

INTERNATIONAL MEDICAL OUTREACH

2020 ANNUAL REPORT

Enhancing Global Access to Healthcare Services and Educational Opportunities



Atrium Health



HEINEMAN-
ROBICSEK
FOUNDATION

Dear Friends and Colleagues,

As 2020 got underway, all of us at International Medical Outreach (IMO) were looking forward to two things: One was the celebration of our 80th anniversary. The other was the opportunity to continue improving the lives of underserved populations in developing countries through the enhancement of healthcare.

In March, when it became apparent the coronavirus pandemic was a full-blown global crisis, IMO paused to examine how it could move forward when the world was closing down. Given the scope of the healthcare disparity gap, and given the impact of several natural disasters, the need for IMO assistance seemed greater than ever before. It was apparent, however, that our normal mode of business operations would have to change.

Thanks to the creativity, dedication and determination of our employees, volunteers, partners and supporters, we were able to fulfill all of the goals outlined in our original 2020 plan. We are also very appreciative of Satori Marketing, whose gift of communications expertise has been an immense help in sharing our story with the public.

As you read this report, you will notice some new terminology. IMO took on its current name and organizational structure in 2009, when Atrium Health formed a strong and dynamic partnership with Heineman Medical Outreach. The latter updated its name to Heineman-Robicsek Foundation Inc., to commemorate the lifetime achievements of the late Dr. Francis Robicsek.

As we look ahead, we are fortunate to have James E. S. Hynes as our new chair. We are also grateful to the Heineman family and all of the other volunteers and board members who selflessly team up to implement the collaboration between Atrium Health and Heineman-Robicsek Foundation, Inc. We are honored to have their ongoing support for the life-saving and life-altering projects documented in the pages that follow.



Steven A. Robicsek, MD, PhD
President
Heineman-Robicsek Foundation, Inc.



Theresa R. Johnson
Director
International Medical Outreach

Mission

The International Medical Outreach (IMO) program is a collaborative partnership between Heineman-Robicsek Foundation, Inc. and Atrium Health. IMO provides medical and educational assistance globally to promote sustainable healthcare services and enhanced standards of living in underserved communities.

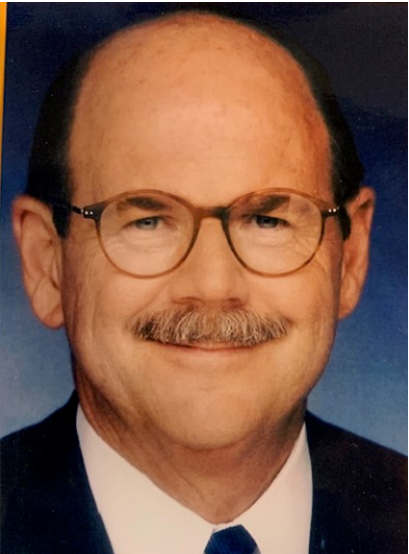
Impact

The IMO program at Atrium Health has grown over the years and now touches the lives of patients and families in 45 countries. IMO’s core services include the furnishing of new, used and refurbished medical equipment to hospitals and health clinics worldwide. IMO also provides technology equipment to primary and secondary schools, while offering free educational opportunities that enable international medical personnel to enhance their knowledge and skills. All of this work is made possible by the generous financial and logistical support of individuals, businesses, charitable institutions and other non-profit partners around the globe.

Commitment

Unlike many charitable organizations, IMO spends 100% of its donated funds on designated projects. IMO does not use donor contributions for fundraising or administrative expenses.

Jim Hynes takes over as HRF chair



Years ago, when countries like Guatemala and Honduras were all but invisible to the average American, Dr. Francis Robicsek was working hard to improve the quality and accessibility of healthcare in that part of the world.

His vision and foresight attracted many others to get involved, including James E. S. (Jim) Hynes, who took over as board chair of Heineman-Robicsek Foundation (HRF) in 2020.

Hynes has had an insider’s view of HRF from the beginning. “It wasn’t simply ‘remarkable’ to see what this organization was doing to improve the lives of people no one else was helping,” he says. “It was genuine food for the soul.”

Hynes is no stranger to public service, particularly at Atrium Health, where he has served in key leadership positions for nearly 50 years. His service includes a 12-year stint (beginning in 2000) chairing Atrium Health’s governing board.

As a result of this volunteer work, he is familiar with the charitable activities many other healthcare organizations pursue in international settings. And he is convinced the approach taken by the International Medical Outreach (IMO) program is unique.

“I admire medical charities that can jump into action quickly after a natural disaster or medical crisis overseas. But when the situation on the ground improves, they often strike their tents and move on,” he says. “IMO, on the other hand, provides the resources needed for ongoing improvements in services and infrastructure.

“Dr. Robicsek didn’t like the idea of bringing outside experts into an under-served area, working a few miracles and then leaving. He wanted IMO’s people to function primarily as educators, so that native clinicians could remain on-site to serve their own constituents on an ongoing basis.”

