

West School Students Donate Infant Formula

Last September children at Portland's West School – including children from the Congo and Central America – decided to focus on what they could do for others. They decided that the abandoned babies in Haiti at Justinian Hospital could use some

formula, and they set out to donate 10 cans. They held bake sales, collected returnables, and even created a beautiful calendar titled West Kids Care 2007. On December 18, the entire student body of West School was present in the school gym



The West School Konbit.

when school nurse Debbie Tanguay gave a little history of the fundraising project. Then 16 members of the self-proclaimed "West School Konbit" came into the gym with three wagons and their arms loaded with a total of 47 cans of infant formula powder (valued at \$500) to present to Dr. Ann Lemire. They were bursting with pride - as are we with their generosity.

Board of Directors:

President:

Steve Larned, MD

Vice Presidents:

Wendy Taylor

Hugh Tozer

Secretary:

John Shoos

Treasurer:

Michael J. Ryan

Founder and President Emeritus:

J. Michael Taylor, MD, MPH

Directors:

Peter W. Bates, MD

Geoff Beckett, PA-C, MPH

Lisa Moorhouse, MPH

Samuel Broaddus, MD

Deborah Deatrick, MPH

Polly R. Larned, RN

Ann Lemire, MD

E.J. Lovett, III, Ph.D

Donald McDowell

James L. Moody, Jr.

Kimberly Ann Moody, Ph. D., RN, ANP

Donald E. Nicoll

Elna Osso, RN, MPH

Duncan Stout

Clerk:

Peter Plumb, Esq.

U.S. Staff:

Executive Director:

Nathan M. Nickerson, RN, MSN

Operations Manager:

Jennifer S. Marsh

Haiti Staff and Providers:

In-Country Program Manager:

Fennell Coulanges, MD, MPH

Internal Medicine Educator:

Michel Pierre, MD

Pediatric Educator:

Paul Euclide Toussaint, MD

Pediatrician:

Joe Maxinau, MD

Pediatric Nurse Educator:

Marie Ivonne Vixamar Durosier, RN

Agents Sante:

Betty Blanc, Jean-Claude Obas, and

Gracilia Mondésir Sénat

Administrator:

Axnick Woody Paul

How You Can Help

Konbit Sante depends on the generous donations from individuals and organizations to fund our programs. Donations of cash, stocks, or in-kind items are greatly appreciated. For more information please visit our website at www.konbitsante.org.

Konbit Sante Cap-Haitien Health Partnership is a 501(c)3 not-for-profit corporation organized in the State of Maine. Contributions are tax-deductible and can be made to Konbit Sante, P.O. Box 11281, Portland, ME 04104

The Konbit Sante newsletter is published by:

Konbit Sante Cap-Haitien Health Partnership, P.O. Box 11281, Portland, ME 04104, USA.

Phone: 207-347-6733 Fax: 207-347-6734 E-mail: info@konbitsante.org

Our Mission: To support the development of a sustainable health care system to meet the needs of the Cap-Haitien community with maximum local direction and support.

Started in 2000, Konbit Sante believes in the long-term value of improving the public health system in Cap-Haitien, in partnership with the Haitian Ministry of Health with whom we collaborate on all our programs. Rather than developing a second, parallel system, our mission is to help build local capacity for Haitians to care for Haitians.



Traditional birth attendant at her home.

Konbit Sante

CAP-HAITIEN HEALTH PARTNERSHIP

Konbit Sante

CAP-HAITIEN HEALTH PARTNERSHIP



Pediatric patient uses new oxygen system.

Improvements in Pediatric Oxygen Supply

Use of oxygen at Justinian Hospital has been an ongoing concern for Konbit Sante. The Justinian Hospital has a limited amount of oxygen available to the operating rooms, and Konbit Sante supplements that oxygen so that two operating rooms can run simultaneously. Konbit Sante also purchases some oxygen every month for the pediatric unit, but it was not enough to meet the need. In pediatrics as in the other wards, caregivers or family members must purchase

The families were our biggest cheerleaders. Family members actually provided assistance, and we received thumbs ups with each small success.

oxygen from a merchant in the city. It is sold in large, heavy tanks which often must be physically rolled up hill to the hospital. This is an arduous task, even for those who can afford to purchase the oxygen.

