

FRONTLINES

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April/May 2011



***Upturning the Status Quo
in Health Care***

***Working with Iraq
for Long-Term Stability***

Exclusive interviews:

*WHO's Margaret Chan &
CENTCOM's Lt. Gen. John Allen*

Global Health/Iraq Issue



INSIGHTS

From Administrator Dr. Rajiv Shah

Compared to 1990, today 4 million more children live past their fifth birthday every year because they have access to simple vaccines against diseases like measles and polio. Five million HIV patients no longer face a death sentence because they've been supplied with lifesaving antiretroviral drugs. And 188,000 more women survive the natural act of childbirth, thanks to the skilled attendants by their side.

Our ability to save these lives is a remarkable development success. But that same success has also established a system of care organized around diseases, not patients. Throughout the developing world, you'll find separate clinics in separate places for AIDS, children's health, family planning, and maternal care.

The Obama administration developed the Global Health Initiative to end this situation, providing different services at single points of care. In Kenya, we worked with PEPFAR, the President's Emergency Plan for AIDS Relief, started by President George W. Bush, to couple HIV/AIDS treatment with maternal and child health services. As a result, we've extended the availability of reproductive health services from

two to all eight of the country's districts, at no increase in cost.

Every dollar we save through this approach is another dollar we can use to reach those who suffer. To put it simply: Saving money saves lives. But we can get even more value for our investments if we extend the reach of care beyond hospitals, into the villages and communities where people need it most.

In Senegal, we worked with the government to build "health huts," small facilities in rural villages staffed by volunteers providing basic health services to their community. By building over 12,000 of these facilities throughout the country, we've managed to reach 400,000 more children at a much lower cost. No doctors, no hospitals—but access to quality, critical care for those who need it most.

In the future, our biggest opportunity to save lives in global health lies in inventing a new wave of medical technologies that are cheap, easy to use, and can be delivered anywhere. After all, a world-class vaccine doesn't need to be administered in a world-class hospital for it to be effective.

A prime example of this type of breakthrough came last December, when a USAID-funded trial at a South African AIDS research lab gave women around the world a new way to reduce HIV transmission: a microbicide gel. Though still in development, women will eventually be able

to use this gel to protect themselves against HIV.

If we can discover similar breakthroughs that can be delivered in health huts, not hospitals, we'll have a remarkable opportunity to save lives.

If we can develop new, cheaper vaccines against pneumonia and diarrhea—the two leading causes of child death—we can save the lives of over 3 million children.

If we can devise a way to quickly diagnose malaria in the field, and come up with safer and more effective insecticides and drug treatments, we can save 500,000 lives and remove malaria as a major global health problem in sub-Saharan Africa.

And if we can create new technologies and procedures that allow a woman to give birth safely without a doctor by her side, we can save the lives of 200,000 mothers. We recently worked with other donors and foreign governments to unveil Saving Lives at Birth, a partnership designed to inspire inventors and entrepreneurs to solve this grand challenge for development.

Inventing these technological breakthroughs may sound audacious. But only by setting big goals can we inspire the innovation necessary to bend the curve of progress and meet them. ■

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“I realize that there are among us those who are weary of sustaining this continual effort to help other nations. But I would ask them to look at a map and recognize that many of those whom we help live on the ‘front lines’ of the long twilight struggle for freedom—that others are new nations posed between order and chaos—and the rest are older nations now undergoing a turbulent transition of new expectations. Our efforts to help them help themselves, to demonstrate and to strengthen the vitality of free institutions, are small in cost compared to our military outlays for the defense of freedom.”

—John F. Kennedy, Special Message to the Congress on Foreign Aid, March 13, 1962

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Cover: A child peers around the corner in the waiting room of the HIV Comprehensive Care Clinic of Meru District Hospital in Kenya’s Eastern province as two pediatricians stand in the background.

Photo by Mia Collis, Elizabeth Glaser Pediatric AIDS Foundation

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Plugging In and Power

Energy Program Turns on Health-Care



Instructors and participants after completion of a two-week training course in Boucan Carré, Haiti.

Powering Up: Facilities in Haiti and Beyond



By Mark Owen

Roméo Adhémar beamed as he copied down the electrical diagram for the new back-up energy system. The 30-year-old was part of a training workshop on back-up power systems for hospital technicians employed by the Haitian Ministry of Health, held this past March at the Haiti Tec vocational school campus in Port-au-Prince.

No access to the electric grid means that energy problems are rampant in the hospital where Adhémar works in Borgne on the remote north coast of Haiti.

Poorly maintained generators, diesel fuel shortages, and an unreliable power grid—when there is a power grid available—are some of the challenges for health facilities throughout the Caribbean nation. Yet energy is fundamental to any country's health-care system, sustaining not only life-saving machinery, but also lighting, communications, laboratory analyses, diagnostic instruments, and vaccine refrigeration.

In Adhémar's hospital, the battery system and solar panels recently installed by a USAID program help medical services continue uninterrupted, protect sensitive hospital equipment, and save expensive diesel fuel.

The program is about more than just providing back-up energy. Training sessions like the one Adhémar and his colleagues attended are all part of a push for greater sustainability in health-facility energy installations. Regular and ongoing

continued on p. 30

Photo by Jude Gaetan Juste

What began as food distribution in response to a crisis is today supporting a wide array of development goals. With the needs changing on the ground, the historic Food for Peace program has proven to be an extremely versatile development tool in rural Mozambique.

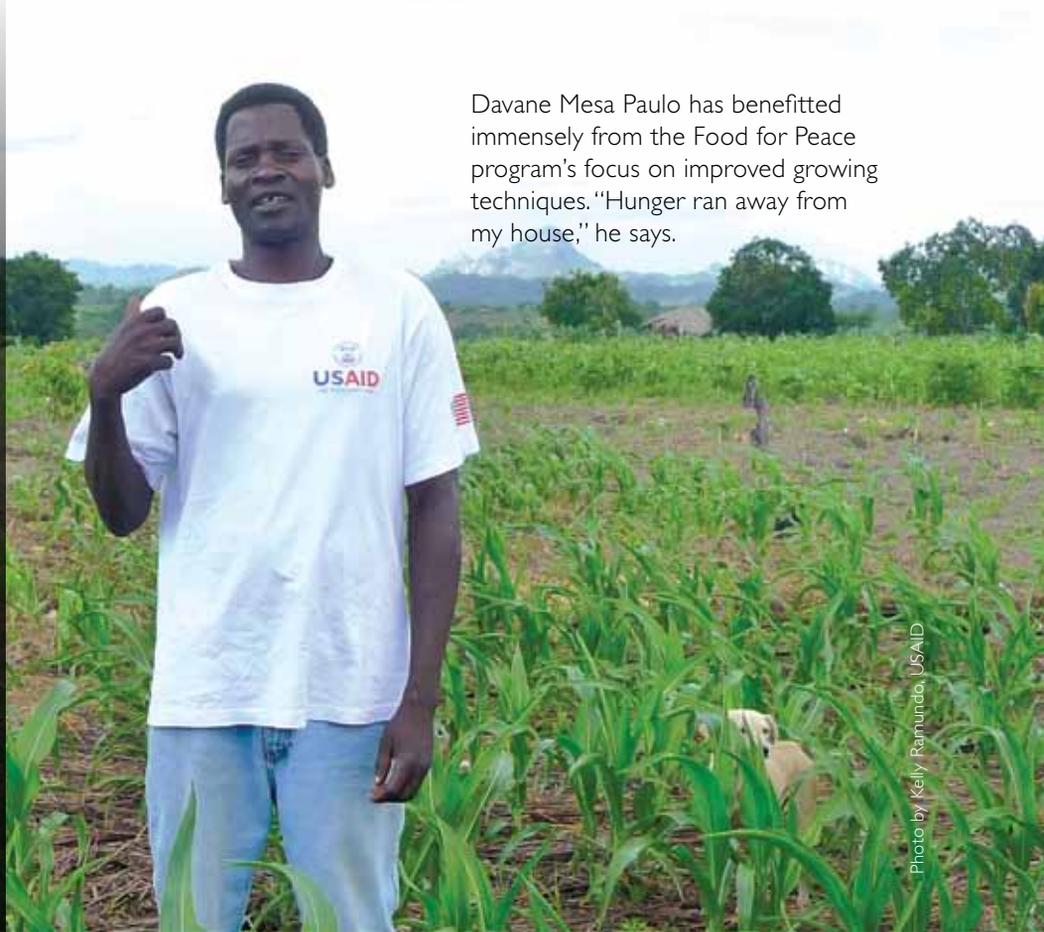


Photo by Kelly Ramundo, USAID

Davane Mesa Paulo has benefitted immensely from the Food for Peace program's focus on improved growing techniques. "Hunger ran away from my house," he says.

By Kelly Ramundo

MORRUMBALA, Mozambique—

Smiling proudly, Davane Mesa Paulo points to the peanuts he grows. "That is for strength," the 43-year-old Mozambican farmer says.

His wife, timid in front of the guests, explains how she makes enriched porridge for her six young children using those peanuts, along with maize, moringa (an edible plant), eggs, and other readily available items that her husband cultivates.

The food pyramid is not part of the Mesa Paulos' collective wisdom. Parents in this rural community off the grid in northern Mozambique do not slip apples into lunch boxes, and

In Mozambique, *Food Is for Peace and Much More*

are not engaged in the nightly battle over a mandatory serving of greens.

But Mesa Paulo and his wife do know that children should not be brought up on a diet of maize alone, as is customary. They have learned to reject the traditional myth that pregnant women should not eat eggs (for fear it causes babies to be born hairless), recognizing them as an important source of protein.

It is January 2011. The poor family is well-fed. They are also healthy, but that has not always been the case. Their status can largely be attributed to a U.S. Government food security

program funded by USAID, through its Office of Food for Peace.

Over its 25-year history in Mozambique, the Food for Peace program has made great gains. It has also proven remarkably adaptable to the country's changing needs.

"Food is strength, and food is peace, and food is freedom, and food is a helping hand to people around the world whose good will and friendship we want."

President John F. Kennedy spoke those words in 1961 as he rechristened the U.S. Government's flagship foreign food aid program Food for

Peace, which for the seven years after President Dwight D. Eisenhower signed the bill into law in 1954 operated under the less sexy name, the Agricultural Trade Development and Assistance Act.

Against the backdrop of the Marshall Plan, the program—which is also known by a third name, Public Law 480—was devised as a way to give U.S. farmers an outlet for their surplus produce while helping to feed hungry populations (mainly in war-ravaged Europe). Its intentions were both humanitarian and protectionist.



Visit the online version of *FrontLines* to hear a podcast about the Food for Peace program in Mozambique.

In 50 years, Food for Peace has been the U.S. Government's largest and longest-running tool to combat global hunger and has assisted around 3 billion people. But in many places, the program has become a much more versatile development tool than was envisioned half a century ago.

The Food for Peace program in Mozambique today looks very different than when it began, mainly, as a vehicle to distribute rations to a population in crisis. Currently, program resources are used to fund a broad range of activities—among them agricultural development, health, hygiene, and nutrition. The object is to help the country stand on its own, moving it further along

the trajectory from relief to sustainable development.

In Morrumbala, a village in northern Zambezia province, the Mesa Paulos and several other families are gracious beneficiaries. But they are no longer accepting handouts.

Knowledge Lost

Mozambique can claim a rich agricultural history. Today, post-conflict, it boasts a vast, albeit largely unmet, agricultural potential. More than three-fourths of the population engage in farm work, although almost entirely to make ends meet.

During 15 years of civil war, starting two years after Mozambique gained independence from Portugal in 1975, much of the country's farming skills were lost—simple techniques like planting in rows, and more complex ones, like animal traction, disappeared.

And despite the country's natural bounty, around half of all Mozambican children under 5 are malnourished. In many of these cases, even if their parents grow everything necessary to keep them healthy and strong, they are not getting the nutrients they need.

Throughout one of Mozambique's poorest but most fertile provinces, Zambezia, one of the ways USAID and its partners World Vision and the Adventist Development and Relief Agency, or ADRA, are helping farmers regain that lost knowledge is by promoting community farmers' associations. Trained volunteers spread messages in their communities, often through community theater.

Through this model, farmers learn conservation techniques for arid

climates. They are shown better growing techniques and given access to better seed. They learn that pooling their crops brings better prices in the marketplace.

But the community model is not only for male farmers. And its lessons do not only relate to farming. There's a community nutrition group, made up of mostly mothers. But surprisingly, some of the men are also members. And when the farmers' and mothers' groups interact, larger messages break through.

Life-Saving Links

Both parents are being taught the links between the food they grow and their children's nutrition through a system of integrated and repeated messages.

Mothers learn the importance of breastfeeding, and how to make vitamin-packed enriched porridge using locally grown crops. They learn that boiling water and using latrines curtail illness. They even learn how to monitor a child's nutrition by looking at their hair or skin (lightened hair or skin problems being indicators of micro-nutrient deficiency). They are encouraged to make regular trips to health centers to monitor their children's growth.

Using the community-model approach, a program devised primarily as a way to assuage hunger during times of crisis is now focused almost exclusively on health, hygiene, and nutrition, as well as agricultural risk management. It has been a marked and successful transition from disaster response to sustained development.

Mozambique's Food for Peace officer, Bill Hagelman, explains: "Over

the past 25 years, the role of this program has changed as Mozambique has gotten back on its feet and as Mozambicans have gotten back on their feet once again. So after free general distributions during that terrible time [following the civil war], we transitioned into food-for-work activities.”

The next step, Hagelman says, was to move away from hand-outs altogether and towards more sustainable activities. In fact, as Mozambique began to emerge out of crisis, and the situation changed, handing out food was no longer the appropriate thing to do.

“People would stop working in their fields,” explains Brian Hilton, World Vision’s food security coordinator and

a 16-year resident of Mozambique. “It causes all kinds of problems.”

Fully Monetized

Today, and in the absence of an emergency, the Food for Peace program in Mozambique does not distribute any food directly. As a fully monetized program, 100 percent of the U.S.-donated commodity, which in this case is wheat, is sold with the proceeds put towards more advanced development goals.

“The wheat is shipped over on U.S. carriers. When the wheat gets here, we sell it to millers,” says Hilton. The proceeds are then distributed to NGOs.

While full monetization is controversial in some circles, in Mozambique it is working surprisingly well. The high-quality wheat is sold to local millers, who maintain Mozambique’s bread-loving culture, a Portuguese inheritance. But because there is scant wheat grown in Mozambique, the commodity does not distort local markets.

Hagelman argues that while full monetization may not fit every model, it is the right formula for Mozambique today. “We are at the point where [food distribution is] no longer required for mothers to have healthy children because they’ve learned what the food groups are and that they have access to those food groups, either because they grow it or because it’s available in the market,” he says.

Hunger on the Run

Mozambique was colonized for nearly 500 years, between 1505 and the country’s hard-fought independence in 1975. The after-effects of colonization, the post-independence civil war, and devastating floods in 2000 are still felt.

Although there have been overall economic gains, Mozambique is still one of the world’s poorest countries, and its agriculture industry still suffers from inadequate infrastructure, commercial networks, and investment.

But in Morrumbala, it is hard to imagine that hunger once reigned.

“In the beginning, we used to monitor three different indicators, one was the number of hungry months, one was the nutritional status of children under 5, and one was



Photo by Kelly Ramundo, USAID

Through a USAID-promoted community association in Morrumbala, Mozambique, volunteers reinforce valuable lessons on health, hygiene, and nutrition, as well as best growing practices, often through theater.

Photo by Bita Rodrigues, USAID



The Morrumbala community farmers' association meets to exchange best practices in this enclosure on the farm of the group's president, Davane Mesa Paulo.

household incomes,” says Hagelman. “We no longer even monitor the number of hungry months because it’s negligible at this point.”

Proof of this success is Davane Mesa Paulo, who heard about USAID’s program in 2003. Back then, he struggled to support three kids and a wife on a single hectare of land where he grew just a few crops for food.

