Returning Home - Dr. Tania Khan Performs Needs-Assessment in Native Pakistan

Tania Khan, M.D., pediatric pulmonologist at Children’s Hospital Colorado and Senior Instructor in the Department of Pediatrics at the University of Colorado School of Medicine returns to her village, Kahal Bala, to establish a clinic and set the wheels in motion to give her community access to better health care.

Like many overpopulated, under-resourced countries, Pakistan struggles with insufficient access to needed health care.

Poorly trained medical personnel, limited technology and therapeutics, lack of primary care, community level limitations in preventive care, hygiene, nutrition, and sanitation remain problematic.

Tania Khan, M.D., Senior Instructor in Pediatrics at the University of Colorado School of Medicine and a pediatric pulmonologist at the Breathing Institute of Children’s Hospital Colorado explains, “Overall, poverty, pollution, illiteracy, lack of responsiveness to peoples need, apathy and a corrupt government, all contribute to the public health issues that Pakistan faces.”

Dr. Khan, a Pakistani native, has observed little improvement in the health care system throughout her life.

She frames the situation this way: “It is like a cauldron, the problems percolate for a while, and then they bubble up and spill over. The government needs to play an effective role in providing resources for public health sector. The poor people cannot afford to do it on their own.”

As a child, Dr. Khan grew up visiting her grandmother in the village of Kahal Bala, in the Northwestern Frontier Territory of Pakistan. The village is situated in a valley of this semi-mountainous region.

The country, as well as the residents of Kahal Bala, are constantly battling malnutrition, anemia, infectious diseases such as malaria, dengue, infectious hepatitis, measles, respiratory illnesses including viral upper respiratory infections, pneumonia and several preventable gastrointestinal infections.

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Lack of Access: One Student’s Experience in the Negev Desert

Devin Patchell, M.P.H., used his Rotary International Student Scholarship funds to introduce and promote a Gandhian Model of Care for the benefit of underserved communities of Be’er Sheva in the Negev Desert of southern Israel.

Colorado School of Public Health alumnus Devin Patchell, M.P.H. ’11, is taking the next global step in his public health career.

Upon completing the master of public health program, Devin wanted to continue working and learning about public health in a global setting.

While applying for admission to medical schools, he felt that the Medical School for International Health (MSIH), at the Ben Gurion University in Israel would position him for a future career in global health.

The MSIH program integrates public and global health concepts throughout the curriculum, and offers numerous opportunities for community involvement in Be’er Sheva.

“Be’er Sheva is a true melting pot,” explains Devin. “Here, I have an opportunity to practice working in health care across many different cultures: Ethiopian immigrants, Bedouins, Orthodox families, etc.”

Though Israel has a very comprehensive healthcare system, many families out of the Be’er Sheva city limits are restricted in the care they receive because of cultural and social barriers. The Bedouin populations live largely without electricity and basic hygiene becomes an issue.

Challenges involving access to healthcare, dissemination of information about available resources, and basic needs such as electricity and potable water remain serious issues for the families of the Negev desert.

With support from his Rotary International Student Scholarship funds, Devin working on grassroots approaches to improving healthcare, one family at a time.

For his project, Devin took his inspiration from the Gandhian Model of Care, a public health program that originated in India. The program offers a sustainable method of educating and facilitating preventive care among impoverished communities.

Devin adapted the Gandhian model to focus more on the family-unit rather than the community-unit. Ideally, his approach will establish a multigenerational shift toward preventive health, and will allow families to focus on their specific needs, which may be unique from other families in the vicinity.

The Gandhian model pairs one or two medical students with one family over the course of 10 months. The long-term nature of this relationship allows both student and family to develop a mutual trust.

Meeting with the adopted family twice monthly, the student can address the family’s needs, health goals, and concerns via an interactive approach.

For instance, Devin recently made a home-care visit to a Bedouin family outside the city. The grandfather of the family was diabetic and had difficulty monitoring his blood glucose, and his food options were restricted due to his pastoral and semi-nomadic lifestyle.