In pediatrics, providing oxygen was further complicated by the lack of proper flow meters to deliver the correct small doses for children and neonates. Delivering too much oxygen can be dangerous to a vulnerable smaller patient. Doctors and nurses also lacked the bedside monitors (oximeters) that allow them to know if the patient is receiving the correct dose of oxygen.

In the summer 2006, Maine Medical Center pediatric nurse Cathy Caron and Dr. Ann Lemire, Medical Director of Portland's STD Clinic and head of Konbit Sante's pediatric team, approached Chris Hirsch, MPH, RRT and director of Pulmonary/Critical Care Services at Maine Medical Center for his help. By October a project had come together based on many conversations involving clinicians in Cap-Haitien, clinicians here, and technical consultants.

A system of flow meters – some appropriate for even the smallest premature newborn – would be attached to the walls and connected by high pressure tubing to

oxygen tanks kept in a secure location. This system would be supplemented by installation of several donated oxygen concentrators (portable units often used for patients receiving oxygen at home). An electrical inverter and bank of batteries would be installed to run the oxygen concentrators, the Konbit Sante-donated baby warmers, and some overhead lights when there was no public power. The batteries would be charged several hours a day while the public power system was working. Several oximeters would be distributed to the unit.

All supplies and tools were shipped by container, and installation was done in late October and early November 2006. Volunteers Chris Hirsch, Hugh Tozer and John Shoos installed the fixed oxygen system. Hugh Tozer, Gary LaClaire, and Mike O'Neill installed the inverter. The final important component involved training about the proper use and maintenance of the equipment as well as clinical teaching sessions about oxygen monitoring, dosage, resuscitation, and other aspects of good care related to oxygen. Chris Hirsch along with Rhonda Vosmus, RRT-NPS, AE-C, Asthma Education Specialist at Maine Medical Center, conducted these training sessions and also taught at the bedside with attending physicians, residents, interns, nurses, and nursing students.

This was a challenging project and not without glitches. The inverter has since been rendered inoperable by the extreme voltage variability of the public power supply. This was a big setback, but the inverter will be modified as soon as possible to work under these conditions. The hospital lacked a reliable supply of nasal cannula to deliver the oxygen to the patients, but Haitian pediatrician Jacques Pelletier quickly fashioned a substitute from IV tubing.

"The pediatric unit was extremely busy with

Konbit Sante Researches Women's Health Issues

Haiti has the highest maternal mortality rate in the Western Hemisphere with a one-in-sixteen lifetime chance of dying in childbirth, compared to one in thirty thousand here. Women have little access to basic health information and services and specifically lack prenatal care and education. In Haiti, only 20 percent of births occur inside health institutions and, while Haitian women have more pregnancies than they desire, only 28 percent use any method of family planning. All of this contributes to a Haitian woman's life expectancy being 24 years shorter than that of her American counterparts—56 years vs. 80 years.

In 2005 Konbit Sante received a grant from the Conservation, Food & Health Foundation in Massachusetts to conduct a study of women's health needs in the Cap-Haitien area. While one might jump to the conclusion that the answer to *What do they need?* is *Everything*, the study provided important information for determining where and how to begin.



Woman waiting in maternity.

Two notable findings from the study: First, because services provided by the Ministry of Health and a number of NGOs are fragmented and lack a centralized structure/information system, women are generally unaware of how to access the limited resources available in the Cap-Haitien area. Second, women who do reach Justinian Hospital have difficulty determining where they should go within the hospital complex. Long waits and lack of triage for those most in need of urgent care coupled with too-few providers and poor communication between providers and patients creates an unsatisfactory experience for most women. Lack of medicines or money to buy them and the inability to afford treatment further exacerbate their problems.