Hynes says the partnership between HRF and Atrium Health is a great source of strength, and he believes Francis Robicsek would be “immensely proud” that his son Steven is now president of HRF. He also applauds HRF’s staff, volunteers and partners for keeping the organization’s activities going so smoothly during the pandemic.

“It’s a real honor for me to serve in this capacity,” Hynes says. “IMO has grown steadily over the years, always striving to make a difference for more people in more areas.”

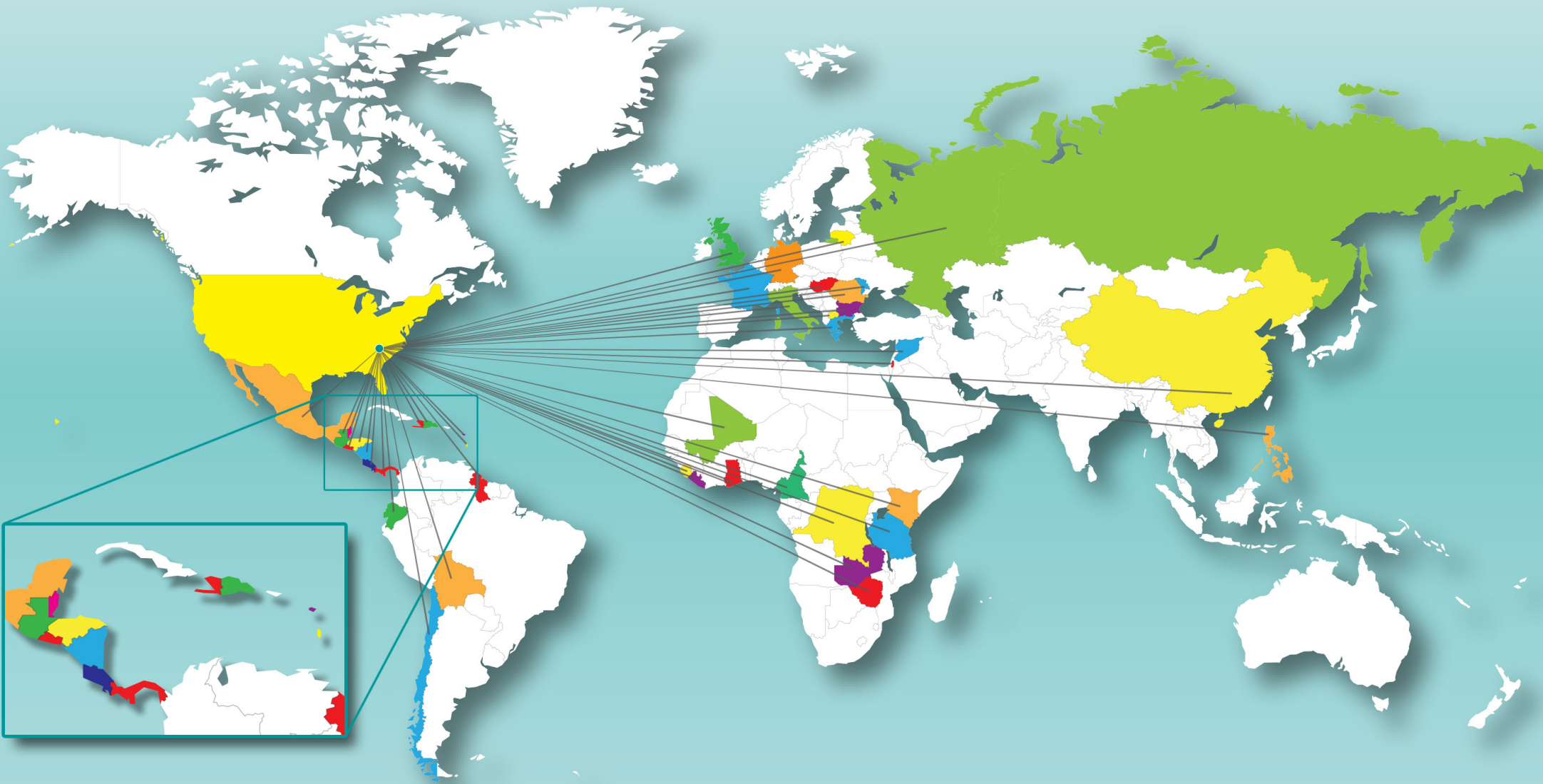
IMO AT A GLANCE

10-Year Impact

> 1.3
million lives touched through
combined programs

542,756
pounds of medical and computer
equipment recycled

> \$36.7
million of medical and electronic
equipment donated



- | | | | | |
|----------------------|--------------------|-----------|-------------|---------------|
| Antigua, West Indies | Dominica | Guatemala | Lithuania | Russia |
| Belize | Dominican Republic | Guyana | Macedonia | Sierra Leone |
| Bolivia | Ecuador | Haiti | Mali | Syria |
| Bulgaria | El Salvador | Honduras | Mexico | Tanzania |
| Cameroon | England | Hungary | Moldova | United States |
| Chile | France | Israel | Nicaragua | Uganda |
| China | Germany | Italy | Panama | Zambia |
| Congo | Ghana | Kenya | Philippines | Zimbabwe |
| Costa Rica | Greece | Liberia | Romania | |

