



Dear Friends and Supporters of Project Muso,

It is a great pleasure to share with you the progress of Project Muso's Community Based Malaria Program. By enabling us to launch the Community Based Malaria program, you have provided us with the opportunity to pilot a community-based approach to fighting malaria, to strengthen the health care system in partnership with the Malian Ministry of Health, to mobilize religious communities, and to create a platform for evidence-based policy change in the region.

The Project Muso Team has used our community-based approach to take the following steps in 2008: Build and equip a new clinical center building, and renovate old infrastructure to create an expanded maternity ward; Train the clinical care team in malaria diagnosis and treatment best practices based on the latest clinical research; Train and hire a team of 20 Community Health Workers to actively seek out, diagnose and treat pediatric malaria in the home; Create a Solidarity Fund—a health care financing system that removes key financial barriers to rapid, efficient, and complete care, providing free care for malaria and other illnesses to those who cannot afford to pay.

2008 Impact at a Glance

- **New clinical care center building**
- **20 Community Health Workers trained to diagnose and treat malaria in the home**
- **The Solidarity Fund – a new healthcare financing system to provide free care for those who cannot afford to pay**

Our Community Based Malaria Program is strengthening the public sector's capacity to provide quality, accessible primary care, while focusing on clinical outcomes for the disease that affects the poorest and most vulnerable in Mali more than any other—malaria. By removing financial, geographic, and other bottlenecks to care, we are making malaria prevention and treatment accessible to many community members in Yirimadjo for the first time.

This pilot program has the potential to be scaled up and to reshape the fight against malaria throughout the region. Toward this goal, we plan to rigorously implement, test, evaluate, and modify this model over the next four years.

Thus far, we have raised commitments for \$500,000 in contributions for the program from many individual donors, the philanthropies of Edward W. Scott, the Ella Lyman Cabot Trust, the Larson Legacy Foundation, Rotary Clubs in 8 different countries, the Tony Blair Faith Foundation, Tostan/USAID, World Vision, individual donors, and grassroots fundraising of religious communities of diverse backgrounds. We are thus on our way toward raising the \$1.2 million necessary to rigorously implement and evaluate this five year pilot program. Every day, we hear from our inspiring Community Health Care Workers about the families they are reaching—they keep us focused on the transformation that is possible and on the urgency of this moment.

We are eager to hear your questions, thoughts, and feedback.

With Solidarity and Gratitude,
The Project Muso Team

Building Infrastructure

We designed the Community Based Malaria Program not only to achieve national goals for early malaria treatment, but also to sustain these achievements. An isolated campaign may be able to reach a momentary goal, but if we want to sustain and continue to build on that progress, we need to establish strong health care systems. This is why we are partnering with the Ministry of Health to build long-term clinical care capacity.

We constructed and equipped a **new 2,900 square foot clinical care building**, and renovated an older building to create an **expanded maternity ward**.

Many features of the new facility are aimed at building health system capacity, including design elements to maximize infection control:

- high 4-meter ceilings and double-ventilation in patient treatment rooms
- increased spacing between patient beds
- well-ventilated and separated outdoor waiting areas

We opened the doors of this facility in the beginning of September, more than doubling the clinical care capacity of the Yirimadjo area, and providing the infrastructure that is supporting our massive effort to find and treat all cases of malaria within 48 hours among this population of twenty thousand people.

An overflow shelter (top) where patients who could not fit inside the old clinic building previously received treatment, is replaced by construction of a new clinical care facility (bottom shows construction in July 2008)



