

A
VISIONARY DOCTOR'S
R_x
for **EQUALITY** in
HEALTHCARE

AT THE TENDER AGE OF 28, **CHRISTINE NGARUIYA, M.D.**, IS ALREADY A PRACTICING PHYSICIAN WORKING DAILY IN THE EMERGENCY ROOM AT YALE UNIVERSITY NEW HAVEN HOSPITAL. SHE'S ALSO A FIERCELY DEDICATED SOCIAL ACTIVIST WHO SPENDS MOST OF HER FREE TIME FIGHTING FOR "EQUAL ACCESS TO HEALTHCARE."

BORN IN OMAHA BUT RAISED MOSTLY IN NAIROBI, KENYA, NGARUIYA IS A TIRELESS CHAMPION OF THE DISPOSSESSED – AND A PRACTICAL-MINDED, DOWN-TO-EARTH ER DOC WHOSE BURNING DREAM IS "EQUAL ACCESS TO MEDICAL CARE" FOR EVERYONE ON PLANET EARTH.

By **TOM NUGENT**

Photographs By © **MICHAEL PARAS PHOTOGRAPHY**



Christine Ngaruiya confers with colleagues Vanesa Colon and Thomas Kimberly.

One night last summer, around three a.m., Dr. Christine Ngaruiya (pronounced “Gar-EE-yah”) was working an overnight shift in the busy ER at Yale University New Haven Hospital when a loudspeaker announced the imminent arrival of a medical patient in one of the resuscitation rooms.

When the patient arrived, she took a quick look at the situation and then felt her own pulse beginning to speed up.

Uh-oh, she thought. Not good. This is going to be a tough one.

The patient was a very large, very obese gentleman with the kind of problem that every ER doctor fears: a “difficult airway,”

The patient was in immediate danger of dying. Ngaruiya didn’t hesitate. Jumping up from her desk, she walked rapidly to the resuscitation room to begin preparing for the patient’s arrival. Although she had only limited knowledge about his status, she knew that the ER team might soon find itself in a struggle to keep him alive.

and asthma, along with a dangerously irregular heartbeat.

As the “attending physician” in the ER on this summer evening in 2014, Ngaruiya was the doc in charge. This was her patient, live or die; and she would have to make rapid decisions in order to determine how

best to handle this challenging case.

Moving swiftly, the former UNL premed student called for resuscitation and an artificial breathing device – standard medical procedures designed to make sure that enough oxygen flowed through the patient’s cardiovascular system to prevent death or disability.

No sooner was the sick man stabilized, however, than the young doctor faced a perilous choice: should she launch a “rapid sequence intubation” (RSI) of the struggling patient, or not?

Usually performed via passage of a plastic tube inserted directly into the patient’s windpipe, in order to allow him or her to breathe directly from the tube, this procedure could hopefully skirt the blockage caused by the airway problem and allow for greater control of the patient’s breathing.

But as Ngaruiya knew from both personal experience and her four years of M.D. training at the University of Nebraska Medical School in Omaha, airway intubation also presents several hazards of its own ... and especially in patients who are extremely obese and afflicted with asthma.

Unfortunately, this patient fit into both of those categories ... which meant that the young doctor now faced a difficult decision. If she proceeded with the intubation, the patient could suffer serious complications from an unsuccessful intubation and from the artificial ventilation that is particularly difficult to manage with asthmatic patients. And the ensuing complications might soon become lethal. But if she held off on the emergency intubation, she might then lose him to eventual oxygen deprivation – a potentially fatal condition that can also cause disabling brain injuries and other problems, even if the patient survives.

Remembering that supremely difficult moment in the ER room, Ngaruiya smiled and shook her head. “As soon as I saw what we were dealing with, I knew we were in for a long night.

“It was one of those cases that every ER physician dreads,” she added, “because an asthmatic’s lungs aren’t acting like a normal person’s lungs, and once you insert the tube, everything can go downhill fast. No matter what happens later, you know that once you start that intubation, you’re in for a long struggle.”