Cardiac echo network renamed Nan Van Every Cardiology Diagnostic Network

During 2020, IMO continued its support of a group of Central American facilities that provide for the early detection and treatment of heart conditions. This group of facilities was renamed during the year as the Nan Van Every Cardiology Diagnostic Network. The name change recognized the extraordinary contributions of Nancy “Nan” Van Every, who retired from the Board of Heineman-Robicsek Foundation (HRF), after 30 years of faithful service.

Steven Robicsek, MD, PhD, president of HRF, says Van Every has been a close friend of the Robicsek family for many years and an inspiration to everyone on the HRF board of directors. “It is very fitting that the network has been renamed in her honor,” he says. “She has always been passionate about enhancing healthcare for people in underserved areas and has had a longstanding interest in the specific types of care this network has been providing for the past 10 years.”

James E.S. Hynes, HRF’s board chair, describes Van Every as being unique in her adherence to an important philanthropic principle first articulated by a 12th century

Spanish religious leader named Maimonides.

“Among the general public,” Hynes says, “Maimonides is not a household name. But Maimonides is well known in philanthropy circles for having described the main thing that separates top-tier donors from others. Top-tier benefactors are those who do not know their beneficiaries, and their beneficiaries do not know them. This approach to philanthropy describes Nan Van Every to a tee.”

Other important network developments during 2020 included the start-up of two new cardiac diagnostic centers, one in Belize City and one in the city of San Ignacio. As a result, San Ignacio is now home to the network’s second pediatric cardiac echo station, a facility that offers screenings not only to people from Belize but from Guatemala, Honduras and Mexico as well. Clinicians from Atrium Health Sanger Heart & Vascular Institute provide continuing support in the form of pediatric cardiac echo education and training.

Despite COVID-19 disruptions, network clinicians were able to

conduct more than 1,600 cardiac scans in 2020. Nearly 38,000 scans have been performed since the network was started in 2010.



1. **UNICAR – Guatemala City**
2. **Quetzaltenango**
3. **Escuintla**
4. **Cuilapa**
5. **Totonicapán**
6. **San Benito Petén**
7. **Quiché**
8. **Zacapa**
9. **Cobán**
10. **San Salvador**
11. **Copán Ruinas**
12. **Belize City - Full Capacity**
13. **Antigua, West Indies**
14. **El Progreso**
15. **Belize City - Cardiovascular**
16. **San Ignacio, BZE**
17. **Carolinas Medical Center Charlotte, NC**

Oscar Flores shows what a little determination can do



The Nan Van Every Cardiology Diagnostic Network has made a remarkable difference for large numbers of people over a long period of time (its 10th anniversary occurring in 2021).

In the world of healthcare, however, it is well known that outstanding facilities alone do not guarantee success. The level of care and compassion demonstrated by the medical professionals who staff those facilities also has a huge impact on patient response and outcomes.

One of the reasons IMO’s cardiology network has been so successful is that it has people like Oscar Flores working with patients on a regular basis. Flores was the first cardiac echo sonographer to be trained under the auspices of IMO, back when

the echo network took form. In fact, he came to Charlotte for training in 2011, knowing little English.

Because he was representing his family, his hospital (UNICAR, the cardiac hospital in Guatemala City) and his native country, Flores felt extra pressure to succeed. As such, he gladly put forth the effort necessary to develop a special bond with Adrienne White, his teacher at the Atrium Health Sanger Heart & Vascular Institute. White supplied him with textbooks, tested his knowledge on a weekly basis, and gave him an extra push to study day and night. As this was going on, he was working diligently to enhance his language skills.

By the time he completed his 4-month stay in Charlotte, Flores had shown impressive progress in learning both clinical technique and the science of echocardiography. He returned to Guatemala, went immediately to work at UNICAR, and today is the network’s lead echo technician. During a decade of public service, the trainee became the trainer.

“I’ve been lucky to work in a career that makes such a difference in people’s lives,” he says. “Of course, that impact is multiplied many times over because of UNICAR’s leadership in the IMO network. That system has grown steadily in size and sophistication over the years, and I’m just pleased I’ve had a chance to be a part of it. I always operate with a feeling that the best is yet to come.”

IMO partnerships proved vital in sustaining operations during 2020

Chiquita

It would be difficult for IMO to function successfully without the assistance of partner organizations based in the United States and overseas. These partnerships were particularly important during 2020, when the coronavirus was affecting so many of IMO's typical methods for traveling, communicating and delivering equipment.

