

# NEXUS

Physician Assistants for Global Health Monthly Newsletter

## SEPT 2013

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### PAGH 2013

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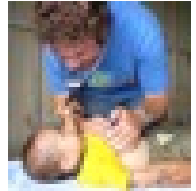
*Assistants for Global Health*



Physician Assistants for Global Health  
Local Hands, Global Reach

## Global Health Extravaganza


Jacob Hauptman, PA-C, President, PAGH



The bylaws of Physician Assistants for Global Health list our commitment to coordinate activities which allow our members to enhance their knowledge and skills of global health topics. We take that mission seriously, as we know there is a paucity of training available for PAs and PA students who are turning their focus globally. That's why we are so excited for our annual Global Health Symposium, which will be taking place September 28-29 in at the Sheraton Hotel in Virginia Beach, Virginia (*see page 5*). Harmony Madden, PA-C, who has served as both PAGH president and treasurer, has been working hard to organize a comprehensive selection of global health topics as well as chances for global-health minded PAs to network and interact.

PAGH is planning on applying for approval from AAPA for 15 hours of

Category 1 CME, all which will take place in the beautiful "Neptune City". The topics at this year's conference will include lectures on human trafficking, tropical dermatology, childhood malnutrition, women's health topics and many more! The lecturers are PAs and MDs who have a passion for global health, including Pamela Burwell, PA-C who was the 2008 AAPA Humanitarian Physician Assistant of the Year winner. In addition to the lectures there will be a chance to mingle with other attendees at a planned mixer on Saturday night.

This will be an excellent opportunity for our members to meet and at the same time learn the skills they need in order to work in underserved areas around the world. Please visit the PAGH website for more information and consider signing up to increase your global health knowledge and support PAGH! 

### **Welcome To Our New and Returning Fellow Members!**

Lara West, Julie Golden, Britta Kolodziej, Avon Child, Lauren Myers, Patricia Corbin, Tanya Smith, Alex Clerfond, Hoonani Cuadrado, Sarah Niecko.

### **Welcome To Our New and Returning Student Members!**

Paula Purpera, Irene Halmari, Courtney Fritz, Andres Alvarado, Amanda Neimann, Krista Niezwaag, Rachel Frankenthal, Aaron Farmer.

### **Fellow Grants**

\$500 fellow grant which is intended to support members working in underserved areas. You must be a current PAGH member to apply. Applications for our \$500 fellow grant will be available on our webpage, [www.pasforglobalhealth.com](http://www.pasforglobalhealth.com).

More details available on the application.

**Due Oct 20, 2013 @ 12 pm PST**



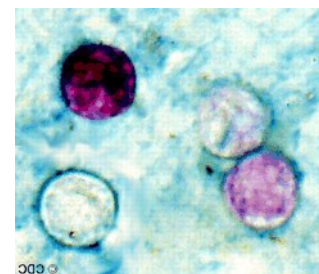
# Disease of the Month: Cyclosporiasis

Brittany Collins, PA-C

**A** Cyclospora outbreak has occurred this summer with initial infections that began in June and have continued through August with new cases. A contaminated salad mix imported from Mexico has been identified as the source of outbreaks in Iowa and Nebraska. The producer has voluntarily suspended exportation of this item for the time being. At this stage of the investigation it is unclear if transmission is still occurring nationally and if all reported cases are a part of the same outbreak. There have been 32 hospitalizations as of early August and cases have been confirmed with telediagnosis. The CDC is vigorously working to identify the source of outbreaks in the other states involved. (13)

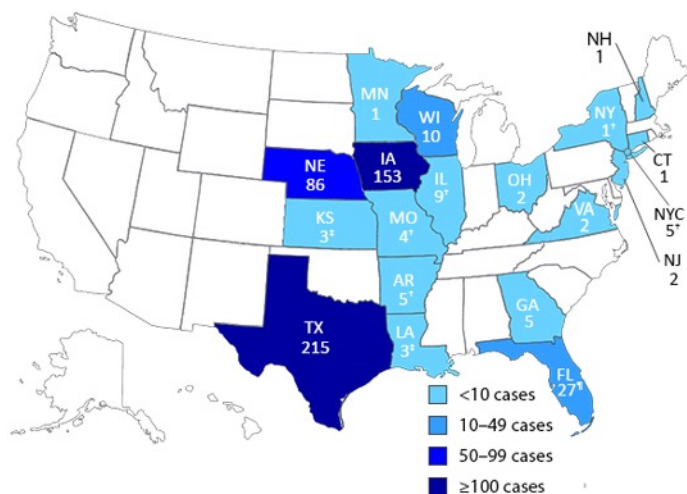
## Geographic Distribution

*Cyclospora cayetanesis* has a broad geographic distribution, mostly tropical and subtropical, including Central and South America, Southeast Asia, and various locations reported by international travelers or contaminated food sources. Outbreaks in the US, Canada, and Europe are typically associated with recent international travel or imported contaminated food items. (11)



