NEXUS

Physician Assistants for Global Health Monthly Newsletter

NOV 2013

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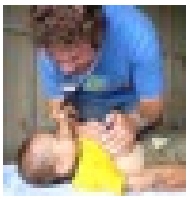
PAGH
Physician Assistants for Global Health
Local Hands, Global Reach



The Importance of Access

Jacob Hauptman, PA-C, President, PAGH

The support of a nation's government for the healthcare of its population can be as complex as creating a smoothly running website or as simple as a vaccine. October marked the rollout of the online health exchange, meant to be the centerpiece of the Affordable Care Act. The website rollout did indeed occur, but with key issues which had opponents decrying the law even more vehemently and proponents wringing their hands, hoping that the websites issues could be fixed so the health exchanges could move forward. Regardless of the technological pitfalls and what they might portend, the overarching mission remains intact - a government's effort to extend access to health care for those Americans with the greatest need. While politicians on both sides in the US government continue their debate, across the globe in Somalia, and more recently in Syria, poliovirus has reared its ugly head, an example of when a government is inherently unable to intervene in the health of its citizens.

Although a polar opposite of the situation in the US, the recent outbreaks of polio in Somalia in April 2013 in areas where the tenuous Somali government has no access (areas controlled by the armed Islamist group al-Shabab) have shown the alarming ramifications of lack of government health programs. Somalia had been removed from a list of endemic polio countries in 2001 but this explosive outbreak showed an extreme case of the ground which can be lost when access to correct health care is cut. Now a similar situation is developing in Syria where, in the midst of a civil war, polio has appeared for the first time in 14 years. Ten cases were confirmed by the World Health Organization as of late October and with the UN estimating almost 500,000 children to now be unvaccinated in Syria, there are sure to be more cases diagnosed soon.

There will always have to be a balance between too much intervention and not enough, but the simple truth is that in order to ensure the health of a population, some form of proper care has to be accessible. As providers passionate about global health, PAGH members help ensure that access can occur at home by walking an American patient through the specifics of the healthcare exchange or abroad, by giving a crucial vaccine to an infant living in a under-developed nation. Although the specifics of the situations differ greatly, when we as providers extend a hand, the positive repercussions on the individual human being are immeasurable. We at PAGH applaud the efforts of all of our members who continue to volunteer their time and strive for health on a global scale by stepping in when the need is greatest.

Recruiting Board & Committee Members

See Page 10 for more details!

Disease of the Month: High-Altitude Related Illness

Brittany Collins, PA-C

High altitude illness is a useful topic for practitioners who provide travel consultations, military care, or practice and care for patients in high altitude environments. With an increase in international travel, eco-tourism, and adventure tourism knowledge of high altitude physiology and disease will help prevent illness.

Stresses of high altitude environments include cold, increased sun exposure, low humidity, and decreased air pressure with most illness resulting from hypobaric hypoxia (2). At 10,000ft (3,000m), inspired PO2 is only 69% of sea level, which increases risk of hypobaric hypoxia. Acclimatization to altitudes above 18,045ft (5,500m) is incomplete or physiologically impossible (3). The human body can take 3-5 days to acclimatize to high altitude depending on a number of factors. Degree of altitude illness depends individual susceptibility, rate of ascent, duration of exposure, exertion, altitude level, and how quickly you return to lower altitudes (day trips versus sleeping at altitude). (2)

Risk Factors

The biggest risk of altitude illness is inadequate acclimatization in any traveler going to 8,000ft (2,500m) or higher (2). There is a genetic component to susceptibility and resistance to altitude illness and this makes predicting risk difficult. Susceptible conditions include cardiac and pulmonary dysfunction, patent foramen-ovale, and blood disorders (sickle cell), pregnancy, neurologic condition, and recent surgery to name a few (3). Physical fitness, training, and age are not risk factors for susceptibility. Risk can be influenced by accent and exertion as well as previous response to high altitude. The main goal for those living and traveling to high altitude environments is often to ensure illness remains mild as opposed to avoiding all symptoms. (2)

Normal High Altitude Physiology

Certain symptoms remain normal at higher altitudes including hyperventilation/dyspnea on exertion (not at rest), increased urination, insomnia/disrupted sleep, and periodic breathing (periods of hyperpnea followed by apnea) at night (1). Periodic breathing will not resolve until descent and is not associated with altitude illness. Insomnia is thought to be secondary to cerebral hypoxia. Acetazolamide will help both periodic breathing and insomnia (1).

