# SAVING LIVES, IMPROVING HEALTH

TWELVE STORIES OF HOW MSH IS ADVANCING HEALTH AROUND THE WORLD



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SAVING LIVES AND IMPROVING THE HEALTH OF THE WORLD'S POOREST AND MOST VULNERABLE PEOPLE BY CLOSING THE GAP BETWEEN KNOWLEDGE AND ACTION IN PUBLIC HEALTH.

This collection of stories was submitted through an internal story-telling contest at Management Sciences for Health (MSH) and represents the lifesaving work MSH and the frontline health workers we partner with perform every day, around the world. These 12 stories of hope and perseverance highlight how MSH achieves a difference in achieving better health outcomes in the home, community, health facilities, and on a national level. Stories feature successes in 7 out of the 73 countries MSH works in: Burundi, Democratic Republic of the Congo, Ethiopia, Haiti, Kenya, Nigeria, and South Sudan.

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## VISION 2014: UNIVERSAL HEALTH COVERAGE AND THE OPPORTUNITY FOR A HEALTHY LIFE



### A note from Jonathan D. Quick, MD, MPH

"A world where everyone has the opportunity for a healthy life." This is MSH's vision, guiding our efforts every day to save lives and improve health among the poorest and most vulnerable populations. And in the following pages, you will read inspiring examples of our partners around the globe working hard to increase access to quality health services for all. In 2014, universal health coverage (UHC) will play a pivotal role in helping us attain this vision. MSH has vigorously supported UHC because we're committed to the human right to health, deeply embedded in UHC, and because it's the only approach that transforms health systems to mobilize all available resources toward the affordable, quality health services that people need.

MSH has been a lead advocate for UHC in the post-2015 sustainable health and development framework. In 2013, we convened four high profile events: one in Washington, DC, last spring on access to medicines and UHC; a TED-style talk in Malaysia at the Third Global Women Deliver Conference on how UHC will help women's health; a panel discussion at The Rockefeller Foundation during UN General Assembly week in September; where we brought together key stakeholders on UHC from the malaria, tuberculosis, and maternal, newborn, and child health communities; and a multimedia event with NPR's Tom Ashbrook at the Institute of Contemporary Art in Boston, in conjunction with the American Public Health Association's annual conference. MSH's Health for All UHC advocacy campaigns in Africa have advanced the UHC agenda in Ethiopia Kenya, and Nigeria, and MSH will be leading a global civil society campaign toward UHC in 2014.

At the beginning of this year, I participated in a panel discussion on UHC at the Center for Strategic Information & Studies (CSIS) that aimed to debunk some of the myths surrounding UHC and explain why it remains the essential feature of the post-2015 health development agenda.

UHC isn't just an aspirational vision, or a privilege for wealthy countries alone it's achievable for countries at every income level, as proven by Thailand, Turkey, Mexico, Rwanda, and others. That's why dozens of low- and middle-income countries have started taking important steps toward UHC in recent years.

A recent Lancet Commission report, Global Health 2035, provides a roadmap to achieving dramatic gains in global health through a "grand convergence" around infectious diseases; maternal and child mortality; major reductions in the incidence and consequences of non-communicable diseases (chronic diseases) and injuries; and UHC.

The paths toward this "grand convergence" and to UHC will require changes in how health systems work in the household, in the community, in health facilities, and on a national level.

MSH will continue to strengthen health systems at all levels through healthsystems innovation, advocacy, capacity building, and evidence in over 73 countries leading to greater health impact.

It's exciting to share examples of our 2013 successes in health systems strengthening. These 12 stories from Burundi, Democratic Republic of the Congo, Ethiopia, Haiti, Kenya, Nigeria, and South Sudan show how people in the poorest and most vulnerable regions can have the opportunity for a healthy life.

Jonathan D. Quick is President and Chief Executive Officer of MSH.

## HOUSEHOLD SUCCESS

## 1 "I CAN MAKE IT!": THE STORY OF BRIDGET

### — Gilbert Ojiakor and Farzaneh Foroozan

Forty-year-old Bridget Egesi has been the sole caretaker of her five children since her husband's death in 2008. Until recently, Bridget pieced together an income by washing laundry, cleaning her neighbors' cars, and working as a security guard. Unfortunately, these menial jobs did not always pay enough to provide for her children's basic needs and Bridget had to withdraw them from school.

"[I've also learned to] build relationships with people who can support my vision and dreams." — Bridget Egesi Led by MSH, the US President's Emergency Plan for AIDS Relief (PEPFAR)-funded, United States Agency for International Development (USAID) project, Community-Based Support for Orphans and Vulnerable Children (CUBS) in Nigeria began helping women understand how to better care for the children in their homes in 2009. Through workshops held in conjunction with communitybased organizations, CUBS taught Egesi and

thousands of other caregivers about children's health and emotional needs. Partnering with the Nigeria AIDS Intervention Organization, CUBS also taught the caregivers how to start a business, track their incomes and expenses, and regularly save.

Motivated by the training and mindful of her community's needs and her experience as a nurse, Egesi decided to open a pharmacy. CUBS helped her write a business plan and submit it to a village savings group called Esusu. Impressed with Egesi's well-developed plan and budget, Esusu gave her a start-up loan of 40,000 naira (USD \$250), with which she rented a building and obtained a pharmacy license.