Building Infrastructure



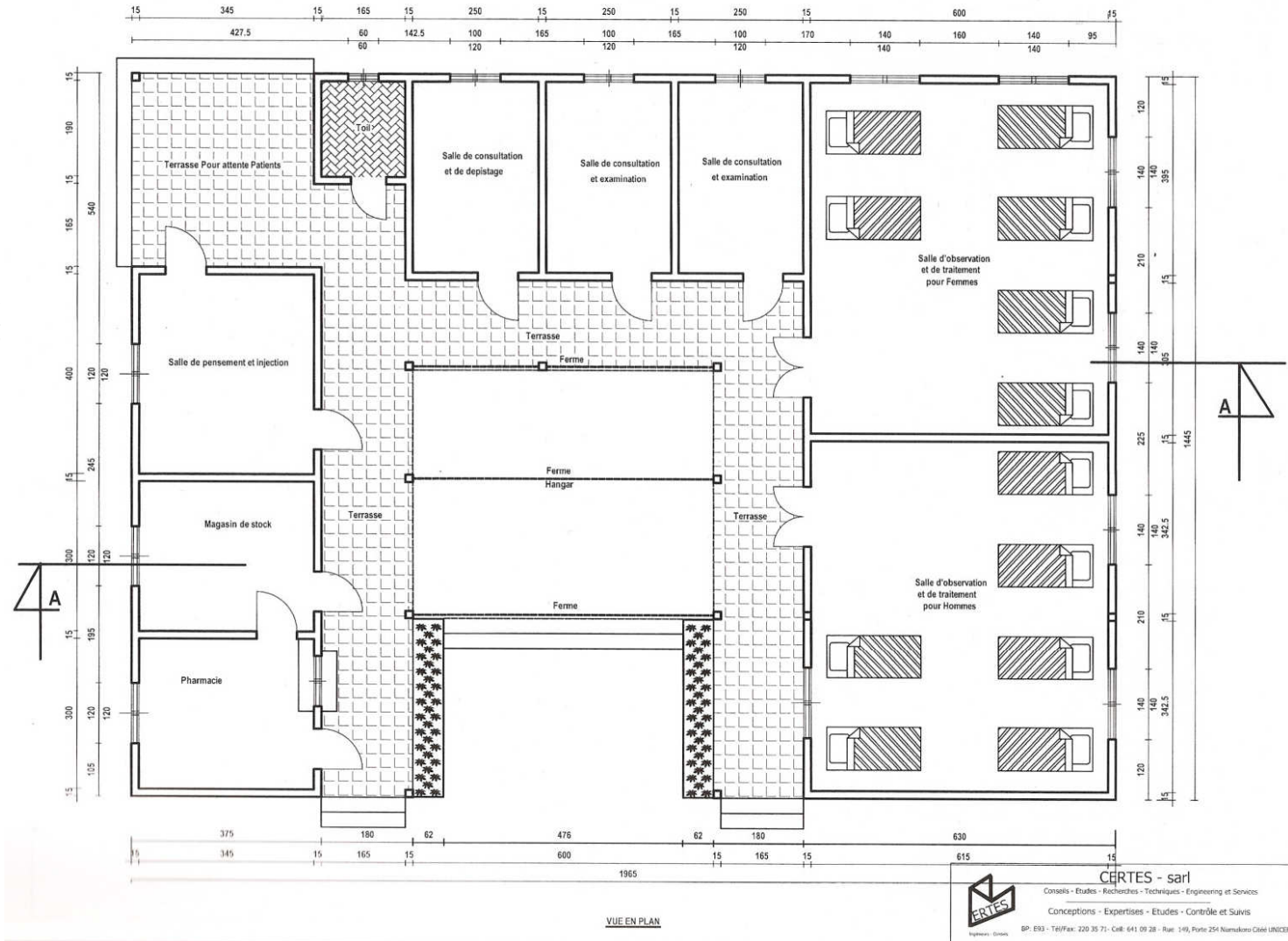
Continuing construction visual timeline from previous page, the above photo shows construction progress as of August 2008. Following completion of construction, the new clinical care building (top right) opened its doors Sept 7, 2008. We also renovated the old clinic building to create an expanded maternity ward (bottom right).



Building Infrastructure

Architect's rendering of floor plans for the new clinical care building show (clockwise from bottom left) the pharmacy, stock room, wound dressing room, two consultation rooms, counseling room, 6-bed men's patient treatment room, 6-bed women's patient treatment room, and central open waiting area.

The complete architectural plans are available upon request.



Community Health Workers

Spotlight on Active Case Finding

Early and complete treatment is a cornerstone of stopping child malaria deaths and interrupting the cycle of transmission. By treating within the first 48 hours of the first symptom, we allow few opportunities for the *plasmodium falciparum* parasite to reach new hosts, and we cure the infection before it reaches its potentially deadly stages.

How are we approaching the great challenges of reaching all infected children in less than two days? **We are turning traditional treatment models on their heads—rather than waiting for patients to come to the health center, our team of Community Health Workers are going door to door every day actively searching for cases**, and following a rigorous protocol of fever evaluation, rapid antigen testing using a finger-prick assay, and on-site treatment with artemisinin-based combination therapy. Active case finding has recently emerged as an ambitious strategy in tuberculosis and AIDS care, and has enormous potential for malaria. The following story about Fatoumata Diabate, one of Project Muso's Yirimadjo Community Health Workers, shows the power of active case finding.

After visiting several households to look for cases of malaria, discuss malaria prevention and treatment, and establish relationships with families, Fatoumata comes to a one-room home and meets a young woman cooking with her three small children around her. Although they are strangers at this time, they greet warmly and ask about each other's children and families, as is part of Malian culture and tradition. Their conversation develops into an intimate exchange between two mothers, and Fatoumata quickly learns about the challenges of extreme poverty that the family is facing.

The mother calls to another child, a little boy several years younger than the other children. He has had a rough night and groggily



Community Health Workers

Spotlight on Active Case Finding



approaches Fatoumata to greet her. Last night was the first night he had had such a fever before, the mother explains that he also had eaten very little last night and had been told to lay down this morning because his stomach and head were still hurting him. At this point Fatoumata explains how she believes that malaria maybe the cause, but that as a community health worker she must first takes his temperature and check his blood to be sure, before she will be able to give the boy any medications.