Peripheral edema and facial edema are also relatively common and in the absence of other AMS symptoms is not a contraindication to ascent. Symptoms resolve after descent.

Clinical Manifestations

Acute Mountain Sickness (AMS)

AMS is the most common form of altitude illness. For example, 25% of visitors sleeping over 8,000ft (2,500m) in Colorado are affected (2). The most common and persistent symptom is headache, which often develops 2-12 hours after arrival at higher altitudes. Other acute symptoms include fatigue, loss of appetite, nausea, vomiting, diarrhea, pallor, dyspnea, and cyanosis. Late onset symptoms can include headache, irritability, vertigo, insomnia, palpitations, and tachycardia. (3). AMS generally resolves in 24-72 hours of acclimatization. (2)

High- Altitude Cerebral Edema (HACE)

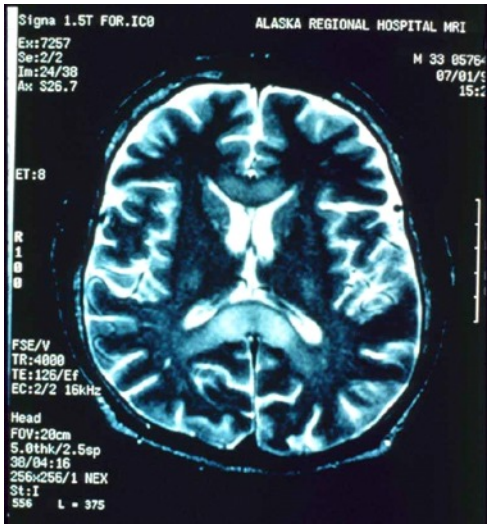
HACE is a severe and rare condition that appears to be an extension of CNS symptoms of AMS. HACE is thought to result from vasogenic edema and cerebral cellular hypoxia and occurs with or without HAPE (3). Symptoms include those of AMS as well as profound lethargy, drowsiness, confusion, and the hallmark of ataxia (unable to heel to toe walk). HACE is a medical emergency and death can result within 24 hours of developing ataxia (2). Other symptoms include urinary retention and incontinence, focal deficits, papilledema, nausea, vomiting, and seizures (3). Immediate decent of at least 2,000ft (610m) is required to prevent progression to coma. HACE usually occurs at elevations above 8,250ft (2,500m) and more commonly in those are non-acclimatized. *(Continued on page 3)*