Given these challenges, the family had difficulty accommodating the grandfather’s needs. After several visits from medical students and a social worker, the grandfather is now learning techniques to monitor his own blood glucose, and the family is adapting to the patient’s dietary needs while still including him in family meals, which is a cultural imperative.

Of course, this approach involves not only students, but also MSIH faculty for oversight, assistance from interpreters, social workers, and other health liaisons to support the student/family relationship throughout the 10 months.

And with education at the crux of the Gandhian model, Devin feels that he can help to empower these families to make their own, good health decisions.

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The types of the health issues faced by the community, in conjunction with a defunct governmental system of public health, has caused Dr. Khan to embrace an education-based approach for improving health outcomes in Kahal Bala. She hopes to utilize her own medical experience while leveraging her common cultural heritage to make immediate changes in Kahal Bala.

Having trained at the Fatimah Jinnah Medical College in Lahore, she continued her training at the Hammersmith Hospital in London, followed by a pediatric residency at the Health Sciences Center at the University of Arizona in Tucson.

Her fellowship in pediatric pulmonary medicine at The Children’s Hospital Colorado brought her to Denver, and here she has remained. On annual visits home, Dr. Khan continues to witness the unmet needs of the community in her ancestral village.

“As I was growing up and was getting trained in medicine, I felt there was a tremendous need amongst the population there. The people were very friendly, sociable, and family oriented. There were lots of children everywhere. I decided to become a pediatrician, and then a pediatric pulmonologist. Every time I visited Pakistan, I realized the need around me and felt guilty about my lack of contribution to improve the poor health outcomes. I also felt that I owed something to my country. I saw an opportunity to link my own experience with their needs.”

The first step in her quest to help her ancestral community has been to conduct a needs assessment, which she did in August 2012.

With the help of a few young ladies in the village, Dr. Khan surveyed 200 households to determine the community education and literacy levels, their sources of drinking water, options for human waste disposal, cooking methods, and maternal and child health statuses.

Dr. Khan found that there was no physician working in the village, which has approximately 2,000 homes, and 2-5 children per household. If any child was sick, parents had to arrange for transportation to take him to a bigger city where after hours of waiting they would be seen and hopefully treated.

According to Dr. Khan, the pediatricians in cities like Islamabad and Peshawar are in the habit of seeing a maximum number of patients and providing minimal care with very little accountability.

Knowing that the data from the needs assessment would take time to process, and being unwilling to wait, Dr. Khan immediately took the next step toward assisting the people of Kahal Bala. Her father, Qazi Mohammad Nawaz, undertook the task of retrofitting the garage of his home in the village as a clinic. He tiled the floor, painted the walls, installed a sink, and prepared the space for his daughter to receive patients.

“It became a beautiful examination room. When I went there last time, it was already done, and credit goes to my dad. He got the garage fixed and within a week we started going house to house to do the surveys. In a week and a half we inaugurated the clinic and I invited several women from the village to let them know what we wanted to do.

“My long term goal is for this to become a center of excellence for all the villages in the area. Ultimately, I want to develop an urgent care center with an ambulance service, so that anyone who is really sick can go to the bigger hospitals, and anyone who is manageable can be treated locally. I am hopeful this is a viable model that can be adopted in other parts of the country.”

Tania Khan, M.D., Senior Instructor of Pediatrics at the University of Colorado School of Medicine and pediatrics pulmonologist at The Breathing Institute at Children’s Hospital Colorado

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In the week and a half prior to starting the clinic I was trying to equip the examination room. We got a weighing scale, an examination bed, and a storage cupboard to keep medications. Before I left for Pakistan, I also took with me some equipment donated by Children’s Hospital Colorado to Project CURE. These included angiocaths, ambu-bags [for resuscitation] and endotracheal tubes. I purchased all the medicines locally, and started seeing patients.” Wasting no time, she identified an administrator for the clinic and a medical assistant.

In a fortunate twist of fate, Dr. Khan met two other doctors during her late summer visit to Pakistan. Pediatrician Alam Malik and his wife Nafeesa Malik, a gynecologist, are also native to Pakistan and have returned after training in Great Britain.