The test is positive and Fatoumata gives the little boy his first round of ACT, crushed and mixed with water in a clean cup so that he can swallow it. At this point, the mother tells Fatoumata that she knows of another small child who is sick next door—she is close with this mother, and their children usually play together. In a matter of one hour, the two small playmates began their 3-day ACT treatment with Fatoumata.

Thus far this year, we have trained a team of 20 Community Health Workers, and supported Dr. Ichiaka Koné, Dr. Djoumé Diakité, Fousseini Traoré, and Kadidia Sounfountera, to supervise and continue training them. We have also been able to train the entire clinical team of the Yirimadjo health center in the latest evidence-based approaches for malaria diagnosis and treatment, in partnership with Mali's Malaria Research and Training Center.

The Solidarity Fund

Reaching the Poorest with Comprehensive Care

In a country where most people live on less than \$1/day, many patients do not seek care at government health centers because they cannot afford to pay the mandatory fees for doctor's consultations, tests, and medicines. For families that have only enough money on a given day either to eat or to pay for a doctor's visit, there is great pressure on mothers not to bring their children to the health center when they have a fever. It is thus easy to imagine why Mali's health system continues to have such poor coverage for early and effective treatment of malaria and other illnesses.

This summer, Project Muso's Community Based Malaria Program conducted a door-to-door household poverty and healthcare access assessment in Yirimadjo's more than five thousand households. We used the results of this assessment to reach out to and register impoverished households into a Solidarity Fund, a new system that provides them with free care for malaria and other illnesses. Registered families received enrollment cards listing each family member's name and registration number.

When a member of a registered family arrives at the clinic and presents their card, they receive care at no cost, and their care is tracked in our new electronic medical record-keeping system. This system encourages community-members who would not otherwise have access to care to get to the clinic right away. This helps the clinical care team to catch cases of malaria and other illness early after symptom onset, reinforcing our Community Health Workers' active case-finding efforts. Because we have not yet reached our

fundraising goals, we have been unable to register all the families who should qualify for the Solidarity Fund. In the coming year, we hope to dramatically increase the numbers of families we are reaching.



Challenges

- As our organization grows, we need to continue cultivating transparency and efficiency in our work. This is why we are transitioning from having a part-time financial manager to hiring a full-time staff accountant in Mali in early 2009.
- Through our partnership with the Malian Ministry of Health's National Malaria Control Program, the government had committed to provide us with a steady supply of rapid diagnostic tests. However, the Ministry recently informed us of a national stock-out of rapid diagnostic tests for malaria. As we continue to work with our government partners to address and resolve this crisis, we have needed to purchase 625 rapid-tests so that our program is not paralyzed by the stock-out.



Community Health Worker outreach to marginalized patients

- The Community-Based Malaria Program, as a partnership with the Malian Ministry of Health, is a rare opportunity to shape evidence-based policy change in the region. We have an opportunity to explore and demonstrate the potential of an integrated approach to malaria treatment and primary care. To achieve and sustain malaria outcomes in our catchment area, we need to be able to fully and rigorously implement this five-year pilot. To ensure early treatment of all malaria cases and significantly interrupt transmission, we must reach all residents of Yirimadjo, regardless of their ability to pay for care.

Because we have not yet reached our fundraising goals, we have been unable to register all the families who should qualify for the Solidarity Fund. To date we have been able to register a portion of patients for free care in the Solidarity Fund. But Yirimadjo is home to twenty thousand people, most of whom live in poverty or extreme poverty, and cannot afford to access health care. In the coming year, we hope to dramatically increase the numbers of families we are reaching through the malaria program, by enrolling thousands of additional patients in the Solidarity Fund.

With several of our funding partners considering renewing their gifts, we are optimistic that we can raise the funds we need to rigorously implement this pilot, refine it, and prepare it for scale-up.

Looking Toward the Future

Project Muso's partnership with the Ministry of Health means that this program is a potential testing ground for future malaria control policies in the region.

Through rigorous implementation and impact research over the next four years, we can refine this model to prepare it for scale-up.

Our new electronic medical record-keeping system collects clinical data of patients frequenting Yirimadjo's community health center, allowing us to track changes in care utilization over time. Our annual randomized household survey of malaria prevention and treatment indicators provides us with key longitudinal data upon which to track our progress toward achieving Mali's National Malaria Control Program goals.

The malaria program is just in its first months, but we are now well placed to demonstrate importance of this model: we can achieve greater and more lasting successes in malaria prevention and treatment by strengthening the health care system as a whole.

We anticipate the potential for positive synergies with other health initiatives. The foundational system we have created for malaria control, including infrastructure, Community Health Worker outreach, and accessible care, could be extended and adapted to address health priorities such as AIDS, tuberculosis, waterborne diarrheal disease, diabetes, and hypertension. Rigorous testing and refining of our malaria control strategies through this pilot will provide a strong framework for future progress.

Thank you for your partnership and solidarity in helping us build the foundations that enabled us to launch this program. Our efforts have only just begun.

