Bod me Limbe Pediatric Blitz & Vaccination Initiative

June 2011 Report









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This trip was organized by HANDS UP FOR HAITI

Hands Up for Haiti is a medical humanitarian organization committed to improving the quality of health care in Haiti. To achieve our goal, Hands Up for Haiti sends medical teams, supplies and equipment to established health care facilities in Northern Haiti. A major component of our mission is to provide education and training programs for members of the Haitian medical community.

We strive to offer a rewarding global health experience for students and physicians-in-training abroad. Our teams collaborate with Haitian doctors, nurses and students in providing medical and surgical services to patients in local hospitals and outlying clinics. We believe in providing others with the opportunity to learn together and work towards sustainable health care in Haiti.

Hands up for Haiti Team members:

Team leader: Mary Ann LoFrumento MD pediatrician

Hemant Kairam MD pediatrician

Viraj Dharmraj Chauhan MD pediatric resident

Judy McAvoy RN pediatric nurse

Linda Maria McMahon RN maternity nurse
Adrian Diana Brunner-Brown medical student
Madan Kumar medical student
Todd Warren May medical student
Vanessa Lee Yoo medical student

Jayant Kairam volunteer



Who we worked with:

Haiti Village Health is an NGO that operates in Bod me Limbe. HVH supports the local people by supporting a general clinic, conducting public health initiatives in Women's and Children's health, and advocate for sanitation and hygiene.

Haiti Village Health Staff

Tiffany Keenan MD Emergency Medicine

Santo Pierre Manager

Cholo Pierre Pharmacy Tech

Alysha McFadden Intern Edward Westerhuis Intern

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Introduction

In March 2011, Dr. Chris Raab had led the first pediatric team to do vaccinations and consults in the villages. We had a smaller team that included medical students who could not see patients without supervision. This required us to have the medical students rotate and work with either one of the doctors or to run the pharmacy. Our non- medical volunteer worked to help with registration as well as the pharmacy.

We visited 3 different sites: Guiton, Momben, and Bod me Limbe. The sites were at most a 45 minute easy hike. These villages are in a rural location.









Supplies

We were able to bring a large supply of medications through Hands Up for Haiti and Dr. Jill Ratner who acquired them through Blessings and MAP International. Donated funds covered the cost of the medications. We were able to contribute all of this to the pharmacy at Haiti Village Health and use during the pediatric blitz. (see attached list below)

Registration



A few days prior to the pediatric blitz the HVH staff notified the village that clinic were going to be held in the local church. While the pediatric team set-up their stations HVH staff would man the registration booth. Registration entailed taking down name, age, DOB, place of residence, etc.

Medical record keeping needs to be more consistent, especially as it relates to the vaccines given in the past. (see forms below) But overall, the paperwork we received had most of the information we needed to see the patients.

Nursing Station

The nurse and Agent Sante would do a short triage, obtain weight, heights, and take vitals.

<u>Triage</u>: needs to be a brief summary of the reason for the visit, ie. illness vs. vaccines or both. Having a check list for the most common complaints is helpful.

Recommendation: The nurses could triage directly to the vaccines for children who have been seen by the doctor within the year and do not have any active problems or complaints. But, if a child has not been seen by a doctor during a previous pediatric blitz, they should be seen by the doctors and have a physical exam recorded.

<u>Vital signs</u>: It is necessary to have a forehead scan thermometer for temperatures. It is quick and non invasive. It is **not possible** to use anything that needs to be charged. BP should be obtained on all the older children older than 14. RR should be recorded for any children with breathing problems or cough. Pulse, RR, and BP should be obtained on any infant or child who appears seriously ill.



Growth: Obtaining an accurate weight and height is especially important for the children under age five. The weight is essential for accurate dosage of medication, and both weight and height are necessary to find children who are malnourished and underweight or under height. Having a portable infant scale would have been helpful for weighing small infants, but not essential.

Attempts to use a sling were unsuccessful due to the movement of older infants which made it impossible to get an accurate reading. Weights were obtained by using a step scale and having older children stand, and infants and toddlers held by the mother and then the Mother's weight subtracted.



A measuring tape against the wall, or taped to a bench for infants and toddlers worked very well gaining the heights. But the bench or pew can be very narrow.

