When Dr. Tom McKechnie, a local ER doctor, and his wife Karen, joined a mission team in 2006 from their local church heading to Ethiopia, he knew that God was doing something big in his life. He just didn’t know how it would change the trajectory from desiring a life built on his definition of success to restructuring everything to love God and love others.

The team partnered with Life in Abundance (LIA) to serve the poorest of the poor by offering a medical clinic and other activities through local churches. When word spread through the community about the medical team, hundreds came to be seen and to receive medical care, prayer and a caring touch. For the medical team, the good results were infections that could be treated with antibiotics on hand or praying with people who just needed to know that they were not forgotten. The challenge was facing a condition untreatable with the resources available or knowing that the environment that caused the condition would bring it back again.

For the next two years, Tom and Karen led teams to Kenya. Tom tried to make the clinic run more quickly and efficiently and to stay open for longer hours to see all the people who had come for treatment. One evening after their team saw 1000 patients that day, he asked Karen if the numbers in the line had gone down. She reported that it had actually increased! Tom went out to the line and started looking for the sickest people in line, overlooking the emotional and spiritual needs of the people. “I was arrogant and prideful,” Tom said. “I patted myself on the back that we had seen 1000 people that day.”

As Tom got more involved in mission trips, he attended the Global Missions Health Conference, hosted at Southeast Christian Church in Louisville, KY. It’s the largest gathering of medical mission professionals and students with people coming from all over the world to present workshops and

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**Teach to Transform Global Missions**

**Start the Heart Foundation**

**Events and Announcements**
network. It has also recently expanded to Africa.

Through the content and contacts at the GMHC connecting him to other mission ministries like mPower and iTech, and becoming more involved with LIA, Tom started to see a different kind of missions model – one that empowers indigenous people rather than to keep them dependent on the help that an American team brings. Tom saw mPower teach local pastors how to pull teeth in places where there may be only one dentist for more than a million people. God cast a vision for Tom to teach basic medical care to indigenous pastors so they could reach out to the people in their communities throughout the year.

Jim Headlee, a business friend, helped Tom form a nonprofit organization, Teach to Transform. Tom devised a strategy to build local partnerships with churches and ministries who could identify 45 people to become health care screeners and health care screening assistants. The students receive 4 days of training that employ the all familiar “see one, do one, teach one” method. Tom and other medical professionals teach in the morning, the students have opportunities to screen patients in the afternoons, and they also are called upon to teach the class what they have learned. On the fifth day, there is one-on-one testing with a graduation.

“My first modules were all text and hardly any pictures,” Tom said. “Karen was my first student. If she didn’t understand what I was trying to teach, then I would go back and try again.”

Karen helped Tom simplify some first aid education modules that Teach to Transform uses at every location: Health & Hygiene, Burn Care, Wound Care, and Infections in Ears, Eyes, Nose and Throat. We also teach material from Global Health Media Project like cholera and respiratory distress.

Through trial and error, a clinic in a backpack was created, giving newly trained health care screeners and their assistants access to tools needed to diagnose if a person is okay or if they need to go to a clinic: a stethoscope, pulse oximeter, digital thermometer, blood pressure cuff, otoscope, scissors, and headlight. Team members raise money to cover the expenses of the backpack, which is given to the local church. A health care screener can check out the backpack with their graduation certificate.

It wasn’t very long before Tom saw a tremendous need to help women delivering babies. In South Sudan, he saw a woman lay down in the dirt to deliver her baby. In most places, the midwives are qualified by having had a baby themselves. Women in the third world face many difficult challenges in surviving delivery and giving birth to a healthy baby. Many of those challenges can be resolved by access to education and health...
care.

However, some of those factors are cultural, and tradition is tougher to address. One cultural tradition that is creating difficult deliveries is the devastating impact of Female Genitalia Mutilation (FGM) that is a cultural procedure performed on young girls in some African, Asian and Middle Eastern countries.

To address the needs of healthy and safe deliveries, Teach to Transform now has an OBGYN module to educate midwives. Teach to Transform also uses the curriculum of Helping Babies Breathe, developed by the American Academy of Pediatrics, to educate students on what to do in the first minute of a baby’s life to stimulate breathing if necessary.

Several members of the University of Louisville Health Sciences Center community have participated in Teach to Transform missions. No matter your clinical skills (or complete lack of), you can participate in missions. Teach to Transform has upcoming trips scheduled for Kenya in August, Peru and Myanmar in October, Ghana in January, and Liberia in February. If you would like to join us or find out more information about organization, please contact Teach to Transform (914) 432-2473.

Start the Heart
Foundation: Increasing Bystander Action in Cardiac Emergencies
by William C. Dillon, MD, FACC
Founder, Start the Heart Foundation

The Start the Heart Foundation (STHF) was founded in 2014. The mission of this non-profit organization is to save the lives of cardiac arrest victims through education and the training of hands-only CPR (cardiopulmonary resuscitation).