Chiquita has been a backbone of support for many years, and during 2020, the company returned 8 containers to Central America loaded with IMO equipment and supplies. This collaboration saved IMO an estimated \$80,000 and constituted the bulk of shipping support provided during the year.



In addition to receiving extensive logistical assistance from Chiquita, IMO benefited from two new partnerships during 2020.



SOUTHCOM

When Carla Alvarado spoke, IMO director Theresa Johnson listened, and there was a very good reason for that.

Carla Alvarado wasn't just speaking for any organization; she was speaking for the U.S. Department of Defense. The Defense Department's Southern Command (SOUTHCOM) is a joint command comprised of more than 1,200 military and civilian personnel representing the Army, Navy, Marines, Air Force, Coast Guard and

other federal agencies. It was formed as part of a government-wide effort to advance security, governance and economic opportunity in nations of particular interest to the United States.

SOUTHCOM learned about IMO's work through Chiquita and invited IMO to work together in supporting one another's programs. As a result, SOUTHCOM now provides valuable logistical assistance to IMO, while IMO supports SOUTHCOM's own Humanitarian Assistance Program, known as HAP. HAP focuses on strengthening medical schools and medical facilities in developing countries.

"When you consider how the missions of IMO and SOUTHCOM dovetail," says Johnson, "this was the closest thing you might find to a match made in heaven."

As the year progressed, Johnson regularly kept in touch with SOUTHCOM and other partner organizations around the globe via Zoom meetings. As a result, IMO was able to arrange for the transport of crucial equipment and supplies using SOUTHCOM military aircraft.

MAP International

Another serendipitous development in 2020, was the start of a partnership with MAP International. MAP is an American non-profit that receives donations from some of the world's largest healthcare companies, such as Johnson & Johnson, Edwards Lifesciences and Ethicon.



The marriage with IMO was arranged by the Edwards Lifesciences Foundation, a long-time IMO partner based in Irvine, California. Edwards Lifesciences produces devices and equipment used in the treatment of structural heart disease, as well as critical care and surgical monitoring. The Foundation's support has been vital to IMO for many years and spans product and equipment donations, volunteer support for cardiology and surgical teams, and clinical training at medical facilities throughout Central America.

"All of these organizations – Chiquita, SOUTHCOM and MAP – made a huge difference for IMO in 2020," Johnson says. "Our partnerships with them will be extremely valuable as we work to enhance the reach of our programs worldwide."

IMO teams up with key partners in Belize to outfit new cath lab and upgrade other vital hospital facilities

One of IMO's longest and strongest partnerships in Central America is with Karl Heusner Memorial Hospital (KMH) in Belize City. This relationship dates back to 2011, when IMO donated a mobile cardiac catheterization laboratory (mobile cath lab) to the hospital.

IMO has provided significant additional support to KMH since 2011, regularly sending specialty teams to perform diagnostic studies and interventions, cardiac surgeries, education, training and public screenings. Unfortunately, the mobile cath lab had become increasingly obsolete by 2020, following a decade of heavy use. A subsequent review of options indicated the need for fixed lab space within the hospital.

Accomplishing this task required active support of numerous donors and technical support teams. Dr. Eric Skipper, a physician with Atrium Health Sanger Heart & Vascular Institute and executive vice president of Heineman-Robicsek Foundation, notes that two organizations stepped up to provide leadership. These were the Heineman Foundation for Research, Educational, Charitable and Scientific Purposes, Inc. and Avante | Transtate Equipment Company (Avante).

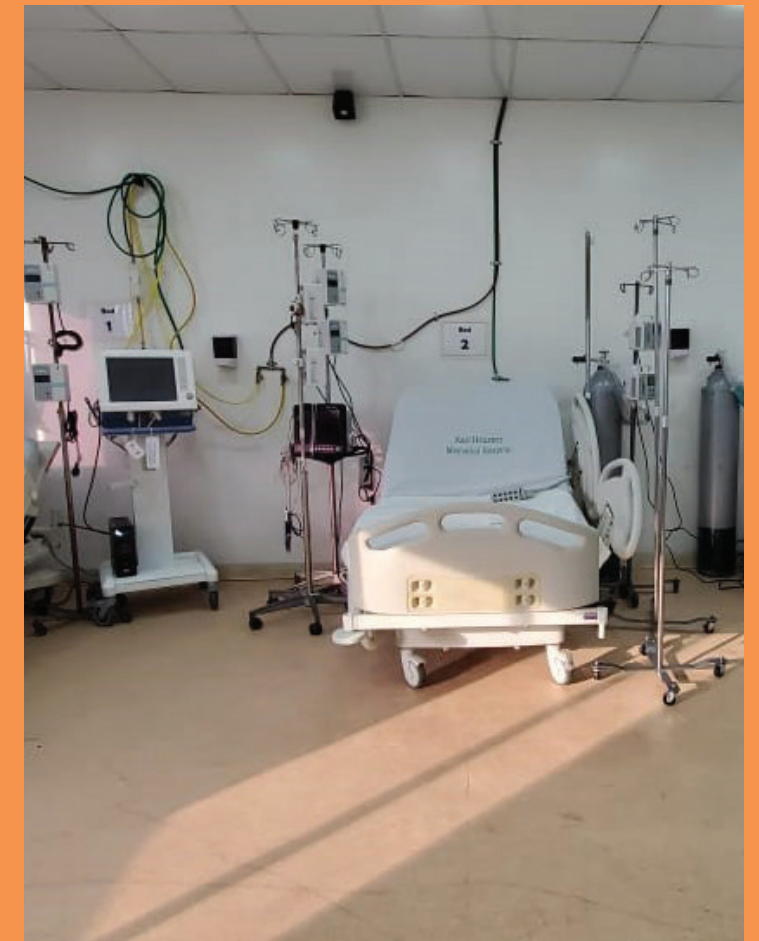
Avante, headquartered in Concord, NC, is a long-time business partner of IMO and one of America's largest sources for medical equipment, supplies and services. One of its specialties is the reconditioning of cardiac cath labs and interventional radiology suites.