For a few moments that night, the struggling doctor felt a ripple of anxiety. But then she took a deep breath. “You can’t let yourself be crippled by fear,” she said later. “If you let that happen, who’s going to do your job?”

After thinking the situation through for a

Continued on Page 29 →

Dr. Ngaruiya’s Twitter Feed: Some Hard-Hitting Tweets!

If you want a lightning-quick look at Dr. Christine Ngaruiya and her high-velocity approach to solving the problem of “disparities in healthcare,” all you have to do is click on her Twitter Feed at: <https://twitter.com/calmesante>.

Along with a nifty photo of Ngaruiya wearing her favorite sun hat, you’ll find a ringing statement of her overriding goal as a physician: Pursuing ... equitable care for all. Impossible?

You’ll also find a passionate voice that talks in urgent tones about finding ways to provide equal access to healthcare in the United States and all across the globe ... along with an urgent appeal for “social justice” and more enlightened public health policies. In the space of only a few words, she addresses crucially important health issues such as treating mental illness, improving health education and battling chronic health conditions like hypertension, diabetes, heart disease – and more recently, Ebola.

Some eye-catching examples from Ngaruiya’s Twitter Feed:

- 🐦 One in four people has a mental illness. You can’t just make them go away. (Tweeted on World Mental Health Day, Oct. 10, 2014.)
- 🐦 The Bill & Melinda Gates Foundation pledged \$50 million to fight Ebola in West Africa. (Sept. 10, 2014)
- 🐦 60 percent of people needing mental health services in the U.S. don’t get it, often because of the stigma of seeking help. (Aug. 14, 2014)
- 🐦 Going on ... in 30 minutes to join the panel on Robin Williams and suicide in our society. Tough day. Hopeful for a change. (Aug. 12, 2014)
- 🐦 Save Elephants no ivory @Huffington Post. (Aug. 12, 2014)
- 🐦 Still work to do but I’m incredibly optimistic when it comes to Africa! (March 2, 2013)

RESEARCHING HEALTHCARE DISPARITIES AS A YOUTHFUL SOCIOLOGY MAJOR AT UNL

When Christine Ngaruiya signed up for Julia McQuillan's undergraduate course, "Sociology and Health," she never dreamed that she and her UNL professor would wind up as the co-publishers of a major healthcare research study.

But that's exactly what happened.

Ngaruiya's astonishing journey from college sophomore to published researcher began in a university classroom in 2004, when Professor McQuillan – today the chair of the UNL Sociology Department – described some data she'd been gathering on women's access to healthcare. The data seemed to indicate that minority women were less likely to make regular visits to a medical doctor than majority white women ... and that the minority women were also less likely to trust their doctors, when they did manage to visit one.

As the youthful Ngaruiya listened to her professor's description of the data and ways to interpret it, she felt a surge of curiosity – followed by a passionate desire to "dig deeper" into the problem of "disparities in women's healthcare" in the United States.

Soon she was champing at the bit ... and staying after class to ask the bemused professor if she could get her hands on the national survey data gathered from more than 5,000 U.S. women of child-bearing age.

"I didn't know a thing about healthcare disparities when I signed up for that course," Ngaruiya recalled during a recent interview at the Yale University New Haven Hospital, where she's currently working as an Emergency Room attending physician and continuing her health research. "But whenever Professor McQuillan got onto the topic of inequality in women's access to care, I kept asking myself, why, why?"

"After a while, I became totally immersed in the subject – and I wound up writing my senior thesis on it. And Dr. McQuillan was extremely helpful and generous with her time. She told me: 'If you're willing to commit to the project, I'll take you on.'"

What followed was a remarkable scientific adventure that culminated in a published article in the journal *Family Medicine* in 2009. Co-authored by McQuillan and Ngaruiya, the study

("Odds of Having a Regular Physician and Perceptions of Care: Ethnic Patterns for Women," <http://www.stfm.org/fmhub/fm2009/April/Karina271.pdf>) broke new ground in the study of gender-and-ethnicity-based healthcare disparities.