One important outcome of the women's health study was the creation of a

Pediatric Oxygen *continued*

patients, families and caregivers when we installed the oxygen system,” according to Chris Hirsch. “This was a sizeable construction project, and we introduced a lot of noise and dust around some very sensitive patients. The families were our biggest cheerleaders. Family members



Rhonda Vosmus tests oxygen level of pediatric patient.

actually provided assistance, and we received thumbs ups with each small success.” The next challenges, according to Chris are to establish a steady supply of oxygen, to monitor dosage and overall use, to create a steady supply of oxygen disposables (i.e. cannula), and to determine whether it's feasible to replicate this system in other parts of the hospital.

This project was made possible through the generosity of several vendors. Cardinal Health provided regulators, flow meters, manifolds and high pressure hoses; both Praxair and Community Oxygen donated oxygen concentrators; Masimo donated several oximeters and oximeter probes; and Hudson RCI donated several boxes of oxygen supplies (cannulas and masks).

Konbit Sante Sends Seventh Shipment of medical Equipment

On Monday, February 5, 2007, a 40' sea container of medical equipment and supplies left Portland bound for Cap-Haitien, Haiti. The container traveled overland to New York and then by ocean-going vessels to Haiti.

What's in the container? This container includes:

- Hospital beds and mattresses donated by The Cedars.
- Over-the-bed tables, desks, chairs, files, shelves, and other basic furnishings for patient wards, clinics, and medical teaching facilities, donated by Maine Medical Center and the Mid Coast Chapter of the American Red Cross.
- Surgical equipment donated by Maine Medical Center.
- Pulse oxymeters donated by Orthopaedic Associates of Portland.
- Electrical inverters donated by CURE International to provide a more consistent and stable power supply to the Justinian Hospital's two operating rooms.
- 400 feet of flexible seamless pipe, provided by funds from GlobalGiving, for water system improvements.
- Staples in the shipments include donated bandages, sutures, gowns, gloves, and other medical supplies.

Space to store and stage shipments was donated by the City of Portland's Ports and Transportation Department as part of Portland's Sister City relationship with Cap-Haitien.

Women's Health *continued*

collaborative partnership to address these critical issues. In Haiti a working committee has been established, chaired by senior OB/GYN resident, Dr. Youseline Télémaque. Representatives of NGOs and local women's groups, doctors, nurses, residents, and our in-country program manager, Dr. Fennell Coulanges, complete the in-country women's health committee membership.

In the U.S., Dr. Eva Lathrop Moore chairs Konbit Sante's companion women's health committee. Eva, who now lives in Atlanta with her husband, Dr. Rob Moore, was a Peace Corps volunteer in Malawi, did her OB/GYN training at Maine Medical Center, and was one of Konbit Sante's founding directors. When in Cap-Haitien, Eva participates in the Haitian women's health committee meetings, completes rounds with the residents at Justinian Hospital, teaches medical residents, and supervises surgeries and deliveries. When not in Haiti, Eva and her committee hold virtual meetings monthly to develop plans for programs and funding.

These joint committees are taking steps to make the hospital more welcoming to women and easier to navigate. This Welcome Project, estimated to cost US\$2,000, will improve patient orientation to the hospital, decrease waiting time for all patients, and allow for immediate assessment of the most urgent cases. The more complicated and long-range problem being discussed by the partnership is how to reduce mortality among women who have obstetrical emergencies. Solving this problem will involve training and resources to improve delivery of timely and



Dr. Eva Lathrop Moore interviews traditional birth attendant.

appropriate emergency care at Justinian Hospital. It will also involve a corresponding system of outreach into the community. Funding is currently being sought for the obstetrical emergency project.