Recommendation: a foldable plastic or straw mat for the ground which would help with height measurement.

The government health cards only have graphs for weight(see below). And only go up to age two. Also, they are color graphs which do not photocopy clearly in black and white making it difficult to see where to plot. This was difficult for the nurses and caused delays in

triage. I recommend using a large easily readable chart that includes weight, height curves, and percentiles. This would be portable and easy to transport with the team. The percentiles should be recorded next to the weight and height obtained. This would be easier than plotting the growth curves, but would accomplish the same thing by allowing visiting teams to assess the percentile growth. In addition it would provide a measure for height which can more accurately assess non wasting-malnutrition.

Medical Station

Each station had one doctor (attending or resident), one medical student, and a translator. After some mentoring, the students would take the history and do the physical under the supervision of the attending. Diagnosis and treatment options were determined together.

This allowed the students to have a one on one mentoring experience and direct involvement clinically with the patients. The students rotated during the day allowing them to work with all three doctors. Our pediatric resident worked independently with the supervision of one of the Pediatricians,



but with less direct supervision than the students. Towards the end of the week, she was supervising a medical student as well.

Most of the common complaints were easily handled, (see list of diagnosis attached) but infants and children with respiratory distress took more time. We saw several very sick small infants and patients with asthma who required more attention.

Recommendation:



Treatment area- having some area for these patients (sort of observation/treatment area) to wait after being seen by the doctor and are either receiving a treatment such as albuterol, or being observed, such as an infant with fever who has received a dose of ceftriaxone. Then the doctor could continue seeing patients before going back to check on the ill child or infant

Medical charts

For the most part the charting worked well.

Recommendation:

- Weights and height percentiles be added as described above.
- Common Diagnosis check list expanded: in both English and creole so that Dr. Brinvert or other physicians can see what was diagnosed and what was given as treatment. This would help when handwriting is illegible.
- Abbreviations should be reconsidered. Doctors from different teams and local Haitian doctors may not comprehend shorthand notations. Writing out terms should be stressed.
- Vaccine recording: The vaccines which are being ordered should be written on the charts either by the doctors or the agent santes. This way when the patient returns without their cards the next team will know what was given last time.



Each station should have a pre-made box with everything needed to see patients. The contents should include:

- gloves,
- · alcohol wipes
- tongue blades
- stethoscope
- portable otoscope/opthalmoscope (battery operated),
- disposable ear tips
- sheet to cover surface
- pens
- clip board
- garbage bag
- · hand sanitizer
- alcohol wipes

Medical Testing Kit

One box with testing supplies should be shared by the group. (HUFH supplied us with this testing kit) This should include, urine dipsticks, testing for pregnancy, HIV, malaria, Blood sugar. It should include alcohol wipes, needle testing supplies (usually included with the kits). HVH does having testing kits, but their stock is limited. If we can bring addition to cover the blitz and have some extra to leave for their general clinic, we should try.

Medication Kits

To relieve congestion at the Pharmacy station, the consult stations should have some of the more common treatments: This could include vitamins (already prepared in advance), skin





treatments such as permethrin tubes (either applied right there or put into small clear bags to be applied at home), albendazole (which could be given right there), and Vitamin A.

Pharmacy

This area was staffed by one to two students or our non-medical volunteer and a translator. The translator must be someone who has some training in medication dispensing. This can be done prior to the start. At busy times two translators may be necessary. Prior to the trip, our medications were divided into treatment categories and placed into zip lock and labeled bags, ie antibiotics, asthma meds, allergy, GI treatments, skin creams, eye drops, etc. On arrival, the team further sorted the medications and even split the antibiotics such as Amoxicillin and placed into dosage bags. They also placed the chewable vitamins into a bag of one month supply. (See pharmacy list below)

Special medications or meds in short supply, such as chloroquine, ivermectin, prednisone, ceftriaxone, HIV meds such as Combivir (for staff in the event of needle sticks) were kept in a separate black case.

Each day medications were organized prior to the patients being seen.

<u>Suspensions</u>: mixing suspensions caused some delays in the pharmacy as well. It required the use of the empty vitamin bottles (which we may not always have) as well as clean water supply.