### Within 12 months, Egesi had opened her pharmacy.

Egesi's business now generates enough income for her to purchase adequate food and clothing for her children, and send all five to school. As of September 2013, Egesi was earning a daily profit



After being widowed in 2008, CUBS helped Bridget Egesi start a pharmacy so she could earn an income to suport her five children.

of 3,000 naira (US 19), and has been been able to repay 80 percent of her loan from Esusu.

"CUBS has made me realize that I can make it!" Egesi says. "The income-generating skills training I received helped me to save and plan properly for myself, my family, and business... [I've also learned to] build relationships with people who can support my vision and dreams."

Since the project started in 2009, CUBS has worked with local organizations to provide income-generating skills training for 12,500 household heads. These caregivers now have improved skills and means to provide for the 40,000 orphans and vulnerable children in their care.

In preparation for the project's conclusion in 2014, CUBS is partnering with training centers in each of the project-supported states to sustain and expand the caregiver trainings. CUBS is also working with two micro-finance banks that will continue providing loans to caregivers interested in opening or expanding small businesses.

*Gilbert Ojiakor is a program officer for the CUBS project in Nigeria's Delta State. Farzaneh Foroozan is a MSH Nigeria communications intern.* 

## 2 FAMILY MATRIX IMPROVES TB CASE DETECTION IN RURAL ETHIOPIA

### — Dr. Abel Helebo

Silenat Yihune, a 40-year-old woman, mother, and housewife, lives in a remote region of Huletejuenesie District, Ethiopia, which is approximately 20 kilometers from the closest health facility. For nine months Yihune suffered from a cough, chest pain, fever, and weight loss, but was unable to receive treatment. As is common among Ethiopian families, Yihune was economically dependent upon her husband; he refused to pay for her travel to the distant health facility. Several months later, Yihune's husband, Yirga, started to show similar symptoms and visited the Keraniyo Health Center, where he was diagnosed with tuberculosis (TB).



Silenat Yihune with her three-year-old child, her husband Yirga, and Tadele, a TB focal person at the Keraniyo Health Center.

Keraniyo Health Center is one of the health facilities in Huletejunesie District supported by the PEPFARfunded, USAID project, Help Ethiopia Address Low TB Performance (HEAL TB), led by MSH.

Last year, HEAL TB trained two health workers at the Keraniyo Health Center to use a family matrix system to prioritize TB screening among family members of their TB patients.

One of these health workers, Tadele Mulugeta Desta, diagnosed Yirga Yihune with TB and helped him to start treatment. He then recorded all of his family members' names onto the family matrix and advised Yirga Yihune to bring them to Keraniyo for TB screening. Having personally experienced the benefits of TB treatment, Yirge Yihune complied with this recommendation. Upon testing Yirga Yihune's family members, Desta discovered that Silenat Yihune was also suffering from TB.

The health care team at Keraniyo immediately started her on TB treatment.

Two months later, she is no longer coughing and has gained weight. As Silenat Yihune says:

"If it wasn't for the effort of Tadele and the health team, I would have continued to suffer. I cannot imagine what could have happened if we had stayed home and did not seek treatment. I am happy now that I can be there for my children."

The family matrix system has benefited many women who are not supported by their male partners to access health care in Ethiopia. In the past year, health workers in the Huletejuenesie District have used the family matrix to conduct TB tests for

283 family members of TB patients. Among these, nine individuals have been diagnosed and treated for TB and are no longer suffering.

Over the past few months, HEALTB has trained an additional 631 health workers from 348 health centers to use the family matrix. These health workers continue to receive technical support and mentoring from HEALTB as they incorporate the family matrix into their clinical practice. HEALTB also encourages trained health workers to teach their colleagues to use the family matrix system so that this TB outreach strategy continues to expand throughout Ethiopia.

Dr. Abel Helebo is a technical associate for HEAL TB.

"I cannot imagine what could have happened if we had stayed home and did not seek treatment. I am happy now that I can be there for my children."

## COMMUNITY SUCCESS

## 3 CATCHING MOSQUITOES, NOT FISH: RETURNING BEDNETS TO THEIR PROPER USE IN DEMOCRATIC REPUBLIC OF THE CONGO

### — Amélie Sow-Dia

It is I pm in the village of Kavimvira. The sun is high over Lake Tanganyika, at the foot of the Mitumba Mountain, in scenic Sud Kivu. Frank Baraka has packed the bounty of the morning fishing trip and folded his nets, when his cell phone chimes to signal an incoming text message: "Sleep every night under an insecticide-treated net to protect your family from malaria," he reads out loud, amused, to his fishing companion.

"This is exactly the message my wife has been pounding at home lately," Roger Amisi responds. "She says that she heard it at the ETL [Education-Through-Listening] meeting, with Nathalie, the primary school teacher."

Delaying his lunch, Baraka hurries to Nathalie Niéla's compound to find out about the messages on insecticide-treated nets, or ITNs. "Malaria kills children in our community," Niéla explains. "Sleep under a net every night to live safe from malaria."

