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Dear Friends, Partners and Supporters of mTOMADY

We are proud to publish the first mTOMADY annual report and look back on our achievements in 2021 as we worked to lower financial barriers to accessing healthcare.

2021 marks our first year as an independent non-profit social enterprise. We started out as a project of the NGO Doctors for Madagascar and the Berlin Institute of Health, offering a mobile maternal health wallet to expectant mothers in Antananarivo. Since then, mTOMADY has helped to cover 6,458 births, leveraging the power of mobile money to enable families to save for health expenses and seek care with participating healthcare providers.

As we have expanded our reach across Madagascar, we have built and implemented new technology and health financing mechanisms in 7 out of 22 regions in Madagascar, helping everyone access quality healthcare without facing financial hardship. In Madagascar, most healthcare payments are still made out-of-pocket and patients may be denied care if they cannot pay their bill upfront. Many patients are often afraid to seek essential and sometimes lifesaving care because of unexpected costs which can threaten them with financial ruin. mTOMADY has stepped up to address these challenges by working with a diverse range of partners, including mutual health insurances (MHIs), government and international organizations.

We worked with the Malagasy Ministry of Health and the Vitol Foundation to digitize a World Bank funded voucher program for expectant mothers and young children. We gained the trust of mutual health insurances to digitize their key financial and operational processes, as well as to implement digital tools for the surveillance and treatment of tuberculosis...

We directly addressed the fallout from COVID-19 by expanding smallholder farmers' access to health financing mechanisms, subsidizing the cost of their treatment in partnership with the Bayer Foundation and Doctors for Madagascar, while training community health workers with Amref Germany - Gesundes Afrika. mTOMADY's technology ensured that the contributions made by chocolate manufacturers such as Max Felchlin AG to their cocoa farmers' healthcare safely reached the intended recipients, giving them access to the healthcare that they need and deserve. Our technology and programs reach hundreds of healthcare facilities and hundreds of thousands of beneficiaries in Madagascar, and we are pleased to have launched new initiatives to expand to Ghana and Uganda.

After an exciting first year, we will continue to work hard to accelerate progress towards more equitable and accessible health systems. We would like to thank all of our supporters and partners for making our work possible - we look forward to what we can achieve together in the future.

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2021 in numbers

264 319

Enrolled beneficiaries

€311,580

Paid out in claims in 2021

126

Healthcare providers registered on the mTOMADY platform

6,458

Births covered by **mTOMADY**

13,336

Electronic vouchers for used in 2021

What is mTOMADY?

mTOMADY connects patients with different health financing services over a simple mobile phone

Patients can access











Mobile health wallet

Cash transfers for health

Insurance

Bonuses and matched savings

Vouchers





How we measure impact

We rely on scientific evidence to make sure our work has a meaningful positive impact among the communities we serve. Through collaborative research partnerships with leading German and African research institutions, we are able to ensure evidence-based decisions are made across the organization, from the design and development of our technology to strategies for scaling. Most importantly, we are able to scientifically evaluate the impact and value of what we do.

During the early days of mTOMADY, we worked with human-centred design researchers to better understand our target users, and to ensure our solution meets their needs. Insights from this study directly informed decisions made about design and implementation - like making sure even people without access to a mobile phone can use mTOMADY.

An ongoing evaluation of our Mobile Maternal Health Wallet is focused on determining the intervention's direct impact on health outcomes, as well as its cost-effectiveness and transferability to other public health contexts. To do this, 20 data collectors will conduct interviews with over 10,000 women in the Analamanga region of Madagascar who used mTOMADY during their pregnancy.

Our research projects span sub-Saharan Africa; they are active in Madagascar, Uganda, and Ghana. Results are being made openly available to public health decision makers who can use these findings to guide future policy and digital health interventions related to poverty reduction, universal health coverage, and gender equality.

