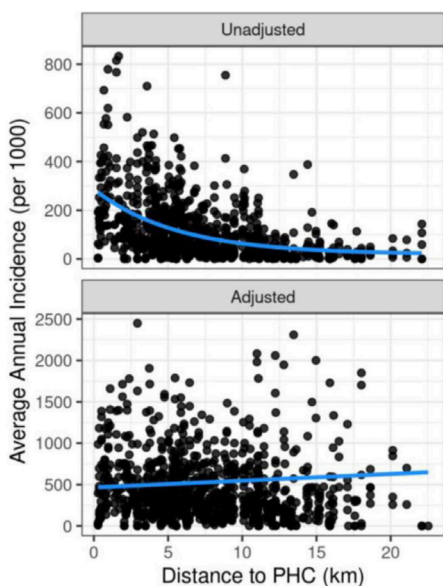
48%
by other mode
of transport
on foot, or by car,
tractor, stretcher, etc.

PERSONNEL

- **266** total Pivot employees
 - **99%** Madagascar-based
 - **98%** Malagasy
 - **70%** female leadership
- **384** MoPH staff supported
 - **85** district hospital staff
 - **102** health center staff
 - **197** community health workers



RESEARCH SPOTLIGHT: USING PRINCIPLES OF PLANETARY PHYSICS TO BETTER ESTIMATE DISEASE BURDEN



Pivot's investment in data systems has led to improvements in the quantity and quality of health system data in Ifanadiana District, allowing us to track health and healthcare utilization at the community level. However, passive surveillance data from health centers (collected upon patient diagnosis) continues to be afflicted by a common problem: people from more remote communities are less likely to seek care at health centers, resulting in an undercounting of cases and an underestimate of the true burden of disease.

In a [new study published in Scientific Reports](#), Pivot researchers led by Michelle Evans and Andres Garchitorena developed a method to account for this under-estimation of cases, resulting in higher-quality surveillance data for common diseases. They detail a method based on a gravity model, where a primary health clinic functions like a "planet," exerting a gravitational force relative to the quantity and quality of services it offers to "attract" patients from surrounding villages. The reported case numbers for each fokontany (cluster of villages) are statistically corrected for the high number of months reporting zero cases, a reflection of access to care and not disease burden, and adjusted via the gravity model. **When applied to malaria case data from Ifanadiana, this method drastically improved our ability to correctly estimate disease burden.** Building upon this success, our teams have already begun applying this analytic method to other use cases. New research is now underway using the gravity model to forecast other climate-sensitive infectious diseases for the district, helping Pivot to better understand who is sick where, and informing resource allocation to align with patient needs.

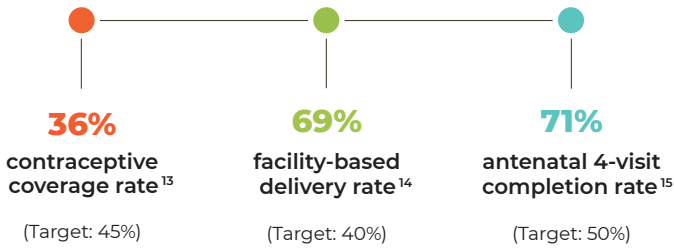
FIGURE: The unadjusted data on annual malaria incidence (top) shows a steep decline in cases as distance from the health center increases, reflecting a decrease in healthcare access due to geographical barriers. Using the gravity model, our adjusted estimate of incidence (bottom) accounts for the under-reporting of cases from remote communities and reflects a more accurate estimate of disease burden and need for malaria testing, treatment, and human resources.