Recommend:

- The availability of chewable medications such as Amoxicillin would help as this was the most common suspension prepared and most children can take the chewables and the toddlers can be given them crushed and put in jelly or peanut butter.
- Preparing suspensions before we start would also help. Sending parents home with suspensions poses a risk of the medications being less potent due to lack of cold storage and dosages not being given as prescribed.

Recommendation:

- Pill splitters and crushers that work easily. This would have helped efficiency.
- Ziplock small bags- large supply needed. Plan on using 200 per day.
- Prior to clinic day the pharmacy inform(write on a sheet) the medical teams of what is available. This would save time when the doctor ordered a medication that the pharmacy did not have and they needed to then substitute a drug.
- <u>treatment chart</u> (white board) with a list of the most common diagnosis. Each day the treatment available in the pharmacy could be written in reflect what the pharmacy has available.







- Update the Pediatric Medication Dosage Chart
- For all medications given we should prepare cards or papers with instructions in Creole and in pictures for the most common treatments. We need measuring spoons which teams should try to obtain before arrival.
- Treatment for skin ailments such as tinea and scabies should be given at the stations. Vitamins should also be distributed by the doctors.

HVH Vaccination Program



HVH is striving to catch up the kids in their immediate area on vaccines: polio, DTP, Measles(Rougeole)/Rubella. Our pediatric blitz trip marked the second vaccination campaign in Bod me Limbe and surrounding areas. The first campaign occurred during March with Dr. Raab's trip.

The vaccination initiative was mostly run by the HVH staff, nurses, and agent santés. It is their initiative to train their nurses and agent santés to be comfortable in administering injections, recording information appropriately, compiling statistics, and oversee proper vaccine storage. After a few dozen supervised administrations, the HVH staff was very apt in administering injections.

If children needed vaccinations they were sent directly after seeing a doctor to the station. A large sheet was placed between the waiting area and injection table so that children waiting could not see what was occurring.

During the Bod me Limbe vaccination campaign there were some parents who did not have their children's medical records, did not recall when shots were given previously, or records were lost. Also some children had side effects from the vaccines such as sore arms or fever, and parents had not been fully informed about these potential reactions. Many parents said they were not going to bring their child back for immunizations because of such results. Recommendation:

- Go over vaccine schedule with all team members, make sure they know when first vaccine can be given and contraindications for vaccinations.
- Advance education by the community workers and agence sante's regarding the illnesses and
 diseases that the vaccines are intended to prevent, and the side effects that are expected.
 There is simply no time for the doctors to go into detailed explanations, but they could
 reinforce the message.



OTHER IDEAS

SKIN STATION: Because so many children have skin problems, we should consider having one station just for that manned by either one of the rotating students or residents or a nurse or agence sante if available. The doctors could determine if the child has scabies or tinea and medications could be given or applied right from that station. This would take the stress away from the pharmacy. Alternatively, we can supply the medical consult stations with the skin treatments, vitamins, and these treatments can be applied by the team.

<u>Bags for patients</u>: In one report it was recommended that the patients be given cloth bags to carry medications and instructions home (as opposed to environmentally dangerous plastic bags) This would be a great project for a team at home to recommend to school or church groups that want to contribute. They would be light weight and easy to transport to Haiti. A design could be made to trace, draw or imprint on the bag, ie. Sante Pou Yo.

<u>Malnutrition</u>: we did not encounter many children who had signs or evidence of malnutrition. But if we do identify children, we hope to have the Medika Mumba program available.

Pediatric Forms: Inclusion of vaccination records.

STATISTICS

Number of patients seen:

Guiotant: 105 Mombe/Nonan: 117 Bod me Limbe: 80

VACCINATION REPORT:

Polio - 29 DTP - 34 Measles/Rubella - 8 **0-11 month olds**

Polio - 119 DTP - 157 Measles/Rubella - 30 12 months - 15 year olds

Broken Down in each village:

Guiotan

Day 1: 52 received vaccines, 6 had complete series.

Day 2: 37 children received vaccines, 10 had complete series.

Momben

86 children received vaccines, 13 were complete.

We ran out of polio. Almost all children could have received polio, and many did not receive it.

Bod Me Limbe

57 children received vaccines, 9 were complete. We ran out of Polio again; almost all of the children needed Polio.