Our partners and donors

Across sub-Saharan Africa, the cost of health services prevent millions from accessing care. In Madagascar, where much of our work is based, most people are forced to pay out-of-pocket for health services, and when they cannot, the consequences are severe. Patients may be denied care, even in emergencies, or forgo care for fear of catastrophic health expenditure, which pushes 1.5% of the population in sub-Saharan Africa into poverty every year. There is a critical need to improve access to health services free of financial risk, and in particular advance health coverage in marginalized communities, making progress towards SDG 3.8 (universal health coverage).

We work with partners across the public and private sector to make it easier for people to access the health services they need, without facing financial hardship. For governments, establishing a well-functioning health financing system is critical – our solution stren-

gthens core functions from raising and pooling funds, to paying healthcare providers for the services they provide. Beyond the public sector, donor-funded programs or mutual health insurances provide access to free or subsidized health services. However, they often fail to scale and struggle to reach remote communities. Due to inefficiency or fraud, not all the funds intended for beneficiaries end up reaching them.

to scale and extend health programs to the hardest-to-reach communities. We digitize enrollments in health programs and insurance schemes, reducing the distance people have to travel, while also remaining accessible to users that lack internet access or even their own phone. For all partners, a customizable dashboard displays key impact metrics, improving transparency, speeding up the exchange of information, and enabling data-driven decision making.

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Public partners and donors

Particularly in rural regions in the south of Madagascar, even basic healthcare is unaffordable for most. In these communities, 97% of the population works in agriculture, less than 10% has a permanent job, and health insurance is almost non-existent.

Communities in this region have also been suffering from the worst drought in 40 years, which has left more than 1.1 million people affected by severe

acute food insecurity. The lack of rain means that farmers cannot harvest what they have sown, cannot cultivate what they usually eat or sell, and even if they have food, they have no water to cook with. The famine has devastated farmers and their financial resources, meaning that they face even greater challenges to access healthcare than before. The COVID-19 pandemic has further exacerbated these

Project Spotlight -Restricted health cash transfers during the Madagascar famine



dized health services reach the last mile. Since March 2021, 25,000 smallholder farmers in Atsimo-Andrefana have been eligible for a program called Tosik'aina, which means life-saving subsidy in Malagasy. It covers 80% of the cost of services including antenatal care and treatment for childhood illnesses, tuberculosis, and malaria. Ministry of Agriculture, Livestock and Fisheries, mTOMADY facilitated the expansion of Tosik'aina to the Anosy and Androy regions. Tosik'aina prodigitization of a health mutual in the region and a transition towards more sustainable health coverage schemes.

Insurance providers

Mutual health insurances are deeply rooted in their communities and offer low-cost health insurance coverage to particularly vulnerable low-income and informal populations, making essential services like hospitalization, primary healthcare and delivery more affordable. While many mutual health insurances have emerged in Madagascar, participation in them is still very low at 0.9% and most struggle to reach enough members for self-sustainability. They often rely on costly paper-based systems, manual cash transport and in-person enrollment and policy management.

In 2021 we partnered with three mutual health insurances, Mahavelona, Tsiharôfy and ADeFi Santé, to digitize their operational and financial processes. By digitizing key workflows, mTOMADY reduces inefficiencies, limits paperwork and allows insurance

providers to expand to previously inaccessible markets. It also reduces costs related to enrollment, payment and reimbursement procedures. In Madagascar, we managed to reduce the claims settling time from an average of 65 days to only 11 days.

People can either sign up themselves with a simple mobile phone, or be signed up by agents of the mutual health insurance using a smartphone, meaning that they do not need to travel the often long distances to a branch office to register. They can then seek care at participating healthcare providers, using mTOMADY to show their proof of membership and verify that they received treatment. The healthcare providers submit claims, which are digitally processed and automatically scanned for fraud, before being reimbursed.