Avante president Andy Wheeler inherited a passionate interest in philanthropy from his father, the late Dan Wheeler. As a result, Wheeler played a key role in the effort to provide an upgraded and more technologically advanced cath lab at KMH.

"This project was important not only to me but to all of my associates at Avante," Wheeler says. "We relished the opportunity to have real impact in a country that does not have the kinds of facilities equivalent to those in the United States. This cath lab will serve a lot of people who would not otherwise have access to high-quality cardiac services."

Dr. Skipper points out a number of companies in Belize also assisted with the KMH initiative. These included Bowen & Bowen, RFG Insurance, Caribbean Shipping Agencies, Ltd, Hyde Shipping Corporation and Benny's Enterprises, Ltd.



IMO also helped provide other upgrades at KMH during 2020, as the hospital was preparing to reopen operating rooms that had been shut down for renovations. Through the generous support of the George W. and Ruth R. Baxter Foundation, IMO provided the equipment needed to furnish a specialty surgery suite and an adult recovery critical care unit. IMO also took steps to update the hospital's labor and delivery facilities.

"I'm pleased that so many individuals, companies and organizations were able to team up and get these projects accomplished," says Skipper. "The staff members at KMH are capable and dedicated, but too often forced to operate with limited resources. They and their patients deserve all the support we can provide."



Donation of beds boosts COVID-19 response in Guatemala

As I look back on IMO's many achievements during 2020, several highlights come to mind. One of these was the delivery of 250 new field hospital beds to CONRED, the disaster relief agency that operates under the auspices of the Guatemalan Ministry of Health.

This mission could not have been accomplished without the cooperation of many people in many organizations. The beds themselves were generously donated by Atrium Health, whose leaders went above and beyond in finding ways to help other countries respond to the COVID-19 crisis. This special effort in Guatemala was fully in keeping with the philanthropic spirit that has always been one of Atrium Health's organizational hallmarks.

The beds were designated for field hospitals being set up throughout Guatemala to handle the surge in COVID-19-related hospitalizations. After the pandemic, CONRED will store the beds for future national emergencies.

IMO, of course, had a full complement of projects to accomplish during 2020 unrelated to COVID-19. Given the circumstances, it would have been easy to use the pandemic as an excuse to modify our ambitions. This did not happen, however, and for that I must acknowledge the extraordinary efforts of our staff, volunteers and partners.

All of them worked conscientiously to ensure that our regular projects could continue. In fact, IMO worked with Chiquita and other organizations to ship 11 containers of materials to Central America, the same number that had been shipped the previous year.

As 2020 came to a close, COVID-19 vaccines were on the horizon and a glimmer of hope began to shine for a new normal in our daily activities. We look forward to strengthening our many valued partnerships and continuing to make a global impact in the years ahead.

Fernando Paiz

Vice President

Heineman-Robicsek Foundation, Inc.

Opposite Page:

Left: Dr. Francisco Coma
Guatemala Vice Minister of Health

Right: Fernando Paiz
Vice President, Heineman-Robicsek Foundation



GUATEMALA

Numerous IMO projects enhance public health in Guatemala and elsewhere

The World Health Organization (WHO) reports the maternal mortality rate in Guatemala is 73 per 100,000 live births. This correlates with a high infant mortality rate in Guatemala, which in some rural hospitals can run as high as 50%.

The majority of these maternal deaths occur in rural areas of Guatemala, where the rate of unreported deaths can be twice that of reported deaths. The contributing factors are not surprising: extreme poverty, coupled with a heavy dependence on local facilities that lack the equipment available at larger medical centers.

In response to this situation, one of IMO's top priorities during 2020 was a major upgrade of a birthing facility at the *Hospital Público Nacional de Jalapa*. This is a 132-bed hospital in the rural southeast corner of Guatemala that serves a population of more than 300,000 people.