## Background

*Cyclospora cayetanesis* is a food and waterborne parasitic infection resulting in diarrheal illness. Populations affected include children, adults, and HIV/AIDS patients. In the United States, the initial cases were noted in the 1980's during the HIV/AIDS epidemic when it was identified as a common opportunistic infection and initially misidentified as *Cryptosporidia* (6). Since then it is most commonly identified with large foodborne outbreaks from imported fruits and vegetables from developing countries (11).



Cyclosporiasis cases notified to CDC, by state\*  
Updated 8/12/13

\* Data are current as of 5pm EDT, 8/9/13. Data are preliminary and subject to change.

A total of 535 cases of *Cyclospora* infection have been reported from 18 states and 1 city. The number of cases identified in each area is as follows: Texas (215), Iowa (153), Nebraska (86), Florida (27)¶, Wisconsin (10), Illinois (9)†, Arkansas (5)†, Georgia (5), New York City (5)†, Missouri (4)†, Kansas (3)‡, Louisiana (3)‡, New Jersey (2), Ohio (2), Virginia (2), Connecticut (1), Minnesota (1), New Hampshire (1), and New York (1)†.

† Includes one case that was likely acquired out of state.

‡ Includes two cases that were likely acquired out of state.

¶ May include one travel-associated case.

## Pathogenesis

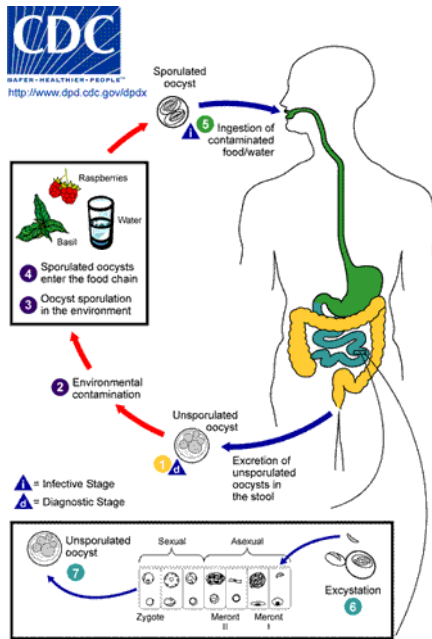
*Cyclospora* infection is caused by the oocyst of a single-celled coccidian parasite. Humans are the only natural host and it appears that all cases are caused by the *Cyclospora cayetanesis* species. When oocysts are passed in stools they are not infective unlike other coccidian parasites such as *Cryptosporidium* (11). This makes direct person-to-person transmission unlikely. At optimal temperatures between 22-32C, sporulation occurs, this can take place while on food items, and sporulated oocytes are then ingested. Once in the gastrointestinal tract, oocysts release sporozoites that invade epithelial cells of the small intestine causing clinical manifestations. Once in the small intestine epithelial cells, sporozoites undergo asexual maturation to mature oocytes that can be shed in the stool. (4)

<http://www.cdc.gov/parasites/cyclosporiasis/outbreaks/investigation-2013-maps.html>



# Disease of the Month: Cyclosporiasis (cont.)

Brittany Collins, PA-C



Some of elements of this figure were created based on an illustration by Ortega et al.

*Cyclospora cayetanensis*. In: *Advances in Parasitology: opportunistic protozoa in humans*. San Diego: Academic Press; 1998. p. 399-418.