Project Spotlight - Health insurance for cocoagrowing communities

Max Felchlin AG has been working with smallholder cocoa farmers in Madagascar's Diana in the health mutual Tsiharofy. Last year, 854 farmers and their families digitally enrolled in Tsiharofy during group outreach sessions and

that the money Max Felchin AG set aside to accountability and mitigates fraud.



contribute to the healthcare costs of farmers reaches the targeted communities. Impact metrics can be grouped by village or healthcare By accurately tracing funds, mTOMADY ensures contributions. This transparency ensures

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€191.195

In cash transfers sent to healthcare facilities as part of COVER Madagascar in 2021

58.211

people digitally enrolled in insurance programs through mTOMADY in 2021

854

Families in the cocoa farming industry protected by Tsiharofy



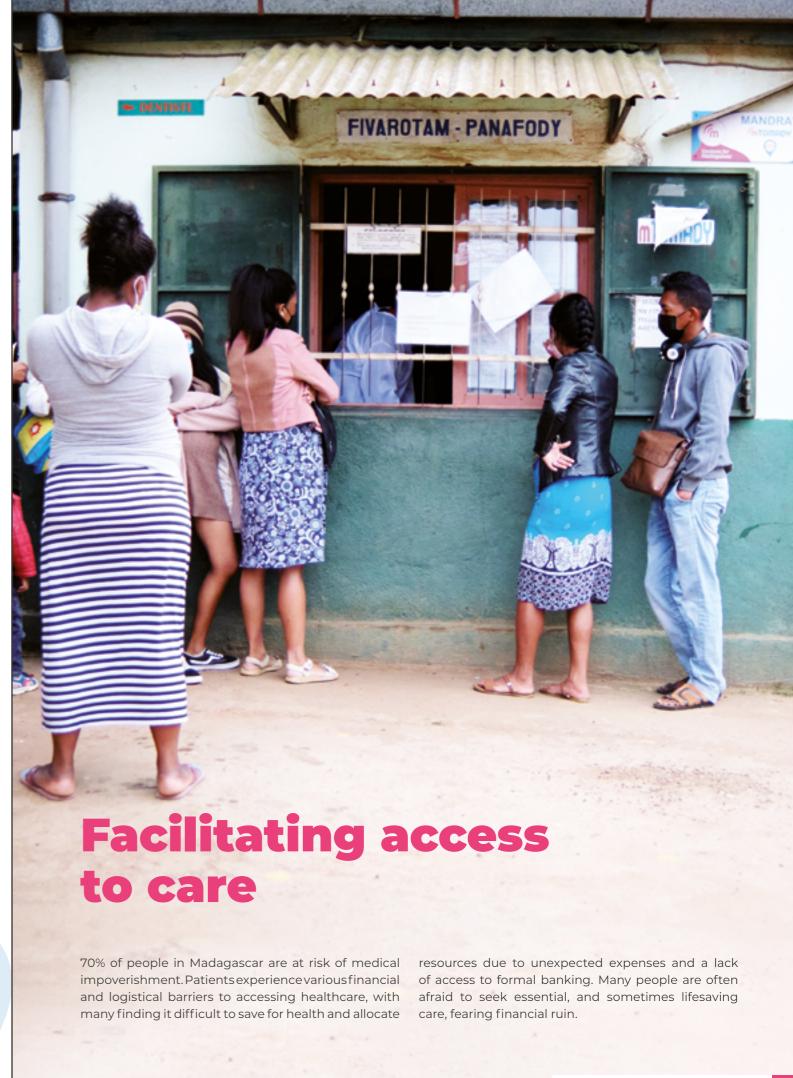
Randriamampionona Felana Voahangy

My name is Randriamampionona Felana Voahangy. I am 32 years old. I am married and I have 4 children to support. We currently live in Manambaro. I am a housewife and my husband sells coal. We work very they have a better future.

We are not used to going to the basic health center, nor do we have the means to do so. When a family member is sick, we resort to traditional remedies such as 'tambavy', which is less expensive than the medicines we buy at the pharmacy. We only go to the hospital when an illness is very serious. I remember when we took my little girl to the hospital; we had to sell a big pot to pay part of the bill; and it still wasn't enough!

