



# 2018-19 ANNUAL REPORT



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Mission: Restore is creating a world in which local surgeons have the knowledge, skills, and support they need to treat debilitating injuries in their own communities.



# Letter from Our Founder

Dear friends,

In 1914, while living in Africa, Mahatma Gandhi wrote: "If we are able to change ourselves, the tendencies in the world will also change." Mission: Restore was founded in 2010 with the simple premise that the only way to improve health care for any community is to start with change from within. The foundation was started in response to my reaction to the devastating 2010 earthquake in Haiti, which had resulted in devastating casualties across the island. I escorted a team of volunteers and arrived in Haiti within one week, but found out quickly that the only operations that we could perform there were amputations of limbs to save lives. Upon my return, we founded Mission: Restore with the intention of creating sustainable training in health care that would switch our role from primary operating surgeons to preceptors for the local surgeons. We committed ourselves to a motto which still stands today: operating with the local surgeons, not for them.

We returned to Haiti for the next two years, then shifted to Afghanistan, Iraq, and Myanmar to respond to the emerging surgical training need from casualties of conflict and war in low-resource countries. We had initial success establishing telemedicine programs with colleagues in Kabul and Yangon, but realized that we needed political will and stability to maintain sustainability. This reality, coupled with a new report from the World Health Organization that showed severe specialized physician shortage in East and Central Africa, resulted in our organizational pivot towards building long-term programs in Africa in 2014.

Five years later, I am proud to report we have succeeded not only in our mission to restore the lives of thousands of patients, but to train the next generation of talented African surgeons who will go on to restore the lives of millions of people in their communities.

As I reflect back on our 8 years at Mission: Restore, I want to share three important lessons that I have learned.

*1. The lack of adequate care in low-resource countries is NOT from poverty, but from lack of process. We can teach how to perform the perfect lifesaving operation, but if the nurse does not detect the postoperative infection, the outcome is still a failure. That is why we emphasize judgment over equipment and technology.*

*2. In order to scale our work, we need adequate and sustained training that lasts 3-5 years. Each of our trained surgeons can perform up to 10,000 operations in their career. With our current surgeon network of 103 surgeons in over 13 countries, that's over 1 million potential lives affected in a lifetime.*

*3. To keep our projects sustainable, we need more women in leadership roles. We have noticed that women tend to stay in their communities as primary care givers whereas men are likely to leave their home for economic opportunities. That is why we started our Women in Surgery campaign, and last year alone recruited 40% women into our Annual Regional Training summit that took place in Entebbe, Uganda in July 2018.*



Rest assured we are just getting started, and with your help, we will not walk away until each and every community that we serve is empowered to take care of their own. I passionately believe that we are on the leading edge of the most innovative, efficient, and sustainable model in surgical care, and need you more than ever to make sure we can achieve that outcome by the 2030 United Nations Sustainable Development Goals.

Please stay with us on the most gratifying mission to bring essential health care to those who need it most and restore the lives of our most challenged brothers, sisters, and children on the planet.

Let's Operate Together

Kaveh Alizadeh , MD, Msc, FACS  
Mission: Restore Founder & Chairman



# Letter from Our Executive Director

Dear friends, supporters, and grantors of Mission: Restore,

We are pleased to report that thanks to your support and generous donations, Mission: Restore experienced another successful year in 2018. We carried out over 100 complex, often lifesaving, reconstructive surgeries in remote corners of East Africa overseen by volunteer international- and US-trained surgeon educators. Over the course of multiple training trips to East Africa, we provided more than 300 hours of in-person, hands-on reconstructive surgical training to over 100 aspiring local surgeons, with a particular emphasis on supporting female surgeons, who will train the next generation of surgeons and surgical-care professionals in addressing the needs of their communities.

Consistent with Mission: Restore's Women in Surgery campaign, we continue to place special emphasis on training female surgeons to be able to provide sustained, long-term care to their communities. Moreover, in line with Mission: Restore's objective of developing community-based surgical knowledge and skills, we provided educational grants to a number of promising young surgeons to continue and/or complete their studies in local higher education institutions. Mission: Restore also provided tens of thousands of dollars in donated surgical supplies and equipment to health care professionals and medical facilities in East and Central Africa - supplies and equipment that are critical for providing basic surgical services to the children, families, and communities in low-resource settings. Our 2018 impact metrics speak to the striking effectiveness of Mission: Restore's efforts in East Africa: \$4 of pro-bono services for every donated dollar.

