RAD-AID.org
Radiology serving the world

Annual Report 2023

To improve and optimize access to medical imaging and radiology in low resource regions of the world for increasing radiology's contribution to global public health initiatives and patient care.

RAD-AID.org

The Need for RAD-AID

Babies and mothers need **ultrasound** for safe delivery.

Cancer patients need **CT/MRI** for staging and treatment.

Trauma and infection victims need **x-ray, ultrasound, and CT** to address injuries and outbreaks.

Heart and stroke patients need **CT, angiography, and ultrasound** for diagnosis and treatment.

OVER HALF THE WORLD LACKS RADIOLOGY

(Source: World Health Organization)

A Nonprofit Public Service

RAD-AID.org

Radiology serving the world

Countries

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LETTER FROM CHIEF OFFICERS

Dear RAD-AID Friends and Supporters,

This year, we are celebrating RAD-AID's 15th birthday! What began as a few of us establishing our mission and vision in 2008, has now grown to a robust international community for public service and charitable initiatives. RAD-AID now spans over 16,000 volunteers, partners and supporters working in over 100 hospitals in more than 40 countries. The interdisciplinary and collaborative team-based nature of our work are core features of RAD-AID, for empowering capacity-building global health programs for diagnostic radiology, interventional radiology, ultrasound, nursing, medical physics, CT/MRI, breast imaging, radiation oncology, radiography, nuclear medicine, informatics, AI, and more. By bringing together medical imaging professionals having complementary expertise, we aim to create the very best teams for public service in bringing radiology to those in need worldwide.

We are passionate in our pursuit to make the world better each day. The core principles of our work are perseverance and humility, as we know that service work is not easy. We must adapt to changing conditions and challenges every day, while finding the unique opportunities and hard-to-find insights for driving new solutions and innovations. This means listening to one another as colleagues and friends; treating each partner, patient, and project with the utmost value; and patiently learning from each moment and circumstance.

The adventure of global health radiology outreach is that RAD-AID brings new ideas and capabilities to low-resource regions of the world by exploring and overcoming challenges. As examples over the past several years, RAD-AID navigated the COVID-19 pandemic through emergency outreach and innovative virtual-teaching for sustaining vital imaging services during lockdowns and travel-restrictions. We gave critical support to Ukraine for sustaining CT services and developing Picture Archiving & Communications (PACS) for overcoming wartime threats. RAD-AID implemented the USA Women's Health Program for cervical and breast cancer outreach for addressing racial barriers to healthcare among medically underserved women of color in over 10 regions of the US. We initiated a novel tele-ultrasound program for real-time sonographic image-sharing in education and consultations for 10 countries. RAD-AID IR implemented new fellowship training programs and cutting-edge interventional simulator-based instruction on three continents. RAD-AID empowered global cancer control through improved linkages between image-based screening, diagnostics, and radiation oncology treatment. We scaled up our medical physics teams for image-quality, radiation safety, and equipment-management across radiology and radiation oncology modalities. RAD-AID has exciting initiatives underway to improve and expand informatics, IT specialist-training, PACS platforms, cloud architectures, and AI in low- and middle-income countries. We are realizing the vision of AI as a partner for empowering human health care professionals via thoughtful validation, testing, education, roll-out, and community engagement.

We are excited to bring you this annual report as an illustration of our vision and work. We are immensely grateful to our partners, volunteers, and supporters for being a part of our growing community of charitable public service. You are the engines that make this work possible. For those not yet involved in RAD-AID, we hope this report shows you our work, mission, and principles for improving global health, and we invite you to join us in our vision for health equity. We aim to keep going to make each day better for communities throughout the world.

Sincerely,

Daniel J. Mollura, MD
President and CEO

Anne-Marie Lugossy, MPH, RT(R)
Vice President and COO

Lauren Fuller Kulinski, MHA, RT(R)(MR), MRSO
Treasurer and CFO

RAD-AID LEADERSHIP

Officers and Management Team

Daniel J. Mollura, President/Chief Executive Officer
Anne-Marie Lugossy, VP/Chief Operating Officer
Lauren Fuller Kulinski, Treasurer/Chief Financial Officer

(Alphabetical)
Genevieve Abbey, Program Manager, RAD-AID Breast Imaging
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Jackie Moran, Program Manager, RAD-AID Guatemala
Malik Mossa-Basha, Program Manager, RAD-AID Middle East
Mertalaine Mulatre, Program Manager, RAD-AID Haiti
Saima Muzahir, Associate Program Manager, RAD-AID Pakistan
Abass Noor, Program Manager, RAD-AID Botswana
Evan Norris, Program Manager, RAD-AID Nepal
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Will Pleming, Associate Program Manager, RAD-AID Liberia
Debra J. Poelhuis, Director, RAD-AID India
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Carlin Ridpath, Director, RAD-AID Nepal
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Steve Surratt, Director, RAD-AID Guyana
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Chad Wilcox, Program Manager, RAD-AID Interventional Radiology
Raymond Wong, Assistant Program Manager, RAD-AID Interventional Radiology
Marianna Zagurovskaya, Program Manager, RAD-AID Kazakhstan
Susan Zehr, Associate Program Manager, RAD-AID South Pacific
Jonathan Zember, Program Manager, RAD-AID Pediatrics
Ufara Zuwasti Curran, Director, RAD-AID Indonesia