MATERNAL & REPRODUCTIVE HEALTH



SINCE 2014, PIVOT HAS SUPPORTED **18,554** FACILITY-BASED DELIVERIES

This quarter, we achieved:



And maternal survival rates¹² were:



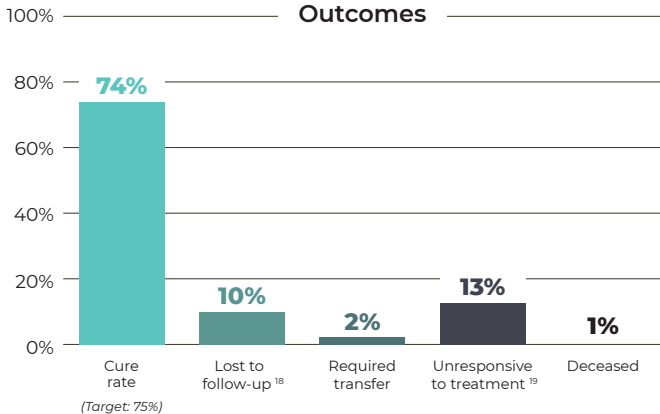
MALNUTRITION



HEALTH CENTERS

- **309 children** began treatment for acute malnutrition¹⁶
- **201 children** were discharged from treatment

Outcomes



DISTRICT HOSPITAL

- **16 children** were admitted for treatment of severe acute malnutrition with complications¹⁷
- **15** were successfully discharged from intensive treatment (either cured or referred to a health center for continued care)



VALUES IN ACTION

Board Steering Committee members Dr. Luc Samison and Benjamin Andriamihaja represented Pivot at a national celebration on World AIDS Day to receive an honor as one of the many government partners supporting Madagascar's fight against HIV/AIDS.

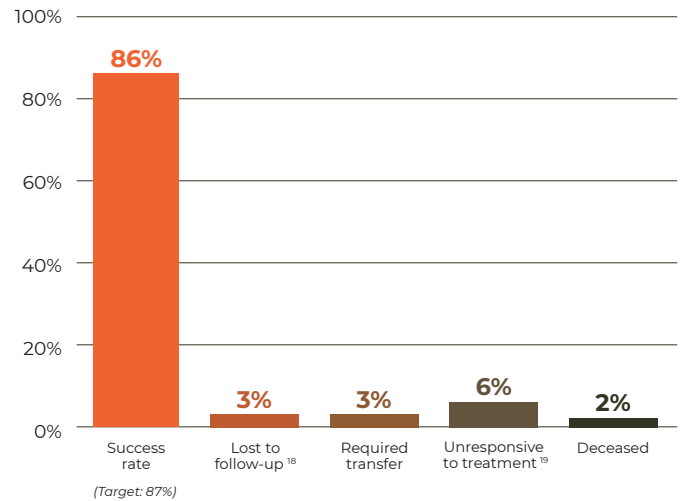
TUBERCULOSIS

This quarter, **54 patients** were enrolled for TB treatment.



Cohort Outcomes

for **66 patients** completing 1 year of treatment:



SOCIAL SUPPORT

- 719** social kits (food and household essentials) distributed to vulnerable patients at the district hospital
- 37** psycho-social sessions provided for hospital patients
- 4,794** reimbursements provided for transport to/from care
- 33,982** meals served to hospitalized patients and their accompagnateurs²⁰



CASE SPOTLIGHT:

TSARASOA ACCOMPANIES PATRICK TO HEALTHIER FUTURE

At just two years old, Patrick was diagnosed with extrapulmonary tuberculosis, with infection spreading through his bones and spine. As farmers living in the remote community of Ambodiara Sud, Patrick’s family was deterred by prevalent rumors about catastrophically high costs associated with care through the public health system, so his mother Soanjara initially pursued traditional forms of treatment for her son’s illness. However, Patrick’s symptoms continued to worsen, with deformations in his spinal cord starting to impede his ability to stand straight or walk comfortably.

It was upon meeting Tsarasoa, their fokontany’s Community Health Worker (CHW), that Patrick’s mother was convinced to go to Kelilalina Health Center. The CHW assessed Patrick’s condition and encouraged the mother to enroll him in a treatment plan, reassuring Soanjara that her family would incur no out-of-pocket expenses for Patrick’s care.