This is the call to action of the Malaria 3+1 Campaign, implemented by USAID's Democratic Republic of the Congo-Integrated Health Project (DRC-IHP). This project, led by MSH in partnership with the International Rescue Committee (IRC) and Overseas Strategic Consulting, Ltd. (OSC), is collaborating on the malaria campaign in partnership with C-Change, also funded by USAID (and implemented by FHI360). An estimated 140,949 Congolese from 194 villages were exposed to campaign messages on malaria awareness and prevention. In a country where only 5 percent of pregnant women receive proper preventive malaria therapy, and malaria accounts for nearly 40 percent of under-five deaths, prevention is a critical priority.

Niéla is one of 37 women ETL facilitators recently trained in the DRC-IHP's field office of Uvira. "Thanks to ETL, our husbands no



Frank Baraka (left) sews a bednet to use as a fishing net.

longer use the nets to fish or to protect vegetable gardens," she affirms. "Nets now serve their purpose of protecting children and pregnant women from mosquito bites."

ETL is one pillar of IHP's Tuendeni-Kumpala Behavior Change Communication strategy, which empowers communities to adopt health-seeking behaviors. Tuendeni-Kumpala, which means "moving forward" in Swahili and Tshiluba (two local languages), is an integrated strategy in which ETL facilitators work with other innovative communication approaches, such as mobile technology, to increase the reach and enhance the behavioral impact of project interventions, such as malaria prevention and use of reproductive health services.

Through this partnership with USAID, DRC-IHP, and C-Change, a total of 64,584 ITNs were distributed across Bukavu, Kolwezi, Uvira, and Kamina, supporting the effort to boost the number of people using insecticide-treated nets.

Campaign results from two health zones point to the value of ETL, in terms of actual ITN use. In Kamina (Katanga province), ETL was not yet rolled out when the campaign launched in June 2012. After four months, 82 percent of the 12,965 households involved in Kamina health zone reported adoption of the preventive behavior; 89 percent of the 9,471 households in Uvira that participated in ETL campaign activities slept under an ITN every night.

For the project's communication team, the difference illustrates the powerful effect of ETL. "ETL truly shows results here," explains Donat Ngoyi of DRC-IHP Communications in Uvira. "This approach will, no doubt, help us meet our malaria prevention and treatment goals."

The DRC-Integrated Health Project (DRC-IHP), a five-year USAID cooperative agreement, is strengthening the leadership and governance capacity of people working in the health sector to improve the access, availability, and quality of services within 80 target health zones.

*Amélie Sow-Dia, PharmD, MHS is a consultant with OSC, a partnering organization on DRC-IHP.* 

## 4 RELIGIOUS LEADERS AID ADHERENCE TO ANTIRETROVIRAL THERAPY

#### — Genaye Eshetu

When Berhe Menaso's wife passed away seven years back, he was faced with the challenge of raising their eight children by himself. But Menaso was sick and too weak to work on his small farm at the time, and his youngest daughter, then only three years old, was also very sick.

Early one morning he woke his daughter, and they went to the hospital together for a checkup. They learned that they were both HIV positive. Based on the advice given to him at the health center, Menaso then brought his seven older children to the hospital for HIV testing and found that they were all HIV negative.

Kalayu has incorporated HIV messages into his weekly community conversations to address stigma and discrimination... After being started on antiretroviral therapy (ART), Menaso carefully took his medicine for a number of years. However, he found it difficult to take antiretrovirals (ARVs) on an empty stomach, "I didn't have enough food to eat, and when I take the medicine on an empty stomach, it burns my heart." So Menaso decided to turn to holy water as an alternative treatment and visited the holy water site at Teklehaimanot Monastery.

At the monastery, Menaso stopped taking his ARVs, believing that taking medicine while using holy water is a sin. But after three days at the monastery, during a service, he heard a religious leader, Haileselassie Kalayu, tell those gathered that people can take medicine simultaneously with holy water.



Religious leaders privately counsel HIV patients outside Teklehaimanot Monastery.

Menaso was surprised to hear this teaching by a religious leader and at the end of the service, he went privately to seek counsel. Kalayu advised him to return to his health facility for care and treatment and restart his ART.

Kalayu is one of the religious leaders trained by the Ethiopian Interfaith Forum for Development Dialogue and Action (EIFDDA), through support by the USAID Ethiopia Network for HIV/AIDS Treatment, Care and Support (ENHAT-CS) program, a PEPFAR-funded initiative led by MSH.

Kalayu was trained on HIV-related subjects such as spiritual support to people living with HIV. He has incorporated HIV messages into his weekly community conversations to address stigma and discrimination and the importance of accessing health center services for HIV care and support, prevention of mother to child transmission, and maternal, newborn, and child health.

Since ENHAT-CS started in October 2011, the program has supported EIFDDA to train over 400 religious leaders such as Kalayu.

Currently, Menaso works as a security guard in a school. When he couldn't get permission from his workplace to go to the health facility every month for his HIV clinic visit, a local religious leader, who conducts baptisms at the monastery, volunteered to cover for him during his absences.

Genaye Eshetu is a senior communications specialist for ENHAT-CS.

## 5 COMMUNITY CASE MANAGEMENT OF MALARIA SAVES LIVES OF CHILDREN UNDER FIVE

### — MSH staff

Malaria is the leading cause of death for adults and children under five in Burundi, and 100 percent of the population in that country is at risk of contracting malaria.