Board of Directors

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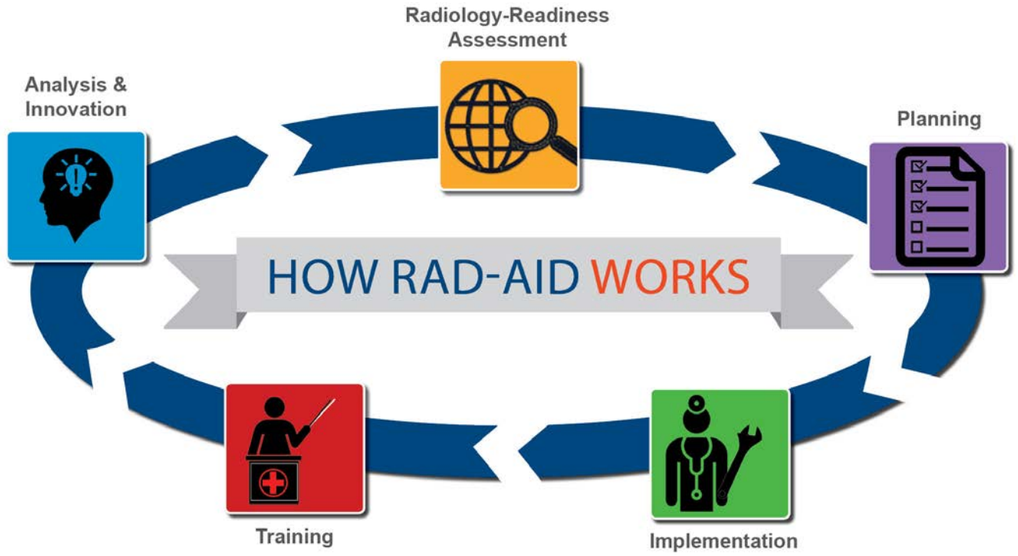
David Youmans, MD, Diagnostic/Interventional Radiologist Princeton Radiology, Applied Radiology

Emeritus Board Directors (non-voting/advisory)

Kristin Roberts
Brian Choi
Geraldine McGinty

HOW RAD-AID WORKS



RAD-AID uses a simple method for analyzing, planning and implementing projects. The first step is **Radiology-Readiness**, which is RAD-AID's trademarked data collection and analysis tool, so that we can optimize every radiology project for the specific needs, infrastructure constraints, and health care system attributes of a region, community or facility. The Radiology-Readiness step measures existing resources at a facility, analyzes the clinical goals of that facility, and offers a targeted solution to fill vital gaps to connect existing resources with those goals.

Once we conduct the Radiology-Readiness Assessment, we **plan** the project based on the data. Third, we **implement** the project based on the plan, such as installing hardware, configuring workstations, organizing training, writing research, or designing a new technology, which are accomplished through RAD-AID's multidisciplinary team structure. Fourth, education is a central part of everything we do, and we hold **training** sessions so that RAD-AID can train in-country partners to use and maintain the implemented program. More importantly, our teams also receive training and education from our in-country partners so that we can learn from them about clinical and cultural factors that will influence the success of our collaborative program.

Lastly, we work with our in-country partners to **analyze** the results of the program, to find what worked and what did not work. In this way, we identify new challenges to solve and find new resources to strengthen the program. Then, we return to step one and repeat our **Radiology-Readiness** assessment so that we can see how our project had a positive impact and what gaps need to be addressed. This circular iteration of data, analysis, planning, self-correction and new data collection keeps RAD-AID moving forward.

With the success of the Radiology Readiness Assessment, RAD-AID has developed subspecialty assessment sections, such as Breast Imaging, Informatics, Interventional Radiology, Nursing, Radiation Oncology, Equipment Planning, Nuclear Medicine, Quality and Safety, Tele-Ultrasound, and Midwifery and Women's Point of Care Ultrasound, so that our teams collect fundamental data to the design and implementation of initiatives and programs. We also translated Radiology Readiness into five languages with more languages on the way, to widen cultural applications and facilitate partnership-development.

This approach to 'How RAD-AID Works' is flexible because it adapts to local cultural and clinical conditions so that each program is uniquely suited to the country and specific health goals, while scalable as a clear step-by-step process for improving health around the world.

RAD-AID CENTRAL AND SOUTH AMERICA, & CARIBBEAN

RAD-AID Haiti in Port-au-Prince, May 2017

Haiti

RAD-AID has worked in Haiti since the earthquake of 2010 to build radiology capabilities in Port-au-Prince, Gonaives, Caracol and other locations. For over a decade, RAD-AID has provided educational support for the radiology residency at University Hospital of Haiti. RAD-AID has opportunities for radiologists, technologists, physicists, nurses, IT professionals and public health specialists to join RAD-AID teams for tele-lecture and on-site work in Haiti.