Thanks to his family’s vigilance and close accompaniment from CHW Tsarasoa, Patrick didn’t miss a single appointment in the 12 months that followed. Patrick’s mother faithfully brought him to the health center for all of his scheduled check-ups and prescription refills, and visited the district hospital whenever he was due for an X-ray. Meanwhile, in their home community, **CHW Tsarasoa made daily home visits during the first two months of intensive treatment, monitoring Patrick’s progress, supporting his medication regimen, and reminding the family about upcoming appointments.**

After a year of faithful adherence to his treatment plan, Patrick’s condition had improved significantly and satisfactorily enough to be discharged as “cured” from Kelilalina Health Center’s TB treatment program. As in so many similar cases in Ifanadiana District and beyond, **the experience between Patrick, his family, and their CHW underscores the importance of CHWs like Tsarasoa and community-level care in facilitating access to essential health services and ensuring successful treatment outcomes.**

CHWs are the key to a functioning primary care system, and we are committed to supporting their essential work.

MORE FROM THIS QUARTER

In case you missed it: **Our [2023 Impact Report](#) is now available!**

As we wrap up a decade of transformative work and prepare for regional expansion, we reflect with gratitude on the milestones that your support has made possible: >1.4M patient visits, improved access to lifesaving care, strengthened health infrastructure, success in advocating for patient-centered national health policies, a dynamic scientific agenda to inform public healthcare delivery in Madagascar and beyond – and so much more.

As we look ahead to all that Pivot’s next decade has in store, we carry the lessons of the past 10 years and the confidence of knowing that you are with us on the journey to health for all.

We hope you enjoy the stories contained within the report’s pages. Your continued partnership is truly a gift.

With gratitude,
The Pivot Team



DEFINITIONS

- 1. District hospital:** a secondary health facility offering inpatient care and specialized clinical services (e.g., dentistry; emergency obstetric care, including cesarean sections; laboratory and radiology; infectious disease treatment; and inpatient malnutrition for children) for the full district population
- 2. 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
- 3. Community health:** disease prevention and health promotion conducted by community health workers (CHWs) outside of health facilities and within a community
- 4. Community health worker (CHW):** a community member trained to provide care for common illnesses in their communities and to refer patients in need of higher levels of care to health centers; patients served are primarily pregnant women and children under five
- 5. Supported patient visit:** a patient visit to community health worker, health center, or hospital for which costs of care are reimbursed by Pivot
- 6. Tertiary care:** specialized medical care provided at regional or national health facilities outside of the district
- 7. Per capita utilization:** an annualized rate of utilization calculated using the total number of quarterly community or health center visits multiplied by four and divided by the total catchment area population; only fully supported health centers are included in the calculation
- 8. External consultation:** new and follow-up outpatient visits with a clinician at a fully-supported health center or hospital
- 9. Bed occupancy:** percentage of total hospital beds available that are occupied by admitted patients
- 10. Essential medicines:** a subset of total medicines supplied (7 at the community level, 15 at health centers, and 31 at the district hospital) that, informed by international standards, are necessary for providing basic health care
- 11. Baseline [availability of medicines]:** 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
- 12. Maternal survival rate:** the percentage of facility births and miscarriages in the last quarter after which the mother was discharged alive
- 13. 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
- 14. 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
- 15. Antenatal 4-visit completion rate:** the percentage of women who gave birth at a fully-supported health center who attended four antenatal care visits prior to delivery
- 16. Acute malnutrition:** weight for height that falls between -2 and -3 standard deviations below the mean weight for height according to international growth standards
- 17. Severe malnutrition:** weight for height below -3 standard deviations below the mean weight for height according to international growth standards
- 18. Lost to follow-up:** a patient whose treatment has been interrupted and who has not completed a program of care
- 19. Unresponsive to treatment:** a patient whose health outcomes do not improve with treatment for specified disease
- 20. 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