For McQuillan, the co-publication with a researcher who'd been her undergraduate student was an exciting example of how "creative research collaboration" between UNL faculty and

students can pay huge dividends on both sides of the enterprise.

"Christine is just amazing," said McQuillan the other day in her office at UNL. "She went far beyond the original research project we had planned together, and she spent huge amounts of time and energy working with the data. She just hung in there because she was so determined to understand this healthcare problem and begin finding ways to solve it.

"I think that project with Christine reflects our continuing commitment in the UNL Sociology Department to collaborative research between faculty and undergraduate

She felt a surge of curiosity – followed by a passionate desire to "dig deeper" into the problem of disparities in women's healthcare in the United States.

students."

But the story doesn't end there.

In a postscript that McQuillan found especially rewarding, her former student invited her to a festive graduation party in Omaha – soon after the former sociology major concluded her studies at the University of Nebraska Medical Center and became Christine Ngaruiya, M.D.

"I went to the party and it was thrilling to congratulate her on becoming a medical doctor," said the sociology prof. "There's something very powerful about working with students on research projects, and knowing that Christine is now out there continuing her efforts to help eliminate healthcare disparities is extremely encouraging for all of us who conduct research at UNL."



Christine Ngaruiya in Kenya. (Courtesy Photo)

Continued from Page 27

few minutes, and by now feeling calm and clear-headed, she launched the intubation.

What followed wasn't pretty. The heavyset patient did, indeed, have difficulties with the artificial ventilation, and Ngaruiya and the ER and ICU team had to fight through several difficult hours before he finally stabilized and was admitted for further care to the intensive care unit.

Although the ailing asthma patient spent several months in the hospital after his long night in the ER, Ngaruiya said he was eventually discharged and is "doing fine" these days.

Fortunately for her, she seems to have a natural talent for transforming high stress into creative action.

"One of the things I learned about myself at med school," she said, "and then later during my residency in emergency medicine [at the University of North Carolina Hospital in Chapel Hill] is that sometimes I can be good at internalizing my fear and then letting it come out as productive energy."

"As a doctor who's responsible for the care of her patients, I'm very grateful that I do seem to have the ability to stand up to that kind of pressure, while doing everything I possibly can to help the person I'm treating."