Nicaragua

The RAD-AID Nicaragua program brings vital radiology support and training to rural and urban regions of the country, including general ultrasound, women's health, and pediatrics. RAD-AID donated and implemented a Picture Archiving and Communication Systems (PACS) for digital imaging and storage at four Nicaraguan hospitals in Managua with support from IBM Watson Health Imaging, impacting care for 3 million people annually. RAD-AID supports Nicaraguan radiologists and frontline health workers at Amos Health and Hope in the Nejapa community.

RAD-AID Nicaragua, Supporting Ultrasound in Collaboration with Amos Health and Hope for Nicaragua, 2018

Guatemala

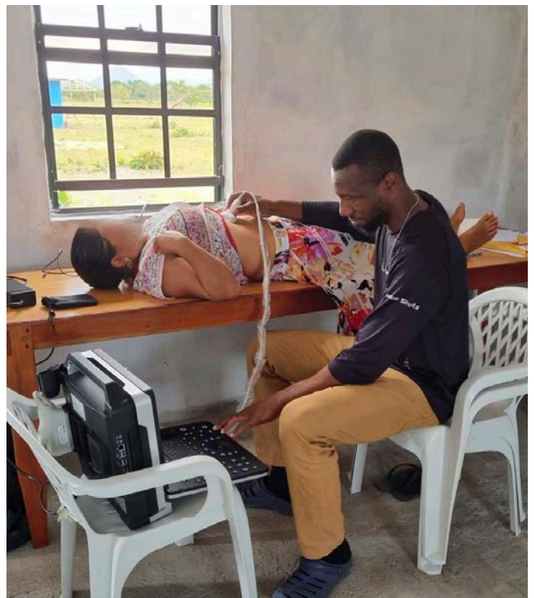
RAD-AID Guatemala has partnerships with Instituto de Cancerología (INCAN) and Hospital Roosevelt in Guatemala City. RAD-AID supports cancer imaging and PACS at INCAN. RAD-AID completed a Radiology Readiness Assessment at Hospital Roosevelt, with plans underway to provide educational support across many modalities for the Guatemalan radiology residents at Roosevelt.

RAD-AID Guatemala Team at INCAN (led by Mallinckrodt RAD-AID Chapter), September 2016

RAD-AID Guyana, January 2023

Guyana

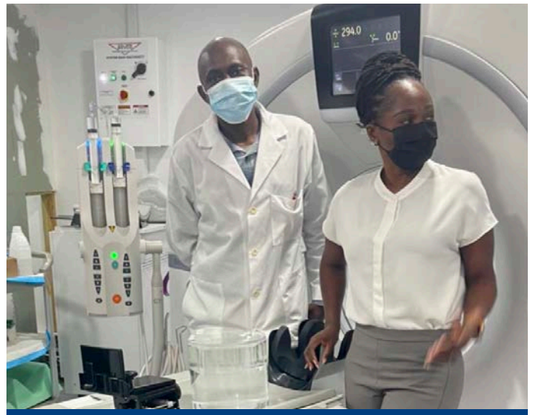
The RAD-AID Guyana Program began in 2013 in partnership with the World Health Organization's Pan American Health Organization (WHO/PAHO). In 2016, RAD-AID donated 2 CT scanners to Guyana at Bartica and New Amsterdam Hospitals, with support from Philips Foundation. Due to the lack of in-country pathways for training radiologists, RAD-AID started Guyana's first-ever radiology residency at Georgetown Public Hospital in 2017, which now graduates approximately 3-5 radiologists per year. In 2022, RAD-AID began working with its Canadian chapter organizations to sponsor fellowship training for the Guyana residency graduates, such as in neuroradiology, IR, and breast imaging. Through an innovative PACS-based tele-education system (RAD-AID Friendship Cloud), RAD-AID provides remote clinical teaching and support for Guyana's technologists, residents, attendings, nurses and IT professionals. RAD-AID Informatics is now working with the Guyana Ministry of Health to interconnect more hospitals in urban and rural Guyana for advanced inter-institutional PACS. RAD-AID Nursing has scaled up support in 2023 for patient navigation in women's health in Guyana, along with IV contrast training and patient safety for CT. In collaboration with Philips Foundation, RAD-AID implemented a tele-ultrasound program in Guyana which includes providing real-time virtual education support and clinical hands-on, on-site support to residents conducting ultrasound exams.