IMO donations enabled the hospital to upfit its labor and delivery unit during 2020, including an operating theater for deliveries. These donations are not only allowing regular deliveries to be done more safely, but they have significantly enhanced on-site capabilities for treating mothers of newborns and newborns with complications.



Before



After



After

Another Guatemalan non-profit that has benefited from IMO assistance over the years is *Obras Sociales del Santo Hermano Pedro* (OSSHP). Located in Antigua, OSSHP received more than 100 hospital beds and mattresses during 2020, along with nearly 800 boxes of donated medical supplies. Its mix of services includes laboratory, pharmacy, medical consultations, diagnostics, specialized surgeries and residential care homes to individuals with special needs. IMO's beds and supplies helped OSSHP to accommodate an estimated 350,000 patient visits in the course of the year.

After Dr. Steven Robicsek flew to Guatemala, a new project with OSSHP is now on the horizon. Dr. Robicsek and Fernando Paiz met with OSSHP leadership to review architectural plans and tour the facility to observe where three new operating theaters will be constructed. Dr. Robicsek advised the group on design functionality needs and devised, with OSSHP, a list of medical equipment that IMO will support.



IMO has always placed a heavy emphasis on education as well as clinical support. These services include specialized training for clinical personnel and general education for the public. Working from a base in Guatemala, IMO utilized a variety of virtual platforms during 2020 to reach people in that country as well as Belize, El Salvador, Honduras and Nicaragua. A number of South American nations were also included in these educational efforts, including Chile, Peru and Venezuela.

The subject matter of IMO educational programs during 2020 included a heavy focus on structural heart diseases and contributing illnesses or conditions. With assistance from the Edwards Lifesciences Foundation, these programs were made available to nearly 200 physicians, residents and nurses during the year, as well as to nearly 600 non-clinicians.



In Memoriam

It is with a heavy heart that IMO announces the passing of Dr. Raúl Cruz Molina. With the help and guidance of the late Dr. Francis Robicsek, Dr. Cruz became the first cardiac surgeon in Guatemala and the director of *Unidad de Cirugía Cardiovascular de Guatemala* (UNICAR). During Dr. Steven Robicsek's trip to Guatemala, he had the opportunity to meet with the new director, Dr. Walter Mazariegos, and discuss IMO's commitment and ongoing collaboration with UNICAR.

Devastating hurricanes spur joint relief efforts in Honduras



The year 2020 will be remembered not only for one of the worst global pandemics, but also for some of the most catastrophic storms ever to strike Central America.

In November 2020, Hurricane Eta, a devastating Category 4 hurricane, lingered over Honduras for days, bringing winds with a peak intensity of 150 mph. The hurricane also produced up to 35 inches of widespread rainfall in some areas, which resulted in severe flooding.

Not long after, Hurricane Iota, a Category 4 Atlantic hurricane, made landfall with wind speeds of up to 155 mph. The storm caused severe damage to Central American areas that were already devastated by Hurricane Eta only two weeks prior.

The intensity of Iota resulted in massive flash flooding, mudslides and crop damage as it moved into Honduras. United Nations relief agencies estimated that, together, the two storms affected the lives of some 4.6 million Hondurans, roughly half of the total population.

After receiving urgent requests for relief from partner organizations in Honduras, IMO joined forces with the Heineman Foundation for Research, Educational Charitable and Scientific Purposes, Chiquita and additional in-country partners to provide emergency aid.

IMO not only secured and distributed basic medical consumables but delivered hygiene and nutritional supplies to communities in the affected

regions. Considering the dire conditions and obstacles presented, such as ground and watercraft transportation blockage, timely relief efforts called for heightened ingenuity.

Dr. Bessy Carolina Calix Ruiz, a health specialist with Fundación Cohonducafé, one of IMO's partners in Honduras, reported:

“We used a helicopter to leave food for the people who could not be rescued by boat and who had not eaten for two, three or even four days. The stories they told were awful. Our Foundation's president and our general manager, along with their family members, went out with boats to rescue people for several days. One day the team rescued more than

200 persons. In rural areas, the problems besides the floods were the landslides.”

Chiquita's human resources director, Raúl Gigena Pazos, expressed pride that IMO and its partners were able to unite with the shared mission of providing relief to thousands of affected and displaced people. “We could, at best, only make a tiny difference in a situation that involved such momentous damage and dislocations,” he says. “Fortunately, though, we were able to adapt quickly and provide critically needed assistance.”

FUNSEPA adjusts to support in-home learning

All of IMO's partner organizations in Central America were impacted by COVID-19 in 2020, but few had their day-to-day functions altered more than FUNSEPA. FUNSEPA is an acronym for the Sergio Paiz Andrade Foundation, which has been installing refurbished computers in Guatemalan public schools since 2004.