As in many countries, community case management (CCM) of malaria has proven successful in reducing childhood mortality in Burundi as well. Trained community health workers are equipped with malaria rapid diagnostic tests to test suspected cases of malaria in children under five and treat them with antimalarials in their homes, ideally within 24 hours of onset of fever. This rapid testing and treatment at the community level of care leads to more rational medicine use, improves the health outcome, and reduces child mortality.

Amida Manariy PHOTO: MSH STAFF/ SIAPS BURUNDI

In 2010, a CCM feasibility study in Cibitoke and Kayanza provinces showed that only 53 percent of families with children under five who were experiencing fever were seeking care within 24 hours of the onset of symptoms. To increase timely access to malaria treatment, the Burundi Ministry of Health, supported by USAID, piloted community case management of malaria in three districts (Mabayi District of Cibitoke Province, Gahombo District of Kayanza Provinde, and Gashoho District of Muyinga Province). The provinces were selected based on the presence of USAID-implementing partners while the districts were those that were the most affected by malaria.

In early 2012, a pilot CCM of malaria was introduced in Gahombo and Kayanza Districts through Pathfinder International's Maternal and Child Program in collaboration with the USAID-funded, MSHimplemented Strengthening Pharmaceutical Systems (SPS) project. SPS, the predecessor program of the current USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program, also implemented by MSH, developed guidelines and job aids for community health workers, an algorithm for CCM of malaria at the community level, patient register/reporting forms (carbonless book), reference forms (carbonless book), community health workers' supervision checklist, community health workers' observation checklist, and health centers' supervision checklists. In October 2012, SIAPS took over the CCM pilot projects in the two districts.

At the beginning of the pilot, USAID provided all commodities and supplies for the community health workers. Within six months, artemisinin-based combination therapy and malaria rapid diagnostic tests were integrated into the normal supply chain of the districts with commodities coming from the stock at the national warehouse.

Community health workers call the health center with the number of positive malaria cases to be included in the health centers' weekly report. In addition, the health workers provide a monthly report (a copy of the patient register) to the health center. SIAPS helped the national malaria control program and districts develop an integrated monthly report for health centers and a simplified database so the health centers' compiled reports can be used by districts.

In September 2013, SIAPS conducted an evaluation of the pilot project (covering October 2012–August 2013) with the following preliminary results:

- 36,200 children under five experiencing fever were able to access community health worker services.
- Of those children, 30,471 (84 percent) accessed services within 24 hours.
- Of the 35,888 (99 percent) children tested for malaria, 24,667 (69 percent) were diagnosed positive using a malaria rapid diagnostic test.
- 24,085 (98 percent) malaria cases were treated with artemisinin-based combination therapy.
- 20,957 (87 percent) of those cases were treated within 24 hours.

The data clearly show an increase of families taking sick children to community health workers and sick children being tested and provided with treatment within 24 hours of the onset of fever.

According to Amida Manariy from Ngogomo Colline, one of the members of the health committee at Nyungu health center in Gashoho: "Since [the CCM of malaria strategy] implementation, children are well cared for and now we don't observe the deaths of children at home because of malaria. When a child has a fever, even at night, his mother takes him to the community health worker's home. This strategy should be maintained and expanded to other provinces."

## 6 COMMUNITY-BASED INITIATIVES IMPROVE SANITATION AND HEALTH IN WARU, NIGERIA

#### — James Ayodele

Waru is an underserved and hard-to-reach indigenous community in the Federal Capital Territory (FCT) of Nigeria. Until recently, this community did not have a safe waste disposal system and the majority of homes did not have toilets. Residents often dumped their garbage in open fields and defecated in bushes. This haphazard disposal of human waste and garbage caused Waru's water sources and environment to become contaminated and, in turn, many residents suffered from diarrhea, cholera, intestinal worms, malaria, and typhoid.

Dr. Tali Butkap, deputy director for disease control at the FCT Department of Public Health, was aware of these sanitation challenges in Waru and eager to explore solutions. In March 2012, the PEPFAR-funded, USAID Program to Build Leadership and Accountability in Nigeria's Health System (PLAN-Health), led by



Dr. Tali Butkap addresses community members during a sensitization meeting in Waru. PHOTO: DR. SADDIQ ABDULRAHMAN

MSH, awarded Dr. Butkap the PEPFAR Health Professionals Fellowship to help him tackle these challenges in Waru. This fellowship is designed to build the capacity of health professionals to effectively respond to the challenges they face in managing HIV and AIDS and other health conditions.

During his six-week fellowship training, Dr. Butkap acquired new problem-solving and leadership skills, which equipped him to implement a community-based health volunteer system to address Waru's sanitation problem. To start, Dr. Butkap recruited a team of 20 volunteers and trained them to conduct preventive health activities, including community-based advocacy events, public health discussions, and sensitization sessions. These activities helped residents understand the health risks associated with poor sanitation, and brainstorm ways to reduce these risks. Eventually, community members were inspired to work with the volunteers to identify and prepare designated dumpsites in the community.

In addition to community activities, the volunteers conducted household visits to educate residents about the importance of personal hygiene and keeping their environment clean. During these visits, the volunteers taught residents how to construct toilets in their homes and safely dispose of their waste and garbage. Residents also learned to wash their hands regularly, especially after going to the bathroom, before eating, and after returning home.