Eight years later, he is a portrait of small-scale agricultural success. He has diversified his crop portfolio. Early profits from better growing methods enabled him to buy more land. With the extra cash, he bought a bike and a radio. He now even owns chickens and goats, both considered luxuries, but critical to a balanced diet and important income generators.

Even more crucially, his six children are healthy. Because of the community association, his wife understands the importance of breastfeeding, of

eating healthy, especially when she is pregnant, and of feeding their children three times a day with food that Mesa Paulo grows.

“Hunger ran away from my house,” he says. “So people started coming to ask how.”

This is, in a sense, the beauty of the community model. Neighbors see progress, and want to replicate it. In Morrumbala, enrollment in the community group has steadily grown. Plump children abound.

Behavior Change

But as Bill Hagelman says, behavior change takes time. Plump does not always equate to healthy. While the four-year program is starting to show impact as its third year draws to a close, challenges remain.

Mothers are learning the benefits of making enriched porridge for their children, but some of the nuance is still lost.

“In some communities, you can see that the rate of malnourished has decreased after using enriched porridge,” explains Maria Pinto, nutrition expert at USAID/Mozambique. “The problem is ... you also have to make sure the enriched porridge is not only for the babies and the sick. It’s preventative, not curative.”

In the case of mothers with several small children, Pinto says, many will still often give the healthy mash to their infants and a vitamin deficient all-maize diet to their toddlers.

“How can we change this culture so she provides for all of them?” she asks. “It’s not easy.”

Perhaps the worst fear of those managing the Food for Peace program on the ground is that it will end before a real, sustainable, behavior sea change takes root. “The results will come at the end of the program,” says Pinto. “We can see that change is happening, but one, two years is not enough... The change we do see is at the community level. So we had 500 children, and 40 of them malnourished. Now we have 10.

“And when you ask why, they say, ‘We now go to the health facility once per month, we are eating better, we can make enriched porridge,’ and they can list what the ingredients are for.”

But in some hard-to-reach pockets, progress is incremental and often delicate.

Hunger may have fled from Mesa Paulo’s home and from some of the 200,000 other households benefiting from the program across Mozambique. But health and nutrition indicators have just started to rise. A good foundation has been laid. The goal is to continue to build higher. ■

Initiative Aims to Upturn the Status Quo in Health Care

By *Chris Bonner*

The Global Health Initiative starts with a woman.

She lives in a rural community in Malawi with her husband. She has a young daughter and will have another child in a few months' time. She has been diagnosed HIV positive.

She is also the center of her family—getting up early to fetch water, light the morning fire, prepare food, and tend crops.

Right now she needs vaccines for her daughter, treatment for her HIV, and care for the child in her womb. In her community, this means three different trips to three different clinics. The rainy season is here and roads are often impassable.

With all her responsibilities, she will have to choose which services her family gets and who will go without. The fragmented and poorly coordinated health system in her country forces her to make difficult tradeoffs about her family's health.

She is a person for whom the Global Health Initiative (GHI), the Obama administration's multi-year interagency effort aimed at improving and saving lives by strengthening health systems, is designed.

The Power of Holistic Thinking

USAID Administrator Rajiv Shah calls GHI a fundamentally different way of doing business. It is a push to think holistically about how to reach beneficiaries. And, it builds on the foundation of the U.S. Government's HIV/AIDS and malaria programs,



Photo by James Pursey, Elizabeth Glaser Pediatric AIDS Foundation

A nurse takes dried blood spot samples from an infant to test for HIV in a maternal and child health ward in a Malawi clinic. Through the Global Health Initiative, health workers in Malawi will travel door-to-door using mobile technology to deliver various health services, including HIV testing and counseling, nutrition evaluations, family planning, and tuberculosis screening.

which have been deemed successful due in large part to strong coordination across U.S. agencies as well as the experts working in the field.

GHI aims to shift the paradigm from disease-focused initiatives to an approach that involves partnerships within, across, and beyond the U.S. Government. "There is too little coordination among all the countries and organizations, including in our own government, that deliver health services, so critical gaps in care are left unaddressed," said Secretary of State Hillary Rodham Clinton during an Aug. 16, 2010, speech at the Johns Hopkins School of Advanced International Studies.

Strong partnerships are the foundation on which GHI will work to save the lives of mothers, children, and families by addressing: HIV/AIDS, malaria, infectious diseases like tuberculosis; maternal and child health; family planning; neglected tropical diseases; safe water; nutrition; sanitation; and hygiene.

At the core of GHI are seven principles:

- focusing on women, girls, and gender equality;
- stressing country ownership;
- creating sustainability;
- strengthening and leveraging partnerships with multilateral organizations and the private sector;

- increasing strategic coordination and integration within the U.S. Government;
- improving metrics, monitoring, and evaluation; and
- promoting robust research and innovation.

GHI will be implemented everywhere that USAID delivers health assistance. However, to start, eight countries have been selected as the first set of “GHI Plus” countries—Bangladesh, Ethiopia, Guatemala, Kenya, Malawi, Mali, Nepal, and Rwanda.

“GHI Plus countries are taking the lead to address difficult questions and respond to big cross-cutting health challenges. They are pathfinders that are helping to define questions and share lessons learned and best practices. For example, we are piloting new approaches to reach rural communities with quality health services,” said Amie Batson, deputy assistant administrator in the Bureau for Global Health.

Ground Truth

What GHI will look like on the ground will take more time to become clear. The Malawi mother with the mother lode of responsibilities, for example, would likely access health care through a community-based program. That is the only practical way to reach her and others who live in rural communities.

Through GHI, USAID also intends to implement electronic and mobile-health systems that support community health-care workers. These facilities will

support real-time electronic data systems to assist health workers in reviewing patient records, identifying critical danger signs, and acting promptly to deliver care.

“Harnessing the potential of mobile health will open up new ways of tackling health challenges. For example, connecting health workers and communities allows us to move beyond brick and mortar health systems. Through GHI, USAID is capitalizing on these new technologies to achieve critical health impacts,” said Batson.

“Our Global Health Initiative is designed to efficiently deliver these results. Rather than create separate facilities to treat separate diseases, we will save money and expand the reach of coverage by integrating treatments into single points of care.”

In communities in Malawi, health workers supported, trained, and retained with U.S. funding will travel door-to-door using mobile technology to deliver a combination of health services, including HIV testing and counseling, nutrition evaluations, family planning, and tuberculosis screening.

In a whole-of-government approach that is one of the cornerstones of the GHI, 120 Peace Corps volunteers across Malawi will serve as eyes and ears in remote communities, alerting decision makers about missed health opportunities and reporting progress to ensure that health care is provided equitably.

In places such as Kenya’s Eastern province, health workers pile into a “health wagon” and visit hard-to-reach communities, offering a wide range of crucial services before moving on to the next stop. (See story on page 12.)

In Mali, GHI is working to streamline into one health clinic visit the kinds of services that normally would require several trips, including vitamin A supplements, de-worming, and treatment for neglected tropical diseases.

A pilot effort reportedly boosted health coverage, while cutting delivery costs in half. Two-thirds of health workers surveyed thought it was a more efficient use of their time, and 80 percent thought it strengthened participation by the community.

Mali government officials hope to expand the program to reach 80 percent of pregnant women and children under age 5.

“Our Global Health Initiative is designed to efficiently deliver these results. Rather than create separate facilities to treat separate diseases, we will save money and expand the reach of coverage by integrating treatments into single points of care,” said Shah. ■

Nutrition and Family Planning Intersect for a Healthier Guatemala



Mayan women and a husband receive family planning counseling at the health center in Chimaltenango, southern Guatemala.

Photo by USAID

By Judith Timyan

In rural Guatemala, it is not unusual for women to have as many as seven children. Though this is not a new trend, such a large number of children born to poor families today can become a greater burden than in earlier years. This is due to several factors, including food insecurity, which has risen to crisis levels in Guatemala, making it a USAID priority country.

Guatemala is one of the most inequitable countries in the world. Three-fourths of the rural population is poor, and the majority of poor live in the Western Highlands, where one-fifth to two-fifths of the people are classified as living in extreme poverty. In addition, approximately 80 percent of indigenous people live in poverty compared to just under half of non-indigenous, according to the 2009-2010 U.N. Development

Program's Human Development Report for Guatemala.

The U.S. Government's Feed the Future program and the Global Health Initiative (GHI) are playing particularly crucial roles in the Western Highlands. Here, where the majority of the indigenous Mayan people live, residents are malnourished, have high levels of hunger and maternal and infant mortality, and low levels of contraceptive use.

In the Western Highlands and in the more than 20,000 other small, rural Guatemala communities—with populations less than 2,000—at least 23 different languages are spoken. Communicating about critical issues like health care, nutrition, and food security is no small task.

Moreover, in the past, having many children meant more hands to work the land. But new generations have divided plots of land into smaller and

smaller parcels. There is less food to harvest. And with larger families comes more mouths to feed. As a result, nearly half the population of Guatemala suffers from chronic malnutrition.

Add to both these issues the rise in food prices across the globe: The United Nations Food and Agricultural Organization (FAO) says the cost of food is at an all-time high since the organization began keeping records in 1990, with its food price index increasing 2 percent between January and February 2011 alone. FAO's monthly report for March says the cost of maize, a staple crop in Guatemala and other parts of Central America, rose 35 percent in the country over the previous three months.

In Guatemala, around half of all children are stunted. "And that means if you just put them against a wall and draw a line, they are, on average, significantly shorter than they should

be for their age. And that is reflective of ... a certain type of chronic nutritional deficiency,” said USAID Administrator Rajiv Shah.

The Factor They Can Control

Despite rising food prices and the reality of shrinking farm sizes, there is at least one factor that the average Guatemalan can control: family size. There has been a consistent correlation in the National Maternal and Child Health Surveys conducted every five years since 1997 between family size and child health status. For instance, data from the 2008-2009 survey show that when there are one or two children in the family, they are better nourished, they get sick less often, and when they are sick, the mothers are more likely to seek health care than when there are more than four children in the family.

The U.S. Government’s Global Health Initiative (GHI)—the Obama

administration’s multi-year, interagency effort aimed at improving and saving lives by strengthening health systems—is working with local organizations to help them inform women and men about contraceptive choices and the importance of spacing their children’s births.

Additionally, USAID is working with Guatemalan Government officials to make other family planning information more accessible to more couples who want it. These services are scarce in Guatemala, which may be one of the reasons the country has the highest fertility rate in Latin America. Contraceptive use is especially low among Mayan women, most likely due to a mix of historical, cultural, and political barriers.

With USAID support, the Ministry of Health is now providing information and access to contraceptives. Recent policy efforts in Guatemala have also led to additional funding

for reproductive health programs, as well as a law to provide universal access to family planning.

As Dr. Yma Alfaro, USAID’s reproductive health officer, explains: “Under the GHI strategy, with its emphasis on women, girls, and gender equity, we are making renewed efforts to address the unmet need for family planning services among the underserved populations of the Western Highlands by ensuring that education materials and activities are in Mayan languages, that men are included in the education and advocacy efforts for birth spacing and improved reproductive and maternal health services at local clinics, and that adolescent girls and boys have access to information and reproductive health services before the first pregnancy occurs.”

As more couples learn about reproductive health and family planning, Guatemalan families become healthier and stronger, according to research findings. Study after study shows that when total fertility rates decrease, the health and welfare of children, families, and the overall community increases.

Malnutrition Break

Preventing chronic malnutrition, chiefly through promoting nutrition and hygiene practices as well as agricultural development, is another one of the key GHI focus areas in the small Central American country.

In San Isidro, in the Western Highlands, a cadre of local women is becoming involved in the agricultural production process—something rare before the effort began in 2007.

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Photo by Hugo González, ACME Producciones

A woman discusses options with a family planning counselor at a Ministry of Health facility in Chichicastenango, Quiché.

Health Services on Wheels: a One-Stop Shop



Photo by USAID

The health wagon is a mini-clinic on wheels.

By *Manya Andrews*

It's early morning at Mwala Clinic in Kenya's Eastern province, and everywhere women and babies are crowded onto wobbly wooden benches. Mothers coddle and soothe infants, rearranging colorful blankets and knit caps, while toddlers lean against their moms' bright cotton skirts.

Many of these women have traveled dozens of miles to bring their children for vaccinations, and they expect to spend much of the day waiting in this packed room.

Two harried nurses do their best to serve the growing throng until a white four-wheel drive truck pulls up, dragging a boxy trailer behind. A team from Kitui District Hospital arrives with their health clinic on

wheels—a one-stop shop of holistic care that affords privacy for patients and a cadre of medical specialists to attend to their individual health concerns.

The “health wagon” is yet another initiative in community health outreach under the AIDS, Population, and Health Integrated Assistance II Program Eastern (A2E), which is funded by USAID and managed by the John Hopkins-affiliated, non-profit health organization Jhpiego in collaboration with five partners and the Government of Kenya.

A2E works among communities in Eastern province to improve and expand both facility-based services and community care for HIV/AIDS, tuberculosis, and malaria. It also helps improve health-worker skills and transport services for patients to

neighborhood clinics. The effort fights stigma among those affected by HIV/AIDS.

Still, with trained health workers in short supply and poor road networks plentiful, communities remain underserved. The USAID APHIA II Eastern health wagon was one answer. It was designed to attract and retain as many clients as possible by meeting a range of their health needs in a single visit.

Isolation and Great Expectations

“Because it’s so difficult in Eastern to get to clinics, when patients do come, they expect everything to be done,” explains Dr. Leonard Okoko, the district medical services officer based in Kitui District. “When we refer them to other, even farther, facilities for basic things like family planning, they just don’t go—and they end up having a baby every year.”

To solve the problem, the mobile outreach team visits isolated clinics serving large populations in areas where immunizations and use of family-planning services are weak, he says.

A nutritionist, gynecologists, nurses, a pharmacist, a district public health officer, and A2E team members plan the visits weeks in advance and begin preparing the equipment and mobile pharmacy. They work with local chiefs and community health workers to spread the word about the date of the outreach and the services that will be offered.

When the team arrives at the site, its members set up stations where clients can access the services offered. The client flow is organized such that each one ends up at the appropriate service station. Service booths can be tents or available rooms at market centers, churches, mosques, schools, and other facilities nearby. Experts offer everything from nutrition counseling to HIV testing, to family planning, to solutions for other routine health concerns.

The approach worked well integrating certain services with immunization—such as tuberculosis screening and treatment and antiretroviral treatment—but there was still a gap.

“Family planning was still a problem,” says Dr. Okoko. “These are populations that need long-term methods—IUCDs [intrauterine contraceptive devices] and implants. It’s just not practical for them to be trekking to the clinic every three months for short-term methods. You can only do so much with curtains and tents—these are intimate procedures, and you have to create privacy.”

A Practical Solution, on Four Wheels

But how do you do it effectively and practically? The answer came when Dr. Kenneth Chebet, the A2E project director, spotted a customized insulated truck one day, and noticed who had made it. The company was then hired to manufacture the health wagon.

Dr. Ruth Jahonga, an obstetrician on the A2E team, said the wagon has

transformed her work. “First, we have enough space to pack all of the equipment that we need. Second, because the equipment stays in the wagon, we can control inventory and secure our materials much more effectively.”

But the best part, she says, is how it has changed things for the clients. “At first they are very curious, but when they step into the wagon, they just smile. It’s clean and cool and peaceful. I see them relax, and they can share their problems without worrying the whole community will hear them.”

“They can be honest about their sexual activities, and then we can

**“When they get
out they are
so happy, and they
go and tell their
friends who
are waiting that it’s so
nice—they look
forward to going into
that wagon.”**

provide appropriate care and counseling,” Dr. Jahonga added. “When they get out they are so happy, and they go and tell their friends who are waiting that it’s so nice—they look forward to going into that wagon.”