BUFFETED BY CULTURE SHOCK ON FOOTBALL GAME DAY

Born in Omaha to Kenyan parents who'd come to the

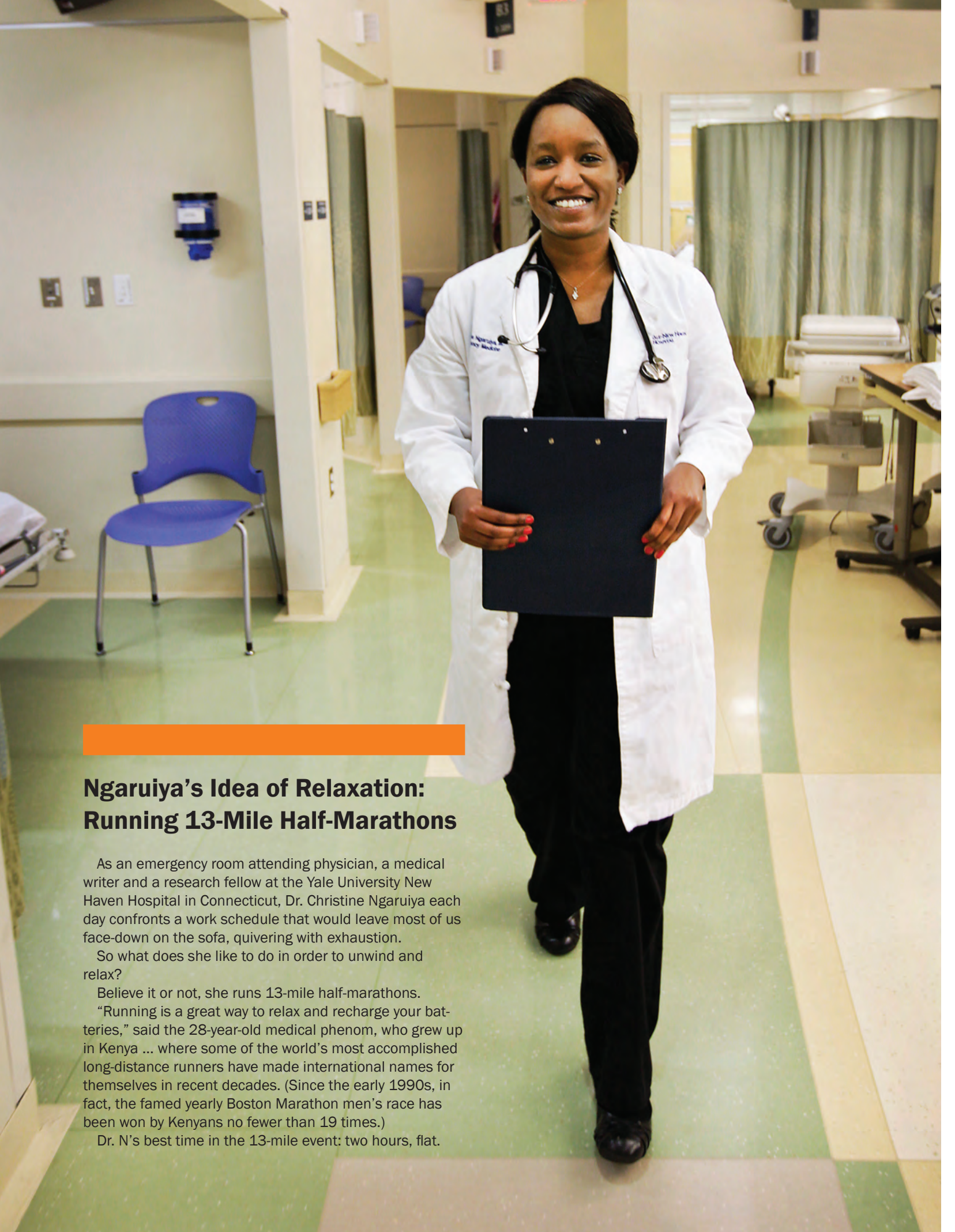
Midwest to attend college and then stayed on (her father wound up working as a computer engineer at Mutual of Omaha), Ngaruiya spent her formative years – from second grade until she returned to Nebraska to attend UNL in 2002 – in the fast-growing world of Nairobi, the bustling capital of multi-ethnic Kenya and its 43 million residents.

"I grew up [in Nairobi] because my parents wanted their children to experience the Kenyan culture," said Ngaruiya, whose grandfather had been an Anglican bishop there in the 1950s. "Ours was one of those homes where education was everything. If you got an A- in school, it needed to be an A. But there was a lot of love behind it [the demand for excellence], and I'm very grateful today for both the support and the challenges I got at home."

"At each stage of my life, it seems there was always somebody who believed in me, even if I wasn't doing that great. My teachers and parents were always saying: you're gonna do it!"

After arriving on the UNL campus and moving into Sandoz Hall, Ngaruiya plunged into an exhilarating whirlwind of courses and social activities as a relentlessly determined premed student. In class after class, she not only excelled academically but also pushed the envelope as much as she could ... while volunteering for extra-credit assignments and interesting research projects whenever possible.

Continued on Page 31 →



Ngaruiya's Idea of Relaxation: Running 13-Mile Half-Marathons

As an emergency room attending physician, a medical writer and a research fellow at the Yale University New Haven Hospital in Connecticut, Dr. Christine Ngaruiya each day confronts a work schedule that would leave most of us face-down on the sofa, quivering with exhaustion.

So what does she like to do in order to unwind and relax?

Believe it or not, she runs 13-mile half-marathons.

"Running is a great way to relax and recharge your batteries," said the 28-year-old medical phenom, who grew up in Kenya ... where some of the world's most accomplished long-distance runners have made international names for themselves in recent decades. (Since the early 1990s, in fact, the famed yearly Boston Marathon men's race has been won by Kenyans no fewer than 19 times.)