Dr. Butkap's interventions have improved sanitary conditions and reduced disease incidence in Waru. Community members now understand the health risks of dumping refuse and human waste around the community. By the end of January 2013, residents in 15 households had constructed toilets and residents from another 15 homes were in the process of digging their toilets. Most residents now leave their refuse at the designated community dumpsites and both children and adults have started washing their hands after using the toilet and prior to meals. Community members are so invested in these improvements that they recently requested refuse bins from FCT's Environmental Control Department.

"This is the first health program to sustain our community for a long period of time. We now know what to do to keep our environment clean, and, as a result, malaria, cholera, diarrhea, and other diseases have been reduced in our community," says Ishaya Dodo, a volunteer project manager.

A community member goes on to say, "We don't go to the bush to defecate any longer, we don't throw our refuse just anywhere, and our children wash their hands all the time." With support from PLAN-Health's technical staff, Dr. Butkap is now training community health volunteers from five additional communities within FCT.

James Ayodele is a strategic communications analyst for the USAID PLAN-Health project and communications consultant for MSH Nigeria.

## HEALTH FACILITY SUCCESS

## 7 IMPROVING CARE FOR CANCER PATIENTS AT KENYATTA NATIONAL HOSPITAL

#### — Wawira Munyi

The Kenyatta National Hospital Cancer Treatment Center (CTC) is the only health facility in Kenya where the poor can obtain advanced comprehensive treatment for cancer. Unfortunately, given the high demand for cancer services, patients often experience delays of up to five weeks to see a doctor, resulting in complications and, in some cases, death. This bad situation is further exacerbated by insufficient medical personnel, as well as inadequate and, in some cases, dilapidated equipment.

By the end of six months, the team had surpassed their target by reducing the waiting time for cancer patients from five weeks to one. In February 2013, the CTC team took part in a six-month Leadership Development Program (LDP) offered to the Kenyatta National Hospital (KNH) by the USAIDfunded Leadership, Management and Sustainability (LMS) Project in Kenya, led by MSH. The LDP teaches participants how to create a work environment that motivates staff and encourages them to continuously improve client services. During the training, the CTC decided to work together to change

their current situation and ensure more timely appointments with health workers for the estimated 2,500 new cancer patients it receives each year. To accomplish this goal, the team chose to work on reducing the wait time for new patients from five to three weeks. Through the LDP, the team worked together to build their skills in problem-solving, team work, resource mobilization, stakeholder mobilization, and partnership.

Using their new skills, the team improved the management of the doctor-patient scheduling system, resulting in more new patients being booked to see a doctor more quickly. They also acquired more computers and proper chemotherapy seats to improve the



A patient receives treatment in a new chemotherapy seat.

quality of diagnosis and treatment. The team convinced the KNH management to purchase a piece of land to facilitate the expansion of the CTC to increase its capacity to accommodate more patients. The team mobilized over US \$7 million toward improving the quality of service delivery at the Center. By the end of six months, the team had surpassed their target by reducing the waiting time for cancer patients from five weeks to one.

Pleased with their results, the CTC team is now tackling two new challenges: working toward equipping satellite cancer centers to increase the number of facilities providing care and reducing patient wait time to access radiation therapy from five to two months.

An LDP participant notes when referring to the future of the Center:

"We learned a lot from the LDP. We want to use this knowledge and these skills to work toward becoming a world-class center that provides innovative quality care to all cancer patients."

*Wawira Munyi, based in Nairobi, is the program manager for the LDP of the LMS Project in Kenya.* 

### 8 ANTIRETROVIRAL DISPENSING TOOL ENSURES UNINTERRUPTED SUPPLY FOR HIV PATIENTS IN KENYA

#### — Yvonne Otieno

"My wife was the first to discover her status. After giving birth, she started feeling unwell and tested positive for HIV," explains Mzee Ahmed\*, who later learned his son was also HIV positive.

"After learning my wife's status, it took me awhile to get tested, but I eventually got the courage. The test was positive, and I was also put on antiretroviral treatment," Ahmed says.



Dr. Rafida, a pharmacist at Coast Provincial General Hospital, enters patient information into the ADT pharmacy management software.

Six years later, they all remain on their antiretroviral (ARV) drug regimens and visit health facilities regularly to refill their ARV prescriptions.

ARVs work to suppress the viral load and boost the immunity of HIV patients while reducing the risk of opportunistic infections. It's a complex, lifelong treatment that requires strict adherence. Missing a routine doctor's appointment or failure to take medication properly can put a patient at risk of developing more severe symptoms, contracting an opportunistic infection, or developing drug resistance.

Ahmed explains that when they were put on antiretroviral treatment, he and his wife were given specific instructions on how and when to take their ARVs and to set up regular appointments for check-ups and prescription refills. So far, they have yet to miss a dose.

The Ahmed family is not alone. Patients at the Port Reitz Hospital in Kenya, where Ahmed's family receives treatment, are increasingly finding it easier to get their ARVs on time and stick to their treatment regimens.

HOTO: YVONNE OTIENO / MSH

Dr. Dominic Miruka Nyamwega, a pharmacist at Port Rietz Hospital, credits the availability of drugs to the use of an Antiretroviral Dispensing Tool (ADT), an easy-touse electronic pharmacy management software that tracks patient information and monitors the ARVs being prescribed and dispensed.