Your goodness of heart and your gifts have made possible life-long cure and care for countless patients afflicted by traumatic injuries, and facilitated the day-to-day functioning of countless others - from minor children to bread-winning heads of family - suffering from burns, severe injuries, wounds, skin grafts, flaps, cleft lips, and other traumas. These patients would otherwise suffer from debilitating physical and mental disability that would prevent living a normal, productive life.

We are confident that with your continued support and generosity, we will expand the reach and intensity of Mission: Restore services in 2019 and beyond, touching the lives of a growing number of patients and communities in need of critical surgical services in low resource settings- services which are lacking and desperately needed.



With sincere gratitude,  
Hormoz Shayegan  
Executive Director, Mission: Restore



# A Global Health Challenge

**5 BILLION** people lack access to essential surgical care

**OVER 50 MILLION** traumatic injuries occur globally each year

**OVER 90%**  
of these occur in low-  
and middle-income  
countries

As a result, more than **5 MILLION** people die from these injuries every year, a total that is greater than the number of deaths from HIV/AIDS, malaria, and tuberculosis, combined



# A Social Impact Opportunity

The impact of inadequate surgical care goes beyond health outcomes.

Over 30% of injury-related deaths affect those aged 15-44 years...

...which is the most economically productive demographic of the population.

As a result by 2030, **\$12.3 trillion** in low- and middle-income countries will be lost due to mortality from causes treatable by surgery.

Until recently, most international development organizations thought that addressing this surgical gap was too costly and complex of an issue to tackle

In 2015, the Lancet Commission on Global Surgery released a report that found that for every \$1 spent on strengthening local surgical capacity, \$10 is generated through enhanced health and increased productivity



# Our Innovative Model

## DEPTH OVER BREADTH

OPERATE WITH, NOT FOR



surgical training visits



regional trainings



telemedicine



surgical education grants

PRIORITIZE EDUCATION

## USE LOCAL RESOURCES



# Our Impact in 2018

4

SURGICAL TRAINING TRIPS

37

TELEMEDICINE TRAINING &  
CONSULTATIONS VALUED AT  
\$22,200

60

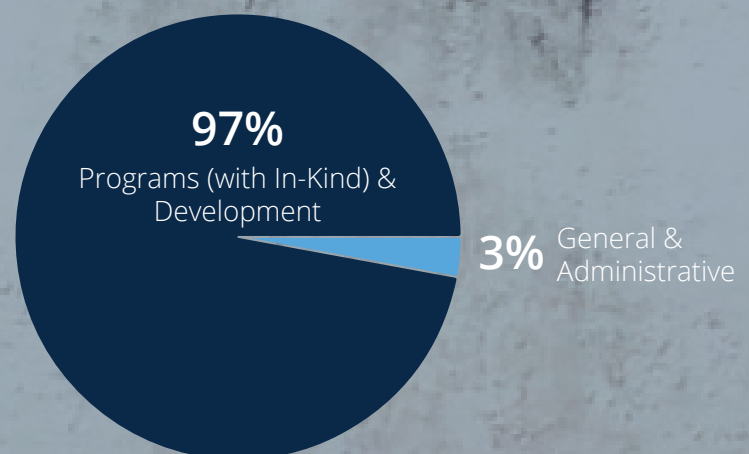
COMPLEX RECONSTRUCTIVE  
SURGERIES OVERSEEN BY  
SURGEON EDUCATORS VALUED  
AT \$608,000

103

LOCAL SURGEONS TRAINED

287

HOURS OF IN-PERSON SURGICAL  
TRAINING PROVIDED BY US  
& INTERNATIONAL TRAINERS  
VALUED AT \$146,700



Mission: Restore's FY2018 Expenses



# Our History, Our Future

Approximately 30% of the global burden of disease requires surgical intervention. Yet the poorest one-third of the world's population receives only 6% of surgeries performed worldwide.

Africa carries 24% of the global burden of disease, but only has access to 3% of the world's health workforce. Some of the greatest need for surgical procedures are found in sub-Saharan Africa.

Our five current hospital partners include two hospital facilities in Zanzibar, Tanzania; a regional referral hospital in Mwanza, Tanzania; the country's largest hospital in Nairobi, Kenya; and the country's second largest government hospital in Mombasa, Kenya.