According to Dr. Lathrop Moore, “The OB/GYN service at Justinian Hospital has the potential to be a center of excellence. Currently patients are receiving obstetrical care in a setting that lacks consistent water, electricity, medicines, and resources for

Study of Women's Health Needs

During a three-week period in January 2006, a team of six Haitian medical residents and nurses helped conduct a series of 19 focus groups with women in various areas of Cap-Haitien. Also interviewed were providers and key informants including doctors, nurses, traditional birth attendants, nutritionists, and women's rights activists. This immensely complicated project (because of language, cultural, and logistical considerations) was conducted by MaryAnn Dakkak, a graduate student at Harvard's School of Public Health who is fluent in both French and English.

The Maternity Ward at Justinian Hospital

Justinian Hospital's busy maternity ward delivers an estimated 300 babies a month, about the same number as Maine Medical Center. The hospital is staffed by six attending physicians, two nurses per shift, nine residents, and a variable number of interns. The hospital has no blood bank, there is no potable water, and electricity is sporadic. When there is no electricity, deliveries are done by lamplight, and emergency C-sections are delayed as staff and patient's families obtain money to buy fuel to run the generator.

emergencies. Residents work very hard to deliver the best care they can given the limitations. While they have a sense of frustration and despair with the circumstances and the loss of lives, they have great compassion for their patients and continue to try to improve care. They are hungry for more education and knowledge. Given this dedication, I believe that with improved training and better access to basic resources the OB/GYN service can set a new standard of care in Haiti.”

Haitian Proverb

Nou se wozo, nou pliye men nou pa kase.

We are wozo (a resilient Caribbean bamboo). We bend but we do not break.

This proverb reminds us of the resiliency of the Haitian people and their determination to survive in spite of seemingly insurmountable circumstances.

Justinian Hospital Establishes Central Depot (Supply)

Essential supplies were often not accessible for lack of a functional inventory control system.

In a 2004 Konbit Sante-sponsored survey of clinicians at the Justinian Hospital, lack of a central supply was a common complaint. At that time there was no facility, staff, or system in place, so supplies were held in individual services or stored in an unorganized way. When our containers arrived the scene was very competitive with each service vying to get what they need. Essential supplies were often not accessible for lack of a functional inventory control system.

The problem was addressed in a true *konbit* fashion. The Ministry of Health hired a skilled person to staff the effort and, with technical assistance from Konbit Sante in-country program manager Dr. Fennell

Coulanges, Justinian Hospital has established a central *depot* (supply). All incoming and outgoing materials are now cataloged in a computerized database. Each service can know exactly what is available and in what quantity. The depot is managed by Lucien Isemanie, who also works part time in the Konbit Sante office. Feedback from Justinian is that distribution is more equitable and that supplies, although still scarce, are more available when people need them. Other donor organizations have indicated greater interest in donating materials now that a system of accountability is in place.

The current facility is temporary, but the Ministry of Health has secured funding to build a new *depot*. Konbit Sante is now looking for donations of appropriate shelving and storage cabinets for the new depot.

Fire Destroys Cardiology Unit and Konbit Sante/University of Miami Office

In the early hours of Sunday, March 11, 2007, a fire gutted the building at Justinian University Hospital that housed the cardiology unit and the administrative office shared by Konbit Sante and the University of Miami. While there were six patients in the cardiology unit, all escaped unharmed. The cause of the fire appears to have been faulty wiring in the cardiology unit. Lost in the offices were all furnishings, all paper financial documents and contracts, and the server that supplied the entire hospital with internet access. "Fortunately there was no loss of life," said Konbit Sante executive director Nate Nickerson, "but this fire underscores the urgency of undertaking a total overhaul of the hospital's dangerous electrical system."