A health wagon can make one circuit a week covering two market



Photo by USAID

Dr. Ruth Jahonga prepares contraceptive implants inside the health wagon.

centers and attending to at least 600 clients—mostly women and children under age 5—at each stop. This amounts to roughly 5,000 clients a month. The health wagon’s regular circuit ensures that families that had been unable to access health services can do so now.

There is one problem with the wagon—there’s only one. Planners are working to secure additional health wagons so each of Kenya’s counties can have one.

“I wish there were five of these for Eastern,” says Dr. Okoko. “If we could have many of them going every day, it would make a real difference. We could take them everywhere—not just to facilities. With the caravans, we could create a clinic anywhere.” ■

Manya Andrews is with Jhpiego.

Building on Vaccine Achievements,

Agency and Partners Ramp Up to Immunize 4 Million



A laboratory technician prepares a sample for genotyping at the government-run Ifakara Health Institute in Bagamoyo, Tanzania, when a pioneering vaccine against malaria was in its third phase of testing in October 2009.

Photo by Tony Karumba, AFP

By Chris Thomas and Angela Rucker

In 1977, movie goers were introduced to Luke Skywalker and Darth Vader, and the plaid leisure suit was the height of fashion for the well-dressed urban male. It was also the year of the last known case of smallpox—in the East African country of Somalia.

Unlike any other event that year, the eradication of smallpox from the planet showed that a singular breakthrough and a vast public campaign can go up against daunting odds in even the least developed nations to create a truly global triumph.

USAID, along with other U.S. Government health agencies and international health organizations, was behind the global program to eliminate smallpox and bring the power of life saving vaccines to millions of the world's poor.

The Agency is continuing to strengthen vaccination programs and is supporting scientists and researchers who are trying to find the latest miracle shot that will make today's most deadly and burdensome diseases a distant memory.

"The most transformative new breakthroughs we have at our disposal are ... vaccines," said USAID

Administrator Rajiv Shah, speaking earlier this year at the National Institutes of Health, the United States' premier collection of Government-funded health research facilities.

"By expanding the coverage of existing vaccines and introducing new immunizations, we believe we can save the lives of 4 million children over just the next five years," Shah said.

Breakthroughs like vaccines against smallpox and polio brought with them "massive progress in global health," he added, with millions of children saved from the life-ending

and debilitating disease that claimed their parents and other older relatives. “Vaccines are the best public health investment we can make,” Shah said.

Immunization is considered critically important to reducing child mortality, the fourth of eight Millennium Development Goals that much of the world has pledged to meet by 2015.

Yet, vaccine-preventable diseases are still estimated to cause more than 2 million deaths every year in developing countries. Unlike in richer countries, where vaccination is a scripted part of life for young children, immunizations in some poorer countries are still far from routine.

The new initiative aims to increase the number of vaccinations that USAID supports and to expand immunization programs to reach more children, saving an estimated 4 million lives.

“Going forward, we see this as one of our top priority areas where we can have an impact,” Amie Batson, deputy assistant administrator in the Bureau for Global Health, said.

“We will be putting together a vaccine team. We will work with civil society to put in place systems—PDPs (product development partnerships) that exist, like IAVI (International AIDS Vaccine Initiative) and MVI (the Malaria Vaccine Initiative), and working more closely with GAVI. We’ll be looking to see how we can increase our investments,” she added.

In his speech, Shah also said USAID’s renewed support for

vaccines would have a special focus in the field. “Each of our missions around the world will identify opportunities to improve cold chain and delivery systems. And we will support countries in developing aggressive new plans to introduce rotavirus, pneumococcus, and meningococcus vaccines,” he said.

Looking Back

For four decades, USAID has worked with partners to confront the challenge of vaccine-preventable diseases and help immunize children in remote parts of the world.

“In the 1970s, immunization coverage of the basic [childhood] vaccines was estimated below 10 percent. By 1990, it had climbed to 70 percent, and today it is estimated at around 79 percent,” said Murray Trostle, senior public health adviser in the Office of Health, Infectious Disease and Nutrition, part of USAID’s Bureau for Global Health.

“That,” he explained, “represents a massive effort to build an immunization-delivery system that can store and transport delicate vaccines at the proper temperatures in difficult climates; train health-care workers in the correct procedures for administering vaccinations; educate mothers and fathers about the value of immunization; maintain multiple contacts with the child during the first year of life; and properly manage potentially dangerous waste material following vaccination.

“Without that delivery system, vaccines are just unfulfilled promises.”

Investment in Innovation

Past USAID investments led to products that now reach millions. That includes safe injection technologies like the SoloShot™ syringe that is automatically disabled after one use and cannot be refilled or reused. That, in turn, prevents transmission of blood-borne diseases that can result from reuse or improper sterilization of a contaminated needle or syringe. It is especially important in rural settings where modern sterilization equipment and the power to run it can be scarce or nonexistent. Studies show that blood-borne diseases due to dirty needles are reduced by 90 percent in programs using some form of auto-disable syringes such as SoloShot™.

Since 1992, more than 1 billion SoloShot™ syringes have been supplied to public health programs in more than 40 countries in Africa, Asia, Eastern Europe, and Latin America. UNICEF—which already has distributed hundreds of millions of auto-disable syringes to immunization programs—now provides only these kinds of syringes to countries requesting them.

USAID also supported the Uniject device—a combined needle and syringe that comes pre-filled with vaccine or an injectable medicine—that can only be used once, also preventing transmission of blood-borne diseases. Uniject has been used for childhood vaccination as well as for programs to protect maternal and newborn health.

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Mass vaccination campaigns using the new vaccine reached nearly 20 million people in Burkina Faso, Mali, and Niger.

Tempering Fear

When the Winds Blow

*Global Health Community
Unites on a Decade-Long
Quest for an Affordable,
Effective Meningitis Vaccine*

By F. Marc LaForce

Florence, her youngest, was the first to fall ill, Rosalie Ouedraogo remembers. Only 6 years old, Florence escaped Group A meningococcal meningitis with her life, but the disease stole her hearing. During the next five years, meningitis came for Ouedraogo's other children. First

Xavier, who lost his hearing at age 15; and then Diane, at around 12.

In the West African country of Burkina Faso, where the Ouedraogos live, the threat of epidemic meningitis arrives with the dusty Harmattan winds every December and abates in May with the onset of what the mothers of sub-Saharan Africa call the "rains of hope." The story of the effect

of the disease on Rosalie Ouedraogo's children is unusual only in that not one of her children was spared.

As the rainy season arrives this year, however, the stories from Burkina Faso are different. Widespread use of a new vaccine—developed through a unique collaboration in which USAID played a crucial part—has the potential to end the epidemics.



Florence, Rosalie, and Diane Ouedraogo stand outside their home on a cool evening. Florence and Diane lost their hearing after becoming ill with Group A meningococcal meningitis.

Bacterial meningitis is a serious infection of the thin lining surrounding the brain and spinal cord. Different types of bacteria can cause the disease. In the 25 countries of the African “meningitis belt,” which stretches from Senegal in the west to Ethiopia in the east, Group A *Neisseria meningitis* is the cause of almost all epidemics.

As many as 450 million people who live in the meningitis belt are at risk of brain damage, profound hearing loss, learning problems, or death from meningitis. Even with rapid diagnosis and treatment, 5-10 percent of people who become infected die, typically within a day or two of showing symptoms. In the most remote communities of sub-Saharan Africa, where people do not receive timely medical attention, the fatality rate can approach 100 percent.

When the largest epidemic ever recorded ravaged the region in 1996 and 1997, more than 250,000 people became ill. At least 25,000 died.

The 1996-1997 epidemic was a wake-up call for the international health community. After a century of recurrent meningitis outbreaks and 30 years relying on selective use of a vaccine not wholly suited to conditions in Africa, the epidemics were growing more deadly. African public health officials approached the World Health Organization (WHO) and asked for help in finding a solution.

By 2000, health leaders, vaccine manufacturers, and scientists brought together by WHO concluded that the development of a new conjugate vaccine to fight epidemic meningitis in Africa was a priority. Previous research showed that conjugate vaccines, where polysaccharides are linked to carrier proteins, had potential to provide longer-lasting protection than polysaccharide antigens.

A year later, the Bill & Melinda Gates Foundation provided a 10-year grant to establish the Meningitis Vaccine Project (MVP), a partnership

between PATH, a Seattle-based NGO that works on health issues in developing countries, and WHO to lead the development, testing, licensure, and widespread introduction of a conjugate vaccine with the potential to protect millions from epidemic meningitis.

Finding an Affordable Solution

The challenge facing the new project was daunting. How would a partnership between two public health organizations develop this new vaccine? Who would manufacture the vaccine, and where would it be tested? How would MVP navigate international regulatory processes? Moreover, how would it be able to develop and deliver a vaccine at a price that the countries of the meningitis belt could afford—less than 50 cents a dose?

“The answers,” says PATH President and CEO Christopher J. Elias, “came through innovative partnerships that spanned four continents and provide a model for affordable vaccine development.”

The Serum Institute of India, the world’s largest manufacturer of measles and diphtheria-tetanus-pertussis vaccines, agreed to make the new meningitis vaccine for less than 50 cents. Synco BioPartners in the Netherlands and the Serum Institute provided raw materials for the vaccine. The U.S. National Institutes of Health helped transfer the conjugation technology, developed by scientists at the U.S. Food and Drug Administration, to the Serum Institute at almost no cost. And, a network of experts, including senior African public health officials, helped

design clinical trials and establish African trial sites.

Thinking Outside the Global Budget

As the vaccine manufacturing and regulatory processes progressed, other partners came forward with support, including USAID. Since 2006, the Agency has provided \$1.2 million for a variety of activities that made development and delivery of the vaccine possible.

USAID funding allowed MVP to pursue activities that could not be funded in any other way. The project was able to do a comprehensive study of the economic costs of meningitis epidemics that helped make the case for the vaccine. Agency funds provided for better disease surveillance in Burkina Faso, Mali, and Niger, three of the countries most severely affected by meningitis and the first to receive the vaccine.

The Agency's contribution provided training for African microbiologists assigned to regional laboratories, and allowed African scientists and epidemiologists to travel to Pune, India—home of the vaccine's manufacturer—to review the development, clinical evaluation, and planned introduction of the new vaccine.

Susan McKinney, senior technical adviser for immunization at USAID, noted, "The Agency helped support training and consultative activities for the Drugs Controller General of India, the national authority that regulates market authorization of vaccines developed in India, thus paving the way for vaccine introduction in Africa."

By late 2010, the new vaccine, called MenAfriVac™, was ready for introduction. MenAfriVac™ was developed at less than one-tenth of the \$500 million typically needed to bring a new vaccine to market—a major cost savings. In addition, the reduction in meningitis cases is expected to free up significant funds that countries can use to address other public health problems.

In December 2010, children and young adults in Burkina Faso, Mali, and Niger began to receive the vaccine. By the end of the month, nearly 20 million people, ages 1 through 29, had been vaccinated against epidemic meningitis with the new vaccine.

The early impact analysis following introduction is very encouraging; there have been no Group A meningococcal outbreaks in Burkina Faso, Mali, and Niger.

The challenge ahead is to make sure the vaccine reaches the rest of the meningitis belt. WHO estimates that MenAfriVac™ can save more than

140,000 lives and prevent more than 240,000 permanent disabilities over the course of a decade if it gets to the 300 million more children and young adults who need it. But even at a cost of less than 50 cents a dose, it will take an additional \$475 million to protect them. Support is still needed.

WHO and PATH are working to build support for sustaining the immunization effort and expanding it to the 22 countries where people have yet to receive the vaccine. USAID is committed to vaccine introduction and is a major supporter of GAVI, the international agency responsible for much of the introduction funding.

If the immunization campaign is successful, the history of the African meningitis belt will change again, this time for the better. On that day, families like the Ouedraogos will no longer live in fear when the wind begins to blow. ■

Dr. F. Marc LaForce is director of the Meningitis Vaccine Project.



Children and young adults line up to receive MenAfriVac™ in the village of Koubri, Burkina Faso.

Photo by Gabe Bienczycki

Interview with Dr. Margaret Chan



Photo by WHO

Dr. Margaret Chan joined the World Health Organization (WHO) in 2003, and was appointed to the post of director-general in 2006. In 1994, she was appointed director of health for Hong Kong, where she introduced initiatives to improve communicable disease surveillance and response, enhance training for public health professionals, and establish better local and international collaboration. In her nine-year tenure, she managed outbreaks of avian influenza and severe acute respiratory syndrome (SARS). Dr. Chan joined the Hong Kong Department of Health in 1978, where her career in public health began. She obtained her medical degree from the University of Western Ontario in Canada.

FRONTLINES: How does WHO work with USAID to deliver health services to developing countries?

DR. MARGARET CHAN: WHO has long worked closely with USAID in a number of areas. Let me give just a few of many examples.

USAID has supported WHO in seeking practical solutions to the current severe shortage of health-care staff. This work, in turn, has improved coverage with antiretroviral therapy for HIV/AIDS in several African countries.

USAID has given WHO tremendous support in TB (tuberculosis) control, especially for laboratory work and including support for the introduction, together with field-level evaluations, of an impressive new diagnostic test that takes 100 minutes to produce results compared with the usual two-to-three months. This new

tool promises to revolutionize TB care in resource-poor settings.

Equally important is USAID's financial support for work in strengthening health systems in some of the world's most needy, and most challenging countries, building on WHO's on-going work in this area. Apart from rehabilitating health facilities and laboratories, this support has strengthened capacities to respond to outbreaks of infectious disease, thus contributing to wider health security for neighboring countries.

FL: Roughly 80 percent of people in the developing world do not have access to health facilities. What is the most effective way we can help these individuals access quality care, even in rural and low resource settings?

Chan: In my view, the best way is to go back to the basics: the values,

principles, and approaches of primary health care. Abundant evidence, over decades of experience, supports this view. Countries at similar levels of socioeconomic development achieve better health outcomes for the money when services are organized according to the principles of primary health care. A revitalization of primary health care is the smart move to make.

To be frank, a smart move, in this case, is not an easy move. We are almost starting over from scratch. Over the past three decades, health systems in large parts of the developing world have crumbled from neglect. Countries and their development partners have failed to invest adequately in basic health infrastructures, capacities, and services, including staff education and training, regulatory capacity, procurement systems, and statistical services.

FL: If done correctly, why is development assistance not charity? Along the same lines, why is country ownership so important?

Chan: Countries want capacity, not charity. They want a hand up, not a hand-out. Good development assistance is a mutual undertaking, not the generous and warm-hearted giving by the wealthy to the poor and needy. It accepts the recipient country as an equal partner. Good aid for health development aims to build self-reliance. It does so by channeling support in ways that strengthen existing infrastructures and capacities, whether for data collection and monitoring, drug procurement and distribution, or financial management of projects. If aid does not explicitly aim for self-reliance, the need for aid will never end.

Dependency negates dignity. Hand-outs steal hope. Hopelessness stifles that fundamental human aspiration for a better life, and the willingness to work hard to get there. Children inherit their parents' poverty, misery, and ill health. Ill health saps productivity. The costs of care trap the next generation in poverty. It never ends.

Country ownership of the health agenda is the surest route to self-reliance and sustainable results. Country ownership increases the legitimacy of government in the eyes of its citizens, and encourages accountability.

The launch last December of a new vaccine to prevent epidemics in Africa's meningitis belt provides a good example. The vaccine was developed in response to the expressed

needs of African leaders, including an affordable price. The project was coordinated by WHO and PATH (see story on page 16), with core funding from the Bill & Melinda Gates Foundation and additional support from USAID and others. A consortium of academics and scientists developed the vaccine, with technology transferred from the U.S. and the Netherlands to the Serum Institute of India, which agreed to manufacture the vaccine at the target price of 50 cents per dose. African scientists contributed to the design of study protocols and conducted the clinical trials. At every stage, this was a process of shared goals and mutual learning. African countries frequently have to wait years, if not decades, for new medical products to trickle into their health systems. For once, the best technology that the world, working together, can offer was introduced in Africa.