Disease of the Month:
High-Altitude Related Illness *(cont.)*

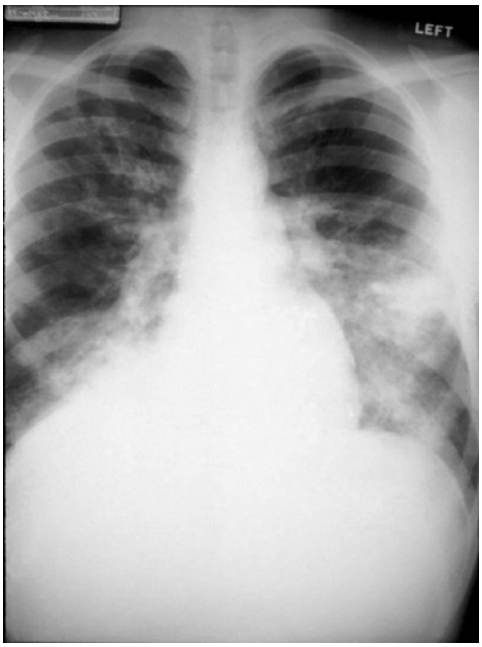
Brittany Collins, PA-C

High- Altitude Pulmonary Edema (HAPE)
HAPE is the leading cause of altitude related death. HAPE can occur with or without AMS and HACE. The pathophysiology is thought to be due to patchy hypoxic vasoconstriction in the pulmonary vascular bed. Increased pressure shunts blood flow through a limited number of vessels resulting in a high-pressure vascular leak (1). The incidence in Colorado is 1 per 10,000 skiers and up to 1 to 100 climbers at greater than 14,000ft (4,300m) (2). It usually occurs at levels above 9,840ft (3,000m) with elevated pulmonary artery pressure followed by pulmonary edema (3). Early symptoms may appear after 6-36 hours at higher altitudes. Onset often occurs at night (1). Symptoms include dry cough, dyspnea, breathlessness out of proportion to exertion, breathlessness at rest (progressive HAPE), weakness, headache, chest tightness, and decreased exercise performance (2,3).

Late symptoms include wheezing, orthopnea, and hemoptysis as pulmonary edema worsens (3). Breathless with rattling/gurgling respirations and white or pink foamy sputum can also occur (1). Rales are often first heard in the right middle lobe, however presence or absence is not diagnostic in the absence of other symptoms of HAPE. Early recognition of these symptoms and descent is elemental in preventing incapacitating pulmonary edema. HAPE can be more fatal than HACE. Oxygen and descent is life saving. Descent of 500-1000m may help improve symptoms but descent to lowest possible elevation should be achieved while avoiding strenuous exertion. (3).



Source: http://www.highaltitudemedicine.com; MRI of HACE and chest x-ray of HAPE



Diagnosis
More severe forms of altitude illness often occur in the field so clinical diagnosis is most often used. Ancillary tests are often unavailable and nonspecific. Physical findings of HAPE many include tachycardia, mild fever, tachypnea, cyanosis, rales, and rhonci resembling a clinical presentation of severe pneumonia (3). The differential diagnosis can include dehydration, exhaustion, hypoglycemia, hypothermia, hyponatremia, PEs, pneumonia, or bronchitis (2).

(Continued on page 4)

Disease of the Month: High-Altitude Related Illness *(cont.)*

Brittany Collins, PA-C

Prophylaxis

The most important prophylaxis is slow ascent and planning rest and acclimatization days in a trip or trek. Acetazolamide speeds acclimatization and is more effective than when used as a treatment. Prophylaxis is recommended in those with history of AMS, HACE, or HAPE and those who are planning rapid ascents without proper time to acclimatize. Effective adult dose is 125mg BID starting a day before accent and continuing for two days. A low dose is used to minimize side effects of increased urination and paresthesia of fingers and toes.

Ibuprofen 600mg every 8 hours has been found to prevent AMS, although not as effective as acetazolamide it is well tolerated, inexpensive, and non-prescription (2). When taken 5 days before ascent, gingko biloba (100-120mg BID), was shown to reduce AMS in some trials but ineffective in others likely due to variation in ingredients (2). Those with a history of HAPE should also use Nifedipine as prophylaxis and always carry this at altitude (1).

Treatments

Initial treatment involves oxygen administration if available, voluntary hyperventilation can also help relieve acute symptoms. Immediate descent is the best treatment and but if this is not possible hyperbaric chambers or Gamow bags can provide symptomatic relief. If symptoms get worse while the traveler is resting at the same altitude, he or she must descend (2).

Acetazolamide, 250mg orally every 8-12 hours, remains the most effective medication for AMS and HACE. Acetazolamide is a diuretic that acidifies the blood, which increases respiration and aids in acclimatization (2). It will not prevent worsening symptoms if ascent continues (1). Dexamethasone is also used in treatment of AMS and HACE. Both are recommended in severe cases and should be used as long as symptoms persist. Dexamethasone can provide more rapid relief of symptoms but if stopped before acclimatization rebound symptoms may occur unlike Acetazolamide. Most individuals have symptom resolution within 24-48 hours. However, immediate descent is the only definitive treatment and essential in HACE and HAPE.