The ADT tool is being rolled out in more than 320 health facilities throughout Kenya with support from the USAID-funded Heath Commodities and Services Management (HCSM) program, led by MSH, in collaboration with the Kenya National AIDS & STI Control Programme (NASCOP). The data gathered from the tool allow medical staff to accurately forecast the quantity of medicines that will be needed to effectively provide treatment to patients. Using the ADT tool, healthcare workers confirm a patient's personal information, medication history, and current prescriptions and then record the name and batch number of the medicine being dispensed to that patient, along with their next scheduled appointment. The ADT tool has also been put to use at Coast Provincial General Hospital—serving over 4,000 active patients on ARV treatment—where it has been used to increase the quality of patient care, catch errors in prescriptions or patient information, and alert health workers when patients have missed their appointment or are in danger of running out of ARVs.

"Before the antiretroviral dispensing tool, we used a Daily Activity Register—a thick book in which workers would log dispensing information. With the register, there was no way to keep track of patients who had missed their appointments or were at-risk of running out of medicine. Monthly reports would take hours, instead of minutes," explains Dr. Rafida, a pharmacist at the Coast Provincial General Hospital.

With the ADT tool, social workers can run a daily report that identifies patients who are running low on ARVs or who may have missed an appointment and flags them for further follow up. The HCSM program, in collaboration with NASCOP, is currently developing a software support package to ensure the long-term sustainability and functionality of the tool so that patients such as Ahmed and his family have ready access to the ARVs they need and never have to miss a dose.

\* Patients' names have been changed to protect privacy.

Yvonne Otieno is a communications specialist with the HCSM program at MSH.

## 9 CHAMPIONING MEDICAL LABORATORY BIOSAFETY STANDARDS AT FACILITY LEVEL IN KENYA

### — Doris Bota and Judy Mwangi

"Nothing lifts your heart more than giving your support and time to a good cause."

These were the words of Edison Kiprono Chepkonga, a medical laboratory technologist working at Kapsabet District Hospital, situated in Nandi County (Rift Valley region), Kenya. Chepkonga is one of the 26 laboratory personnel who has benefited from a biosafety training supported by the PEPFAR/CDC-funded Strengthening Public Health Laboratory Systems (SPHLS) project, led by MSH. Thirty-seven satellite health facilities refer laboratory samples to the hospital, which has a bed capacity of 137.

'My colleagues are also very supportive and we work as a team, all in agreement that safety is everyone's responsibility.'' — Edison Kiprono Chepkonga To reduce the biohazardous exposure to lab workers, SPHLS has been supporting training and follow-up at facilities in selected counties across the country. Three personnel from Kapsabet District Hospital participated in a training and follow-up assessment, including Chepkonga.

Chepkonga quickly applied the knowledge from his training to improve the conditions at the hospital facility and was immediately selected as the Biosafety Officer. As Biosafety

Officer, he provides oversight on all the safety issues within the laboratory. In addition, Chepkonga has been championing Continuous Medical Education (CMEs) and Infection Prevention and Control (IPC) committee meetings at the facility. Chepkonga's obvious enthusiasm and passion for safety issues at the hospital was recognized by management who appointed him as the Secretary of the IPC Committee. During his supervision, together with the rest of the IPC Committee, members noted and commended the following drastic improvements made in the laboratory since the training: safety signage, availability of a first aid kit, proper waste segregation, designated hand-washing sinks, personal protective equipment, and proper documentation and availability of eye wash stations.

Chepkonga has since been given an award by the Ministry of Health in recognition of his contribution during the Annual Standards Based Management Response award. He is now the Kapsabet District Hospital champion for infection prevention and control.



Edison Kiprono Chepkonga, a medical laboratory technologist, is championing standards in health care at the district hospital. PHOTO: DORIS BOTA / MSH

"During the training," says Chepkonga, "we were asked to

develop work plans that would guide us on the courses of action to take once we were back in the facility. The three of us who were trained on biosafety provided feedback to the entire hospital management. My motivation came from the support provided by management and administration. When I asked for materials and supplies to implement the activities in my work plan, management supported us. That's why you see these changes today."

Chepkonga goes on to explain, "My colleagues are also very supportive and we work as a team, all in agreement that safety is everyone's responsibility."

Doris Bota is a technical advisor of the SPHLS project in Kenya. Judy Mwangi is a senior monitoring and evaluation advisor of the SPHLS project in Kenya.

## 10 IMPROVING FAMILY PLANNING COMMODITY MANAGEMENT IN DITY, HAITI

### — Marjorie Eliacin

Located in the remote highlands of Haiti's northwest region of Portde-Paix, the Dity Health Center has not always been able to provide adequate family planning services to women in the 21 surrounding communities, despite an obvious need. Maternal and infant mortality is high in the region due to the high number of births, short intervals between pregnancies, and lack of skilled birth attendants.

Nurse Odila Jeune Gens, responsible for family planning services at the health center since 2007, describes the facility's commodity management when she began working there:

"We waited until the stock was empty before buying new commodities because we would have to go by foot to the pharmacy or commodity dispensers to buy them. We did not know how to produce monthly reports or use stock management tools. Patients would come to the center for family planning commodities, but there were none available."