FL: Is there one example that stands out to you that demonstrates the immense need for continued innovation in health for development?

Chan: New vaccines nearly always give public health its biggest leap forward. Of course, everyone would love to see a vaccine developed for the high-mortality killers, like HIV and malaria, and a better vaccine for tuberculosis. Work in this direction is already under way, largely through public-private partnerships and often with generous funding from the Bill & Melinda Gates Foundation.

But on a more immediate level, what we need most is to see existing

technical interventions adapted to meet the reality of conditions, and resources, in the developing world. For example, products that can be administered safely by non-specialist staff help compensate for the shortage of skilled health-care workers. Products made suitable for home-based care are important for diseases like malaria, which can kill within 24 hours of symptom onset.

This is one complaint I hear repeatedly from health officials in developing countries. Their health problems are neglected by R&D (research and development), and when new tools become available, they are nearly always priced beyond reach.

FL: Improving health, in a general sense, is far from simple. But what are some of the simplest ways to see real health gains in the developing world?

Chan: This question deserves a simple answer: educating girls and empowering women. Nothing pays a bigger dividend, and it keeps paying back, from one generation to the next.

Another simple tool, with a lot of complex work behind it, is the WHO Model List of Essential Medicines, which helps countries invest precious resources on medicines that match priority health needs and bring the biggest population-wide gains in health outcomes. In times of financial austerity, tools that help rationalize health expenditures become all the more important.

Approaches that genuinely engage communities can produce indigenous, ingenious solutions that work

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A newborn baby girl, daughter of a HIV-positive mother, receives the anti-retroviral drug Nevirapine in Paarl, Western Cape province, South Africa.

By Jay Heavner

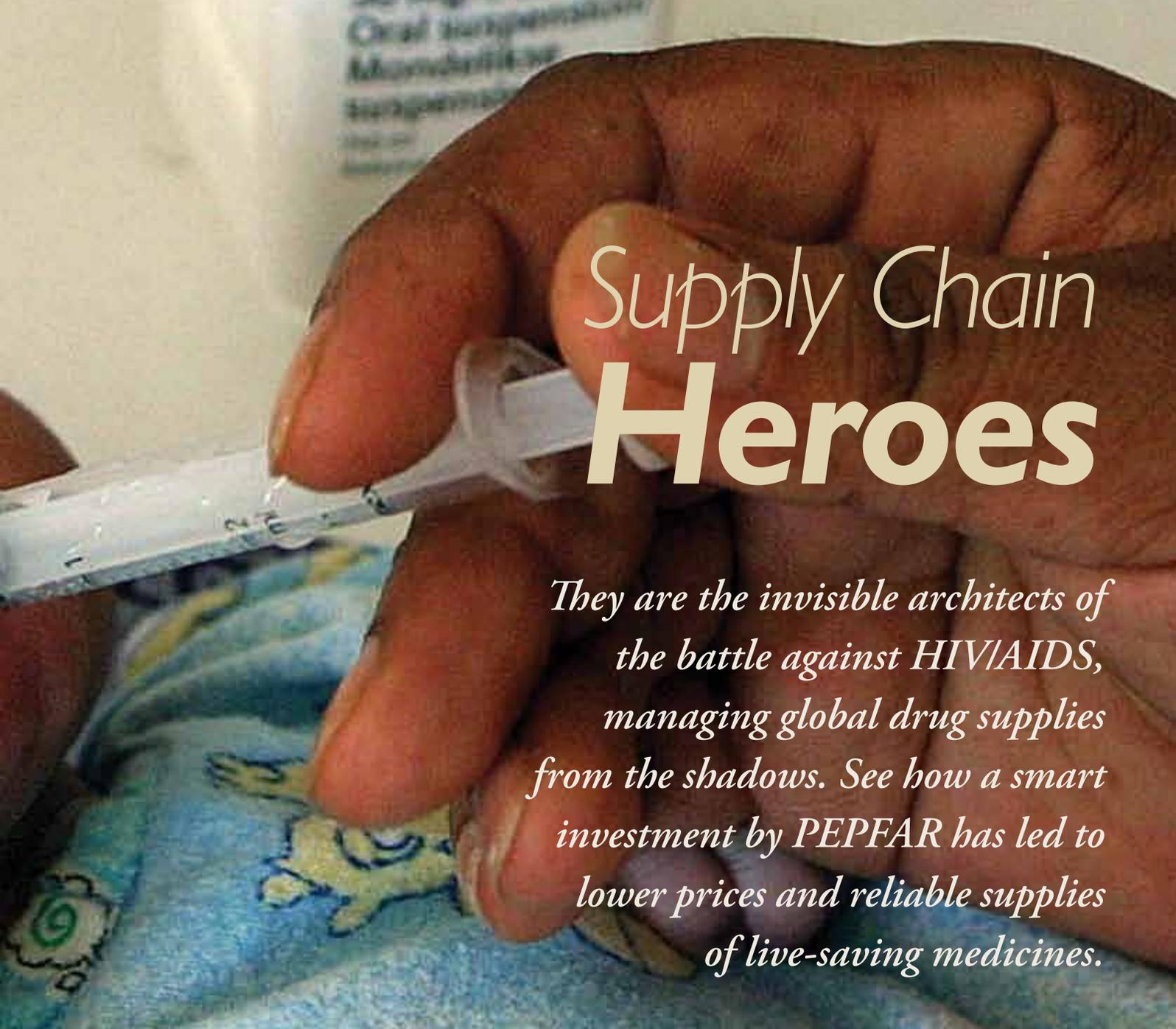
The staff at Mozambique's central medical store, known locally by the acronym CMAM, has been busy lately. Large shipments of anti-retroviral medicines, or ARVs, are being processed for storage and later distribution to treatment sites across the country. In a flurry of activity, men drive fork lifts loaded with boxes on pallets, placing them

carefully on racks. Other staff at computers log delivery information, manage inventory data, and review orders from district medical stores and other sites.

Although doctors, nurses, and other public-health workers are the more public face of efforts to treat people with HIV/AIDS, the staff at CMAM and their colleagues around the world who support public-health supply chains play as critical a role in saving

lives. Their tools, instead of syringes and stethoscopes, are storehouses and spreadsheets.

Today, more than 190,000 people are receiving HIV/AIDS treatment in Mozambique, up from 13,000 in 2005, according to the Kaiser Family Foundation. The drugs at the Mozambique store are funded by the President's Emergency Plan for AIDS Relief (PEPFAR), and the Global Fund to Fight AIDS, Tuberculosis



Supply Chain Heroes

They are the invisible architects of the battle against HIV/AIDS, managing global drug supplies from the shadows. See how a smart investment by PEPFAR has led to lower prices and reliable supplies of live-saving medicines.

and Malaria. PEPFAR's Supply Chain Management System (SCMS), a project made up of 13 health and development institutions working to procure and provide quality essential medicines at affordable prices, is one reason that countries such as Mozambique have been able to scale up HIV/AIDS treatment so quickly.

Established in 2005 and administered by USAID, SCMS provides an uninterrupted supply of quality and

affordable essential medicines; knowledge, skills, and technology transfer; and global collaboration with other stakeholders. The activity provided more than 600 technical assistance assignments which have been completed in 25 countries. Assistance has been provided in forecasting and quantification; warehousing and distribution; laboratory logistics; quality assurance; and information systems. Consistent with the principles of

the Global Health Initiative, the knowledge, skills, and technology transferred through these long- and short-term assistance assignments to local institutions contribute to strengthening countries' health systems, and help build robust and potentially sustainable systems that support all health-related programs.

In 2010, SCMS delivered 100 percent of the PEPFAR-funded

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Wanted: Primary Care Docs in Kyrgyzstan

By Taylor Briggs

Dr. Cholpon Sadyrbaeva flipped through her photographs on a projector screen. When she got to one showing three generations of a family that she treated in rural Kyrgyzstan, she paused and smiled. There were photographs showing her examining an infant, listening to an old man's lungs, and counseling a middle-aged woman about high blood pressure.

The Kyrgyz State Medical Institute for Retraining and Continuing Education, USAID, and the U.S. NGO Scientific Language and Technology Institute invited Dr. Sadyrbaeva to give her presentation to dozens of sixth-year medical students at a three-day family medicine symposium in Bishkek early last November. An annual event since 2006, the symposium provides information and hands-on

training to encourage more medical students to consider a career as a primary care physician.

Dr. Sadyrbaeva returned to the symposium for a second time to present her photographs and experiences to her peers. She represents a new generation of Kyrgyz family physicians that came of age and began practicing after reforms radically transformed the health-care system of post-independence Kyrgyzstan.

Weaning Off Specialists

Prior to independence, the Kyrgyz health-care system relied heavily on specialists to treat most illnesses. "Most people in Kyrgyzstan weren't used to receiving care from a generalist and didn't even understand the concept of family medicine, so they tended to trust specialists much more than family doctors," Dr. Sadyrbaeva explained.

Typically, a patient would enter a health-care facility and almost immediately be referred to a specialist, even if the problem was minor. Pregnant women were required to visit three specialists. Children entering kindergarten were required to see at least five specialists and submit to numerous laboratory tests before starting school.

And most of these specialists were located in different clinics in different parts of town, adding to the time and bureaucratic hassle for patients.

When the Soviet Union dissolved and Kyrgyzstan achieved independence in 1991, the country's health-care system was both insufficient and financially unsustainable. Mounting financial pressures on the government resulted in drastically reduced health budgets over the years.

In 1996, the Kyrgyz Government, in partnership with USAID, launched an ambitious campaign to transform and streamline the country's health-care system. This campaign focused on broadening the scope of primary care, strengthening the capacity of providers, and establishing family medicine as the bedrock of the Kyrgyz health-care system.

"It was crucial to form a new primary health-care system with a focus on family medicine in Kyrgyzstan in the 1990s. The old system was not responsive to the patient and was collapsing under its own weight," explained USAID health specialist Dr. Sholpan Makhmudova. "This new system is better in two ways: it reduces the size of the health sector to make better use of limited resources,



Photo by Murat Dzhergalbaev

Dr. Cholpon Sadyrbaeva examines an elderly patient in Bishkek, Kyrgyzstan.

and also creates space for primary health practices to expand services to more patients. A strong family medicine base is better for patients, the community, and costs less so it's better for all."

A major objective of the reforms was to move away from costly and often unnecessary hospital and specialist care toward more cost-efficient and patient-centered primary health care. With USAID support, the Government of Kyrgyzstan created a completely new primary health-care sector and pinpointed family practitioners—a new medical specialty that did not exist prior to reforms—as the linchpin to the new system.

Incentivizing a New Generation

For Dr. Sadyrbaeva, the choice to become a family physician was not obvious. Originally from the southern Kyrgyz city of Osh, she had dreamed of becoming a cardiologist—a prestigious and lucrative career path.

But her medical education began just as Kyrgyzstan started to implement plans to promote family medicine, including tuition assistance and monthly stipends for medical students who chose to study family medicine. The country needed to develop a new generation of family physicians—doctors who could treat a diverse array of ailments for all age groups. After carefully considering her options, Dr. Sadyrbaeva eventually decided to become a family physician.

After completing a family medicine residency in Bishkek, she served two

years in a location chosen by the government in return for her financial aid. Due to a shortage of doctors, the Kyrgyz Government sent Dr. Sadyrbaeva to remote and economically distressed Naryn province. In spite of the hardships of being a doctor in a rural area, Dr. Sadyrbaeva prospered and became a skilled clinician and trusted caregiver to her patients. Within months, she was promoted to deputy director of the city's family medicine center.

Once she finished her service in Naryn, Dr. Sadyrbaeva found work as a family physician in Bishkek.

Despite Dr. Sadyrbaeva's professional success and the success of the health-care reforms that created family practitioners, the prime barrier to expanding the field remains attracting medical students. At the symposium in Bishkek, many medical students admitted that although they were interested in family medicine, they ultimately planned to become specialists because of the higher wages they offer.

In the short term, USAID is working to improve the quality of family medicine. Today, USAID, through its Quality Health Care Project, is supporting improvements in family medicine education, including the introduction of evidence-based medical standards, to produce a new cadre of capable family physicians. Over the past 15 years, USAID-sponsored programs have re-trained over 2,600 pediatricians, internists, and OB/GYNs in evidence-based family medicine.

These re-trained doctors, along with this new generation of family

physicians, have positively impacted health outcomes in Kyrgyzstan over the past decade. In maternal and child health, Kyrgyzstan's strengthened primary health-care sector has contributed to a 30-percent drop in infant mortality rates and a 35-percent drop in mortality rates for children under 5 since the start of USAID-supported health reforms.

A longer-term goal is to ensure that family medicine becomes a respected and trusted first line of health-care provision and a more attractive and prestigious career path for young doctors, and, ultimately, to help the Kyrgyz Government provide high quality and affordable health services to its people.

Through continued support from USAID and the Government of Kyrgyzstan, family medicine is steadily cementing its position in the Kyrgyz health-care system as an affordable and effective system of quality health care. Ten years ago, people chose to visit a family physician for diagnosis and treatment only 15 percent of the time. Today, as the field of family medicine has matured, people choose family physicians over specialists more than half of the time.

As more and more people go the way of family physicians, the benefit for doctors will be getting to know their patients on a more personal level. For Dr. Sadyrbaeva, her presentation at the symposium is a way to promote the profession to aspiring doctors, but it's her smile and photographs that show the audience the affection that a family physician can have for her patients. ■

Bangladesh, a Safer Place for Mothers

In Big Win for Health Community, Maternal Deaths Plunge 40 Percent in Decade

By Ryan Cherlin

For many couples that plan to start a family, the journey from pregnancy to birth is one of excitement, anticipation, and in many cases, fear. The first two emotions are universally shared, but the third varies greatly with geography and circumstance.

A couple in the United States may fear that nine months isn't enough time to read all of the right parenting books, buy a new car, and find a bigger house. The convenience of a well-equipped health-care system allows the couple to be preoccupied with preparing for the arrival of a new family member, and focus on becoming good parents.

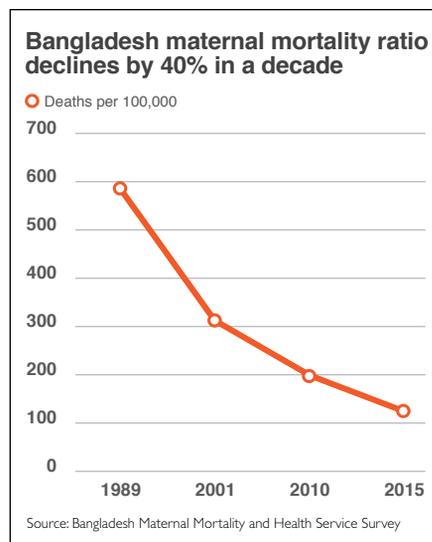
A couple in the developing world often experiences a very different journey. Eighty to 90 percent do not have access to health facilities. This means that an expectant mother may not receive any pre-natal care during pregnancy and will most likely give birth without trained medical personnel.

A Short, Deadly Window

Each year, more than 150,000 women die in the first 48 hours after birth throughout the world; 1.6 million newborns will die in that same time frame. Ninety-nine percent of these pregnancy-related deaths occur in the developing world. The sad reality is

that during this short window, mothers die giving life and newborns are robbed of their future simply because they don't have access to a system that affords them quality care.

Changing the tide on these staggering statistics has been one of the greatest challenges for the global health community; the problem is complex and for this particular public health issue, there is no magic bullet. The solution requires bringing health-care services directly to people in remote communities, and educating those 80-90 percent of people who are accustomed to traditional practices, and explaining the benefit of seeking care and prescribing to healthy practices.



Studies show that progress in this area is slow. The rate of maternal and newborn deaths decreases by less than 1 percent each year, respectively.

But in one country—Bangladesh—maternal deaths decreased by 40 percent in the last nine years.