PRESENTING COMPLAINT:

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114 of coughing
82 cases of self reported stomach pain
73 cases of skin issues: tinea or scabies in most cases
33 rhinorrhea
30 reported decreased appetite
25 has ear problems
20 had issues about pain when urinating
16 for worms
12 complained of eye problems
12 complaints of vomiting
8 dental complaints
6 shaking chills and fever at night
```

FINAL DIAGNOSIS:

Skin:

4 malaise

Scabies 175 Tinea 73 Infected lesions/impetigo 15 Cellulitis 3 Eczema 8 Acne 2

HEENT:

Otitis Media 25 Conjunctivitis/Allergic or Infectious 12 Dental referrals 8 Tooth abcess 4

RESPIRATORY:

Pneumonia 24 Bronchitis 22 Asthma 12 Bronchiolitis 3 URI 47

GI:

Abdominal Pain/Non Specific 82 Diarrhea 9 Vomiting 3

GU:

Urinary Tract Infection 21 Vaginal infections 6 Pelvic Inflammatory Disease 2

Infectious Disease"
Active parasites 16
Malaria 6
Malaria 6

General Malaise/non specific 4 Pregnancy 2

Pediatric Chart

Date:				Dossier	Oossier#:	
Nom: Date		Date d	e Naissance: _		Age:	
Village: () E	BML () Bouchi Morne () Mongoio	() Bayer () Noman	() Guiotan () Titoit	() Monbin () Autre:	Sex: M() F() Enceinte:()	
Antécédents l	Médicaux:		Allergies:	Meds:		
Raison de la V	Visite: () Suivi pou	r <u>. </u>			· · · · · · · · · · · · · · · · · · ·	
() céphalée () diarrhée () yeux	() fièvre () tou () peau () den () grossesse: G_P_	ts () gr D.P.A	ynécologie ypertension	() douleur abdominale () malnutrition () autre:	() problème urinaire () family planning	
Histoire Clini	ique:					
Prévention:	Traitement des Verres			Hygiène / Egu Propre		
Trevendon.	Family Planning					
Lab; () HgB	3:	() Test Gross	esse:	() Urine:		
() Glucose: () Syphilis:				()VIH:		
Diagnostique	e(s):					
				nines adultes PO OD [14]	ophen mg Q6H pm [2]	
()Autre:	gmg31A1[1/]	(Asseptions	mg Q or.	pin [11] ()Accianin	opnen mg Qorrpin [2]	
Suivi:	jours/mois	(donnez carte	pour visite grat	uite [])	D. W. Carre	
Référer: Spéc	rialiste	Ad:	resse/Hôpital_		Coût:	
		Signature: Infi	mière	MD		

HVH Vaccination Passport

Date de Naissance:

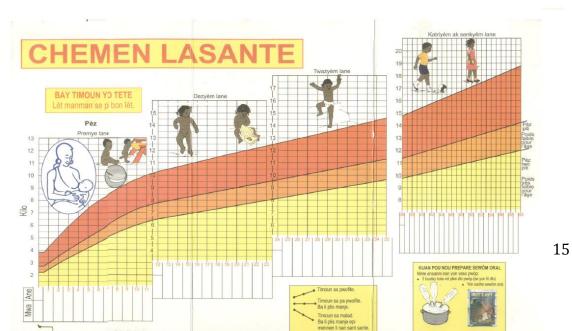


Village:



Dose 3 Rappel (15.5 mois) Dose 0 Dose 1 Dose 2 (1.5 mois) (2.5 mois) (naissance a 15 jours) (3.5 mois) Polio DTP Rougeole (9 mois) BCG (naissance)

Government Passport/Growth Chart SUPPLEMENTATION EN MICRO-NUTRIMENTS (Date) VACCINATION Dose 0 Dose 1 Dose 2 Dose 3 Rappel REPUBLIQUE D'HAITI MINISTERE DE LA SANTE PUBLIQUE ET DE LA POPULATION Polio DTP CARTE CHEMIN DE LA SANTE Dose unique à l'âge de:... RENDEZ-VOUS (Date) Autres vaccins (Type et Date) EPISODES PATHOLOGIQUES Impressions cliniques / Diagnostic Date d'émission: Institution Poste de rassemblement: Commune: Nom: Prénom: Date de naissance: Registre: Page ____ Ligne Groupe Sanguin Institution (2)_ SIS - CI - 02



Hand Up for Haiti contributions to BML pharmacy: INVENTORY JUNE 5, 2011

MEDICA	AL CATEGORY/NAME	DOSES	BOTTLES	DUFFLE
ALLERG	ΒΥ			
F	exophenadrine Susp.	30mg/5mL	8 bottles/240 mL	
C	Claritin Children's Chewable	44 tabs	22 packs	
C	Clarinex/Zyrtec	97 tabs	17 packs + 12 ind.	
S	Singulair 10 mg	70 tabs	10 packs	
ASTHMA	A			
А	Albuterol Sulfate Inhal. Sol.	2.5mg/3mL	60 doses	
А	Albuterol Tablets 2 mg	100 tabs		
Ir	nhalers	12 units		
А	Advair Inhalation Aerosol			
	(Fluticasone 115mcg/Salmeterol 21mcg)	3 units	
N	lasonex Steroid Spray		2 units	
S	Steroid Inhaler (Flovent Diskus)	100 mcg	1 unit	
ANTIBIC	OTICS			
А	Amoxicillin Suspension	125mg/5mL	2720mL/35 bottles	
Α	Azithromycin Suspension	100mg/5mL	525mL/34 bottles	