## Diagnosis

Oocytes are detected by modified acid-fast staining of stool and it is important to distinguish *Cyclospora* from *Cryptosporidium*, which are typically smaller in diameter. If these are found in a symptomatic patient it is considered evidence of infection. There are no serologic assays available and PCR tests have been developed but are not widely available. (11)

## Treatment

Immunocompetent persons will often recover without treatment. However, illness may last longer and relapse is more likely in those left untreated (CDC treatment). The treatment of choice for cyclosporiasis in immunocompetent adults is double strength trimethoprim-sulfamethoxazole (TMP-SMX) for 7-10 days. Treatment was developed from a randomized controlled trial of 40 adult expatriates in Nepal with *Cyclospora* infection. *Cyclospora* was detected less frequently in the TMP-SMX group, 88%, when compared to placebo, 6%. Treatment was associated with clinical improvement and no relapse (5). In those with HIV/AIDS higher doses and longer treatment may be necessary due to higher rates of recurrent symptoms seen in this population, 43% (8). Ciprofloxacin or

Nitazoxanide are acceptable alternatives in those with sulfa drug allergy. Response to TMP-SMX was shown to be superior in a randomized controlled trial of HIV infected patients (10). Azithromycin, norfloxacin, tinidazole, and quinacrine have been evaluated without success (7).

## Prevention

Avoiding food or water that may have been contaminated with feces is the best way to prevent infection with *Cyclospora*. Treating water with chlorine or iodine is unlikely to kill *Cyclospora* oocysts and no vaccination is available. The CDC monitors the occurrence of cyclosporiasis, a nationally notifiable disease, and works with state and local health departments to monitor and prevent additional cases of illness. (2,3)

## References

1. CDC - Global Health Division of Parasites and Malaria. [Parasites - Cyclosporiasis](http://www.cdc.gov/parasites/cyclosporiasis/treatment.html). 10 January 2013. 12 August 2013 <<http://www.cdc.gov/parasites/cyclosporiasis/treatment.html>>.
2. CDC - Global Health Division of Parasites and Malaria. [Parasites - Cyclosporiasis](http://www.cdc.gov/parasites/cyclosporiasis/prevent.html). 10 January 2013. 12 August 2013 <<http://www.cdc.gov/parasites/cyclosporiasis/prevent.html>>.
3. CDC - Global Health Division of Parasites and Malaria. [Parasites - Cyclospora](http://www.cdc.gov/parasites/cyclosporiasis/surveillance.html). 10 January 2013. 12 August 2013 <<http://www.cdc.gov/parasites/cyclosporiasis/surveillance.html>>.
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6. Huang P, Weber JT, Sosin DM, et al. The first reported outbreak of diarrheal illness associated with *Cyclospora* in the United States. *Ann Intern Med* 1995; 123:409.
7. Ortega YR, Sanchez R. Update on *Cyclospora cayetanensis*, a food-borne and waterborne parasite. *Clin Microbiol Rev* 2010; 23:218.
8. Pape JW, Verdier RI, Boney M, et al. *Cyclospora* infection in adults infected with HIV. Clinical manifestations, treatment, and prophylaxis. *Ann Intern Med* 1994; 121:654.
9. Sifuentes-Osorio J, Porras-Cortés G, Bendall RP, et al. *Cyclospora cayetanensis* infection in patients with and without AIDS: biliary disease as another clinical manifestation. *Clin Infect Dis* 1995; 21:1092.
10. Verdier RI, Fitzgerald DW, Johnson WD Jr, Pape JW. Trimethoprim-sulfamethoxazole compared with ciprofloxacin for treatment and prophylaxis of *Isospora belli* and *Cyclospora cayetanensis* infection in HIV-infected patients. A randomized, controlled trial. *Ann Intern Med* 2000; 132:885.
11. Weller P, Leder K. [Cyclospora Infection](http://www.uptodate.com/contents/cyclospora-infection). 19 July 2012. 12 August 2014 <<http://www.uptodate.com/contents/cyclospora-infection>>.
13. CDC - Global Health Division of Parasites and Malaria. [Investigation of an Outbreak of Cyclosporiasis in the United States](http://www.cdc.gov/parasites/cyclosporiasis/outbreak.html). 15 August 2013. 15 August 2013.



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## Careers / Announcements

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### 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.paeonline.org/2013/07/17/jpae-invites-applications-for-four-feature-editors>.