The Bangladesh Maternal Mortality and Health Service Survey, jointly funded by USAID, the Government of Bangladesh, Australian Aid, and the United Nations Population Fund, recently revealed that maternal deaths in Bangladesh fell from 322 per 100,000 in 2001 to 194 per 100,000 in 2010.

“This is a tremendous achievement for a country like Bangladesh where 80 percent of the population live under \$2 per day income,” says Dr. Umme Meena, maternal health specialist at USAID/Bangladesh. With numbers like that, Bangladesh is on track to meet the 2015 deadline for the United Nations’ fifth Millennium Development Goal: to reduce the maternal mortality rate by three-fourths.

While further studies are needed to accurately determine the cause of this sharp decline, many global health experts believe it is a consequence of more couples actively seeking care combined with improved access to higher-level referral care. The improved access results from women’s increased awareness and literacy levels, better roads, and an increased number of health facilities that are able to provide emergency obstetric care.

With support from USAID, an increasing proportion of women receive antenatal care. Accordingly, more women understand how to access the health-care system, and are more aware that they must seek prompt medical care when they detect any complications during their pregnancy or delivery.

Over the past five years, USAID has invested in programs that actively manage the third stage of labor, the most dangerous stage, to prevent the highest cause of maternal death—postpartum hemorrhage. Experts also give credit to successful family planning programs that have reduced exposure to high-risk pregnancies, which in turn prevented a large number of maternal deaths. The fertility decline from 3.2 to 2.5 births per woman in the last nine years is estimated to account for 46 percent of the decline in maternal deaths during this period.

Better Planning, Better Outcomes

USAID's family planning programs in Bangladesh contributed significantly to this behavior change. USAID supports the world's largest social marketing program—a widespread network of 200,000 pharmacies, other retail outlets, and health providers to market contraceptive and health products and provide quality health services—which accounts for 35 percent of Bangladesh's modern contraceptive prevalence rate.

“We can confidently say that our long and unwavering investments in family planning have had a direct impact in lowering the total fertility rate, and thus the maternal mortality rate, in Bangladesh,” says Lily Kak, USAID's senior country adviser for Bangladesh.

Amanda Glassman, director of global health policy and a research fellow at the Center for Global Development, wrote that “the results are also a good reminder that investments in family

planning and girls' education drive much of maternal health outcomes, and that USAID investment in social marketing of family planning and health seems to be paying off in improved health.”

Care for 20 Million

Through NGO clinics and community-based approaches, USAID provides basic health-care coverage to nearly 20 million Bengalis, including low-cost, quality family planning services, maternal and child care, and HIV/AIDS and tuberculosis prevention and treatment. USAID has trained and mobilized community health workers who go into communities without health facilities to provide maternal and child health care. The care also supplements broader health services that are provided in USAID-supported NGO clinics and satellite clinics in communities, thus contributing to significant declines in child mortality. And, through the social marketing program, USAID provides family planning services to the entire nation.

But the international aid community is not the sole driver of these changes. When addressing the U.N. General Assembly in 2010, Prime Minister Sheikh Hasina Wazed committed to doubling, by 2015, the percentage of births attended by skilled health workers from the current level of 24 percent; staffing all 427 sub-district health centers to provide around-the-clock midwifery services; and upgrading all district hospitals and Mother and Child Welfare Centers for emergency obstetric care services. She also committed to ensuring universal

implementation of the Integrated Management of Childhood Illness Program. As a first step towards achieving her commitment to halve unmet need for family planning by 2015, the prime minister mobilized 17 ministries in a meeting of the National Population Council in September 2010.

Last November, the Bangladesh Government and the United States jointly rolled out President Barack Obama's Global Health Initiative (GHI) country plan—a multi-year, interagency effort aimed at improving and saving lives by strengthening health systems.

An independent review of the national health sector program concluded that “Bangladesh has already achieved most of the reduction in mortality that can be achieved through vertical programs; future progress will increasingly depend on more complex interventions requiring a more efficient, effective and equitable health system.”

The GHI offers an opportunity for the U. S. Government to make a strategic shift towards increased engagement with the Government of Bangladesh and strengthened capacity of the public sector health systems while building on the successful approach of supporting service delivery through the NGO and private sector. It will continue to focus on providing quality services to further reduce maternal and child mortality, increase family planning use, improve nutrition status among children under age 5, and strengthen overall health systems over the next five years. ■

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In 2009, at least 82 percent of households in Senegal had at least one bednet compared with 36 percent in 2006. Here, Rougiatou Diallo settles down for a nap with her two children, Serigne Fallou, 3, and Mame Cor, 1, in the district of Guédiawaye near Dakar.

Battle to End

Malaria Counts Community Health Workers as Foot Soldiers

To date, the President's Malaria Initiative and other global efforts have helped cut malaria cases in half in more than 40 countries worldwide. Meanwhile, the quest for a vaccine to help eradicate the disease continues.

By Angela Rucker

Long before the United States launched the President's Malaria Initiative (PMI), Fatou Diouf was going house to house in her village of Kignabour in Senegal to keep malaria and other illnesses from sickening her neighbors.

Twenty-eight years later, and with a fresh injection of U.S. support, she is proud of the impact her work continues to have on her community.

"This year, for example," she said, "we had in all of the village only one case of malaria—from a population that totals 1,553 inhabitants."

In the five years since it was launched, the PMI, which is led by USAID and implemented together with the Centers for Disease Control and Prevention, has moved closer to its goal of cutting malaria-related deaths in half.

The U.S. Government has allotted \$1.2 billion in 15 African countries on malaria prevention and treatment. The program puts a special focus on pregnant women and children under age 5—the groups at greatest risk of dying from the disease.

Officials say that global malaria control efforts, including the PMI, have helped cut malaria cases in half in more than 40 countries.

"Today we help save nearly 150,000 lives every year," USAID Administrator Rajiv Shah said on World Malaria Day 2011, April 25. "In seven of the original 15 Presidential Malaria Initiative countries, we've seen reductions in all-cause child mortality by 23 to 36 percent. Once more data becomes available, we expect to see similar results in the remaining initiative countries."

Malaria is entirely preventable and curable, which makes it a prime target for the global health community. But as backers of the PMI and other efforts know, those efforts are not easy or inexpensive.

A Challenging Disease

Malaria has been around for centuries and is spread by the bite of the female *Anopheles* mosquito. Once endemic, malaria has been eliminated from most developed nations for many years. It is the poorest nations and those in tropical climates—prime real estate and reproductive territory for mosquitoes—where malaria is stubbornly staying put.

About 1 million people die of malaria annually. Between 300 million and 500 million people will get the disease each year, and most live in sub-Saharan Africa. Uncomplicated malaria causes flu-like systems, such as fever, headache, and vomiting. If left untreated, the disease quickly can lead to death. Even if a child survives severe malaria, he or she is often left with chronic disabilities—hearing loss, paralysis, and learning disabilities.

An estimated 30 percent of all outpatient visits and inpatient admissions among children under 5 in Africa are due to malaria. And in the economic realm, the disease results in \$12 billion in lost productivity every year on the continent.

Muscular U.S. Response

Working with other U.S. Government and international partners, the PMI uses a mix of tools: long-lasting insecticide-treated bednets, indoor insecticide spraying campaigns, artemisinin-based combination therapies, prevention of malaria in pregnancy, and community education campaigns. The PMI is also helping train lay and professional medical personnel to care for people with malaria, and is helping governments take charge of malaria campaigns in their own countries.

“The United States is focusing on building capacity within host countries by training people to manage, deliver, and support the delivery of health services, which will be critical for sustained successes against infectious diseases” like malaria, said U.S. Global Malaria Coordinator Timothy Ziemer.

And, while a malaria vaccine is not on the immediate horizon, USAID is backing researchers and pharmaceutical companies in the effort.

Knocking on Doors, Saving Lives

For now what is happening on the ground in malaria-affected communities is vital. And community health workers like Fatou Diouf are key to the activities.

Diouf is part of USAID/Senegal’s integrated community case management program, which is supported by the PMI and uses trained community workers to provide basic health services. One of the greatest barriers to rapid and effective treatment of malaria in Africa

is lack of access to health facilities for people living in rural areas. Many countries deploy community health workers to compensate for the limitations of their formal health-care systems.

Diouf, who was selected by her community to train as a health worker in part because of the long distance to health facilities, says the people she serves today know more about malaria than when she started two decades ago.

In the beginning, some people declined to use bednets or used them improperly, she said. Some even told Diouf they did not need to use bednets because they saw no mosquitoes in their rooms. Today, Diouf, 53, goes door to door to educate families about malaria and the proper use of bednets. As a member of the community, she easily won their trust.

Senegal and Malaria Eradication

“Senegal’s northern areas could be malaria-free in the next few years. Indeed, some districts have already achieved this impressive goal,” the country’s health minister, Modou Diagne Fada, said late in 2010. “This is the first time that our country has achieved a level of malaria control that could put malaria elimination within reach.”

In-country malaria-control experts say funding from the PMI and other sources was key to vastly increasing bednet distribution—in late 2009, at least 82 percent of households had at least one bednet compared with 36 percent back in 2006—and to providing other malaria-related services to as many people in the country as possible. The country recruited celebrities, well-known athletes, and religious leaders to support its efforts.

The PMI also tracks closely to the newer Obama administration push, the Global Health Initiative (GHI), which began last year. The GHI, like

the PMI, looks to reduce disease and promote healthy communities with a particular emphasis on women, babies, and young children.

The PMI, which was reauthorized for another five years in 2009, will run through fiscal year 2013. With its renewed funding, the PMI is a key component of the comprehensive GHI. In Senegal, PMI represented over 40 percent of donor support for malaria control in 2009.

GHI-PMI Double Punch

“I believe we can save an additional 500,000 more lives a year, most of them young children,” Shah said. “To do this, we need to scale up the distribution of insecticide-treated bednets, boost indoor residual spraying, use more effective antimalarial drug therapies, and target vulnerable populations for treatment.”

That will take additional funding in a time when national and global budgets are tight. Or, as Ziemer put it at a malaria conference in Oslo earlier this year, “we have to go forward with a heavy dose of reality because there will be less money.”

Forming partnerships, including with the private sector, will be key to stretching scarce government resources, he said. The PMI announced recently that it is collaborating with the U.S. Peace Corps in 14 African countries where the two efforts overlap to expand malaria control and prevention.

Ultimately, health advocates say a vaccine against malaria is needed to eradicate the disease, much like what occurred with small pox and polio decades ago. USAID was critical to both efforts. Researchers believe that an effective vaccine could take another 10 to 15 years. ■

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Plugging In and Powering Up

continued from p. 3

maintenance and “data logging” in all medical installations in Haiti is a key goal of USAID’s Improving Health Facilities Infrastructure (IHFI) program. Logging data on these crucial machines not only provides an important maintenance record, but also brings technicians closer to the machines, increasing familiarity and accountability, thereby increasing the chances that these systems work.

A Matter of Life and Death

USAID and the U.S. Centers for Disease Control and Prevention (CDC), through IHFI, work in six developing-world countries to enhance energy services in health-care facilities such as those that support the President’s Emergency Plan for AIDS Relief, or PEPFAR, and in other activities that strengthen health sectors around the world.

In Guyana, for example, USAID, partnered with CDC, is launching a program to help the Ministry of Health electrify remote rural clinics with solar panels. In Mozambique and Zambia, IHFI has worked with PEPFAR partners to help design back-up energy systems for the central teaching hospitals in both countries’ capital cities, an important step in allowing the labs in these facilities to be accredited.

And in Haiti, IHFI supports energy systems that provide clean and reliable power to approximately 20 of the most important health facilities throughout the country. In the poorest country in the Western

Hemisphere, the Agency is working to implement rigorous data-logging and maintenance protocols at hospitals and clinics in partnership with the Ministry of Health so that life-saving equipment is operable.

“Reliable power is often a matter of life and death at health facilities in developing countries,” commented Jeffrey Haeni, USAID IHFI program manager. “On a visit to the neo-natal ward at the hospital in Cap-Haïtien, in the north of Haiti, the doctor reported that three babies had died the previous week as a result of power outages. There was insufficient power to run the incubators and a suction machine, and poor lighting resulted in an IV being adjusted incorrectly.”

Reliable power is also critical to retaining staff. The doctor interviewed in Cap-Haïtien, who did not want to give his name, was so discouraged with the poor working conditions in the hospital that he said he was going to leave his post.

Building New Foundations for Health

On a warm afternoon in mid-February, Dr. Jean Gracia Coq, medical director at the Justinien Hospital in Cap-Haïtien had a worried look on his face. Several of the new computers installed by the CDC to analyze laboratory data and store patients’ electronic medical records were not only out of service, but beyond repair, fried by a voltage spike from the hospital’s diesel generator.

Grid power to his large regional hospital was only available for a few hours per day—and he never knew when—so the hospital depended on

that generator to ensure that critical medical areas had access to electricity.

Now, in addition to a faulty generator and blown computers, the batteries that ensured clean power to the laboratory test instruments were no longer charging.

Alerted by a CDC representative, the local IHFI team flew a diesel engine mechanic up from Port-au-Prince, and temporary repairs got the generators humming and the batteries charging again.

But what Adhémar and his colleagues learned at the workshop could have prevented Dr. Coq’s generator problem, avoided the need to postpone surgeries, and saved the high costs of emergency generator repair.

“Through this program, USAID in Haiti is working to build awareness of the importance and the manner of maintaining energy systems for sustainability. It is something of a grass-roots process,” says Stephane Morisseau, a public health adviser at USAID/Haiti. “By responding to hospital directors and engaging with technicians, in addition to working with health ministry offices and local vocational technical training institutes, IHFI team members are attempting to develop and foster a culture of responsibility and the technical knowledge that will result in longer life and better performance of the energy infrastructure that is so fundamental to health facility operation.” ■

For more information, go to www.poweringhealth.org or contact Jeffrey Haeni at jhaeni@usaid.gov.



Photo by Sonia Dominguez

Mayan women in Guatemala learn about nutrition, hygiene, and health as part of a USAID-supported program.

Nutrition and Family Planning *continued from p. 11*

The women wash and pack vegetables from a farming collective plantation for distribution and sale in Walmart stores in Guatemala and other Central American countries. Spurred on by the experience, the women have taken some of the lessons home with them. Many are now planting kitchen gardens with crops not traditionally grown in the community—beets, radishes, carrots, chard, cilantro, and some local, traditional greens—as a way to improve their families’ diets. They have also coordinated cooking classes among themselves to share new recipes.

Three years ago, Doña Delma Gomez was one of the first women to start working with the collective and now, at 32 years old, she is an active member. She and her husband have four children, the youngest of whom is 4 years old. Gomez said that before

being involved in the project, she spent all of her time at home doing housework and taking care of her children because there were no places in the community where women could work.

“The project has been a huge benefit because before we didn’t have any opportunity to work and earn money,” Gomez said. “Now with what I earn at the packing center, I have been able to improve what my children eat. Now I can buy more fruit and other vegetables that we don’t grow here in our fields and there is enough for me to buy meat and other food that helps the children grow.”

Gomez estimates most of her earnings—around 70 percent—go to purchasing food for the family. She also said that her children are sick much less often now and seem to be growing faster as well.

But it is not only health and food security that improve when USAID’s core initiatives in these areas intersect.

In his recent testimony in front of congressional appropriators, Shah cited the Guatemala Walmart Partnership as a model of how introducing large communities of poor farmers into global value-chain networks has residual effects on societies.

“[When I was last in Guatemala], I visited a village where they told me that three years ago there were 20 kids in school. And, now today, because of that partnership with USAID and Walmart, they had a demand for 500 kids to go to school,” Shah explained. “And that’s because when women farmers earn income, the very first thing they do is invest that income in the health and education of their children. And it just demonstrates how we can move communities out of poverty into a place of stability in a way that’s far more efficient than dealing with consequences.” ■

Building on Vaccine Achievements *continued from p. 15*

In addition, USAID provided backing to developers of a small label that is affixed to vaccine containers that changes color to indicate if the product inside has been damaged by heat exposure, which can easily happen in developing countries located in warmer climates.