It is only since our little family subscribed to Tosik'aina that we stopped hesitating to come to the health center. For example, I started giving birth at the health center from our 3rd child onwards. I hard to be able to feed our children and make sure benefited from free ultrasound sessions during the prenatal consultations.

> Now, we have just started treatment for our youngest son Elino, who is one and a half years old and suffers from diarrhea. The bill amounted to 80,000 Ariary. But in the end we only had to pay 16,000 Ariary. That really makes a big difference compared to our previous situation!



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Enabling savings

mTOMADY integrates with the local mobile communications and payment infrastructure to make sure services for healthcare financing reach as many people as possible. Pregnant women and young mothers in the Analamanga region can strengthen their financial resilience using the mobile savings wallet we developed.

This allows users to send, save and spend money for health-specific expenses, reassuring savings and remittance senders, such as family and friends, that the funds will only be used as intended. They can also access digital vouchers for free or subsidized medicines and care, and benefit from 50% matched funding.

Project Spotlight - Mobile health savings and vouchers for expectant mothers

mTOMADY's Mobile Maternal Health Wallet, a mobile-phone based savings account for expectant mothers, builds on the widespread use of mobile money in Madagascar. Community health workers or agents stationed at key locations, including remote rural areas, help people convert their cash into mobile money at mobile cash points. For first time users, a human face can help reassure them of the security of the platform and answer their questions. Users are registered with either their existing phone number or are given a SIM card, which can be used to access the mTOMADY platform via the USSD menu.

Participating healthcare providers, which have passed high quality of care standards, perform check-ups and provide medical care during delivery. When needed,

mTOMADY's Mobile Maternal Health Wallet, a mobile-phone based savings account for expectant mothers, builds on the widespread use of mobile money in Madagascar. Community health workers or agents stationed at key locations, including remote rural additional training, drugs, or medical equipment is provided through the program. This makes it easier for pregnant women to access the WHO's recommended four antenatal care appointments, and ensure births are attended by skilled health personnel.



Accelerating progress towards universal health coverage

Many people in Madagascar may be deterred from enrolling in health coverage programs because they need to enroll and manage their policy in-person, especially when branch offices are far away or inaccessible due to a lack of transport. With our partner mutual health insurances, mTOMADY digitizes these processes, making them simpler and more accessible through a simple mobile phone. We eliminate the need to make a long journey, and users don't need an internet connection or a smartphone to digitally enroll. If beneficiaries do not have their own phone, they just need a SIM card to use someone else's phone.

Madagascar's approach to universal health coverage relies on a combination of people getting coverage





through private or mutual health insurances, and services covered or subsidized by public funding. This funding sometimes targets particular patient groups, such as pregnant women. Maternal and infant health outcomes are particularly poor in Madagascar, where out of 1,000 live births, 53 children die before turning 5, largely from causes preventable with check-ups, qualified obstetrics, vaccinations and early treatment. 14% of women receive no antenatal care at all and only 55% of births are attended by skilled health personnel. We are working with the Ministry of Health to improve maternal and child health outcomes by digitizing a universal health coverage program that provides all pregnant women and children under five with vouchers for free healthcare. The program exists elsewhere in Madagascar in paperbased form, but starting in Aloatra-Mangoro, a rural region in central Madagascar, mTOMADY will be used to improve the reach, efficiency, and transparency of the voucher system. The Vitol Foundation is providing additional support for the digitization of the trial, along with multiple mutual health insurances.

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€12,330
Given out as vouchers for free healthcare in 2021

579
Mothers and young
children benefited from
free medical treatment in
Aloatra-Mangoro

€74,768
Saved by expectant mothers through the Maternal Health Wallet to prepare for birth in 2021



Malanto

My name is Malanto and I am the mother of a two-year-old boy. I live in Anosindrafilo Antanifotsy. At the health center, I was told to sign up for a free subscription, and I was so happy because the cost of the medication is worth two days of our expenses. I had to share this experience with my family and the people in our village. I never thought that there would be this kind of project in our health center and I'm very happy about it! Thank you mTOMADY!