Treatment of HAPE includes immediate descent and oxygen administration (to >90% spO2) in the semi-fowler position (head raised). Recompression in a portable hyperbaric chamber will reduce symptoms temporarily until person is able to descend or be evacuated (3). Calcium channel blockers (Nifedipine most commonly) and selective phosphodiesterase type 5 (PDE5) inhibitors also improve symptoms (3). Both medications can lower pulmonary arterial pressure. Hospitalization is indicated in all patients with HAPE and HACE and those who remain symptomatic after treatment and descent.

References

1) Dietz, Thomas. High Altitude Medicine Guide . 08 May 2000. 28 October 2013 <http://www.high-altitude-medicine.com>.

2) Hackett, Peter and David Shlim. "Altitude Illness." Prevention, Centers for Disease Control and. CDC Health Information for International Travel 2014. . New York: Oxford University Press, 2014. Chapter 2.

3) McPhee, Stephen and Maxine Papadakis. "Altitude Related Illness ." McPhee, Stephen and Maxine Papadakis. Current Medical Diagnosis and Treamtent . New York : McGraw Hill , 2010. 1417-1419.

Student Corner:
Peru

Mathilde Sullivan, PA-S2, UC Denver CHA/PA Program

"CU-Peru is a student run non-profit that runs trainings for community health workers in the Loreto Region of Peru." This was the extent of my knowledge when I joined this hard-working, diverse group at the beginning of my first year of PA school. Over the next 9 months I helped Pharmacy, Medical, MPH and other PA students to prepare for these trainings by editing and translating the curriculum that we would teach the community health workers over the summer. The focus of the curriculum is mostly prevention, public health and triage.

At the time it seemed feasible: we would teach them to take vitals, look out for alarm signals, try a few treatments, and follow basic algorithms to decide whether or not the patient needs to go to the clinic or the hospital. I had spent 6 months working at a clinic in a different part of Peru a couple years prior and felt fairly knowledgeable about the situation. It wasn't until I started climbing the 250 wooden stairs to our first village, after having spent one hour on a "rapido"(a fast boat) followed by 4 hours on a "pequepeque"(a large canoe with a lawnmower motor), that I realized the difficulties of what we were attempting to accomplish.

Our challenges were waiting for us at the top of those stairs. We had bought sand timers to measure vital signs and we gave them out to each of the community health workers. They measured exactly one minute and we thought they were a great alternative to any battery-powered watch or timer which doesn't last in the humid climate. They were as enthralled with the sand timers as we were, until one minute started turning into two minutes as the sand began to stick.

Our next problem was another logistical issue. It was only our second day out on the river and yet between giving water away, spilling it and drinking more than we had anticipated we were already running out. This was eventually resolved by finding someone who would filter and boil river water for us. The majority of each day was spent dealing with unanticipated problems and logistical issues: where would we hang up our hammock for the night? Who had time to cook the food we brought? How were we going to get to the next village? What was the best way to protect ourselves from the trillion malaria-ridden mosquitos without succumbing to heat exhaustion? Once all of these issues were resolved, very little time was left to delve into the material we had planned. It was at that point that I realized that these problems are every day issues for the community health workers and the families in these villages.

The villages we worked in are off of a tributary of the Amazon, the Napo river, and very remote. Many of the villages are over 5-6 hours in pequepeque or over 18 hours in Lancha(water taxi)from a clinic. The majority of the villagers live off of what they farm and fish. Deciding to spend gas money to go to the clinic is not an easy decision, and often a logistical impossibility. Each village has one or two unpaid community health workers who have had limited schooling, no formal training, and rarely get any recognition for their work. Despite this, their hunger for knowledge and desire to serve as leaders in their communities is remarkable.