In the past, because there was no way to detect whether individual vials had been exposed to heat at some point during storage or transport, national immunization programs disposed of large quantities of suspect vaccines. “These vaccine vial monitors permit program managers to better manage vaccine supplies and reduce vaccine wastage due to heat exposure,” said Trostle.

The Program for Appropriate Technology in Health, better known by its acronym PATH, which led the charge developing both SoloShot™ and vaccine vial monitors with USAID support in the 1980s, estimates that over the next decade, vaccine vial monitors will allow health workers to recognize and replace more than 230 million doses of inactive vaccine and to deliver 1.4 billion more doses in remote settings—actions that could save more than 140,000 lives.

Slow Gains

New technology worked alongside the less sexy work of building health systems, often from scratch, over several years’ time starting in the 1970s. Most developing countries had no

basic systems or infrastructure on which to build an immunization program in the beginning.

“In these countries the immunization program helped build the primary health-care program, instead of the other way around,” Trostle said.

“The challenge now is reaching the very hard to reach populations and sustaining the gains that we have made overall,” he added.

New technology worked alongside the less sexy work of building health systems, often from scratch, over several years’ time starting in the 1970s. Most developing countries had no basic systems or infrastructure on which to build an immunization program in the beginning.

GAVI, the Global Alliance for Vaccines and Immunization, is holding a pledging conference June 13 in London, gathering donor countries and vaccine makers to talk over ways to raise an additional \$3.7 billion the group says is needed to immunize more than 240 million additional children in the next five years, saving 4 million lives. USAID is but one partner in GAVI, contributing \$644 million over 10 years.

It is but one try at innovative financing to continue vaccination efforts, which is considered crucial in efforts to reach ambitious global health goals in a resource-constrained world.

An Ongoing Challenge

Unlike the success with smallpox, experts see vaccinations as an ongoing battle, with new disease threats emerging and the need for newer and better drugs and technologies to go against them.

Trostle, for example, predicts the next decades will bring everything from advances that keep vaccines stable at room temperature (vaccines currently have to be kept cool, a challenge where electricity is unreliable or non-existent) to more oral vaccines and fewer injections. But none of the advances, he and others say, are likely to come easy.

“Coverage rates have quadrupled and we are using vaccines today that we barely dreamed of 30 years ago,” he said. “We have made great strides because we recognized that immunization was a complex system that started in a research lab and ended in a child’s arm.”

Added Global Health’s Batson: “Vaccines exemplify some of the best of the United States. We play a leading role in science ... with the NIH, universities, the biotech industry, and the vaccine industry itself.... The benefit that I feel for my daughter is the same benefit to a woman in rural Africa. Because of that, her child is as equally protected as mine.” ■

Interview with Dr. Chan
continued from p. 21

better than high-cost technology. This is true for Community Led Total Sanitation, an innovative methodology for mobilizing communities to completely eliminate open defecation. The approach offers no subsidies, no pre-cooked solutions, no high-tech marvels, but it has already begun to revolutionize rural sanitation in large parts of Asia and Africa.

FL: Where, in your opinion, have the greatest gains towards achieving the Millennium Development Goals been made?

Chan: Since the start of this century, the number of under-5 childhood deaths dropped below the 10 million mark for the first time in nearly six decades, dropped again to below 9 million, and now stands at just above 8 million.

The number of people in low- and middle-income countries receiving antiretroviral therapy for AIDS moved from under 200,000 in late 2002 to more than 6 million today, an achievement unthinkable a decade ago.

The rate of people newly ill with tuberculosis peaked and then began a slow but steady decline. For the first time in decades, we are seeing signs that the steadily deteriorating malaria situation might be turned around.

Progress in controlling the neglected tropical diseases has also been impressive. By the end of 2008, some 670 million people had been reached

Health systems are social institutions. They do far more for society than deliver babies and pills, like a post office delivering parcels. Properly managed and adequately financed, a fair and equitable health system contributes to social cohesion and stability.

with preventive chemotherapy for at least one of these diseases. Cases of guinea worm disease are at their lowest level ever, now confined to only four countries.

I think the message is clear: Increased investment in health development works. But it has to keep on working, even in an era of financial austerity. With the sole and rare exception of disease eradication, the work of public health is never done.

FL: Even people outside the global health community know about HIV/AIDS, malaria, pneumonia, polio. What would you say is the greatest issue or obstacle to global health that doesn't necessarily make headlines?

Chan: The fact that health systems throughout much of the developing world have crumbled to the point that they are barely able to function. In my view, this is the biggest obstacle to better health.

This has zero news appeal for the media and little attraction for donors. Donors want quick and measurable results. Building a health system takes time, and improvements are difficult to measure. But this is the one area where investments are most desperately needed. As we have learned,

even the most powerful interventions will see their impact blunted in the absence of a well-functioning health system.

Health systems are social institutions. They do far more for society than deliver babies and pills, like a post office delivering parcels. Properly managed and adequately financed, a fair and equitable health system contributes to social cohesion and stability. A world that is greatly out of balance in matters of health is neither stable nor secure.

Let me give just two examples of the challenge. The difference in life expectancy between wealthy and poor countries now exceeds 40 years. Yearly government expenditures on health range from as little as \$1 per person to nearly \$7,000. Given the extreme nature of these imbalances, visible with the click of a computer mouse, should anyone be surprised when social unrest seethes? ■

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See bonus questions and answers with Dr. Margaret Chan in the online edition of FrontLines.

Supply Chain Heroes

continued from p. 23

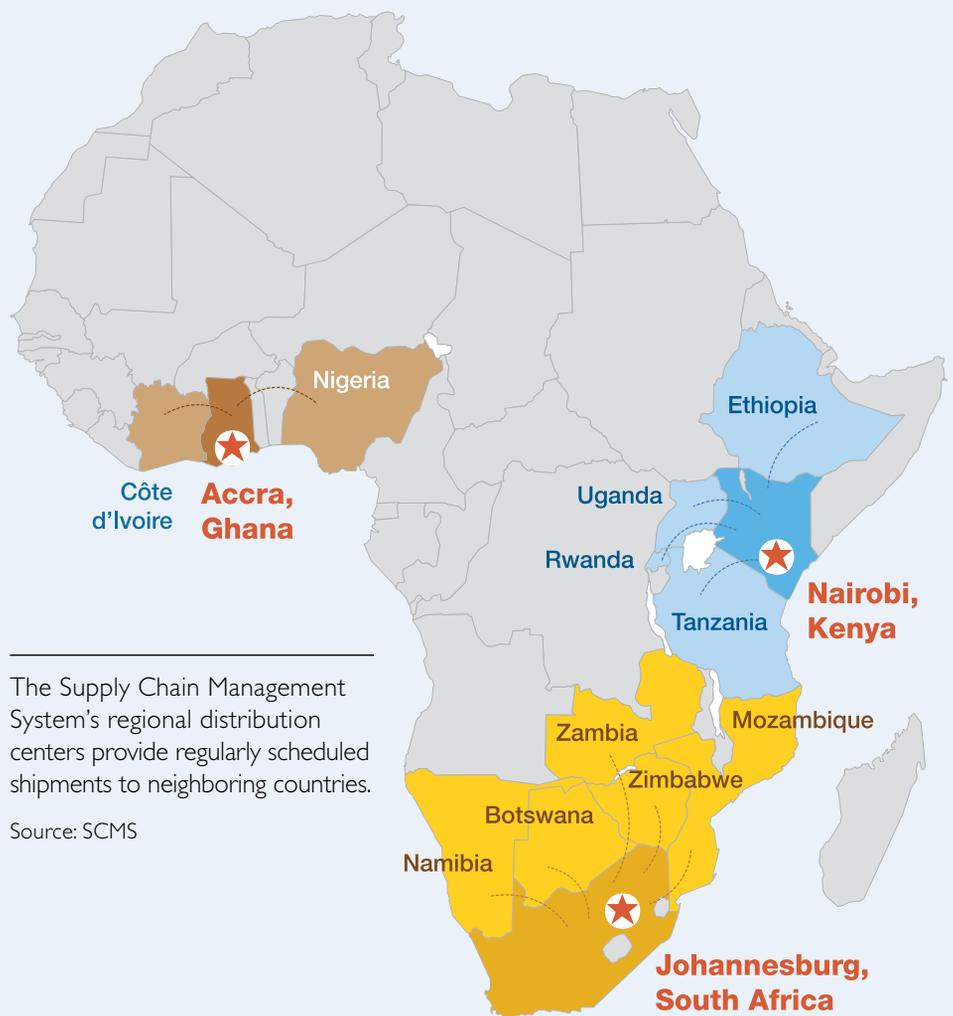
ARVs for Mozambique—valued at \$5.7 million. SCMS has also helped strengthen warehousing, distribution, and other elements of the supply chain to help countries like Mozambique receive increasingly large volumes of products.

A Challenge Without Precedent

In 2005, the year after PEPFAR began to be implemented, many doubted that HIV/AIDS commodities could be reliably delivered to the hardest-to-reach areas of the developing world. Indeed, there was no precedent for what SCMS was tasked to achieve.

“Before PEPFAR, procurement of public health HIV commodities in targeted countries was a transactional, one-off event, with each purchase treated as a separate activity, with little or no connection to national health strategy and patient needs,” said John Crowley, chief of the Supply Chain Management Division in USAID’s Bureau for Global Health.

The challenges with this transactional approach were common in many countries. Programs paid a premium for commodities. Shortages and stockouts of commodities caused dangerous “treatment holidays” for patients. Emergency ordering wasted money on rush fees and high freight costs. Lack of inventory control wasted valuable commodities due to expiry, improper storage, and theft.



The Supply Chain Management System’s regional distribution centers provide regularly scheduled shipments to neighboring countries.

Source: SCMS

“Poor coordination often led to redundancies and gaps in service,” Crowley added.

Yet six years later, there are virtually no stockouts of anti-retroviral drugs in PEPFAR-supported programs, and SCMS provides enough ARVs to support well over half of the 3.2 million people on treatment through PEPFAR. SCMS has helped turn doubters into believers. Here’s how.

Connecting Each Country to a Global Strategy

As a first step in creating a global strategy, SCMS worked to bring

life-saving medicines closer to those who need them. Most ARV manufacturers are located outside Africa, and the time required to process and deliver an order is typically three to six months under the best of conditions, with some purchasers seeing procurements taking over a year.

In response, SCMS established regional distribution centers in Ghana, Kenya, and South Africa. These modern warehouses hold strategic stock of commonly used products, provide regularly scheduled shipments to neighboring countries, and expedite emergency orders to prevent stockouts.

“A shipment of ARVs from one of these regional centers takes on average just two to three weeks compared to 12 to 15 weeks when ordering direct shipments from manufacturers,” said Sherif Mowafy, the USAID contracting officer’s technical representative for SCMS.

The centers in Ghana and Kenya were the first world-class public health warehousing facilities of their kind in East and West Africa. To provide a sustainable resource, the centers function as independent commercial enterprises, attracting private-sector clients like Astra-Zeneca, GlaxoSmithKline, Merck Serono, and Pfizer.

Besides bringing drug stocks closer to their patients, the SCMS model is also predicated on forecasting future needs for all HIV/AIDS commodities. Through USAID-funded training and technical assistance, all SCMS-supported countries are now providing supply plans for ARVs and, in most cases, other essential drugs, test kits, and laboratory commodities.

Using information from multiple countries, SCMS provides manufacturers and other suppliers quarterly aggregated forecasts, helping them plan production. This also helps SCMS negotiate access to sometimes limited supplies. The program also uses these forecasts to determine which ARVs and, increasingly, other commodities to stock in the distribution centers.

Buying commodities for 16 PEPFAR-supported countries in what is known as “pooled procurement”

provides other advantages as well. What is essentially frequent bulk buying—averaging about \$20 million in commodities and more than 200 shipments per month—has enabled SCMS to develop relationships with key suppliers and freight companies, helping negotiate lower prices and ensure availability of commodities and space on key shipping routes.

The volume of commodities procured through SCMS also provides the project unique market intelligence. Supply-chain experts can identify and respond to pricing, shipping, and supply trends, and other factors that can impact AIDS prevention, care, and treatment programs.

For example, SCMS works with ARV manufacturers to ensure availability of specific drugs as countries shift patients from one regimen to another, following revised treatment guidelines from the World Health Organization.

“USAID closely coordinates with the Clinton Health Access Initiative and other partners to ensure a reliable supply of pediatric ARVs. And we continue to monitor the impact of the Japanese earthquake and tsunami on global supplies of HIV rapid test kits,” said Crowley.

“An integral part of what we do is alert our clients to the potential impact on their budgets of increasing shipping costs due to the rise in global fuel prices,” said Mowafy.

Buy More, Save More

Reliability of supply is not the program’s only goal. The price of commodities and shipping can have

a major impact on how many people programs can treat within their limited budgets.

A key mandate for SCMS was to contribute to bringing down the cost of ARVs, which was prohibitively expensive when PEPFAR was announced in 2003—about \$1,500 per patient per year. Unusual for HIV/AIDS programs in developing countries, SCMS negotiated long-term agreements with suppliers of pharmaceuticals, diagnostic test kits, and laboratory supplies to ensure competitive pricing. Due to a groundbreaking initiative by the U.S. Food and Drug Administration to approve generic ARVs for use in PEPFAR-supported countries, SCMS now leverages their availability.

Taking advantage of competition among multiple suppliers, the project has helped lower the average cost of these life-saving drugs to an affordable \$100 to \$200 per year per patient. In other words, programs can now provide ARVs for to up to 15 patients for what it once cost to treat one. More than 95 percent of ARVs procured by SCMS are generic and are purchased at prices that beat or match those of every other international supplier in almost every instance.

The price of commodities is not the only cost to consider, though. The forecasting done by PEPFAR-supported countries helps lower the cost of shipping as well. While most other comparable programs continue to ship by air (the most expensive mode of shipping), SCMS works with PEPFAR programs to switch from air

freight to sea and road. The project now ships about 65 percent of freight by ocean and land, saving up to 85 percent on shipping costs compared to air shipments. For the life of the project, SCMS has saved PEPFAR clients more than \$42 million in shipping costs, \$17.2 million of that coming in 2010 alone.

Best Value and On Time

While many non-PEPFAR-supported programs still struggle with stockouts and unreliable supply, SCMS's on-time delivery—into some of the hardest to reach areas of the world—averages 80 percent.

The program has trained staff in multiple countries to buy appropriate

laboratory commodities on the local market, further driving down the cost of procurement, reducing delivery times, and transferring valuable skills to the local workforce.

Using strategic stock in its regional distribution centers and leveraging relationships with suppliers, SCMS has become an obvious choice for filling emergency requests for PEPFAR, the Global Fund, and others. The project has helped prevent stockouts around the globe, providing \$46.3 million of emergency orders in 2010 alone, of which about 85 percent (by value) were ARVs.

All told, SCMS has delivered more than \$682 million of commodities to PEPFAR-supported

countries while saving around \$700 million through the purchase of generic ARVs compared to the cost of similar branded products. That, by any measure, is a sound investment.

Those behind the savings are the little-known engineers of the global fight on HIV/AIDS. They are, in a sense, the operators driving the machine that is the international community's largest effort to bring life-saving drugs to millions of individuals. They often work in the shadows of the epidemic, and when the machine works properly, their work goes unnoticed. Crucial drugs and supplies simply arrive as planned and at affordable prices. ■

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Photo by Kendra Helmer, USAID

Round Two of Haiti Election Produces Knockout Photo

Round two of the contested Haitian presidential election proved good material for this month's *FrontLines* photo contest winner. Kendra Helmer, a press officer at USAID/Haiti, captured the winning shot of a poll worker reading out vote results on March 20 in Port-au-Prince as people peer through nearby windows.