Р	Probiotics	450 caps	15 bottles	
EYE/EAR DROPS				
E	EYE: Antibiotics (Polymyxin B Sulfate)	160 mL	16 bottles	
	(Floxacin)	4 mL	4 bottles	
		6 mL	3 bottles	
	Allergy	2.5 mL	5 bottles	
		2 mL	2 bottles	
	Moisturizing Drops	6 mL	4 bottles	
		51 mL	17 bottles	
		49 single-use via	als	

EAR: Ofloxacin .3% 60 mL 6 bottles

Neotic (for pain) 4.5 mL 3 bottles

MEDICAL CATEGORY/NAME DOSES BOTTLES DUFFLE

FEVER/PAIN

Acetaminophen (Child) Susp. 160mg/5mL 1 bottle/355mL

Ibuprophen (Child) Susp. 100mg/5mL 7 bottles/210mL

HYDRATION

Oral Hydration Salts 25 packets 1 liter

Pedialyte 25 packets 8 fl. oz.

NUTRITION

RUTF (Plumpy Nut) 80 packets

Vitamins

Multivitamin (Children's Chewable) 1300 tabs 1 lge/ 3 sm

B Complex Plus 2400 tabs 48 bottles

Multivitamin (Adult) 1000 tabs 1 Ige

Pre-natal 130 caps

Zinc Gluconate 25 mg 100 tabs 1 bottle

STEROIDS

Prednisone 10mg 1000 tabs

Prednisone Suspension 15mg 480mL

STOMACH PROBLEMS

Antacid (OPEN) 80 tabs approx.

H2 Blockers Ranitidine 150 mg 500 tabs 1 bottle

Ranitidine 75 mg 90 tabs 3 bottles

11 tabs approx. 1 OPEN

Cimetidine Syrup 300mg/5mL 3 bottles/711mL

TOPICALS

ANTIBIOTIC	Bacitracin	96 single-use packets	
	Antibiotic + Pain	532 g	18 tubes
ANTIFUNGAL	Tolnaftate 1%	51 single-use packets	
		180 g	12 tubes
	Ketoconazole 2%	45 g	3 tubes
ACNE	Tretinoin .025%	960 g	48 tubes
		2 g	10 tubes
STEROID	Cutivate .005%	180 g	6 tubes
	Hydrocortisone 1%	256 g	10 tubes
SCABIES	Permethrin 5%	960 g	16 tubes
VAGINAL	Nystatin Cream	45 g	3 tubes
	7- Day Kits	270 g	6 kits

Agent Sante Training

Vaccination Teaching Points for Agence de Sante

Drawing up Vaccine

- -Make sure your hands are clean; use hand sanitizer and put on gloves.
- -Look at the name of the vaccine; is it the right vaccine?
- -Roll the vial between your hands or tip it upside down a few times.
- -Swab the top of the vaccine container with a cotton ball and alcohol.
- -If it is DPT, you can draw 10 vaccines at a time using the governments 0.5 mL syringes.
 - -if you run out of the government syringes, you can use the 3 mL (or cc) syringes with the 1" needles (25 G) that are usually in the blue package.
 - -only draw up 0.5 mL (or cc) to where it says $\frac{1}{2}$ (or 0.5).
 - -if you are confused or you are not sure, go ask the doctor.
- -If it is Rougeole (measles) and rubella, take the 5 mL (or cc) syringe and draw up 5 mL of the diluent that was provided by the government.
 - -slowly add the diluent into the rougeole and rubella vial. If you do it too fast, it gets bubbly.
 - -make sure all of the powder is now liquid. There should not be any chunks of powder in the vial.
 - -you can draw up this vaccine one by one.

Giving Vaccine

- -Make sure your hands are clean; use hand sanitizer and put on gloves.
- -Introduce your self and always ask what the child's name is.
- -Then compare his name with the name on the registration paper.
- -Is it the right child?
- -How old is the child? Then compare this with the records.
- -Look at the child's immunization records and ask the parent questions if you need clarification.
- -If the child does not have any immunization records, ask the parents if the child has ever had an immunization before; if so, how many and at what ages? Do they have a BCG scar?
- -Let the parent know what vaccines you are giving (for example, only oral polio and DPT).
- -Ask them if the child has ever had a problem with vaccines before?
- -Remind the parents what normal side effects are of vaccines: fever, tenderness and swelling at injection site.