IMO has assisted that undertaking since 2013, when it started up its own systematic effort to collect used computers and ship them south. Typically, these were computers that had grown obsolete in terms of serving their original purposes, but which were fully adaptable for use in Guatemalan schools. Fortunately, IMO was able to continue this work even during the pandemic. Jocelyn Skolnik, FUNSEPA's executive director, says, "It was an unexpected surprise when IMO's container arrived in the middle of such an unprecedented series of disruptions."

After Guatemalan schools were forced to close during the early months of 2020, FUNSEPA made a number of adjustments to its modus operandi.

First, working with the Ministry of Education, FUNSEPA trainers and education specialists began to record classes in progress. These recordings were then circulated nationwide via social media, TV and radio.

In addition, FUNSEPA started delivering computers, laptops and tablets to teachers and students at home, rather than installing them in classrooms. The equipment was prepared with the educational apps and software needed to support at-home learning.

By using Zoom, WhatsApp and email, FUNSEPA greatly expanded its capabilities to train and coach teachers in their own homes. This enabled those teachers to engage with their students more effectively. During the pandemic, FUNSEPA virtually trained approximately 450 teachers, representing 40 schools, thus impacting the learning capabilities of 9,000 children.

FUNSEPA made one other unusual adaptation due to COVID-19: It provided computer equipment to recently graduated medical students who were performing frontline services at the public hospitals in Guatemala City. Without FUNSEPA's support, these clinicians would not have had access to the resources they needed to function with maximum efficiency.

Reflecting on 2020 adjustments, Skolnik says FUNSEPA's long-term sustainability model will revert to the previous status quo as soon as circumstances permit. "When the schools are ready to open again, the loaned computers will be returned and re-installed in our computer labs for regular use under much better circumstances!"



Excellence in research is a Heineman hallmark



By John M. Fedor, MD
*Chair of the Committee of Medical & Technical Advisors,
Heineman-Robicsek Foundation, Inc.*

Heineman’s 80 years of success initially rests on the bedrock of its research excellence. The new Preservation Project, discussed in another segment in this report, provides insight on the humble beginnings of Heineman’s research journey. Over the years, however, truly significant strides have been made to improve care and discover new or better treatment options in the areas of cardiology, cardiac surgery, orthopedic surgery, emergency medicine, cancer and infectious diseases.

These crucial advancements could not have occurred without the longstanding support of the Heineman Foundation for Research, Educational, Charitable and Scientific Purposes, Inc.; the James H. Heineman Endowment; the Atrium Health Foundation and the Tarr Family Foundation.

IMO continues to support the ongoing research of Drs. Nilanjan Ghosh, Jeko Madjarov and Lee Morris. Their projects are extremely diverse, but each project focuses on the expansion of those researchers’ previous efforts. Dr. Ghosh is targeting patient data collection as a means to discover better cancer treatment methods. Dr. Madjarov is developing a prosthesis for the aortic wall. Dr. Morris is addressing the impact of antibiotic resistance as a result of over-use. We look forward to watching future advancements unfold as these dynamic researchers continue their investigations in the years to come.



Nilanjan Ghosh, MD, PhD
*Chief of the Lymphoma Division and Associate Medical Director for
Clinical Trials, Atrium Health Levine Cancer Institute*

Dr. Ghosh is a leading lymphoma researcher who is working to identify biomarkers to predict responses to therapy and assess mechanisms of resistance in diffuse large B cell lymphoma (DLBCL). It is the most commonly diagnosed and potentially curable type of non-Hodgkin’s lymphoma in the United States. The study currently targets high-risk non-Hodgkin’s lymphoma patients who receive chimeric antigen receptor therapy (CART). Dr. Ghosh is pursuing the collection of patient data to examine biomarkers from blood samples. He is also correlating that data with clinical outcomes, in order to understand mechanisms of resistance to this type of immunotherapy. Understanding those mechanisms of resistance will allow clinicians to identify new targets in improving long-term remission.



Jeko Madjarov, MD
Atrium Health Sanger Heart & Vascular Institute

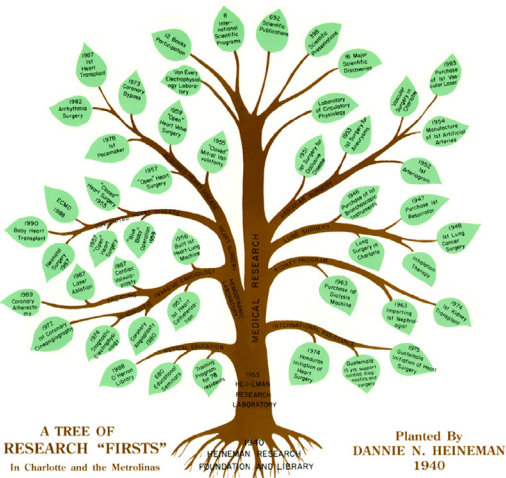
In 2020, aortic aneurysms were the primary cause of death of more than 28,000 people in the United States, especially affecting high-risk patients ages 75 to 85. Based on the previous work of Dr. Francis Robicsek (who was recognized globally for his pioneering techniques), Dr. Madjarov is researching the minimally invasive approach of a bio-engineered graft for aortic wrapping. The preliminary research of Dr. Madjarov has been presented and published, both nationally and internationally.