Second place honors go to Alain Mukeba, a development outreach and communications specialist (DOC), who captured an image from a March 23 polio vaccination campaign in Kinshasa, Democratic Republic of Congo. In 2010, USAID provided

\$2 million to the World Health Organization and to UNICEF to fight polio in the Central African country.

The third place image also belongs to a DOC, Reverie Zurba, from USAID's mission in South Africa. Her image captures a tender moment as Maamohelang Hlaha, an HIV-positive mother of four, kisses son Rebone, whose name means "we have witnessed." The toddler was born HIV-free and the mother receives HIV treatment through a program that USAID supports.

Go to www.usaid.gov/frontlines to see the top three finalists, and seven

other photos that constitute the top-10 images in the contest—as judged by a panel of staffers from the Bureau for Legislative and Public Affairs.

Details about the next photo contest—which will feature images that show USAID's work on environmental issues—are available at www.usaid.gov/press/frontlines/photo_contest.html. The deadline falls on International Day for Biological Diversity, May 22. ■

LEARN MORE AT:
www.usaid.gov/press/frontlines/photo_contest.html



USAID Partnership

Working with Iraq for Long-Term Stability

By Jordan Sellman

On Sept. 1, 2010, the U.S. military officially ended combat operations in Iraq and shifted the leadership of U.S. engagement to civilians.

It was a milestone few could imagine during the worst days of the Iraq War, which began in 2003 with a quick routing by a military coalition led by the United States, and then an extended slog as the Iraqi insurgency and Al-Qaeda fighters mounted a counter-campaign with a lethal combination of traditional arms and improvised weapons.

Together, the United States and Iraq have faced many challenges to promote stability and development after the fall of the previous regime. Now the Iraqi-U.S. partnership that began seven years ago is at a critical crossroads. Just as USAID and the State Department are taking the lead in relations with the country, Iraqis are transitioning from a legacy of war and insurgency onto a course of economic opportunity and good governance they themselves are plotting.

USAID has played a key role in the civilian assistance effort since the beginning. Today that assistance includes helping Iraqis improve the effectiveness of their government and civil society, expand private-sector opportunities, increase agricultural production, manage natural resources



An Iraqi man looks at his finger stained with indelible ink at a polling station in Basra, Jan. 30, 2005.

Photo by Essam Al-Sudani, AFP

effectively and efficiently, and promote just, democratic, and inclusive processes and institutions. In addition, USAID provides humanitarian assistance and support for internally displaced persons.

The U.S.-Iraq Strategic Framework Agreement, which USAID helped craft, is the bilateral assistance framework for relations between both countries.

“Development is never easy, and trying to do development work in a conflict zone is even more difficult,” said USAID/Iraq Mission Director Alex Dickie. “We are adopting creative solutions to address the challenges. We have been successful through the commitment of thousands of Iraqis who are helping to rebuild their country.” But increased local capacity has not only benefitted Iraqis. It is, in part, this concerted shift to Iraqi hands that has enabled the U. S. military to redirect resources to other areas of pressing need.

Seven Years, Three Stages

USAID’s program in Iraq has evolved through three distinct phases. From 2003 to 2005, assistance focused on restoring essential services such as infrastructure, health care, and education, as well as helping Iraqis develop a new constitution and a government that respected the rights of all its citizens. In January 2005, the Iraqi Government was able to hold its

first free and fair elections with USAID support, marking an important step in Iraqi sovereignty.

From 2006 to 2008, the Agency promoted stability in communities most affected by the increasing violence in the country by providing jobs, training, and small grants to at-risk youth who might otherwise be attracted to the insurgency. It was in 2006 that former President George W. Bush introduced the initiative that would become known as “the surge,” and when joint civilian-military Provincial Reconstruction Teams, or PRTs, were deployed throughout the country to improve U.S. engagement with Iraqis.

During this time period, USAID continued governance and community action programs at the local and provincial levels. The Agency’s flagship governance program, dubbed *Tatweer*, was designed to increase the effectiveness of ministries by reforming internal operational systems, teaching best practices to civil servants, and instituting international standards to provide expert advice at key ministries. (See related story on page 40.)

USAID also supported private-sector development through microfinance lending, community outreach, and centers that supported small-business development.

Consolidation of Gains

Beginning in 2009, USAID began consolidating the gains it achieved

since the surge. USAID continues to support private-sector development and improving the Iraqi Government’s ability to deliver essential services to its people.

In April 2010, the Iraqi Government released the National Development Plan, which calls for comprehensive social, economic, and environmental development with the goal of generating 9.8 percent annual gross domestic product growth, 3.5 million new jobs, and reducing poverty by 30 percent (compared to 2007 levels) over the next five years. USAID helped the Iraqi Ministry of Planning formulate the plan, an important milestone that outlines the Iraqis’ own priorities and vision of how to achieve them.

Other new initiatives are targeting the justice, financial, and legislative sectors.

The Iraq Access to Justice Program is working to ensure that vulnerable people, including religious minorities, are aware of their legal rights; that they have links to legal professionals and citizen advocacy organizations; and that Iraq’s legal framework recognizes, promotes, and ensures the rights of the disadvantaged.

In the financial arena, USAID is working to develop the private sector through focused reform, business education, and training. And the Legislative Strengthening Program currently plays

continued on p. 49

Building the Skills Iraqis Need for the Services They Want



Photo by USAID

An Iraqi *Tatweer* adviser works to strengthen linkages between the governorate councils of Babil and Anbar.

Thirty years ago, the Iraqi civil service was a model of efficiency. But decades of conflict, dictatorship, and isolation left the country's ministries incapable of addressing the needs of its population.

Since 2006, USAID's National Capacity Development Program, or *Tatweer*, which means "development" in Arabic, has significantly improved the ability of Iraqi ministries to fulfill their responsibilities to deliver services to citizens. The program worked with Iraqi key service ministries and central executive offices to improve public services by modernizing the core ministries' systems and processes and developing the capacity of their civil servants.

This comprehensive effort had a nationwide scope, reaching all 18 Iraqi provinces. Through the program, USAID has trained 105,000 civil servants in planning, management, finance, human resources, and other key public administration disciplines.

Embedded Arabic-speaking experts also assisted them in applying their skills on the job—installing modern systems and overhauling outdated processes.

"The program teaches skills that enable full Iraqi ownership," said Ali Baban, the Iraqi minister of planning and development cooperation. "Iraqis must take the torch from USAID/ *Tatweer* in this transitional year and continue on the path that we have taken together."

A Worldwide Model?

Baban says the program is an unqualified success. "It should be seen as a model not only for bilateral U.S.-Iraqi programs but for cooperative assistance projects worldwide," he said.

The program's most noteworthy accomplishment is its close involvement with the Ministry of Planning in finalizing Iraq's National Development Plan (NDP), which calls for comprehensive social, economic, and environmental development in Iraq with the very

concrete goals of generating 9.8 percent annual GDP growth, creating 3.5 million new jobs, and reducing poverty by 30 percent below the 2007 level within the next five years.

Last July, Iraqi Prime Minister Nouri al-Maliki unveiled the plan to the media and the public. "Never in Iraq's recent history has everyone's point of view been so represented and accounted for within one plan," Baban said.

Inadequate funding, crippling sanctions, debilitating investment policies, and lack of stakeholder input had led to under-performance across all of Iraq's ministries and sectors.

To address these issues, USAID assisted the ministries in everything from comprehensive civil service reform to leadership development at the lowest level of service delivery.

The civil service system, in particular, had suffered from decades of neglect. The Iraqi Government asked USAID to help it undertake comprehensive civil service reform by incorporating principles of professionalism, transparency, and non-partisanship.

"[USAID] is playing a historic role rebuilding the foundation of Iraq's new state at federal and provincial levels," said Farouk Abdallah Abdel Rahman, the prime ministerial adviser for provincial affairs. "History will long remember their work."

Managing Oil Wealth

Iraq is home to the Middle East's second-largest oil reserves, a factor which will undoubtedly play a major role in the future prosperity of the country. Setting up internationally

accepted standards and promoting best practices will allow the country to tap into its oil resources in an informed manner.

To overcome these challenges, the Government of Iraq needed the assistance of international oil companies, but did not have the contracting, management, oversight, or procurement mechanisms in place to secure the companies' support.

The Ministry of Oil approached USAID's Tatweer team for assistance. Instead of simply helping the ministry draft procurement documents, the team addressed the institutional roadblocks that burdened the procurement process.

By training ministry staff in procurement, developing a standardized procurement manual, and improving management and oversight functions, USAID brought the ministry's processes up to international standards. As a result, the ministry was able to hold Iraq's first open and transparent solicitation and award several oil contracts. Since the initial tender, which attracted a successful bid from the companies BP and CNPC, the ministry has held three additional auctions of oil and gas fields, which have resulted in the largest increase of oil production capability in world history.

USAID's training and development of Ministry of Oil employees in the procurement process has been a key factor for the ministry's success, said its director general, Nazar H. Al Hafidh.

"Through USAID/Tatweer, the American people are building the basis for stable Iraqi ministries from the inside out," noted Alex Deprez, deputy mission director at USAID/Iraq.

Scholarships Offer Counterweight to Iraqi Brain Drain

In 2008, while working in the Planning and Compliance Department of Iraq's Ministry of Municipalities and Public Works, Bahija Jwad Ahmed was overjoyed to hear that she had received a USAID/Tatweer scholarship. When she shared the exciting news with her elderly father, he expressed concern for her safety and asked why she was going to Egypt for a master's degree in public administration when she already had a good job and held other degrees.

"I am ambitious," she told him. "I want my country to succeed, and I have been chosen to help lead Iraq to a bright future."

Her father gave his blessing, and Ahmed completed the two-year program at the Graduate School of Business at the Arab Academy of Science and Technology in Cairo. Graduating at the top of her class, she soon rose to fill a new position as head trainer of all 15 provincial training centers within the ministry's human resources department.

Chosen from over 1,000 applicants, Ahmed is among 120 people from 15 Iraqi provinces representing 23 ministries who have received the highly sought-after USAID-funded scholarship. She is among the first cadre of 26 master's degree graduates who returned home eager to apply newly acquired skills to rebuilding their devastated country. Other recipients are attending universities in Jordan, Egypt, and Lebanon.

"The people of Egypt were very friendly and cooperative. But while there, I worried about my family and their security," Ahmed said. "Then my father died. I went home to Iraq thinking I would not continue. After two weeks, I returned to Egypt feeling my father wanted me to succeed. Everything I learned—human resources administration, strategic planning, leadership and communication, project management—helped me review, then refocus the trainings we give. I even dream of becoming a director general some day."

Much has been said about Iraq's "brain drain"—the flight of its finest minds out of country to seek respite from insecurity and violence. Garnering less, if any attention at all, are the larger numbers that willingly choose to remain in Iraq. Program graduates say that they are driven by a deep desire to not only restore Iraq's former status as regional leader and driving force of modernization, but also to aid their country's return to its once prominent international position.

The return of Ahmed and her fellow scholarship recipients to Iraq is yet another milestone in USAID's ongoing efforts to build a critical mass of highly trained citizens to drive modernization of Iraq's public administration.

USAID and the Iraqi Government are committed to continued reform, specifically in the areas of service delivery in the health and education sectors.

"The Iraqis and expatriates working on Tatweer have ... returned to Iraq the ability to teach world-class public

administration skills and build modernized administrative systems," said Baban. "The end result of [these] efforts is cleaner water for our children, better health care for our grandparents, and energy for our homes and factories." ■

Iraq 2010-2011 Timeline

March 2010

With assistance from USAID's Election Support Program, parliamentary elections are held. No coalition wins an absolute majority. The election results are challenged and the Iraqi Supreme Court orders a recount of all votes cast in Baghdad.

April 2010

The Council of Ministers approves Iraq's five-year National Development Plan (NDP). Developed with USAID assistance, the NDP outlines a \$187 billion capital investment strategy to improve social services and economic development.

May 2010

USAID assists Iraq's election commission conduct a recount with no changes in results.

USAID's Youth Initiative Program is inaugurated in Najaf. The program focuses on creating economic opportunities for Iraqi youth nationwide.

Iraqis count votes at the Independent High Electoral Commission headquarters in Baghdad on March 12, 2010, following Iraq's second general elections since the U.S.-led invasion of 2003.



Photo by Ahmad Al-Rubaye, AFP

September 2010

The U.S. military hands over authority to the U.S. Embassy to lead operations in Iraq.

Iraq's Micro-Finance Institution Network is established as a \$100 million loan portfolio with input from USAID experts. The goal of the network is to provide a sustainable stream of loan revenue to Iraqis.

October 2010

Ongoing political negotiations continue to stall the formation of the Iraq Government. The Supreme Court finds Parliament's "open session" unconstitutional and orders the interim speaker to reconvene members.

Iraqi security forces storm a Catholic church that had been seized by militants during Sunday Mass. Fifty-two people die and more than a dozen are injured in the worst attack on Iraq's Christians in recent years.

USAID launches its Access to Justice Program, a three-year effort to provide community-based legal assistance to vulnerable populations.

November 2010

Parliament reconvenes after a long delay, elects a speaker, re-appoints the president, and approves Nouri al-Maliki as "prime minister designate," allowing him to form a cabinet pending Parliament's approval.

The Agency's Legislative Strengthening Program moves forward with new member orientation, launching a membership development effort.

June 2010

The Supreme Court certifies results from the March election. Members of Parliament convene, take an oath of office, elect an interim speaker, and keep the session indefinitely open pending negotiations over government formation.

July 2010

A memorandum of understanding is signed between USAID and the Central Bank of Iraq to strengthen the private financial sector and create a \$50 million, five-year assistance program aimed at increasing transparency, encouraging banking "best practices," and boosting private-sector lending. With USAID assistance, Iraq's provincial councils roll out updated provincial development strategies aligned with their capital budget requests.

August 2010

Seven years after the U.S.-led invasion, the last U.S. combat brigade leaves Iraq. Civil society organizations sue the interim speaker, challenging the constitutionality of Parliament's "open session." Participants in the USAID/Tatweer program, which offers training support to the Iraqi civil service, surpass 100,000, nearly doubling the program's projected four-year target.

December 2010

Iraq's Parliament approves a new government with Shiite, Sunni, and Kurd representation, ending a nine-month impasse. The Iraqi Parliament's speaker requests USAID's assistance to build the capacity of his office through the Legislative Strengthening Program.

January 2011

Seventy-three public administration and public policy graduates return to Iraq to develop the public sector. All received master's degrees at Middle Eastern universities through USAID's National Capacity Development Program, Tatweer.

February 2011

Some 207 parliamentarians partake in a three-day USAID workshop as part of the Legislative Strengthening Program to increase the capacity of Iraq's Council of Representatives and improve institutional oversight of government operations, legislative development, and constituency representation.

Following on protests seen elsewhere in the region, Iraqi protesters, demanding governmental reform and improved service delivery, begin to take to the streets in Iraq. Though protests are mostly peaceful, reports indicate more events are planned, underscoring the challenge the Government of Iraq faces in meeting the demands of its people.

Bahija Jwad Ahmed received a USAID/Tatweer scholarship.



Photo by MSI

Interview with Lt. Gen. John Allen, USMC



Lt. Gen. John R. Allen became deputy commander, United States Central Command, on July 15, 2008. His tours as a general officer include service as the principal director, Asian and Pacific Affairs, in the Office of the Secretary of Defense, a position he occupied for nearly three years. From 2006-2008, Allen served as deputy commanding general, II Marine Expeditionary Force, and commanding general, 2nd Marine Expeditionary Brigade, deploying to Iraq for Operation Iraqi Freedom. On April 28, 2011, President Barack Obama nominated him to take Gen. David Petraeus' place as commander of the NATO International Security Assistance Force in Afghanistan. Following is Lt. Gen. Allen's exclusive interview with FrontLines regarding his time in Iraq and the relationship between USAID and the military.

FRONTLINES: When was the first time you heard of USAID and what we do?