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### 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 a 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](http://www.twinningagainstaids.org/documents/SouthAfricaCountrySnapshot07-09-12.pdf)  
Please contact Sara Adelman for more information about this post: [sadelman@aiha.com](mailto:sadelman@aiha.com)

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### 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](http://www.onsiteohs.com) or contact [jessie.dyer@onsiteohs.com](mailto:jessie.dyer@onsiteohs.com)

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### Travel Packs by MAP International: Medicines and Supplies For Mission Trips

MAP International provides essential medicines for short-term missions through their Travel Pack Program. Medical providers experienced in short-term medical missions have helped design the MAP Travel Pack, a program with options for ordering either pre-packed assortments and/or customized orders, all consisting of the most essential supplies for clinic settings within the developing world. Products include: antibiotics, analgesics, antifungal creams, vitamins, medical supplies, rehydration salts, over-the-counter medications.

It is designed to relieve the time consuming and lengthy process of identifying diseases common to developing countries and then choosing appropriate medicines to take.

Per their website: Preferred MAP partners who order 20 or more Travel Pack Originals will get them for \$300 each until September 30, 2013. Regular price: \$400 each.

For more information, brochures, and order info, visit <http://map.org/content/travelpack>

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### International Training Courses Available

Oregon Health and Sciences University; Portland, Oregon. Sept 12-Nov 22, 2013  
[www.ohsu.edu/xd/education/continuing-education/global-health-center/gh-education/ptgh.cfm](http://www.ohsu.edu/xd/education/continuing-education/global-health-center/gh-education/ptgh.cfm)



# 2013 PAGH Global Health Symposium

Virginia Beach, VA. Sept 28-29, 2013.  
the Sheraton Virginia Beach  
[www.sheratonvirginiabeach.com](http://www.sheratonvirginiabeach.com)



- \* Earn CMEs in topics related to working in under-served areas: women's health, contraception, ethics, nutrition, HIV, burn care in Africa, tropical diseases and more!
- \* Network with global health PAs and organizations.
- \* Participate in the PAs for Global Health semi-annual meeting, update, and resource sharing session.
  
- \* Questions or recommendations? Contact conference coordinator Harmony at [harmoniouspa@gmail.com](mailto:harmoniouspa@gmail.com)
  
- \* PAGH members: \$175
- \* Non-PA/Non-PAGH members: \$225 (includes membership)
- \* PAGH Student members: \$100
- \* Non-PAGH students: \$115 (includes PAGH membership)
- \* Single day: \$115. Single day student: \$60
- \* Sheraton room rate: \$149 (must book by 08/27/13)
- \* Nearest airport: Norfolk ORF



# Open PAGH Positions

Want to participate in the only organization dedicated in advancing the PA profession globally? Email [pasforglobalhealth@gmail.com](mailto:pasforglobalhealth@gmail.com) if you are interested in an active role.

## **1. Treasurer**

- Maintains treasury information.
- Develops Fundraising Plan with Fundraising Committee Chair.
- Presents monthly Treasurer reports .
- Develops aspects of Grant applications with Fundraising Committee.

## **2. 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.

## **3. Web Co-Coordinator**

- Help manage web page, [www.pasforglobalhealth.com](http://www.pasforglobalhealth.com).
- Announcements on web, Facebook, LinkedIn.
- Topic discussions on Facebook, Forums.
- Direct member questions to proper people.

## **4. 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).

## **5. 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.

## **6. 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.

## **7. Research Committee**

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



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# Upcoming Medical Service Trips

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## **International Medical Relief**

*www.internationalmedicalrelief.org*

Thailand Gulf: September 7 – 15, 2013.

Senegal: October 17 – 27, 2013.

Uganda: November 22 – 30, 2013.

Cambodia: December 26, 2013 – Jan 2, 2014.

## **Amazon Promise**

*www.amazonpromise.org*

Villages of the Yarapa, lower Ucayali, and lower Maranon rivers:

Sept 7 – 28, 2013.

## **Project CURE**

*www.projectcure.org*

Haiti: Sept 14 – 21, 2013.

## **Flying Samaritans**

*www.flyingsamaritans.net*

Frequent trips originating from California and Arizona to clinics throughout Baja California, Mexico

## **Peacework Medical Projects**

*www.peaceworkmedical.com*

Ranquitte, Haiti: Summer 2013.