(Continued on page 6)

World Update: Tuberculosis Research in Indonesia

Olivia Bockoff, PA-C

"For Philips Loh, the suffering of tuberculosis patients, and the frightening ease with which the disease spreads, was a wake-up call". Loh, a Harvard School of Public Health (HSPH) doctoral student has secured a $420K grant for a TB research and capacity building initiative in his native Indonesia. The project was developed as his master's thesis and aims to identify the risk factors for spreading multi-drug resistant (MDR) and extensively drug-resistant (XDR) tuberculosis. Indonesia, which has the 8th highest drug-resistant TB burden, will pilot the project. The project will be funded by PEER Health Program and Loh himself will serve as a liason between HSPH researchers and Indonesia's University of Andalas.

Reference

Roeder, Amy. HSPH October Update.

Student Corner *(cont.)*

During our six week trip, we held trainings for 60 community health workers, teaching them a variety of subjects including first aid, women's health, and diarrhea/respiratory illnesses. Each CU-Peru member was responsible for a small group and helped them through case presentations and creative role-playing as they worked to understand the main principles we were teaching. My personal highlights included seeing my group present to the larger group where in local foods they could find the major nutrients needed for a healthy diet. They were so excited to share the ideas they had come up with. They also performed a skit showing how they would respond and splint someone with a femur fracture. Before and after the 5 days of training we administered a short exam to track their progress. The last morning, I could see how nervous they were. They avoided my eyes and refused to allow me to administer their exam. I was extremely impressed by all of the hard work they put in and how well they had adapted to the new challenges we presented them with.

Throughout my time in the Loreto region and in these villages I also adapted to the challenges that the Amazon presented. I learned to appreciate the simple joys of: taking a bucket shower at the edge of the river without getting bitten by piranhas, playing card games in the light of the citronella candles to keep away the mosquitos, being greeted with fried plantains when we visited peoples homes, learning to kick the latrines before sitting down to scare the bats out, and best of all making friends with all of the children who would be our guides throughout the village and our protectors from tarantulas threatening to fall on our hammocks as we slept. I have come back to the U.S. with a new appreciation of the situation in which the community health workers are practicing and the sacrifices that they make to provide for their communities.

Announcements

Welcome To Our New and Returning Fellow Members!
Teresa Soucie, Mindi Mancuello, Matt Byers, Cindy Renner, Desla Phillips, Diane Thompson, Sabrina Weathersby, Jessica Stein, Emma Bacharach, Sarah Vensel, Amy Albert.

Welcome To Our New and Returning Student Members!
Sallie Gurganus, Nicole Kelly, David Zielinski, Marisa Girawong, Kristine Schneider, Jamie Gibbons, Raphaela Francis, Heather Chalifour, Viki McCoskey.

Several Volunteer Opportunities in Nepal!

Hospital and Rehabilitation Centre for Disabled Children, a non-profit in Nepal, invites volunteers come for 4 weeks, and allow 2 weeks of travel time to enjoy the region. $200/week donation to HRDC + $200/week for food/lodging
www.hrdcnepal.org or email adminhrdc@ntc.net.np

B. P. Koirala Memorial Cancer Hospital is looking for PAs to be exposed to Pediatric Oncology
www.bpkmch.org.np or contact Earle Canfield at jecan314@gmail.com

ANSWER (American-Nepali Student and Women's Educational Relief)
www.answernepal.org or email jecan314@gmail.com

Social Entrepreneurship Institute Conference December 6, 2013. New Haven, Connecticut.