Ultrasound Outreach For Bringing Imaging Services to Guyana's Rural Hinterland Communities, Guyana, May 2023

Grenada

RAD-AID is building radiology in Grenada through projects that include general and obstetric/midwifery ultrasound, radiation safety, emergency radiology services, clinical radiology training, and nursing. In 2022-23, RAD-AID partnered with Grenada's Ministry of Health to provide structured support to address growing radiology needs throughout the country. In 2023, RAD-AID implemented an ultrasound curriculum for midwives and skilled birth attendants for improving maternal health outcomes. Over the next 5 years, RAD-AID is collaborating with Philips Foundation to provide hand-held ultrasound and tele-ultrasound (real-time sonographic image-sharing and communications) for nurse midwives and skilled birth attendants to advance maternal-infant health.



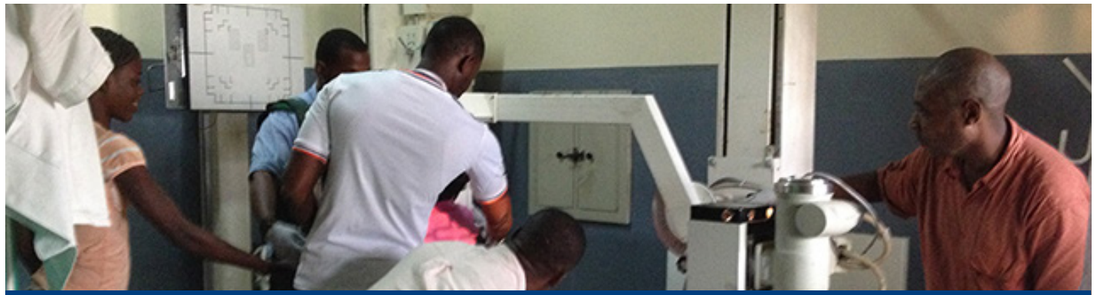
RAD-AID Grenada, CT Quality Control Education, September 2022

RAD-AID Grenada, POCUS Obstetrical Ultrasound Education, May 2023

RAD-AID's mission is to increase and improve radiology and medical imaging in low-resource settings and medically underserved regions of the world.

Jamaica

RAD-AID Jamaica launched operations in 2016 to support radiology development at Kingston Public Hospital, University of the West Indies and Cornwall Regional Hospital. The RAD-AID Jamaica team is working on clinical education for in-country radiology professionals, trainees, students and staff. RAD-AID is conducting and analyzing multi-institutional Radiology Readiness Assessments to further refine the RAD-AID Jamaica program for the years to come.



RAD-AID Jamaica, November 2018

Peru

RAD-AID launched a novel program in Peru in 2019 linking women's health resources in rural regions of Cusco near the Andes Mountains with tertiary care services in Lima through partnerships with CerviCusco and Instituto Nacional de Enfermedades Neoplasicas (INEN). RAD-AID provides educational training and imaging resources, such as mammography and ultrasound, with community-based outreach for strengthening referral networks across Peru between primary and specialty care. RAD-AID collaborated with Koios Medical for donating decision-support breast ultrasound artificial intelligence technology, to help CerviCusco's front-line health workers to detect, and refer breast cancer patients.

RAD-AID Peru, Breast Ultrasound Training at CerviCusco, January 2020

RAD-AID NORTH AMERICA

USA

RAD-AID has rapidly expanded programs in the United States for medically underserved communities. In addition to over 95 RAD-AID Chapters in the US (see page 36 for details on our chapters), RAD-AID has collaborated with Health Wagon, a nonprofit health charity, in the Appalachian regions of the US, to deliver ultrasound and radiography services. In 2022-23, RAD-AID provided radiography and ultrasound scanning support to Health Wagon's pro-bono health screening camps. To support local infrastructure in Appalachia, RAD-AID donated, implemented, and upgraded PACS (with support from Ambra Health) to Health Wagon and Smiddy Clinic. RAD-AID is also collaborating with ASRT to respond to technologist shortages in the US through vocational outreach efforts at RAD-AID sites.

In 2020, we launched RAD-AID USA Women's Health Access Program, with support from Hologic, to address breast and cervical healthcare disparities among women of color across the United States. This program builds vital breast and cervical screening capabilities at regional partner sites (see map below), with innovative patient-navigation strategies for helping women of color to overcome barriers to health services. Since its inception, RAD-AID USA Women's Health Access Program has expanded to increase access to care throughout the USA with over 60,000 interventions achieved to-date for cervical, breast, and patient-navigation services.

RAD-AID Appalachia Volunteers Supporting Ultrasound Services for Underserved Communities, August 2022

RAD-AID USA Women's Health Access Initiative, 3D Mammography Training, Chicago, September 2021

RAD-AID USA Women's Health Access Program, Map of Breast and Cervical Cancer Screening Sites in the USA