## **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.



# Volunteer Organizations

If you are aware of any trips or organizations that are looking for **PA volunteers**, please contact Olivia at [obockoff@gmail.com](mailto: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](http://www.africacancercareinc.org)

**Amazon Promise** - Medical trips to portions of the Amazon Basin. [www.amazonpromise.org](http://www.amazonpromise.org)

**Benjamin Wellness Center** - Opportunities in Gatamaiyu, Kenya. [www.benjaminwellness.org](http://www.benjaminwellness.org)

**Christian Medical and Dental Assistance** - [www.cmda.org](http://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](http://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](http://www.elgfze.com)

**FIMRC Global Health Volunteer Program**: Opportunities in El Salvador, Nicaragua, Peru, Costa Rica, India, and Uganda. [www.fimrc.org](http://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](http://www.fdoamerica.org)

**Flying Samaritans Mexico** - year-round for Baja California, Mexico. [www.flyingsamaritans.net](http://www.flyingsamaritans.net)

**Goabroad.com** - Assists different professions with placement internationally. [www.goabroad.com](http://www.goabroad.com)

**Grounds for Health** - Uses PAs in Africa, Mexico, Peru, Nicaragua. [www.groundsforhealth.org](http://www.groundsforhealth.org)

**Health Horizon International** - [www.hhidr.org](http://www.hhidr.org)

**Health Volunteers Overseas** - looking for volunteers to train and educate local health care providers around the world. [www.hvousa.org](http://www.hvousa.org)

**HealtheChildren** - Ecuador, Haiti. Contact: [jensorooni@gmail.com](mailto:jensorooni@gmail.com). [www.healthechildren.us](http://www.healthechildren.us)

**Heart to Heart International** - weekly trips to Haiti and Guatemala. [www.hearttoheart.org](http://www.hearttoheart.org)

**Hospitals of Hope** - Year-Round Clinic work opportunities in Bolivia, Haiti, and Liberia.  
[www.hospitalsofhope.org](http://www.hospitalsofhope.org)

**ICHA Outreach to fight Cardiovascular Disease** - Opportunities in Ghana.  
[www.ichaonline.org](http://www.ichaonline.org)





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# Volunteer Organizations

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**International Medical Relief** - Currently recruiting for a trip to Pakistan. Also trips to Asia, Africa, South & Central America, Eastern Europe. [www.internationalmedicalrelief.org](http://www.internationalmedicalrelief.org)

**Kenya Relief** - [www.kenyarelief.org](http://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](http://www.lalmba.org)

**Many Hands For Haiti** - [www.mh4h.org](http://www.mh4h.org)

**Medical Missions Response** - North Africa, Middle East, South/East Asia. [www.mmronline.org](http://www.mmronline.org)

**Mercy Ships** - volunteer opportunities aboard "hospital ships". [www.mercyships.org](http://www.mercyships.org)

**Mountain Medics International** - Cordillera Huayhuash, Peru. [www.mountainmedics.org](http://www.mountainmedics.org)

**Nunoa Project** - two trips a year to Peru. [www.nunoproject.org](http://www.nunoproject.org)

**NYC Medics** - deployment to disaster zones and humanitarian emergencies. [www.nycmedics.org](http://www.nycmedics.org)

**Omni Med** - work focused in Uganda. [www.omnimed.org](http://www.omnimed.org)

**Operation Smiles**: providing surgeries around the world. [www.operationssmile.org](http://www.operationssmile.org)

**Palmetto Medical Initiative** - [www.palmettomedical.org](http://www.palmettomedical.org)

**Panama Global Connections** - [www.panamaglobalconnections.com](http://www.panamaglobalconnections.com)

**Peacework Medical Projects** - [www.peaceworkmedical.com](http://www.peaceworkmedical.com)

**Physicians for Peace** - work in Central/South America, Africa, Asia. [www.physiciansforpeace.org](http://www.physiciansforpeace.org)

**Project HOPE** - land based and ship-based care to regions around the world. [www.projecthope.org](http://www.projecthope.org)

**Rotations and Courses Internationally** - [www.gorgas.dom.uab.edu](http://www.gorgas.dom.uab.edu) and [www.cugh.org](http://www.cugh.org)

**The Carolina Honduras Health Foundation** - Limón, Honduras. Active clinic, frequent need for medical volunteers. [www.carolinahonduras.org](http://www.carolinahonduras.org)

**Timmy Global Health** - looking for volunteers year-round. [www.timmyglobalhealth.org](http://www.timmyglobalhealth.org)

**US Doctors For Africa** - utilizes PAs for Africa work. [www.usdfa.org](http://www.usdfa.org)

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