The couple heard Dr. Khan lecture at a local hospital. “They volunteered to get my project going for two or three hours on Monday mornings,” she explains. “My mother allowed us to use another bedroom on the ground floor of the house, and the gynecologist started seeing women there, providing care.”

The doctors Malik just recently identified a medical officer for the clinic; he has some pediatric experience and is eager to work with the underserved population of Kahal Bala. Knowing that the clinic space is being utilized and supervised, Dr. Khan is able to work from Denver to plan for the future development of the clinic.

“My future direction will be to expand the clinic on these grounds, to make sure that the physician is following protocol and doing the right things, spending time with preventive care, and educating the mothers. I would like to apply for funding; it will be very difficult for me to sustain this project entirely on my own,” she explains.

All of Dr. Khan’s efforts in Kahal Bala have been the result of out-of-pocket investments.

“My short term goal is just to get the project going, but my long term goal is for this to become a center of excellence for all the villages in the area. To provide healthcare to all the children of these communities, and then use that center of excellence as a site for our pediatric residents and fellows to rotate through. Ultimately, I want to develop an urgent care center with an ambulance service, so that anyone who is really sick can go to the bigger hospitals, and anyone who is manageable can be treated locally; I want to triage the care. I am hopeful this is a viable model that can be adopted in other parts of the country. Villagers can stay close to home; mothers can take care of their other children. We could develop a lectureship to educate mothers about nutrition, preventive medicine, and employ local community members to participate in this as their own project. We need to empower them and utilize the local resources.”

Dr. Khan has a vision for the future in Kahal Bala, and she can hardly wait to begin actualizing it.

The next steps of the project will be to interpret the results of the needs assessment in order to define priorities for the village.

As of now, the clinic, the medical officer, and the project in general have been well accepted by the community.

Dr. Khan commented, “I felt that I was well received, which was a little bit of a surprise. Not having lived there for a long time, I thought there might be a little hesitance. I think being from this area was very critical to the success of the whole needs assessment.”

Well-paced, thoughtful exposure to biomedicine will be important for the community engagement process. Dr. Khan’s presence in this community is important for exposing rural Pakistanis to the ethos of biomedicine.

Her commitment and enthusiasm to improve pediatric care in this community is likely to enable this project to continue to grow and expand, making a difference in the lives of many mothers and children in Kahal Bala.

Look to future issues of the Global Health Link for updates and stories on Kahal Bala and Dr. Tania Khan.

To learn more about Dr. Khan’s project, contact her at talat.khan@childrenscolorado.org.
Devin’s Rotary International Student Scholarship funds supported interpreter services, faculty and health liaison services, and meeting space for students.

His scholarship funds also purchased log books and transportation to and from the desert communities. With ongoing support and interest, Devin hopes to expand the project to involve as many as 35 students working with 20 families, addressing issues such as nutrition, managing chronic disease, immunizations, hygiene, and water and sewage management.

“I hope to work in a field of medicine that involves both the micro and the macro views of health,” states Devin. “Gaining experience creating and working in sustainable, culturally sensitive health programs now could prove invaluable in my future career in medicine. I am learning what works and what does not in health programming.

Most of all, I am learning what the idea of “health” means to individuals of other walks of life, and how I can work with them to help achieve their health goals without forcing my own upon them.”

To learn more about the Rotary International Student Scholarship, visit http://www.ucdenver.edu/academics/colleges/PublicHealth/research/centers/globalhealth/education/Pages/scholarships.aspx.

To give, please visit http://www.cufund.org/give-now/.

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### Opportunities for Students in Global Health

#### Robinson Durst Scholarship

The Center for Global Health coordinates the scholarship that was founded by Professor Emeritus William Robinson, MD, PhD and Denver sculptor/ceramicist Peter Durst. Since 1997, the scholarship has provided more than 50 health sciences graduate students from the University of Colorado Denver an opportunity to enjoy a culturally diverse clinical or research experience. Philosophically, the scholarship committee and its founders strongly believe in the long-lasting, positive value of global health endeavors in broadening personal and academic perspectives.