 - -let parents know we have children's acetaminophen at the Sante Pou Yo clinic if they need it. We should also have some ice if there is swelling.
- -Look for the right immunization site on the child.
 - -Oral polio (mouth)
 - -children under 12 months give in the middle, outer thigh as in the pictures.
 - -children over 12 months give in the arm, as in the pictures.

-if a child needs two immunizations and they are under 12 months, you can give 2 vaccines in the same leg. They need to be one inch apart.

-if a child needs two immunizations and is older than 12 months, give one in each arm.

-For Visitor: If you are giving vaccines, please do this as well. I want to reduce confusion for the agence de sante. I don't want them to give two needles in arms that are very small.

-if a child is older than 12 months (12 months to 18 months), but you feel that they are too small to have a vaccine in the arm, you can give in the leg.

-If there is a large bump on a child's leg or arm, and the parent states the child got it after the last vaccine, have the doctor look at it.

-it is probably fine, but sometimes the child might need an antibiotic for it.

-if the doctor says it is ok to give another vaccine, give it at another site.

-Have the parent hold the child well on their lap.
-Have the child sit sideways on the parent s' lap with their legs in between the parents legs. The parent can use their leg muscles to immobilize the child's.

-the more a child moves, the more the needle will hurt and/or you might need to poke them again.

-the side position is a good way to see the leg muscle of an infant.

-have the parent hold the child's leg above the knee. This will prevent the child from jerking their knee. If you feel comfortable, and the child is not too strong, you can hold their leg above the knee.

-Have the child's arm, that is closest to the parent, under the parents underarm. Have the parent hold the child's other arm above the elbow and close to the child's body.

-the more the child moves, the more the needle will hurt and/or you might need to poke them again.

-even if the child is not getting a needle in the arm, it is good to hold the child's arm because sometimes they will try to pull the needle out.





- -Before giving the vaccine, make sure you have the right vaccine and the right child.
- -Give the vaccine quickly in one steady motion.
- -Discard the needle into the sharps bin.
 - -This is very important! We do not want you to get poked with a needle. If you do, go

and see the doctor right away. There is a small risk of contracting HIV from needle pokes. Do not delay.

- -Discard all other vaccine related equipment (glass vials, needles, syringes) in the sharps bin.
- -Put pressure on the injection site with a cotton ball.
- -Place cotton ball in the garbage.
 - -We do not want the sharps bin to fill up quickly with cotton balls or plastic.
- -If the child is having difficulty breathing right after giving the vaccine, go get a doctor right away.
 - -very rarely after vaccination, people can have an allergic reaction. They may have swelling in their throat or face. They may get a rash or get really itchy. Watch for these signs of reaction.
- -Write down what vaccines were given into the child's immunization record.
- -Write down in the stats record sheet what vaccine was given and what age group. If you do not remember how to do this, ask Mama (Dre) the translator.





Links:

Hands Up For Haiti http://www.handsupforhaiti.org/

Haiti Village Health http://haitivillagehealth.ca/