LT. GEN. JOHN ALLEN: My first memories of contact with USAID go back to when I was a young marine officer serving in the Mediterranean with the 6th Fleet in the 1970s. During those early, formative years, we frequently interacted with various country teams in the region, and it was then that I had my first professional contact with USAID.

However, I never fully appreciated the power and capability of the institution until the South Asia tsunami of 2004-2005 when I ran the DOD [Department of Defense] Task Force in Washington responding to the crisis. From the outset of that emergency, and throughout the first several weeks, I worked with key USAID leaders to assist the distressed region. In particular, we created an innovative liaison and partnership relationship extending from

the Pacific Command in Hawaii down to the units involved in the actual rescue, relief, and reconstruction efforts. From the beginning, the respective country teams' USAID mission leadership tied in seamlessly with our efforts. In the end, our military forces surging to the area to provide assistance were strengthened by USAID's on-scene experience and knowledge, enabling us to provide desperately needed support. It was a remarkable partnership that saved thousands of lives.

FL: You served in Iraq from 2006-2008, during what was known as "the surge." A key element of the surge was the deployment of joint civilian-military Provincial Reconstruction Teams (PRTs) to improve U.S. engagement with Iraqis. Can you comment on this relationship?

Allen: My tour was in the Al Anbar province, which was profoundly dangerous at the beginning of this period, particularly for civilian undertakings. Our

PRT, given the security situation, was undermanned at the time because there was little opportunity for development activities. At a point about half-way through our tour in 2007, the battlefield conditions changed dramatically as the tribes sided with our coalition forces and Al Qaeda elements were largely defeated.

As we "sensed" the battle space was now significantly different, we saw this as the opportunity to bring permanence to the conditions created by our security operations. We held a development summit at Camp Fallujah attended by the USAID mission director for Iraq. While at the summit, she saw the opportunity as well and assigned a seasoned USAID leader to the PRT and reprogrammed resources from elsewhere in Iraq to Al Anbar. As a result of her efforts, USAID proved its battlefield agility and resourcefulness and our development effort really took off.

Shortly after this meeting in Fallujah, State and USAID instituted the innovative ePRT (embedded PRT)

concept, with experienced USAID leadership assigned to the effort. This focused support put the right people in the right place at the right time and subsequently achieved truly remarkable progress across this enormous province in a relatively short period, cementing the gains we had achieved in the security environment.

FL: What kinds of challenges are inherent in the development/military relationship?

Allen: It's largely in the sequencing. Ten years ago, I'd have said it was cultural. Not today. Yes, the development and military cultures are inherently different, but after a decade of war, where our paths in many ways are now inextricably linked, our institutional cultures are largely in harmony and we draw strength from the relationship. This includes development NGOs as well. We've all become quite used to each other.

In terms of sequencing, getting the right kind of development moving immediately in the aftermath of, and even in parallel with military operations, is the "art" of leveraging the relationship between military and development functions. This comes from the military and development entities conducting detailed bilateral planning and resource allocation, aggressive execution, comprehensive measurement and assessment, and long-term sustainment. I've read a bit about Gertrude Bell, a British explorer, archaeologist, scholar, spy, and executive secretary to Sir Percy Cox in Mesopotamia in the British Mandatory period. She once commented on the necessity for a close military/

development relationship on the battlefield: "Before the smoke of conflict has lifted, within the hearing of the guns, the work of reconstruction has been initiated."

When the development and military entities are closely tied together in planning and execution—"within the hearing of the guns"—we have all the ingredients for success. While there remains room for improvement, we're far more advanced and effective in this relationship than we were just 10 years ago.

FL: Are there any specific examples or success stories you can cite regarding military and USAID collaboration?

Allen: While this interview asked me to concentrate in general on my Iraq experiences, the examples of USAID and development successes are legion and include the Pakistan earthquake in 2005, ongoing and very effective development efforts in Afghanistan, and the massive flooding in Pakistan in 2010. They are numerous and they are significant.

Regarding the South Asian tsunami, I would read the history of the really remarkable success of the collaboration of the U.S. military with the Office of U.S. Foreign Disaster Assistance (OFDA) and USAID. While the military flowed forces and capabilities to the relief effort, the close partnership of the U.S. forces on the ground with OFDA, USAID, the country teams, the host nations, and the NGO community created as smooth a transition as possible, from relief to reconstruction, all in the face of truly epic destruction. Given the magnitude of this catastrophe,

Americans can be very proud of all that USAID and the development community accomplished in Thailand, Indonesia, and Sri Lanka.

In Al Anbar, Iraq, I watched with admiration as the PRT and the ePRTs developed the capacity for credible local, district, and provincial governance, while vital infrastructure and businesses were restored and economic activity was stimulated. Once Al Qaeda had been defeated, the people felt they were secure in their homes and communities. They felt they were responsibly governed with their livelihoods restored, and the resulting positive synergy from successful security and development operations turned Al Anbar from being one of the most problematic of the Iraqi provinces to one of the most progressive ... in less than a year.

FL: How can we work better on the ground?

Allen: For the military, working better on the ground with USAID can come specifically from establishing a close working relationship with the USAID elements which will be operating with or alongside the military units. During periods of conflict, this ideally begins at the unit's home station before the deployment and continues without interruption right down to the ground level during the deployment and employment. If we've done this right, USAID or development personnel who'll be in the same area have had the chance to participate in the military unit's training during its preparations and in its mission rehearsal exercises prior to deployment.

This is really a function of our key leaders proactively seeking each other out to coordinate and collaborate the execution of our efforts at the strategic, operational, and tactical levels. As a commander, I have always wanted a close liaison relationship with USAID when in execution of military operations. That relationship helps me “sense” that right moment when committing development resources can enhance the effects being achieved through military operations.

Beyond the need to integrate during the different phases of deployment, there is great value to be found in studying and respecting each others’ operational cultures, to include attending each others’ training and schools. In areas not in conflict, military elements should create and maintain early relationships with the country teams’ USAID mission directors.

In the course of CENTCOM’s security assistance efforts, there will be few undertakings that will not have some effect in the realm of development. Our commander, Gen. [James N.] Mattis, has directed we create the closest possible working relationships with the country teams where we will ensure scarce resources are put to best effect inside the ambassadors’ and USAID’s overall national development plan.

FL: What have been the greatest effects of development/foreign aid that you’ve witnessed in your area of command?

Allen: There have been multiple significant effects: agricultural assistance, opportunities for improved

access to schools and education, assistance to women and children, improved health care, infrastructure development, and the delivery of electricity. While this is a short list, and certainly is not exhaustive, the projects behind these broad categories are myriad, and the benefits to the people and the governments of the CENTCOM region have been, and continue to be, enormous. In that vein, there are few symbols of America more poignant and with greater “brand recognition” than the “hand-clasp” logo of USAID emblazoned on bags of flour or containers of nutritional biscuits or on boxes of educational supplies. All of these measures combine to improve quality of life, reduce tension, extend governance, create opportunities and enable us to successfully accomplish our missions.

FL: Top ranking individuals in our civil and military leadership, specifically Defense Secretary Robert Gates and ISAF Commander General David Petraeus have been strong USAID advocates. Why do you think ordinary Americans equate our military operations to broader national security aims, but are more reluctant to make the same parallels regarding our civilian efforts?

Allen: I honestly think it is simply a combination of word association and exposure. Through the media, particularly since 9/11, your average American has had far more day-to-day exposure to the military culture than to the development world. Americans are accustomed to and generally

understand the broad mission areas of the military in ways they never had prior to 9/11. In contrast, they may not have had any exposure to, or understanding of, the art and science of development.

Those of us who’ve been honored to serve alongside development professionals understand that USAID delivers strategic effects which can strengthen U.S. relationships around the world and improve the qualities of governance, economic opportunity, and life for millions of our friends overseas. Interestingly, I would venture to guess that if you were to interview families from across the CENTCOM region, far more children have personally seen the USAID logo than have ever personally seen an American soldier. USAID has a significant impact and reach across our AOR [area of responsibility] and few understand that as well as the military.

In many respects, USAID’s efforts can do as much—over the long term—to prevent conflict as the deterrent effect of a carrier strike group or a marine expeditionary force.

There are adversaries in the CENTCOM region who understand and respect American hard power, but they genuinely fear American soft power frequently wielded in the form of USAID projects. While the hard power of the military can create trade, space, time, and a viable security environment, the soft power of USAID and the development community can deliver strategic effects and outcomes for decades, affecting generations. Ensuring our American

development community is properly resourced is an investment in the future to create the strategic conditions we seek to sustain stability and economic development in CENTCOM's region.

FL: Even in non-conflict areas, we operate under the basic idea that our investments and programs contribute to a more prosperous and stable world overall (and often at significantly lower cost than deploying our military). However, there are those who dispute this argument and view expenditures on others as a luxury that we can ill-afford at this time. Do you believe USAID's activities are really a sound investment to save our "blood and treasure" in the future?

Allen: The development programs carried out by USAID directly support the president's National Security Strategy and are a sound expenditure of our nation's precious resources. As you note, some do feel that expending funds in support of development projects is a luxury. This argument complements the ever increasing concerns over the economic realities facing our government. The fiscal pie is only so big and the ability to carve out a larger slice—no matter who you are—will only continue to become more challenging.

As I enter my 40th year of service, I have enough experience to be comfortable stating that the important role played by USAID, as well as other development-focused organizations, will only continue to grow. Why? Because across all the world's societies, there are common aspirations

that tend to be remarkably close. In fact, they are nearly universal. Most people have an interest in three basic things: ensuring their basic needs of food, shelter, and medical care, are met; being able to worship in peace; and providing a better life, or at least better opportunities, for our children.

While all of these factors are underwritten by a secure environment, they can only advance when supported by development activities, ideally through their own governments. As the world's population grows, and as societies increasingly find it difficult to make ends meet, it will fall to the development community and entities such as USAID to help both partner and host nations face the social challenges they will encounter. Failed societies create security crises, whereas stable societies do not. In the future, USAID will be ever more relevant to enabling stability and precluding security crises as it contributes to the long-term policy and security objectives of the United States, particularly within the CENTCOM area of responsibility. As a result, CENTCOM will continue, where possible, to be good partners with USAID. As we work together, we indeed do so with the intent of investing in sweat up front, so we do not have to pay in "blood and treasure" in the future in achieving our vital missions.

FL: What can USAID as an institution learn from the military? What can the military as an institution learn from USAID?

Allen: Simply, that while we each have our respective strengths, together we are always stronger, and we can achieve much more. ■

LEARN MORE AT:
www.usaid.gov/frontlines



See the online version of FrontLines for Lt. Gen John Allen's bonus questions and answers.

Iraq Fact Box

- Population: 30,399,572 (2011 est.)
- Percentage of people living below poverty line: 25% (2008 est.)

Main development challenges:

- Inadequate infrastructure, insufficient essential services, and antiquated commercial laws and regulations that stifle investment
- High unemployment, with varying estimates from 15-38%
- Widespread corruption and need for reforms such as bank restructuring and developing the private sector
(Source: CIA World Factbook)
- Approximately 2.8 million internally displaced persons result from the ongoing U.S.-led war and ethno-sectarian violence
(Source: USAID)
- Main USAID assistance sectors: democracy and governance, agricultural and economic growth, stabilization, humanitarian assistance
- Year USAID began its program: 2003.

(Source: USAID)



The Power of Packaging

Michael Maxey, senior economic development adviser in USAID's Iraq Reconstruction Office, left, visits a project site for the Inma Agribusiness Program, posing with a local agribusiness owner. Patti Buckles, Inma field coordinator and former USAID mission director in Peru and the Philippines, is at right.

Photo courtesy of Michael Maxey, USAID

New Packing Houses Bring Fresh Produce to Iraqi Consumers

In a land where summer temperatures often exceed 120 degrees Fahrenheit, perishable goods such as fruits and vegetables with their easy-to-bruise exteriors and soft interiors spoil quickly. Typically, half of Iraqi harvests never make it to market at all due to poor handling.

But USAID's *Inma* Agricultural Program is changing that with the opening of five packing houses in Baghdad, Anbar, Karbala, Radwaniya,

and Fallujah. "Inma" means "growth" in Arabic.

The packing houses are teaching farmers new ways to handle and package produce so it stays fresh longer and reaches markets in better condition. Ultimately, this means better quality and quantity of produce for consumers and more income for farmers. USAID provided grants totaling \$2.4 million to existing packing houses for refurbishment, training, and technical assistance to work with farmers and consolidators. The farmers use the packing houses as a central sales point for the produce they are marketing.

This is just one of several USAID-Inma projects helping Iraqis to become increasingly self-sufficient in food production. USAID has created a large fish farming industry. Today there are 1,800 fish farms raising carp; in 2008 there were none. USAID has mechanized alfalfa production, helping Iraq make a 20-year leap in technology. It has introduced feedlots for raising livestock, which are more efficient than traditional grazing, and produce fatter animals in shorter periods of time. The Agency has also established demonstration strawberry plots, proving that growing this

typically imported delicacy can be profitable for local farmers.

From Ground to Market

But getting fresh produce to market is one of USAID-Inma's primary goals.

The Sheikh Sabah Packing Facility in Taji, Baghdad, has been in operation since August 2009. Workers use modern technology, equipment, and methodologies to receive, clean, sort, grade, temporarily store, and package an average of 30 tons of fruits and vegetables daily.

Sheikh Sabah Sarhan Dhari Al Zobae, who owns and operates the packing house and comes from a long line of farmers going back to his

USAID provided grants totaling \$2.4 million to existing packing houses for refurbishment, training, and technical assistance to work with farmers and consolidators.

great-grandfather, uses the facility to pack tomatoes, cucumbers, and eggplant from April to June; stone fruit from June to early August; peppers during May and June; and citrus fruits and grapes from July to December.

"USAID established a successful agriculture investment in the Taji area and brought new methods of

marketing," said Al Zobae. "This area suffered from ignorance in the agricultural sector, plus lack of experience and resources. USAID-Inma presented me with a very good opportunity to improve my business, and the packing house created 15 jobs for unemployed members of farmers' families."

By adopting modern post-harvest handling techniques, local growers like Al Zobae are helping to address the lack of homegrown quality fruits and vegetables. Despite its agricultural resources, Iraq must import a considerable amount of its food due to the deterioration of the agribusiness sector under the previous regime. The new techniques also allow local farmers to produce an affordable, attractive product that can compete with more expensive imports.

"The packing shed encourages Iraqi consumers to buy Iraqi produce due to the way it is cleanly packed and labels on the products that tell the production and expiration date," said Al Zobae.

To date, the packing houses have been able to increase their gross sales of fruits and vegetables by \$8.7 million, creating 253 jobs in the process with USAID support.

With the improvements brought by the packing sheds, farmers are even beginning to explore selling their more lucrative crops overseas. "Now USAID-Inma is helping us export our products outside of Iraq, especially dates, to be sold in the U.K. market," said Al Zobae. ■

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a key role in strengthening Iraq's new Council of Representatives, increasing parliamentarians' capacity to oversee government operations, formulate legislation, and respond to their constituencies.

New Government, New Priorities

In December 2010, Iraq's Parliament approved a new government that represents a broad cross-section of the country. Far from the days when just staying alive was a priority, employment, good governance, improved public services, and security are the most pressing issues in people's lives today, they say.

While Iraqi Government institutions are taking the lead in service delivery, USAID is focusing on mentoring, analytical support, and other forms of technical assistance to increase Iraq's capacity to manage its resources productively and sustainably.

"USAID's operational knowledge, coupled with the significant and far-reaching results achieved by the entire U.S. Government's efforts in Iraq, present a strong foundation to advance the shared goals of both countries," Dickie said. ■

An Iraqi man cracks pomegranates to be used for juicing on January 13, 2010, at a stall in Baghdad. The pomegranates, which are grown in the eastern province of Diyala, are now trucked into the capital following several years when farmers were unable to truck their produce to Baghdad due to the lack of security on the roads.

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