Saving lives and improving health.
Skilled providers are the backbone of health care systems. Yet in 83 countries around the world, there is a dire shortage of trained health professionals and this gap is slated to grow without meaningful intervention. In sub-Saharan Africa, there are only two doctors and ten nurses for every 10,000 people, compared to more than 20 doctors and 90 nurses to serve the same number of people in the United States.

Critically, these shortages contribute to two standards of health care in the world and for many that means dying of preventable and treatable diseases when they shouldn’t. At Seed Global Health, we believe every person deserves access to high-quality health care, every country should have a robust health workforce that is able to meet the needs of its population, and that well-trained health professionals are essential to achieving those goals. With these beliefs in mind, Seed Global Health supports and trains physicians, nurses, and midwives and to help improve health and save lives in partner countries.

We can not achieve such a goal without empowering the next generation of health professionals to serve as local providers and leaders in their communities. Seed places volunteer health professionals from the U.S. and other countries into medical and nursing institutions across five countries as faculty educators, helping to build the capacity of these future practitioners, and improve health outcomes in their clinics, communities, and country health systems.

We do not do this alone. Working with local partners, we ensure that context and culture are deeply considered in everything we do, from curriculum development to clinical and bedside teaching. And we do not do this in silos. We have offered 26 specialties since our inception, and are helping local institutional partners not only advance the development of their clinical specialties, but also integrate medical and nursing theory into evidence-based, patient-centered care.

Read on to learn more about our activities this past year, and how we are working alongside partners in five countries to transform the future of local health systems.

3 YEAR TOTALS (2013-2016):

- **97 Volunteers**
- **454 Courses and Trainings**
- **128,328 Service Hours**
- **8,321 Individuals Trained**
I have been taught that transitions - all kinds - are an opportunity. An opportunity to engage; an opportunity to mobilize; and an opportunity to believe we can have an impact if we choose. And in a period marked by global challenges - from refugee crises, to natural disasters, to significant elections around the globe - Seed Global Health is proud of the tremendous impact we have been able to achieve alongside our partners.

We have completed our expansion to our two newest countries - Liberia and Swaziland. We have doubled the size of our program in our three founding countries - Malawi, Tanzania, and Uganda. And we have partnered with 27 teaching institutions at 39 sites in five countries to train more than 13,000 physicians, nurses, midwives and clinical staff to date.

Long-term health education and training in resource limited settings is essential for a strong health systems and improved health outcomes. Seed helped develop Malawi’s first Clinical Nurse Specialist position to ensure clinical instruction is provided to students on the ward so they can connect theory to practice and be mentored while in the clinical setting. In Uganda, Seed helped plan the first National Conference on antimicrobial resistance in the country, bringing together stakeholders from the World Health Organization, Ugandan Ministry of Health, Ugandan nursing and medical associations, and other partners for a critical discussion on preventing the unrecognized epidemic of antimicrobial resistance. Seed partnered with Tanzania’s government, Anesthesia Medical Society, largest medical school, and its largest public hospital to develop a robust plan to increase the number and quality of trained anesthesiologists in the country - there are an estimated 22 for a population of 44 million - to allow for safe and effective surgery.

What continues to distinguish Seed is the depth and breadth of our work. We do not just provide essential care to vulnerable patients, but provide care with a commitment to nurture lasting change within the system. Different from a relief organization that brings in time-limited expertise in response to an urgent outbreak or natural catastrophe, we look toward long-term investment that empowers local leaders to respond in their own countries and context. We are not a research-focused academic institution with an agenda to generate discovery science and peer-reviewed papers, yet we empower critical thinking and curiosity of clinicians to ask important questions, improve quality of care, and change health outcomes for their patients.

Seed is intentionally focused on capacity-building at the individual, institutional, and national level through sustained collaborative engagement with our partners. We build around the basic but essential belief that deep partnership can encourage local and systemic transformation, and that great improvement is possible with dedication, discipline and an investment of material and human resources.

Our commitment to the enduring work of teaching, training and inspiring hundreds of local health care professionals has now garnered a global reputation. Seed has evaluated dozens of requests for partnership in recent years - evidencing the demand for our unique model of engagement. We are constantly exploring ways to replicate and adapt our innovative partnership with new funding and local partners. We regularly examine new ideas beyond our core model, including partnerships that could support recruitment of health professionals globally or facilitate technology-based learning so as to bring Seed’s extensive evidence-based teaching modules to remote locations. Seed’s robust model and entrepreneurial spirit of engagement has the potential to expand to myriad health specialties and fields as we move forward.

We will continue to engage, to mobilize, and to believe that we can have an impact in the health and wellness of communities around the world, regardless of the challenges we face. Seed’s perseverance and growth would not be possible without your support and the unwavering commitments of our many partners. Our individual, foundation, corporate, institutional, and government partners remain instrumental in providing the necessary resources and support to achieve our mission. Together, we will scale and sustain this impact in the years ahead.