Scholarships are $2000 a piece and given to a project. Application Deadline: April 1, 2013

#### Rotary Scholarship

Students for Global Health initiated the Scholarship in 2005 with financial backing from several Denver metropolitan area Rotary clubs. All graduate students in the health professions are eligible for the award, provided their proposed projects fits with the cores values of rotary, including fellowship, service, and ethical conduct. The Center administers the scholarship in close collaboration with Rotary leadership.

Scholarships are $850 a piece and given to individuals. Application Deadline: April 1, 2013

Applications and requirements are available on the Center for Global Health website. [Click here](#) to go to the student scholarship page on our website.

**Questions?** Contact Michelle Shiver, Program Manager, Center for Global Health [michelle.shiver@ucdenver.edu](mailto:michelle.shiver@ucdenver.edu)
Helping Babies Breathe®
Master Trainer Course

Thursday, May 9 (8am-5pm) – Friday, May 10 (8 am-5pm), 2013
Lilly Marks Board Room, University Physicians Building
on the University of Colorado Anschutz Medical Campus

You are invited to participate!

Registration Deadline is Friday, February 8, 2013

The AAP and the Center for Global Health at the Colorado School of Public Health, are sponsoring a training session for HBB Master Trainers on May 9th and 10th, 2013. Thursday, May 9th will guide participants through the provider content of the HBB material. The session on Friday, May 10th will focus on facilitation components, as well as winning strategies for implementing HBB trainings in resource-constrained settings.

HBB is an evidence-based educational program to teach neonatal resuscitation techniques to birth attendants in resource-limited settings. It is an initiative of the American Academy of Pediatrics (AAP) in collaboration with the U.S. Agency for International Development (USAID), Saving Newborn Lives, the National Institute of Child Health and Human Development, and the Laerdal Foundation.

Helping Babies Breathe Master Trainers are individuals who are designated to train other trainers in the Helping Babies Breathe curriculum.

Space is limited for this special training session, and preference will be given to those who are actively involved in promoting and implementing neonatal resuscitation activities in low resource countries. If you are interested in attending, please obtain a registration application from Robyn Wheatley AAP (contact info below).

Additional information about the curriculum and future trainings can be found at: www.helpingbabiesbreathe.org

Questions about the course may be directed to Robyn Wheatley at the American Academy of Pediatrics at RWheatley@aap.org

Deadline for receipt of registration requests is February 8, 2013.

Participants who are selected will be notified by early March 2013.
February 7, 2013, 12-1:30 pm, Executive Programs Auditorium, located at 1250 14th Street, Suite 150, University of Colorado Denver Campus

**International Executive Roundtable:**
**China’s Health Care System**

**Blair Gifford, Ph.D.,** Professor of International Health Management in the Business School and the Colorado School of Public Health

Please RSVP for this event by Tuesday, February 5 by calling 303-315-8884.

February 13, 2013, 12-1 pm, Tivoli Building, Room 444, University of Colorado Denver Campus

**Thirty-Five Years Later: Evaluating Effects of a Quasi-Random Child Health and Family Planning Program in Bangladesh**

**Randall Kuhn, Ph.D.,** Associate Professor and Director, Global Health Affairs Program, Josef Korbel School of International Studies, University of Denver

March 13, 2013, 12-1 pm, Anschutz Medical Campus, Education Building 2 South, Room 2305

**“The First Thousand Days” & More:**
*A Global Experience*

**Michael Hambidge, M.D., Sc.D.,** Professor Emeritus, Department of Pediatrics, University of Colorado School of Medicine

Want an insiders look at our project in the Guatemalan Trifinio Region? Check out this video!

[http://www.ucdenver.edu/about/newsroom/newsreleases/Pages/Construction-slated-for-CU-medical-facility-in-Guatemala.aspx](http://www.ucdenver.edu/about/newsroom/newsreleases/Pages/Construction-slated-for-CU-medical-facility-in-Guatemala.aspx)