Volonona

I am Volonona, a mother of a newborn. I live in Ambatomainty Ambohidava. I went to the health center on Sunday, and I was surprised that everything was free of charge. We were offered a delivery kit, and the medicines were all free. We signed up and took our photos and that was it. We are very satisfied, because until the age of 5 my child will be covered by health coverage. mTOMADY has really helped us and I want to say thank you to all the midwives and everyone who has contributed to the project.



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Improving resources for sustainable, quality care

Health facilities in remote. low-income, and otherwise vulnerable communities lack the resources to deliver consistent, quality care. Bottlenecks and misallocated medical supplies can have devastating consequences when they exacerbate already severe shortages. With mTOMADY healthcare facilities receive reliable, quick payments for the services they perform - digital, cashless payments in turn lead to less leakage. Our technology also improves

> the accuracy and speed with which healthcare utilization data is collected and pooled; insights which help health system decision makers better distribute medicines to where they are needed most. This means health facilities have the resources they

need to treat patients, and don't need to turn anyone in need of care away.

In the Atsimo-Andrefana region of Madagascar, mTOMADY is being used in the fight against tuberculosis - a debilitating infectious disease that requires consistent monitoring and treatment over several months. At four health centers and over 23 mobile screening sites, community health workers digitally register patients with suspected cases of tuberculosis. Staff at health facilities can then easily monitor patients throughout the course of treatment and coordinate resources. Community health workers and healthcare facility staff receive digitized micropayments to cover the costs of surveillance, such as petrol for mobile testing vans. Patients enrolled in the program through their phone number or an assigned SIM card receive behavioral nudges to encourage adherence to treatment.

Engaging community health workers

For many in Madagascar, community health workers are the first point of contact to the health system. Their knowledge of their communities and local environment helps to ensure that the identification, treatment and referral of patients to care is thorough. However, many community health workers experience inconsistent and unreliable payments, meaning that it can take months to receive the compensation they are due, which can have a negative effect on their livelihood as well as their motivation. When community health workers need

to travel long distances to collect payments in cash, they not only lose out on precious hours of work, but they are vulnerable when traveling and carrying large sums of money.

mTOMADY established a patient referral system that distributes performance-based payments automatically to community health workers based on the number of referrals they make. This ensures that the system is trustworthy, fast and reliable, and helps improve workers' motivation.

Project Spotlight - Community health workers introduce mTOMADY to rural communities

In collaboration with 'Amref Germany munities to identify, treat, and refer mo-Andrefana region. mTOMADY infectious diseases, and financial inclusion in healthcare. This supported

outreach includes home visits and focus groups, through which 10,605 people were reached last year. Comhealth expenditures by helping them sidizes the costs of essential health-







Eldine

My name is Eldine. I have been working at the Befelatanana maternity hospital for years. Before the existence of the mTOMADY project, many families could not afford to pay the hospital fees for childbirth. So they were forced to go into debt to the hospital. Some of them even manage to sneak out of the hospital as a simple visitor. So there is a loss of income for the maternity hospital.

mTOMADY is a great help to people during childbirth. Pregnant women are happy to have free ultrasounds, free medicines, but also savings for the delivery, which gives them a 50% reduction in the cost of hospitalization. There are many people every day lining up to sign up as a member of mTOMADY.



Michelle Lorene

My name is Michelle and I am the head of a health center in the Manambaro municipality in the Anosy region. Here, people used to come to the hospital only when the situation was critical and often by that point, it was too late. But since we have been working with mTOMADY's community health workers, who have conducted sensitization, we have seen many more pregnant women coming to the health center for prenatal consultations or to give birth.

We have more and more patients who use our health center. Women are becoming aware of the benefits of seeking skilled medical care, as well as the importance of family planning and are gradually adopting this practice. In addition, the Tosik'aina medical coverage has also contributed greatly to the improvement of the living conditions of the beneficiaries.

FINANCIAL INFORMATION

SINCOME	575,841.75
EXPENSES	587,561.43
Personnel costs	587,561.43 433,425.09

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