Presented by Unite For Sight, the Social Entrepreneurship Institute provides mentoring, guidance, and successful strategies for participants to apply to their work in global health, social entrepreneurship, and international development. In addition to unique interactive sessions by leaders in global health and social entrepreneurship, the Institute also includes networking receptions with the speakers.
www.uniteforsight.org/institute

Internship: ¡Soy Capaz! Educational Programs of Amazon Promise

Amazon Promise is a U.S. based, non-profit organization whose mission is to give essential medical care and provide education to alleviate suffering, save lives, and inspire hope in the poverty-stricken remote and urban communities of the Loreto province in the Peruvian Upper Amazon region. Since 1993, Amazon Promise has been organizing four to six medical interventions per year, each staffed by educators and medical and non-medical volunteers. The organization is headquartered in the jungle city of Iquitos, while its strategies are developed by the core Members in the United States. Through Amazon Promise, over 120,000 inhabitants of the most underserved parts of Peru have received education and medical care, and over 800 professionals have volunteered their time. *(continued on next page)*

Announcements *(cont.)*

¡Soy Capaz! is the educational program of Amazon Promise that specializes in the prevention of transmittable infections, HIV in particular, and of other common diseases, such as diarrhea (with focus on personal hygiene and water treatment). Furthermore, we address issues of domestic violence, alcoholism, and women's and reproductive rights. A new addition to our program is focus on the synergies between health-protection and environmental-protection behaviors.

¡Soy Capaz! is seeking an intern for strategic support of the program's operations, namely fundraising, grant writing and media outreach. The intern will work for the minimum of 20hours/week for approximately 9 months, starting in fall 2013.

Specific duties include:

· **Fundraising:** ¡Soy Capaz! relies solely on private contributions. We need funding for the existing educational and training activities, and in order to include new educational topics that have surged from our ongoing dialogue with the local communities. We also intend to broaden our social services for patients from the jungle areas. The intern will thus provide support to the program's ***fundraising operations*** through grant and other prospect research, grant writing, and drafting of donor correspondence.

· **Media Outreach and Communications:** The intern will develop and maintain the program's ***media presence*** by drafting press releases, by regularly featuring the program in social media (including Facebook, Twitter, YouTube, blog, etc.), and by working with alumni and friends to draft and place articles and commentaries in publications.

Qualifications:

· **Strong writing skills** and the ability to communicate with diverse audiences.
· Previous experience in fundraising, particularly grant writing, drafting of donor correspondence, and social media applications.
· Ability to work independently, prioritize, and make deadlines.
· Commitment to international development and providing services to populations in need.
· Experience working and/or living abroad, preferably in Latin America
· Proficiency in Spanish preferred

The intern will be asked to demonstrate the results of his/her funding research, produce large quantities of written text, and maintain the program's media presence on a weekly basis. All work will be conducted in close collaboration with Director of Educational Programs, Dr. Elena Deem, who will manage the intern, and under the general supervision of the President of the organization.

While Amazon Promise is unable to offer compensation, ***the intern will be invited to participate in one medical expedition in Peru.*** Amazon Promise will waive **50%** of the trip fee, and **100%** provided the intern is fluent in Spanish (note: all travel expenses, e.g.; airfare to Peru/Iquitos, hotels and meals while in Iquitos will be the responsibility of the intern).

To be considered, send a cover letter, resume, writing sample, and two letters of recommendation to *elena@amazonpromise.org*. No phone calls or inquiries, please. We cannot respond to every applicant, but you will hear from us if you are selected for an interview. For more information about Amazon Promise, visit the Web site at *www.amazonpromise.org*

Amazon Promise has been recognized for its long-term commitment and effectiveness to improving health in Peru. In March 2010, Amazon Promise President Patty Webster was named a *CNN Hero* (*www.cnn.com/heroes*) for her life-long dedication to providing desperately needed medical care and health education to vulnerable populations in Peru. The organization has been featured in the *Huffington Post,* the*Detroit News*, and *VIV Magazine*; promoted by the Portland Area Global AIDS Coalition; and past volunteers have received awards for their work with Amazon Promise, including the D. Robert McCaffree, MD, Master FCCP Humanitarian Award.

Careers

Clinical Associate Mentor, South Africa

American International Health Alliance, a government-funded non-profit that works in global health primarily in Sub-Saharan Africa, is actively recruiting **Clinical Associates Mentors** to serve in a 3-12 month placements in South Africa. Launched in 2008 by the South African Department of Health, Clinical Associates are similar to Physician Assistants and are dramatically increasing the number of mid-level medical professionals in the health workforce who are able to confront the country's immediate health needs.