Nurse Odila Jeune Gens, shown here, is responsible for family planning services at the Dity Health Center

In 2008, the USAID-funded Leadership, Management and Sustainability Program in Haiti (LMS/Haiti) began supporting the Haitian Ministry of Public Health and Population to ensure the regular availability and effective management of family planning commodities. Since the time of the first LMS/Haiti distribution of these products in 2008, the health center *has not had any stock-outs*. In 2011, Gens participated in a LMS/Haiti-sponsored training on commodity logistics and management and US family planning regulations.

'All of our patients have, without any problems, access to all types of family planning methods. We never have to turn anyone away due to shortages.''

– Nurse Odila Jeune Gens

### "The support of LMS/Haiti has been an

enormous relief," she says. "We are now in the position to submit reports of our consumption so we can anticipate shortages and make appropriate preparations to ensure that the people of Dity always have access to family planning methods. All of our patients have, without any problems, access to all types of family planning methods. We never have to turn anyone away due to shortages."

LMS/Haiti distributes family planning commodities to Dity on a quarterly basis. Between October 2012 and July 2013, LMS/Haiti delivered an additional 24,000 condoms, 2,400 vials of Depo-Provera, and 180 cycles of Microlut to the health center. In that same time period, the facility distributed 40,800 condoms, 1,965 units of Depo-Provera, and 140 cycles of Microlut.

Marjorie Eliacin is a senior communications associate of the LMS Project in Haiti.

## 11 REVIVING SANTO: SUDANESE REFUGEE ACCESSES TB TREATMENT

#### — Dr. Stephen Macharia

After South Sudan gained independence from Sudan in 2011, disagreements over oil-sharing between the two nations caused fighting and high economic inflation in certain regions. Desperate for security, over 110,000 Sudanese refugees escaped to South Sudan and now reside in camps in Maban County.

These refugees, and 40,000 South Sudanese residents, are served by Bounj Hospital, the only tuberculosis (TB) diagnostic and treatment center in the district. This hospital is currently treating 75 patients for TB, 56 of whom are refugees.

These lessons have inspired Santo to carefully follow his treatment regimen and to promote TB prevention and testing among his peers. Although the TB program manager at Bounj Hospital, Bakhari Adam, is working hard to ensure all TB patients initiate treatment and receive the correct medication at the correct times, Adam faces a number of challenges.

"I don't have a room to use as a TB clinic, and so I am working from... the hospital's kitchen," explains Adam. "Working under these conditions is very difficult. My patients are in the tents.... Sometimes relatives have to share these tents with the patient, which is not good for infection control."

Fortunately, the USAID-funded TB CARE I project in South Sudan is helping to build the hospital staff's capacity in TB treatment and infection control, despite the challenges the health workers face. Led by MSH in partnership with the National TB Program (NTP), the TB CARE I project team has trained over 200 health workers in TB diagnosis and treatment.

TB CARE I also teaches health workers how to educate their patients about TB infection control and provides the trainees with regular supportive supervision and mentorship.



Santo (right) and his father (left) share how Santo was finally diagnosed and treated for TB after being incorrectly treated for malaria for over two months.

PHOTO: STEPHEN MACHARIA / MSH

Santo is one of the refugees currently being treated by the newly trained staff. Two weeks ago, Adam diagnosed Santo with TB after discovering that he had previously been diagnosed inaccurately and treated for malaria.

Santo says he is happy that, after just 14 days of treatment, he is feeling strong again. Adam has also been teaching Santo about TB prevention and treatment. These lessons have inspired Santo to carefully follow his treatment regimen and to promote TB prevention and testing among his peers.

"If I find anybody with cough," Santo says, "I will tell that person to come to the hospital."

The TB CARE I project helps the NTP coordinate TB control efforts in all ten of South Sudan's states. Together, these partners have scaled-up TB interventions identified in the NTP strategic plan and implemented a series of innovative TB prevention and treatment approaches.

TB CARE I's activities have helped to improve treatment outcomes throughout the nation. In 2008, 6,525 patients were diagnosed with TB in South Sudan and, by 2011, this number had increased to 7,599. TB CARE I also helped the NTP increase the number of TB diagnostic and treatment centers from 44 in 2008 to 65 in 2012.

Santo reflected on South Sudan's progress in TB infection control in light of his own recovery. His message to fellow refugees and the South Sudanese shows both his urgency and hope."Before you become very ill, come to the hospital early so that you can be diagnosed, treated, and healed."

Dr. Stephen Macharia is MSH's project director for TB CARE I in South Sudan.

## NATIONAL SUCCESS

## 12 TRANSFORMING ETHIOPIA'S HEALTH SYSTEM WITH DATA-DRIVEN PHARMACEUTICAL SERVICES

### — Hailu Tadeg

The USAID-funded Systems for Increasing Access to Pharmaceuticals and Services (SIAPS) Program has partnered with the Government of Ethiopia to bring a 100-year-old pharmaceutical management system into the 21st century. The Auditable Pharmacy Transactions and Services (APTS) is a package of datadriven interventions that ultimately result in a continuous supply of essential medicines, optimal budget utilization, and improved pharmacy services. The system has worked so well that in July 2011, the Amhara Region in Ethiopia legislated the implementation of APTS in every hospital throughout that region.