Lee Morris, MD, MSPH, DTM&H
*Medical Director of Pediatric Antimicrobial Stewardship,
Division of Pediatric Infectious Diseases, Department of Pediatrics,
Atrium Health*

Antibiotic resistance is a growing concern; and, according to the World Health Organization (WHO), it is one of the top 10 health issues facing medical professionals around the world. Dr. Morris has been collaborating with pediatric specialists in Guatemala since 2017, to review hospital bacterial resistance rates and assess the appropriateness of antibiotic use in pediatric patients. The primary goal is to build on existing strengths to help individual medical centers develop antimicrobial stewardship programs and hospital-specific antibiograms to combat antimicrobial resistance. (An antibiogram is a tool to help clinicians select the best empiric antibiotic therapy for their patients, to assess local susceptibility rates, and to monitor resistance trends.) Dr. Morris is now examining the use of antibiotics in adults and is working to develop an antimicrobial stewardship program, the first of its kind in Guatemala. Dr. Morris has presented her research results in national medical forums, and her work is internationally recognized by the Pan American Health Organization.

Celebrating our past, embracing our future – 80 years of HRF



The year 2020 was a milestone for Heineman-Robicsek Foundation (HRF), which celebrated 80 years of medical research, medical education and the delivery of healthcare services in underserved countries.

HRF’s history dates back to 1940, when Dannie Heineman returned to his childhood home of Charlotte after having spent most of his life in Europe. Heineman, an electrical engineer by training, always had a strong interest in the practice of medicine. As such, he was eager to get involved with Charlotte Memorial Hospital when it opened in 1940.

Heineman had a particular interest in cardiac research; and, as the need for cardiac research grew, so did his level of involvement. That passion for research eventually resulted in formal incorporation of the Heineman Foundation in 1959. The Heineman Foundation later evolved into the Heineman Medical Research Center, just one of several transitions leading up to the creation of HRF.

Preservation project underway

To recognize its 80th anniversary, HRF launched a new project in 2020 to collect archival materials from the past.

After the passing of Dr. Francis Robicsek in April 2020, a lot of HRF’s long and distinguished history was discovered in the form of scrapbooks, newspaper clippings, magazine articles, photographs and more. Steven Robicsek, MD, PhD, who succeeded his father as HRF president, felt it was imperative to collect such materials in a more systematic way before any more time passed.

“It’s important to remember,” Robicsek says, “that IMO’s current mission is possible only because a lot of visionary leaders, working over a long period of time, were not afraid to dream big about future possibilities.” He notes the following organizations will be included within the scope of the preservation project.

At the core is **Heineman Medical Research** (later known as **Heineman Medical Outreach, Inc.**, and now known as **Heineman-Robicsek Foundation, Inc.**). It was founded on a handshake in 1940 between Dannie Heineman and Dr. Oscar Miller, an orthopedic surgeon and founder of the **Miller Clinic**, known today as **OrthoCarolina**.



Dr. Paul Sanger joined the duo in the late 1940s, concentrating on heart research. He convinced leaders at **Charlotte Memorial Hospital** (later known as **Carolinas Medical Center**, and now known as **Atrium Health Carolinas Medical Center**) to provide space on the hospital campus to perform clinical and surgical research.



Then, in the mid-1950s, a young Hungarian cardiothoracic surgeon, Dr. Francis Robicsek, arrived on the scene. His achievements as a clinician and researcher soon came to be recognized at national and even international levels. Robicsek and Sanger not only performed groundbreaking research, but they founded a specialized medical practice called the **Sanger Clinic**, renamed in 2007 as **Sanger Heart & Vascular Institute**.

Many other prominent cardiologists, cardiac surgeons and researchers joined the collaboration over time, and that growth ultimately shaped the quality and availability of cardiac care in Charlotte and surrounding areas.

Another philanthropic entity that played a major role in developing IMO is HRF’s sister organization, the **Heineman Foundation for Research, Educational, Charitable and Scientific Purposes, Inc.** Headquartered in New York City, this foundation provides major, ongoing support for a wide variety of IMO initiatives and research.

For help with the preservation project, HRF has engaged the assistance of students in the LEADS program at UNC Charlotte. LEADS is an accredited interdisciplinary program, administered by the College of Liberal Arts and Sciences, which prepares students for entry into the workforce through internship experiences.

Although it has been a long and successful 80-year journey, Robicsek points out the mission continues to be the same: “to promote excellence in research and healthcare that serves the greater Charlotte community and beyond.”



*Committee of Medical and Technical Advisors

10. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40, 10, 1271-1276.

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