Cardiac arrest is a leading killer of adults in this country. Cardiac arrest is one of the most dramatic of all medical emergencies. A seemingly vibrant and healthy person suddenly collapses with no pulse or blood pressure and is going to die unless something is done immediately.

In Louisville, there are approximately 750 cardiac arrests a year. Sadly only 6-14% of those people survive the event. Every minute that passes when a person suffers a cardiac arrest until the heart is restarted leads to a 10% increased chance of dying. CPR prolongs the amount of time that the heart and brain can stay alive until the heart can be restarted with an electrical shock. Louisville Metro Emergency Medical Service (LMEMS) averages 6-8 minutes to respond to medical calls for assistance. We cannot rely on them alone to save cardiac arrest victims.

Cardiac arrest does not discriminate. It will kill anyone, anywhere, at any time. However, cardiac arrest rates are the highest in the medically underserved and minority populations. Eighty percent of the time that a person suffers a cardiac arrest it is in a private residence. This forces lay people to act quickly in a medical fashion. This means that likely the person you are performing CPR on is going to be someone that you know or love.

Through the timely application of bystander CPR and early activation of emergency medical services these cardiac arrest victims can be brought back to life. Survival rates
of cardiac arrest victims vary widely among communities from as low as 1% in Detroit over 50% in Seattle, WA. There are multiple reasons for this variation but one important reason is the use of bystander CPR. In Seattle, 72% of cardiac arrest victims receive bystander CPR. If a person having a cardiac arrest receives bystander CPR they are 2–3 times more likely to survive the event. In Louisville, only 25% of cardiac arrest victims receive bystander CPR. Denmark recently completed a 10-year initiative to train laypersons CPR. Their effort led to a doubling in the percentage of cardiac arrest victims that received bystander CPR and a tripling of survival of those victims to the hospital.

Start the Heart Foundation has selected and trained three University of Louisville pre-medical students to become hands-only CPR instructors. In 2008, the American Heart Association (AHA) changed the recommendation for laypersons performing CPR. Mouth to mouth breathing was dropped from the protocol. This occurred as a consequence of research showing that circulation of the blood is much more important than mouth to mouth and that cardiac arrest victims did better when chest compressions alone were performed. This has greatly simplified the teaching of CPR for lay people.

STHF is working with the AHA and LMEMS to focus our teaching efforts on the highest risk areas for cardiac arrest in Louisville. Start the Heart Foundation offers hands-only CPR training at no cost to the community. In addition, STHF teaches these hands-only CPR classes in 30 minutes. This removes two of the great barriers for CPR education cost and time of training.

Dr. Faye Jones and Katie Leslie with the Health Sciences Center Office of Diversity and Inclusion serve as strategic partners in the development and implementation of the Start the Heart program. This work is supported by the Office of Community Engagement Faculty Grant Program. We are collecting demographic and public health data that will be used to analyze the effectiveness of our efforts.

During this initial 10-week summer internship, the cardiac arrest interns spend 20% of their time shadowing various subspecialties in the field of medicine. This provides a well-rounded shadowing experience for the interns.

The original goal for this inaugural summer was to train 1,000 community members in hands-only CPR. Our interns have signifi-
cantly passed this goal, as they have trained 1,500 individuals to date with the new goal to train 2,000 by the conclusion of the internship on August 20. Our STHF interns have taught in a variety of settings including schools, churches, businesses, private residences, community fairs, football teams, baseball teams and anywhere we can gather a group of 20 people. Although we have focused our teaching in the highest risk areas, we have taught people CPR in every zip code in Louisville.

Following this initial 10-week summer internship, the Foundation is going to reassess how the CPR instruction will continue during the college academic year. Our goal is to teach every student in Jefferson County at a single grade level this year and going forward.

We feel that this is a premier pre-medical internship in the country and have been very satisfied with the tremendous job that our interns have done teaching CPR. These interns are making a significant difference in our community.

Events and Announcements

- **Safe Zone 1 Training**
  Friday, August 22, from 12:00—1:30pm
  Location: KWing 2003
  Open to Faculty and Staff
  Register with Stacie Steinbock

- **4th Annual Dialogue on Diversity Conference**
  Friday, October 24, from 8:00 am—3:00pm
  Location: UofL Shelby Campus
  Register here

- **9th Annual Patricia Allen HSC Cultural Competency Workshop**
  Tuesday, November 4
  Location: Health Sciences Center
  Open to Faculty, Staff, and Students
  Register here

- Submit your event announcements to the HSC Office of Diversity and Inclusion

What are you doing to highlight diversity at the Health Sciences Center?

*Submit your newsletter articles to your school’s Diversity Chair.*

School of Dentistry: Linda Lewis, RDH, MEd
School of Medicine: Rafael Fernandez-Botran, PhD
School of Nursing: Fawwaz Alaloul, PhD
School of Public Health and Information Sciences: Muriel Harris, PhD, MPH