Canada

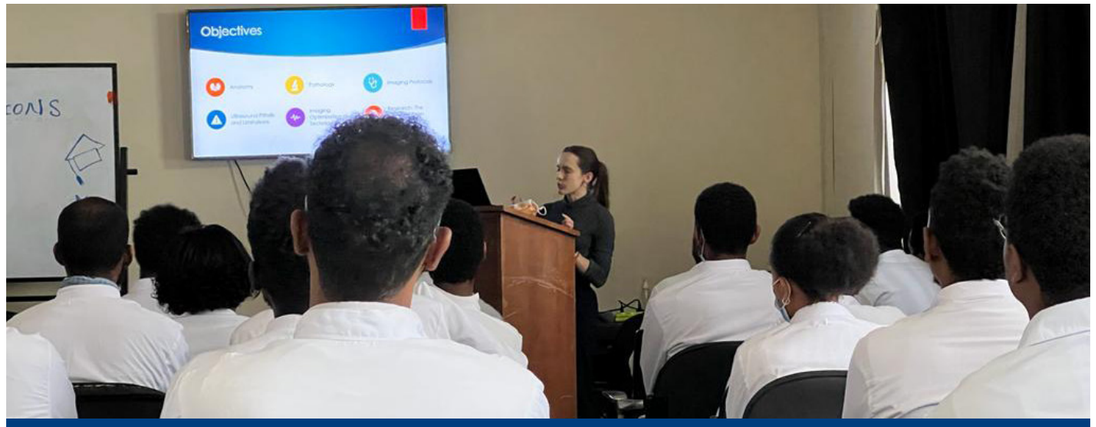
Through RAD-AID's partnership with the Canadian Hub for Applied and Social Research (CHASR) at the University of Saskatchewan, RAD-AID uses geographic information systems (GIS) to measure health care disparity and strategize radiology health care delivery in Canada as well as many RAD-AID sites in low-and-middle-income countries and medically underserved regions of high-income countries. RAD-AID has partnerships with Sonography Canada and the Canadian Association of Medical Radiation Technologists (CAMRT) to jointly increase medical outreach initiatives within and outside of Canada. In 2022-23, RAD-AID and the CAMRT continued to strategize to address access gaps in radiology delivery in Northern Canada.

RAD-AID at the Annual CAMRT Conference in Gatineau, June 2023

RAD-AID AFRICA & MIDDLE EAST

Ethiopia

RAD-AID Ethiopia launched in 2015 for supporting MRI, CT, ultrasound, radiography, and mammography capabilities at St Paul's Hospital and Black Lion Hospital in Addis Ababa. RAD-AID implemented PACS at Black Lion Hospital in early 2018, supported by MedWeb, along with new cloud-based archiving and image-retrieval architectures being implemented in 2023. In 2022-23, RAD-AID continued to deliver tele-lecture and case-based sessions with Ethiopian partners on breast imaging, and RAD-AID conducted ultrasound assessments and teaching at Black Lion Hospital in early 2023 (photo below) for advancing point-of-care and diagnostic ultrasound capabilities.



RAD-AID Ethiopia, Ultrasound Educational Seminar, February 2023

RAD-AID Ghana Working with Ghana Association of Radiologists to Launch Ghana's First Breast Imaging Fellowship Program, May 2023

Ghana

The RAD-AID Ghana program has been running strong since 2012 and now includes partnerships with Korle Bu Teaching Hospital (KBTH), 37 Military Teaching Hospital, and Komfo Anokye Teaching Hospital (KATH). KBTH has been a robust hub for RAD-AID's PACS donation and implementation program, beginning with our first PACS installation at KBTH in 2103, followed by a Radiology Information System (RIS) installation in 2018, and PACS upgrade plus EMR integration in 2020-2021 (with support from Merge, a division of Merative). This informatics collaboration in Ghana is complementary to comprehensive radiology education support, including breast imaging, ultrasound, CT, MRI, nuclear medicine and interventional radiology. In 2023, RAD-AID worked with the Ghana Association of Radiologists to start Ghana's first breast radiology fellowship, to support in-country capacity for breast screening and diagnostics. Ghana is a site for the 5-year longitudinal RAD-AID Tele-Ultrasound Program (supported by Philips Foundation) for enabling hand-held ultrasound, image-sharing and communications in teaching and consultations across institutions. Multimodality Technologist education in Ghana from RAD-AID is being supported by Siemens Healthineers (MESA division) for CT, MRI and nuclear medicine. RAD-AID is implementing Artificial Intelligence initiatives in Ghana to bridge clinical radiology education and informatics platforms in collaboration with Google.

RAD-AID Ghana, Tele-Ultrasound Program Planning and Implementation Assessment, August 2022

Kenya

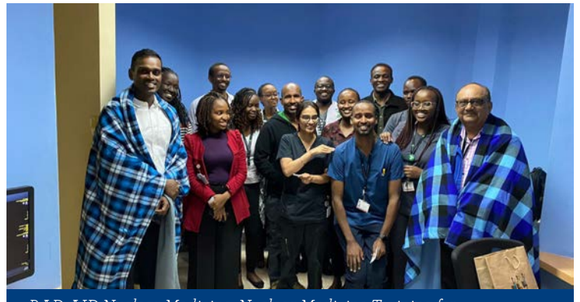
RAD-AID's program in Kenya began in 2013 and is now in its 10th year of operations and growth. RAD-AID helped start the first interventional radiology fellowship at University of Nairobi in 2020, which now graduates two (2) IR fellows per year. RAD-AID Interventional Radiology collaborates with the Kenya Association of Radiologists to run training programs and an annual IR symposium to feature educational initiatives, clinical topics and research. RAD-AID has maintained breast imaging collaborations with Aga Khan Teaching Hospital and University of Nairobi since 2016. The University of Nairobi is a partner site in the RAD-AID Tele-Ultrasound outreach initiative covering diagnostic, maternal-infant health, midwifery, and interventional and is a RAD-AID Informatics partner with PACS donation/installation being implemented in late 2023.