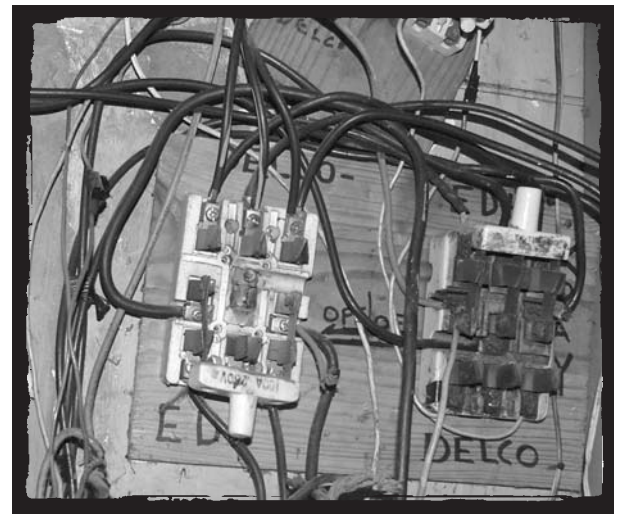
The End of the "Electrocution Room"

Early on, Konbit Sante's infrastructure team named the room where the main power supply came into the hospital the "electrocution room" because of its unusual, overused, unprotected connections. This is

service to the hospital was in terrible shape with exposed wires posing life-threatening safety risks."

In November 2006 master electrician Gary LaClaire, GE technician Mike O'Neill, Konbit Sante executive director Nate Nickerson, Konbit Sante-sponsored hospital technician Josué Limprévil, and other hospital electricians replaced the entire main electrical service at the Justinian Hospital. As with many other projects, the team needed to be self sufficient, so they had shipped the supplies and tools they would need including the panels, the wire, even the plywood on which to mount the panels and a small gas generator to operate their power tools and lights.

To accomplish this work, the municipal power to the whole hospital had to be off for three days, so there was a great deal of pressure on the team to finish quickly. The wiring of the circuits was unconventional and confusing, presenting an additional challenge, and lack of specialized tools required some improvisation. Working with interpreters and the hospital's head electrician, the team wired the new equipment. After a couple of false starts, the system switched over and worked perfectly.



Old wiring.

What's next? Next projects for the infrastructure team include installing a backup power supply for the hospital's two operating rooms. They will also launch a project to improve water quality and quantity at the hospital by installing an automatic water pumping system and re-routing the water supply around the hospital's cesspool so that contamination does not seep into the line as it now does.



Gary LaClaire installs new electrical panels.

where an 800-amp supply of power enters the hospital complex and where back-up generators are switched on and off. According to Hugh Tozer, head of Konbit Sante's infrastructure team, "The electrical

Trip Notes: John Devlin, MD

In October 2006 Dr John Devlin, an endocrinologist at the Maine Medical Center, made his first visit to Cap-Haitien

and spent a week at the Justinian Hospital teaching diabetes evaluation and management. He taught residents in

internal medicine, pediatrics, and family medicine as well as medical and nursing students. He also made bedside rounds in internal medicine.

"The residents were attentive and very appreciative of the opportunity to learn," noted Dr. Devlin. Judith Whiting, a Haitian-born nurse at Maine Medical Center, interpreted the teaching sessions. "Flexibility is the key word for

others who will travel to teach at the Justinian. Because of lack of electricity, ten handouts per lecture (which meant sharing copies) and a large blackboard were our primary AV tools. Teaching about diabetes management can be improved by obtaining more culture-appropriate materials such as dietary information covering foods that are available and affordable for the hospital's typically very poor patients who eat mostly rice and beans. We have obtained guidelines for diabetic diets based on what is there and plan to use these guidelines on our return visit". Dr Devlin and his wife Diane, a pediatric nurse practitioner at Maine Medical Center, plan to return in June.

Dr. Devlin is a member of Konbit Sante's internal medicine team. Chaired by Maine Medical Center's chief of medicine Dr. Peter Bates, this group is exploring possible collaborative clinical projects including a more comprehensive teaching exchange between Maine Medical Center and Justinian Hospital, improved infection control, and tracking of chronic diseases.



Dr. John Devlin teaches in internal medicine.