Sincerely,

[Signature]

Dr. Vanessa Kerry, MD, MSc
Chief Executive Officer and Co-Founder
Stories from the Field:

**Malawi: Patient Centered Improvements**

Mindy Weschler, a Nurse Educator in northwest Malawi, grew concerned when she noticed that her students were caring for patients after surgeries with very little treatment for the pain they were experiencing. She witnessed patients undergoing painful dressing changes and basic procedures without medication, and it motivated her to help mobilize the students, faculty, and staff to address the basic human right to compassionate and dignified care.

There were many reasons patients’ pain was going untreated. Students and clinicians had not been taught the complexity of pain or pain management, had cultural beliefs that often led them to accept or ignore pain, and did not have the tools to manage it. As well, the hospital’s system for safeguarding and managing pain medications made it difficult for staff to even access medications. Patients were accustomed to just bearing pain without complaint.

Mindy helped mobilized her students and her faculty and hospital colleagues to assess and treat pain management through a practice improvement initiative in this busy district hospital. Today the entire process for pain management is being conducted more effectively. Clinicians are actively assessing pain and using an evidence-based pain management protocol. The hospital agreed to redesign the procurement process for medications and made medications safely more accessible on the ward. Students are participating in the evaluation of the initiative. And, most importantly, patients are benefiting.

**MALAWI by the numbers: 2015-16 Volunteers**

- **11** Volunteers
- **3** Institutions
- **14,653** Service Hours
- **64** Courses
- **1,727** Individuals Trained
Liberia: Caring for Fistula Patients

Each year between 50,000 to 100,000 women worldwide are affected by obstetric fistulas, a hole created in the birth canal caused by prolonged labor without adequate medical intervention. Women who suffer from an obstetric fistula often lose their baby. In addition to the suffering from a lost child, they frequently are burdened with fecal and urinary incontinence and the painful humiliation and stigma that accompanies it. If left untreated, obstetric fistula can lead to chronic medical problems and even death, but surgery can normally repair the injury.

Dr. Corrine (Cori) Maund had never encountered a case of obstetric fistula until she arrived in Liberia as a Physician Educator. During her time there, the hospital hosted a “fistula campaign,” in partnership with visiting surgeons providing free surgery to women living with obstetric fistulas.

“I have learned so much about fistulas since arriving in Liberia and as I learn I am reminded of the need for a strong healthcare system that can meet the needs of women,” says Cori. As she cared for the women recovering from surgery, she heard their painful stories of pregnancy and birth that lead to their injury.

As Cori recalled, one her patients’, Garmai’s, baby died during her pregnancy. Garmai was left with a fistula the entire length of her anterior vaginal wall and was uncontrollably leaking urine. She was abandoned by all except her mother.

Though Garmai had a difficult surgery to repair her fistula, it did not resolve her symptoms entirely. “I had to tell her that the surgery didn’t work, and she would need another,” explained Cori. “We cried together. It took her a long time to recover the hope she put into the surgery, but with love and support from her mother, her fellow fistula survivors, and me, she stayed positive and recovered well.”

Understanding first hand that teaching and training the next generation of obstetricians and fistula surgeons is critical to the health of mothers and babies, Cori has remained in Liberia for a second year. She will continue to provide education and training to future health care providers, and ensure more patients like Garmai get the care and treatment they deserve.

LIBERIA by the numbers: 2016-17 Volunteer placements

8 Volunteers  8 Specialties  5 Institutions
Tanzania: Saving Infant Lives

Almost 40,000 infants died in Tanzania in 2015, many whose deaths could have been prevented. Early detection of fetal distress is essential to improving chances of survival. By monitoring the fetal heart rate and identifying abnormalities early on, clinicians can intervene promptly, preventing potentially fatal complications such as birth asphyxia.

Sengerema Designated District Hospital, located in the northern region of Tanzania, serves as a last referral hospital before patients are forced to cross Lake Victoria to seek higher-level care. As a Seed supported Physician Educator, Dr. Siobhan McCarty-Singleton saw how high patient volume and limited resources were contributing to high rates of neonatal mortality at the hospital.

Seed Global Health provides basic material resources to supplement local equipment and supplies, aimed at improving targeted health interventions. Siobhan leveraged this support to introduce an innovative new device, the Moyo Fetal Heart Rate Monitor. This simple device is designed to detect both the fetal and maternal heart rate in low-resource settings, providing those early indications of potential distress for baby and mother. With this device in hand, hospital staff can make essential interventions to de-escalate any threats to maternal and newborn health.

Empowered with the monitor, Siobhan organized accelerated trainings on the device for Sengerema District Hospital Labor and Delivery staff, nurses, and medical officers. Over three days, Siobhan trained staff on the proper use of the monitors and how to better diagnose fetal distress. Through Siobhan’s efforts, more local providers have both the equipment and training necessary to ensure health of mothers and babies.