The RAD-AID Radiation Oncology program is advancing safety, dosimetry, and oncologic treatment planning in Kenya. In 2022-23, in partnership with ASRT, AAMD, and Varian (a Siemens Healthineers Company), RAD-AID delivered structured didactic and clinical hands-on education to support the radiation therapy workforce in Kenya. Radiation Oncology collaborations in Kenya are also developing means of integrating AI into radiation oncology treatment planning.

The RAD-AID Nuclear Medicine program is building nuclear medicine capacity in Kenya via a partnership with Aga Khan University Hospital and Kenyatta University Teaching, Research and Referral Hospital (KUTRRH) in Nairobi. RAD-AID Nuclear Medicine's collaborations in Kenya include Technologist-training for imaging protocols, image-quality and patient-safety, along with physician training for image interpretation, radiotracer supply-chains, radiation safety, and quality control measures. This program is supported by SNMMI via the RAD-AID Hyman Ghesani Scholarship to instruct nuclear medicine residents, radiologists and physicians, along with grants from Siemens Healthineers (MESA division), ASRT, CAMRT, and SoR for technologist training.

RAD-AID Kenya, Interventional Radiology Training at the University of Nairobi, October 2022

RAD-AID Radiation Oncology, Radiation Therapy Training Session in Kenya, October 2022



RAD-AID Nuclear Medicine, Nuclear Medicine Training for Technologists, Residents, Radiologists, and Nuclear Medicine Physicians at Aga Khan University Hospital in Nairobi, Kenya, April 2023

RAD-AID International and the Society of Interventional Radiology (SIR) are pleased to offer international outreach opportunities to radiology residents with active SIR memberships.

Tanzania

RAD-AID Tanzania began in 2015 to help address severe radiology personnel shortages. RAD-AID Tanzania provides educational support to radiologists, sonographers, nurses, and technologists in Arusha (NSK Hospitals), Moshi (Kilimanjaro Christian Medical Centre - KCMC), Dar es Salaam (Aga Khan Hospital and Ocean Road Cancer Institute), and in Stonetown, Zanzibar (Mnazi Mmoja Referral Hospital-MNH). In 2022-23, RAD-AID delivered virtual and onsite educational opportunities to radiologists, radiology residents, and technologists (supported by Siemens MESA division, ASRT, CAMRT, and SoR) at KCMC, Aga Khan Hospital, Ocean Road Cancer Institute, and MNH. RAD-AID implemented an ultrasound training certificate program at KCMC and will leverage the donation of equipment with tele-ultrasound capabilities (supported by Philips Foundation), for providing real-time virtual education support and on-site clinical hands-on support to learners in the certificate program.

RAD-AID Tanzania at KCMC in Moshi, Radiology Resident Education, January 2023

RAD-AID Nuclear Medicine, Supporting Nuclear Medicine Capacity Building at Aga Khan Hospital in Dar es Salaam, Tanzania, March 2023

Malawi

The RAD-AID Malawi program was launched by the RAD-AID University of North Carolina Chapter in 2012. Our 11-years of commitment and experience in Malawi is making important strides for increasing access to medical imaging. RAD-AID is partnered with Kamuzu Central Hospital (KCH) in Lilongwe, and Queen Elizabeth Central Hospital (QECH) in Blantyre. RAD-AID has developed and implemented a virtual and on-site ultrasound training curriculum. Our program is providing scholarships for physicians and technologists to train in African educational centers (with the provision of returning to Malawi to give more training to local professionals/students). In 2023, RAD-AID signed agreements to donate and implement PACS at KCH and QECH for digitally linking the teaching institutions and to provide direct PACS-based teaching plus tele-consultations from RAD-AID volunteers and our partners at University of North Carolina.

RAD-AID Malawi, Teaching Ultrasound at KCH in Lilongwe, 2023

RAD-AID Malawi, Ultrasound Training, July 2023

RAD-AID began in 2008 to answer this need for more radiology and imaging technology in the resource-limited regions and communities of the world.

RAD-AID Cape Verde, X-Ray Radiographic Interpretation, 2017

Cape Verde

The RAD-AID Cape Verde Program began in 2013 and our program is currently undergoing reorganization to plan post-pandemic activities and charitable operations. As a nation of 10 islands with 500,000 people off the coast of West Africa, there are significant gaps in communication and referral networks across the islands, along with little or no local infrastructure and personnel to take care of Cape Verdean patients. RAD-AID teams are developing initiatives for breast imaging, informatics (PACS), ultrasound and radiography, with a new Portuguese translation of RAD-AID Radiology-Readiness assessment tool to more widely engage Cape Verdean health institutions.