## Meeting Surgical Capacity Need

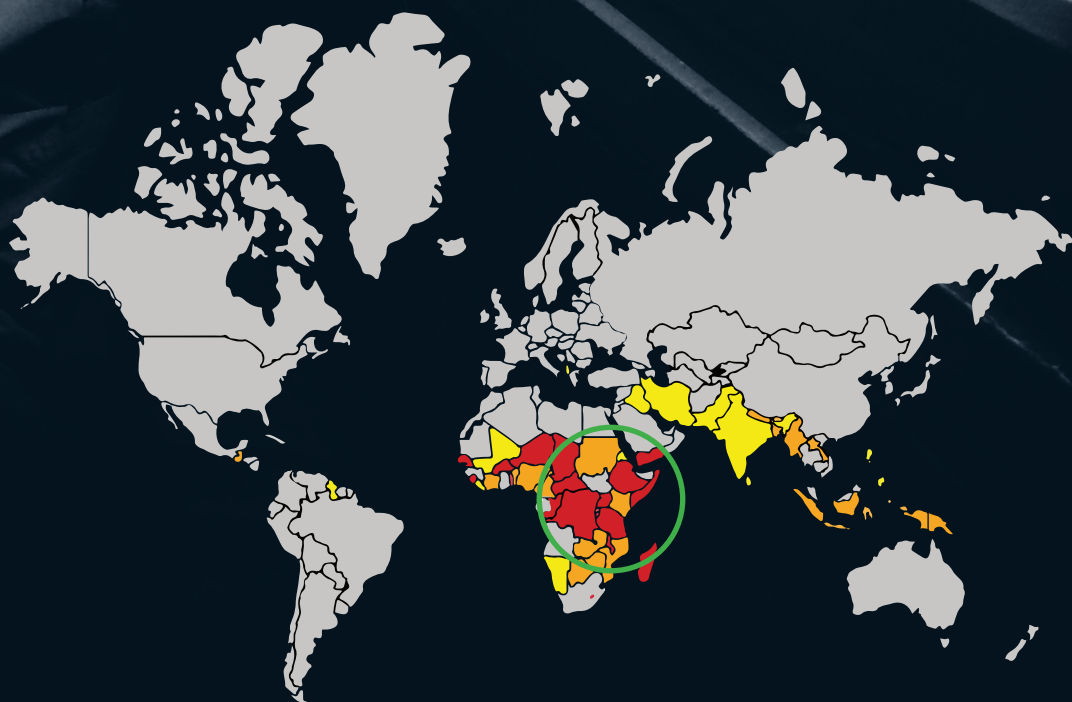
Change in density of surgical workforce needed for specialist surgical, anesthetic, and obstetric (SAO)-only model\* to meet SAO providers per 100,000 population by 2030