The Volunteer Healthcare Corps began a South African Clinical Association Mentorship Program, providing US professionals (primarily physician assistants) with the opportunity to serve as mentors and clinical trainers of the students while they are in the district hospitals, often located in rural areas. This is an unique opportunity for highly skilled health professionals to directly apply their skills and expertise in a place that desperately needs it.

www.twinningagainstaids.org/documents/SouthAfricaCountrySnapshot07-09-12.pdf

Please contact Sara Adelman for more information about this post: *sadelman@aiha.com*

Positions Open in Afghanistan

Onsite OHS is looking for PAs to work in Afghanistan. Make a difference to EXPATS and Third Country Nationals in our clinics. Bring your boots and spirit of adventure! 12 month contract for up to $205,000 plus benefits. For more information please go to *www.onsiteohs.com* or contact *jessie.dyer@onsiteohs.com*

PA Editors wanted

PAEA's scholarly publication, *The Journal of Physician Assistant Education* (JPAE), is seeking editors for four features: Cultural Perspectives, Global Perspectives, Medical Director Dialogue, and Technology and Education. For more information, visit: *http://networker.paeaonline.org/ 2013/07/17/jpae-invites-applications-for-four-feature-editors.*

Open PAGH Positions

Want to participate in the only organization dedicated in advancing the PA profession globally? Email ***pasforglobalhealth@gmail.com*** *if you are interested in an active role.*

1. President-Elect

- Supports President in duties including meeting agendas, business plans, progress reports.
- Helps coordinate committees.
- Automatically assumes President Position after 1 year of service.

2. Web Co-Coordinator

- Help manage web page, *www.pasforglobalhealth.com*.
- Announcements on web, Facebook, LinkedIn.
- Topic discussions on Facebook, Forums.
- Direct member questions to proper people.

3. Healthcare Disparities/ Cultural Competency Committee Chair

- Member and non-member education.
- Recruit experts to write articles for PAGH email/newsletter and speak at conferences.
- Topic discussions on FB, web forum, Nexus (newsletter).

4. Network Resource Coordinator

- Maintain and update database of organizations that use PAs in underserved areas.
- Research and publish upcoming opportunities for PAs and PA students.
- Develop searchable web-based database of organizations that use PAs.

5. CME Chair

Attending the 2013 PAGH Global Health Symposium is a perfect opportunity to learn the ropes so you can then lead the planning for our 2014 PAGH Global Health Symposium.

6. Research Committee

- Help coordinate and execute research projects directly related to global health and PA role.

Upcoming Medical Service Trips

International Medical Relief
www.internationalmedicalrelief.org
Uganda: November 22 – 30, 2013.
Haiti: December 22 – 29, 2013.
Cambodia: December 26, 2013 – Jan 2, 2014.

Flying Samaritans
www.flyingsamaritans.net
Frequent trips originating from California and Arizona to clinics throughout Baja California, Mexico

Benjamin Wellness Center
www.benjaminwellness.org
Gatamaiyu, Kenya: Jan 2 – Jan 19, 2014.

Health Horizon International
www.hhidr.org
Dominican Republic: January 4 – 11, 2014.

Holy Rosary International Medical Mission
www.hrimm.org
Lima, Peru: July 5 – 19, 2014.

Kenya Relief
www.kenyarelief.org
Kenya: 2014 TBA.

More medical service trips are always being scheduled.

There are dozens of medical volunteer organizations that enlist Physician Assistants for its service trips around the globe.
See the following pages for our listings. Please let us know if you know of others to share!

Volunteer Organizations

If you are aware of any trips or organizations that are looking for **PA volunteers**, please contact Olivia at *obockoff@gmail.com*. Please Note: it is not our desire to promote specific organizations only to connect PAs with opportunities and encourage professional philanthropy. This information is not an endorsement of these organizations.