RAD-AID has numerous programs throughout the world. We welcome you to participate!

Morocco

The RAD-AID Morocco program began in 2016, with outreach projects including mobile radiology in collaboration with Moroccan Association for the Protection of Health, as well as PACS, medical physics, safety and image quality, and clinical radiology education at Ibn Sina Hospital in Rabat. RAD-AID's strategy in Morocco combines education at tertiary academic centers and rural community outreach. In 2022-23, RAD-AID Morocco continued to deliver remote didactic and case-based sessions in support of Moroccan radiology resident education. RAD-AID aims in 2023-2024 to also help with earthquake-recovery.

RAD-AID Morocco Leadership Attendance at the 2nd National Diagnostic and Interventional Radiology Congress, Morocco, May 2023

RAD-AID Morocco, Radiology Residency Supplemental Education Award Ceremony, May 2023

Nigeria

RAD-AID's program in Nigeria began in 2016 and continues to grow to achieve wider education of radiologists, technologists, nurses, IT-specialists and medical physicists. Our longest standing partner in Nigeria is at University College Hospital (UCH) in Ibadan, where RAD-AID supports a diagnostic radiology residency and new interventional radiology partnerships. In 2019, RAD-AID donated and implemented PACS (in partnership with Intelerad/Ambra and Google Cloud), and then integrated AI into the robust architecture (with support from Qure.ai) for chest radiography workflows. In 2022-2023, RAD-AID collaborated with MissioInvest to support new radiology capacity building at St. Dominic's Hospital, along with a breast imaging partnership at Lagos State University Teaching Hospital (LESUTH) and at Obafemi Awolowo University Hospital in Ile-Ife. To foster stronger cancer-control initiatives in Nigeria and the wider African continent, RAD-AID established a partnership with the African Research Group for Oncology (ARGO), which includes a network of Nigerian and US-based cancer-care institutions. Moreover, RAD-AID's Radiation Oncology Program led on-site teaching workshops at Lagos University Teaching Hospital (LUTH) Cancer Treatment Centre in Lagos and at the University of Nigeria Teaching Hospital (UNTH) in Enugu for radiation therapists, nurses and oncologists in 2023, in collaboration with ASRT and Varian (a Siemens Healthineers Company).

RAD-AID Nigeria, Ibadan, May 2023

RAD-AID Radiation Oncology in Lagos, Nigeria, March 2023

RAD-AID Nigeria, Mammography Training in Ibadan, May 2023

Liberia

The RAD-AID Liberia program supports radiology development and education at JFK Memorial Hospital, Redemption Hospital, ELWA, Phoebe, and JFD-Tappita Hospital. Through a robust partnership with Mount Sinai Medical Center (NY) and the World Bank, RAD-AID sent consecutive rotating teams to Monrovia to provide education to radiologists and technologists, including radiography, CT, interventional radiology procedures, ultrasound and radiology residency curriculum development. In 2022-23, RAD-AID Liberia continued to provide regular virtual conference-based teaching and case-discussions with family medicine residents in Liberia.

RAD-AID Liberia, Radiography Education, June 2022

South Africa

RAD-AID's program in South Africa launched in 2016 in conducting Radiology-Readiness Assessments at multiple health institutions in Western Cape, including urban and rural settings. In 2017-2018, RAD-AID initiated Geographic Information Systems (GIS) research for advanced mapping of South African health care disparities in parallel with infrastructure features (roads, airports, railroads, etc.,) in the Limpopo region. In 2021, RAD-AID initiated ultrasound donations to multiple institutions in South Africa for breast imaging (supported by Hologic). Scholarship activities and collaborations continue to thrive between RAD-AID and Stellenbosch University in Cape Town, as an educational hub for sub-Saharan Africa so that radiology professionals in other countries on the continent can access vital training resources.

RAD-AID Botswana, Chest Radiography Interpretation, January 2022

Botswana

RAD-AID launched the RAD-AID Botswana Program in 2020 and commenced radiology education outreach at University of Botswana, Princess Marina Hospital, and Sir Ketumile Masire Teaching Hospital (SKMTH). In 2022, RAD-AID signed a collaboration agreement with Botswana's Ministry of Health to advance radiology education, residency, medical physics, PACS, and informatics through the formation of a joint strategic healthcare committee. In 2023, RAD-AID signed an agreement to work with the Botswana UPenn Partnership, a collaboration among the Government of Botswana, University of Pennsylvania, and University of Botswana for health care capacity building. The RAD-AID Medical Physics Program gave scholarship support and mentorship to graduate the first fully trained medical imaging physicist in Botswana in 2023.