10.1-16.0

16.1-19.0

>19.0

Where We Now Operate

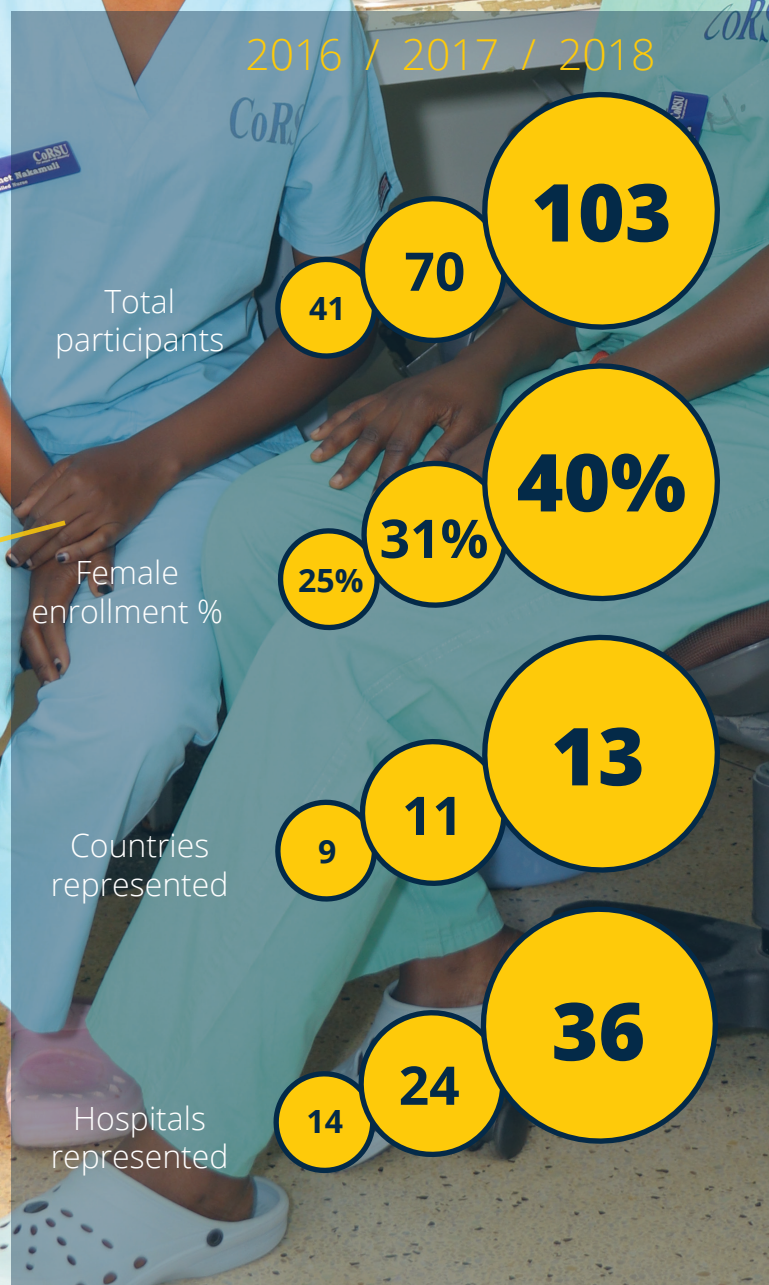


\* Map adapted from Figure 10 in - Meara, John G., Andrew JM Leather, Lars Hagander, Blake C. Alkire, Nivaldo Alonso, Emmanuel A. Ameh, Stephen W. Bickler et al. "Global Surgery 2030: evidence and solutions for achieving health, welfare, and economic development." The Lancet 386, no. 9993 (2015): 569-624.



# The Africa Regional Training Summit

2018 marked the expansion of Mission: Restore's Africa Regional Training from 3 days to 5 days, with 2 full days of hands-on surgical training. With help from LifeNet International, we were able to implement an inaugural nursing track. Our Women in Surgery Initiative, in partnership with Women in Surgery Africa (WiSA) and Real Self, allowed us to have more female surgeons and surgical care providers attend the training than ever before.





# Women in Surgery

Mission: Restore understands the unique impact that female surgeons make when they have the tools and support they need to work in their communities. Gender parity is our target for every program area.