TANZANIA by the numbers: 2015-16 Volunteers

- 12 Volunteers
- 5 Institutions
- 12,278 Service Hours
- 51 Courses
- 1,381 Individuals Trained
“They are all so knowledgeable. As teachers and mentors, they taught us the real nursing”

– Rhamina, fourth year nursing student
Uganda: Accreditation for Nursing Program

When Nurse Educators Genevieve Evenhouse and Janet Gross first arrived at Muni University in northern Uganda, the nursing program at the school had just unexpectedly lost its accreditation from the Ugandan National Council of Higher Education. Motivated to restart the program and get students into the classroom, Amos Drasiku, the Head of the Nursing Department at Muni, worked closely with Genevieve and Janet to get the school back on track.

Together, they worked to regain program accreditation. First, they conducted a series of surveys with nurses at the local hospital to better understand what were the educational needs of the community and the professional development opportunities for students and staff. “With our activities, it became imperative that we start relationship-building with community partners and partners of Muni University,” said Genevieve.

Second, in an outreach effort, the Muni team provided a one-day workshop to nurses from all clinical levels including from surrounding hospitals and local health centers. As Janet explained, “We’re trying to establish relationships that show that you can trust Muni, they’re going to give you the products and the services you need, and we are group of people who care about you. We’re hoping that they’ll see that and help us educate the Muni students.”

After undergoing a comprehensive revitalization of infrastructure, the curriculum finalized, and the labs and classrooms prepared, the National Council of Higher Education visited the University and the program received full accreditation. It is now the first program in the West Nile region of Uganda to offer a Bachelor’s in Nursing degree. The establishment of the nursing program in the West Nile Region is all the more notable given how remote and rural the region is. “The launch of the program at Muni University is a much-awaited event here in West Nile,” said Genevieve. Since enrollment has opened earlier this year, they have received an impressive number of applications including from the local hospital and health center nurses who hope to earn their Bachelor’s and go on to become the future health care leaders in their communities.

UGANDA by the numbers: 2015-16 Volunteers

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<th>Volunteers</th>
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“With our activities, it became imperative that we start relationship-building with community partners and partners of Muni University.”

- Genevieve Evenhouse
Swaziland: Combating HIV Stigma

Swaziland has the world’s highest estimated rate of HIV, with upwards of 28% of adults infected. The disease has had a devastating effect on the country, stunting the economy, overwhelming the health system, and exacerbating other challenges including poverty and gender inequality.

Supporting efforts to combat the disease, all students at the University of Swaziland are required to complete courses focused on HIV. This year, Nurse Educator Catherine Dell was assigned to teach an introductory course. She noted “The university is making HIV prevention a priority for these students who are demographically especially vulnerable.”

Working alongside a local faculty member, Catherine was supposed to teach about HIV stigma and discrimination. Though she worried she could not adequately teach the depth and complexity of the subject given she does not personally live with a diagnosis of HIV, Catherine was dedicated to seeing that her students learned about the reality of living with the disease in Swaziland. To facilitate, she hoped to invite an HIV+ guest speaker to work with her class. This idea proved easier said than done. She quickly learned that it is nearly impossible to find people willing to openly disclose their HIV status in Swaziland because of stigma. For Catherine, her planned lesson became all the more essential.

Catherine’s finally found Vusi, the National Coordinator of the Swaziland AIDS Support Organization, the country’s first HIV advocacy organization. In a country with very few HIV advocacy or support groups, nearly 400 students gathered to hear from him, one of the first HIV+ individuals to disclose his status.

“He was an extremely engaging and candid speaker,” notes Catherine. “He was a commanding presence and led a lively discussion with the students about his journey living with HIV, a feat not easily accomplished in a hot, cramped auditorium. We planned on him speaking for an hour, but the students had so many questions for him, he actually spoke for two hours.”

Catherine later asked students for their thoughts on the visit. “Their responses are overwhelmingly positive,” she reflects. “Many wrote about how their perception of HIV has changed since seeing that you can have a normal healthy life, and that you can even get married and have a healthy child as Vusi demonstrated. Several said they now understood the

SWAZILAND by the numbers: 2016-17 Volunteer placements

- 6 Volunteers
- 4 Nursing Specialties
- 2 Institutions
importance of knowing your status and some wrote that they got HIV testing following the session. There were even some (I’m assuming) HIV+ students that wrote that they feel less depressed about their status.

As Catherine explains, “I really got the sense that the students no longer thought of HIV as ‘someone else’s problem.’ I think they recognized that Swaziland’s HIV ‘problem’ does not solely lie with the infected. Rather, HIV affects the whole community, and everyone has a duty to protect themselves and support each other.”

Now Catherine and her colleagues are working on bringing Vusi to share his story to all the HIV courses in the University.

“In a country where HIV is so heavily stigmatized, I think Vusi’s contribution to this course was very transformative for the students,” said Catherine. “I truly believe this one class will have a profound impact on the students lives and leave a lasting impression on their perception of HIV in their community.”