Africa Cancer Care Inc - International opportunities with an oncology focus. *www.africacancercareinc.org*

Amazon Promise - Medical trips to portions of the Amazon Basin. *www.amazonpromise.org*

Benjamin Wellness Center - Opportunities in Gatamaiyu, Kenya. *www.benjaminwellness.org*

Christian Medical and Dental Assistance - *www.cmda.org*

Community Coalition For Haiti - need for medical professionals for 1-2 week trips to staff a primary clinic in Jacmel, Haiti. *www.cchaiti.org*

Exploration Logistics - Places PAs worldwide to serve as medical support for various expeditions. Positions include oil rigs and other industrial projects, etc. *www.elgfze.com*

FIMRC Global Health Volunteer Program - Opportunities in El Salvador, Nicaragua, Peru, Costa Rica, India, and Uganda. *www.fimrc.org*

Flying Doctors of America provides medical assistance and hope to as many of the poor and needy as they are able to reach. Medical & dental teams to wherever the current need is. *www.fdoamerica.org*

Flying Samaritans Mexico - year-round for Baja California, Mexico. *www.flyingsamaritans.net*

Goabroad.com - Assists different professions with placement internationally. *www.goabroad.com*

Grounds for Health - Uses PAs in Africa, Mexico, Peru, Nicaragua. *www. groundsforhealth.org*

Health Horizon International - *www.hhidr.org*

Health Volunteers Overseas - looking for volunteers to train and educate local health care providers around the world. *www.hvousa.org*

Heal the Children - Ecuador, Haiti. Contact: jensorooni@gmail.com. *www.healthechildren.us*

Heart to Heart International - weekly trips to Hait and Guatemala. *www.hearttoheart.org*

Holy Rosary International Medical Mission - *www.hrimm.org*

Hospitals of Hope - Bolivia, Haiti, and Liberia. *www.hospitalsofhope.org*

ICHA Outreach to fight Cardiovascular Disease - Ghana. *www.ichaonline.org*

Volunteer Organizations

International Medical Relief - *www.internationalmedicalrelief.org*

Kenya Relief - *www.kenyarelief.org*

Lalmba - Lake Victoria in Kenya and in a rain-forest in Ethiopia. Goals are clinical medicine, coupled with public health, and working with local physicians. *www.lalmba.org*

Many Hands For Haiti - *www.mh4h.org*

Medical Missions Response - North Africa, Middle East, South/East Asia. *www.mmronline.org*

Mercy Ships - volunteer opportunities aboard "hospital ships". *www.mercyships.org*

Mountain Medics International - Cordillera Huayhuash, Peru. *www.mountainmedics.org*

Nunoa Project - two trips a year to Peru. *www.nunoaproject.org*

NYC Medics - deployment to disaster zones and humanitarian emergencies. *www.nycmedics.org*

Omni Med - work focused in Uganda. *www.omnimed.org*

Operation Smiles: providing surgeries around the world. *www.operationsmile.org*

Palmetto Medical Initiative - *www.palmettomedical.org*

Panama Global Connections - *www.panamaglobalconnections.com*

Peacework Medical Projects - *www.peaceworkmedical.com*

Physicians for Peace - work in Central/South America, Africa, Asia. *www.physiciansforpeace.org*

Project HOPE - land based and ship-based care to regions around the world. *www.projecthope.org*

Rotations and Courses Internationally - *www.gorgas.dom.uab.edu* and *www.cugh.org*

The Carolina Honduras Health Foundation - Limón, Honduras. Active clinic, frequent need for medical volunteers. *www.carolinahonduras.org*

Timmy Global Health - looking for volunteers year-round. *www.timmyglobalhealth.org*

US Doctors For Africa - utilizes PAs for Africa work. *www.usdfa.org*

WellShare International - *www.wellshareinternational.org*

Help Nexus Improve! Your input can make a difference for future issues of Nexus. We welcome suggestions and submissions for future Book Reviews, Spotlights, or other features. And of course any and all comments are welcome. Contact *chad.eventide@gmail.com*