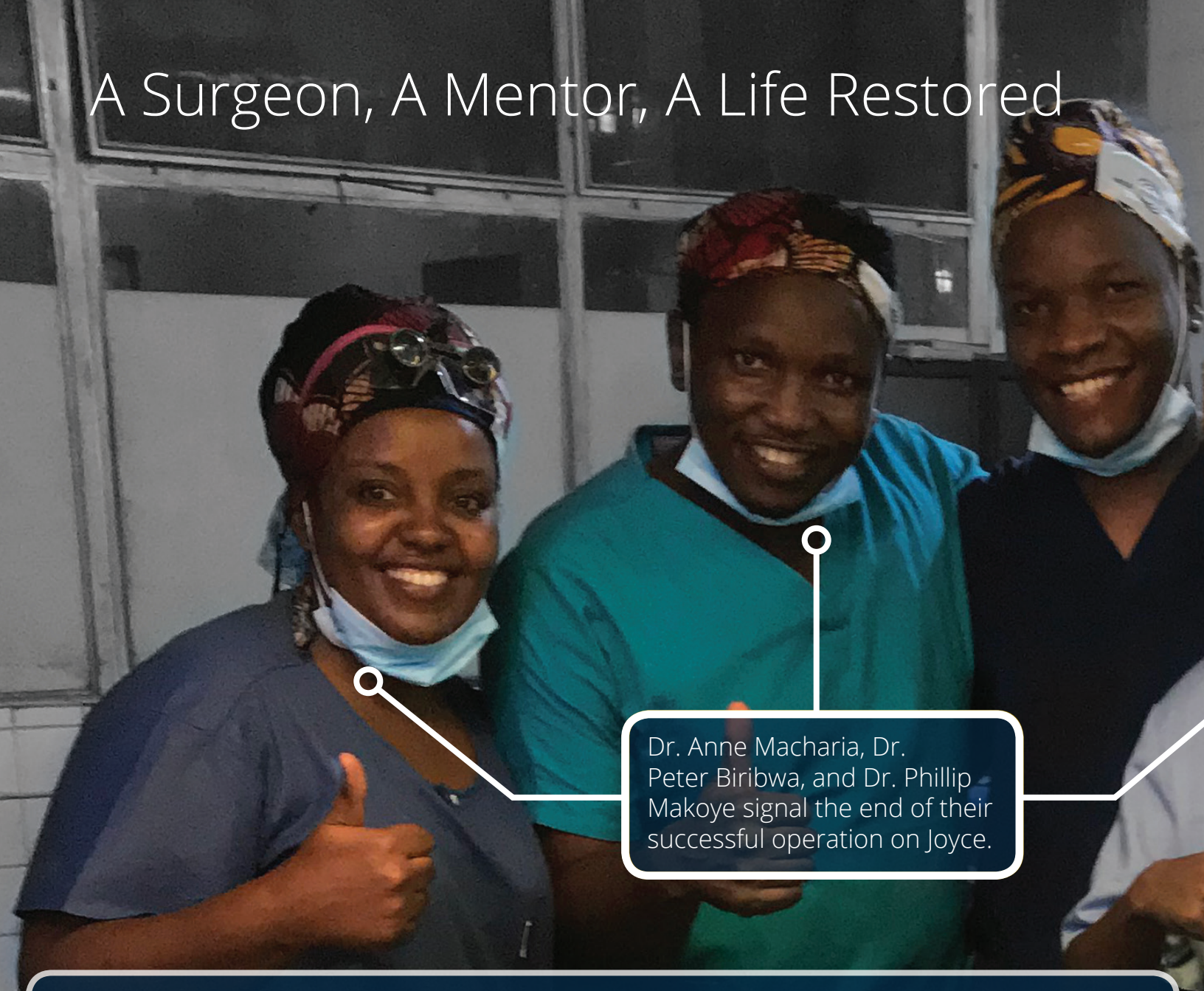
SURGEONS. CREATORS. WOMEN.

GROUNDBREAKERS. ROLE MODELS.

LEADERS. PIONEERS. CHANGEMAKERS.



# A Surgeon, A Mentor, A Life Restored



Dr. Anne Macharia, Dr. Peter Biribwa, and Dr. Phillip Makoye signal the end of their successful operation on Joyce.

Mission: Restore first had the opportunity to meet Dr. Peter Biribwa in 2014 at a workshop health care conference in Nairobi's largest referral center, Kenyatta National Hospital. Dr. Alizadeh met a passionate and energetic young doctor who wanted to learn everything and meet everyone who was interested in surgery. Impressed by Dr. Biribwa's demonstrated enthusiasm and professional abilities, Mission: Restore followed and supported Dr. Biribwa as he became the first person to graduate in Plastic and Reconstructive Surgery from Kenya's very first training program. Dr. Peter, as we call him, was able to secure the very first position as the lead Reconstructive and Burn Surgeon at Coast General hospital in Mombasa, which is Kenya's largest city on the East Coast and a referral center for over 14 million people as the main government non-profit hospital.

Mission: Restore helped secure Dr. Biribwa's position as a teacher and trainer who has gone on to train dozens of surgeons in East Africa - surgeons who will, in turn, train the next generation of local surgeons and health professionals. Dr. Biribwa has regularly





been called to action in remote areas where transport, insecurity and medical infrastructure are non-existent. He and the many doctors he has trained have saved untold number of lives and brought smiles to families that had lost hope in life. One such case, in a remote area in Mwanza, Tanzania, will forever remain etched in his mind as a partner surgeon with Mission: Restore. He was called to attend to Joyce, a one-year old little girl, who was fighting for her life after sustaining almost 50% burns from hot water. Her parents were peasant farmers and had hardly any money from previous harvests to help them pay for medical bills for treatment.