Dr. N's best time in the 13-mile event: two hours, flat.

Continued from Page 29

One such encounter – with Professor Julia McQuillan in the Sociology Department – so energized the excitable Kenyan that she decided to major in the discipline ... and went on to conduct some cutting-edge healthcare research with her new mentor. “That experience taught me that I wanted to focus on disparities in access to healthcare as a medical researcher,” she said, “and that’s basically what I’ve been doing ever since.”

Quick-witted, enthusiastic and energetic, Ngaruiya adjusted quickly to the brave new world of Lincoln in the 21st century. In her final year at UNL, she was a “campus student leader of the year” nominee. But she couldn’t escape the culture shock of living in the Cornhusker State entirely ... and she still remembers the amazement she felt on her first football “game day” in Lincoln.

“I looked around at what was happening in the streets and around the stadium,” she said, “and that’s when I realized that in some ways, Nebraska was very different from Kenya, after all!”

LAUNCHING A HEALTHCARE PROGRAM FOR REFUGEES

With her UNL degree firmly in hand – and barely 20 years old – the unflappable Ngaruiya headed off to Omaha and medical school in the fall of 2006. While earning her M.D. and spending hundreds of hours working on research related to equal access to healthcare, she also played a major role in the launch of a uniquely original non-profit organization designed to help educate Nebraska’s large population of refugees from foreign countries.

Known as “Bridge to Care,” the Omaha-based service-and-advocacy agency now provides educational assistance to hundreds of displaced Nebraska residents each month. Fueled by a major U.S. State Department grant and the energy of dozens of ardent volunteers, BTC has so far assisted more than 5,000 Bhutanese, Sudanese, Somali, Burundian and East European refugees in locating and then obtaining critically needed healthcare.

As a medical student who was particularly interested in non-communicable diseases such as hypertension, diabetes and cancer, Ngaruiya soon discovered that this “very large population around Omaha and Grand Island, especially, was struggling with the kinds of language and cultural-adaptation problems that can make it difficult to find a doctor or a clinic to meet your healthcare needs.”

Her solution, as always, was to leap into action and quickly begin developing the organizational structure and outreach capability that eventually led to Bridge to Care. Ask her why she took on such a huge task (while also attending medical school, mind you), and she’ll respond with a peal of infectious laughter. “I guess I’m lucky in that when I see a problem, I don’t just sit there worrying

and getting depressed about it,” she said. “Instead, I get to work, and pretty soon I’m looking for possible solutions.

“For me, problems like the health problems of refugees in Nebraska are a challenge to overcome, that’s all.”

These days, while putting in regular nine-hour shifts in the ER at Yale Hospital, Ngaruiya is also hard at work on a master’s degree in tropical medicine as an Emergency Medicine Global Health and International Medicine Fellow. And in spite of the horrific health problems she studies daily – including the deadly Ebola epidemic now unfolding in West Africa – she said she remains “extremely hopeful” about the future of healthcare in both this country and the rest of the world.

“What’s happening in West Africa right now is a dire tragedy; there’s no doubt about that,” she said near the end of the interview. “But thankfully, we have the medical resources in the U.S. and Europe to assist these struggling countries in eventually stopping the epidemic.



“The key to doing that, in my view, is education,” she said, citing the supportive nature of the Department of Emergency Medicine at Yale, which continues to support important international health work and prioritizes it as such.

“As we learn more about the causes and progression of diseases like Ebola – and also about the social and cultural conditions that contribute to them – we’re going to get better and better at improving the health of affected populations all across the world.”

Then, with a huge smile of cheerful determination: “There’s a new world coming, and it’s going to change everything we know. I am determined that we can be much more successful at solving the problem of equal access to healthcare, and we’re getting closer to a world in which equality and social justice are taking hold everywhere.

“But it won’t happen overnight, and it certainly won’t be easy. If we’re going to make these wonderful things happen someday, we have to get to work right now!” ❖