During the past 20 years, Ethiopia's public health system has undergone a remarkable transformation. Although physicians are in short supply, the number of other health professionals, such as health officers, nurses, midwives, and health extension workers, has significantly increased in the past five years. Since 2003, the number of pharmacists has increased almost tenfold—from 172 to 1,343 in 2012. The number of pharmacy technicians has doubled from 1,171 to 2,029 during the same time period. Preventive, promotive, and curative health services have improved and access to health services has increased tremendously given the country's commitment to serving Ethiopia's largely rural population. Overall coverage in 2000 was estimated to be 89.6 percent, a 25.6 percent increase from 1996

Although there is still much work to be done, Ethiopia's public health system is moving forward to meet the needs of Africa's second largest country. One reason for Ethiopia's successful transformation is the importance the government attaches to forging successful partnerships with donors and stakeholders. The SIAPS program and its predecessor program, Strengthening Pharmaceutical Systems (SPS), have forged such a successful partnership with the Government of Ethiopia to transform its antiquated pharmaceutical system. USAID/SIAPS not only works with the Ministry of Health at the federal level but with the Regional Health Bureaus and the Regional Finance and Audit Bureaus as well.

According to His Excellency Dr. Kesetebirhan Admasu, Ethiopian Minister of Health, "Auditable Pharmacy Transactions and Services and drug and therapeutics committees are the best opportunity and initiatives to improve facility level drug management and availability."

One of the most important areas of collaboration between the government and SIAPS is making pharmaceutical transactions and services transparent and accountable. Until recently, pharmaceutical records were based on a system developed 100 years ago that did not even remotely address the needs of today's pharmaceutical practices. The system was so entrenched in the pharmaceutical sector that only after years of engagement and advocacy was there a consensus for change.

A breakthrough came in 2010 when SIAPS worked with the Ministry of Health to write a chapter on pharmacy services for the Hospital Reform Implementation Guidelines (EHRIG). To implement the new pharmacy standards laid out in EHRIG, SIAPS developed APTS—a series of interventions to modernize the way pharmacies do business. APTS ensured accountability and transparency at all points of pharmacy transactions, information management, finance, and services.

SIAPS piloted APTS at the Debre Marcos Hospital in the Amhara Region. SIAPS, in collaboration with the Amhara Regional Health Bureau, worked directly with pharmacy and accounting staff to completely revamp the old system through APTS to set up a comprehensive, data-driven system that links patient records, stock inventory, distribution, storage, and procurement. APTS can also be used to evaluate the services provided by the facility.

The following are some preliminary results from supervisory visits at the Debre Marcos Hospital:

- A new medicines list takes into account the disease pattern and health needs of the catchment population.
- Implementing an ABC value analysis and identifying medicine use problems has made the procurement and use of medicines evidence-based.
- The percentage of medicines procured according to the hospital-specific medicines list increased from 35.4 to 97.5 percent.

- Products both at the store and dispensary can now be physically inventoried continuously.
- Financial resources available for medicines procurement increased by 89.1 percent between June 2010/11 and June 2011/12 due to the high turnover of medicines and the substantial retention of income from medicines sales.
- Internal and external audit reports indicate that wastage of medicines due to misuse, theft, and pilferage has significantly decreased.
- Expiry of medicines was reduced dramatically. Since December 2011, expiry of medicines has consistently been below 2 percent, the most recent figure being 0.5 percent.
- The availability of indicator medicines has increased over time to 100 percent.
- A robust system that ensures transparent and accountable transactions is in place, enabling effective auditing.
- Outpatient pharmacies were reorganized and workflow and dispensing counseling services have improved.
- Improved patient satisfaction with services provided has reached 85 percent in 2012.
- Initiation of pharmaceutical care services for patients with chronic illnesses in a separate private counseling and dispensing room resulted in improved documentation and adherence to treatment.

The Ethiopian Government has taken the concept of partnership to a level that promotes national ownership and, in turn, sustainability. Recognizing the power of collaborative partnerships to meet the challenges of development, the government has structured its Health Sector Development Program to maximize coordination with its partners and stakeholders, building on their collective strengths and resources. The Government of Ethiopia has succeeded in both driving the development of the country's health sector while embracing the assistance of the international community and domestic partners.

Today, USAID/SIAPS is scaling up the use of APTS in hospitals throughout other regions—including the Amhara, Tigray, Addis Ababa, Oromia, the Southern Nations, and Nationalities Peoples Region. It is expected that these regions will legislate APTS implementation, following the precedent set by the Amhara Region.

The SIAPS Program is led by MSH with four core partners and a group of specialized resource partners. In 2013, the SIAPS Ethiopia team won an innovation award from MSH for its work in helping to transform Ethiopia's pharmacy sector.

Hailu Tadeg is deputy country project director of SIAPS in Ethiopia.

### MSH WORKED IN 73 COUNTRIES IN 2013

Since our founding in 1971, MSH's vision of health impact has influenced over 150 countries worldwide.

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# TAO OF LEADERSHIP

Go to the people Live with them Love them Learn from them Start with what they have Build on what they know. But of the best leaders

When their task is accomplished The work is done The people will all remark We have done it ourselves.

—Lao Tzu

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