Joyce was playing outside with her neighbor when they ran into a cooking pot with boiling water and both sustained life threatening burn injuries. Her playmate, Grace, did not make it from the severity of her injuries and Joyce's parents had lost hope; so much so that her father started to raise funds for her burial while she was still alive - a taboo in this community. But the reality of Grace's tragedy left the villagers with no hope but to start making burial arrangements for Joyce. Joyce's mother, Mary, was told of volunteers who offer reconstructive surgery for free to less fortunate communities. She immediately asked for help and was guided to Bugando Medical Hospital, which is a partner hospital with Mission: Restore. Here, they met Dr. Biribwa and Dr. Phillip Makoye (a beneficiary of the Mission: Restore 2018 Educational Grant), who performed a series of reconstructive surgeries that were able to put Joyce out of danger and back to a normal, productive life.

"These are some of the stories that give me the passion and dedication to serve at Mission: Restore Africa," said Dr. Anne Macharia, Mission: Restore's Africa Program Manager. Dr. Macharia's vision is to expand Mission: Restore activities in Africa, with an immediate focus on Rwanda, Burundi, and Ethiopia, in the coming years. We believe that our model is now replicable, and hope to implement its success in global sites across the world beyond 2020.



# The Mission: Restore Team & Supporters

## Staff

Dr. Kaveh Alizadeh	<b>Founder</b>
Hormoz Shayegan	<b>Executive Director</b>
Dr. Anne Macharia	<b>Africa Program Manager &amp; Development</b>

## Interns

Alex Mohtadi  
Sally Salari

## Surgeon Educators

Dr. Kaveh Alizadeh	Westchester Medical Center
Dr. Morad Askari	University of Miami
Dr. Joyce Aycock	University of Colorado at Denver
Dr. Peter Biribwa	University of Nairobi
Dr. Alexander Dagum	SUNY Stony Brook
Dr. Stephen Harris	Good Samaritan Hospital
Dr. Andrew Hodges	CoRSU Hospital, Uganda
Dr. Sol Mundinger	Children's Hospital of New Orleans
Dr. Silvio Podda	St. Joseph's Regional Medical Center
Dr. Syed Sayeed	Glen Cove Hospital and Greenwich Hospital

## Governing Board

Dr. Kaveh Alizadeh  
Jenny Carragher  
Lawrence Flick  
Sarah Holloway  
John Nazemian  
Khadija Rejto

## Advisory Council

James Benedict  
Natasha Goldstein  
Kevin Hong  
Jill Jobbins  
Dr. Amy Lehman  
Stephanie Martinez  
Kate McAuliff  
Dee Raviv

## Young Professionals Board President

Ciara Villalona-Lockhart

**A very special thank you to  
William Vázquez for photographs  
from EART 2017**

## Founder's Circle

Behdad & Lila Alizadeh  
Fran Amir-Saleh  
Maryam Ayromlou  
Fred Azima  
Lilian & Shlomo Bakhsh  
Charmin Batmanghelidj  
Nazanin Batmanghelidj  
James Benedict  
Thomas Davenport MD  
Tom Deierlein  
Vincent DiGreggorio MD

Arman Falsafi  
Maryam Flick  
Jayran Ghara  
Elahae Golsorkhi  
Leila Heller  
Bahar Hoghooghi  
Efrem Kamen  
Laya Khajavi  
Roya Khajavi  
Akbar & Meriel Lari  
Kamy & Farideh Maalizadeh

Bardia Mesbah  
Shaz Mossanen  
Fred Nazem  
Kathleen Reichert  
Khadija Rejto  
Nozgol Shahbazi  
Aryan Shaygani  
RaminSheikh  
Niloufar Sherkati  
Bo Yaghmai



# The Mission: Restore Team & Supporters

## Grantors

Siavosh Arjomand  
Segal Family Foundation  
Shahzad & Betty Mosannen  
Allergan Foundation  
Integra Foundation  
Acelity  
Ansary Foundation  
Sientra  
Smile Train  
Kaveh Alizadeh  
Real Self  
DSM Biomedical  
Goldman Sachs Gives  
Zainab Jaffer

## Significant Donors

Karim Sawabini  
Florence Shoshany  
Joyce Aycock  
Avra & Arie Ben-Ari  
Rosemary Thomas  
Jeffrey & Corinne Ascherman  
Lawrence Gleason  
Layla Diba  
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