Uganda

In 2022, RAD-AID (with support from MissioInvest) provided radiology infrastructure support, expertise, and education at Kitovu St-Joseph's Hospital. A RAD-AID team consisting of a radiologist, medical imaging physicist, and technologist traveled on-site to assess the hospital's readiness to implement CT, radiography, and ultrasound equipment. Members of the University of Virginia RAD-AID chapter, active at other sites in Uganda, are contributing to the development of Uganda as a RAD-AID site. Potential PACS linkages among teaching sites are under consideration to further scale inter-institutional collaborations.

Partner Hospital, St. Joseph's Kitovu Hospital, Masaka District, Uganda

RAD-AID Uganda, Case Discussion and Teaching Session at St. Joseph's Kitovu Hospital in Masaka, Uganda, May 2022.

RAD-AID Uganda, Outreach Team to St. Joseph's Kitovu Hospital (Masaka) Consisted of a Technologist, a Radiologist, and a Medical Physicist, May 2022.

RAD-AID Jordan/Middle East, Radiology Training Za'atari Refugee Camp, October 2019

Jordan/Middle East

RAD-AID has been working in Jordan since 2018 assisting Syrian refugees. The impact of COVID, war and distressed economic conditions have been highly devastating to the health and well-being of millions of increasing refugees. RAD-AID is partnered with the Syrian American Medical Society (SAMS) to help the Za'atari refugee camp, with a clinical focus on ultrasound image interpretation. RAD-AID is planning to send its first team since the pandemic in early 2024 with SAMS to restore radiology educational collaborations and service-delivery to patients in need.

RAD-AID EUROPE

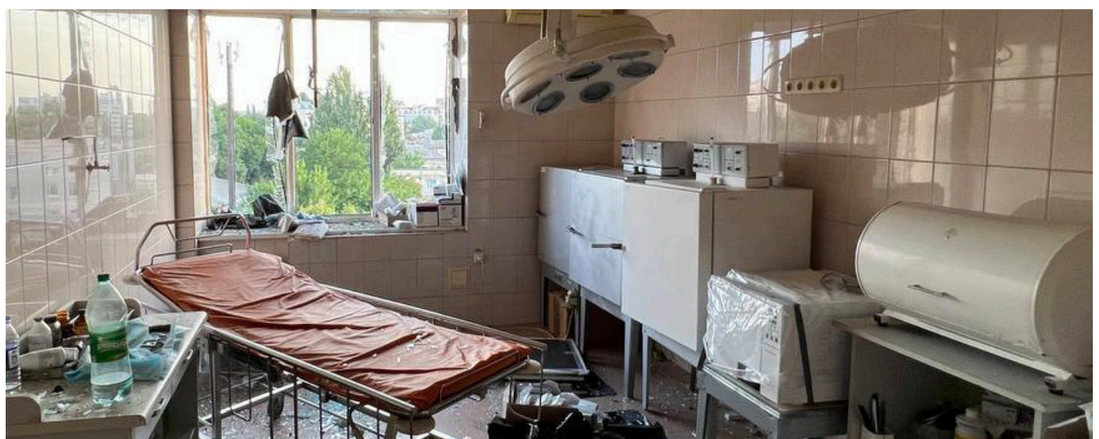
Approximately 10% of RAD-AID's volunteers and supporters are from European health institutions. As of 2021, RAD-AID has outreach programs in Albania and Ukraine (photos below), in addition to institutional partners in Spain (picture below), United Kingdom (such as Society of Radiographers), Belgium, France and Germany. RAD-AID has a representative in Geneva to support the World Health Organization headquarters in our WHO official relations capacity for assisting global health policy initiatives.

Partners to RAD-AID Peru from the University Hospital Morales Meseguer (Spain), 2020

RAD-AID Ukraine, Hospital Impacted by the War, 2022

Ukraine

RAD-AID has a program in Ukraine since 2018 and initiated a new partnership with Kyiv City Clinical Hospital #6 in 2022 to help respond to the war-devastation. In collaboration with local hospital leadership, a Radiology-Readiness and PACS-Readiness Assessments were conducted for this hospital in 2022. The hospital gave a virtual presentation at the 2022 RAD-AID Conference to give unique insights into the constraints and challenges to radiology imposed by the wartime conditions. In 2023, RAD-AID, with support from vRad's First Read Initiative, gave financial and operational support for the repair of a CT scanner at the hospital, which successfully restored clinical imaging services in summer of 2023. Ongoing efforts in Ukraine include RAD-AID PACS and IT collaborations for digitizing the hospital's radiology services.



RAD-AID Ukraine, Hospital Impacted by the War, 2022

RAD-AID ASIA

Nepal

The RAD-AID Nepal program began in 2014 at Tribhuvan University Teaching Hospital in Kathmandu, and expanded via RAD-AID's Disaster Response team in the aftermath of Nepal's earthquake in 2015. In 2016, RAD-AID donated and implemented PACS at three institutions with supportive radiology education running in parallel. RAD-AID launched a partnership with Hospital and Rehabilitation Centre for Disabled Children (HRDC) in Nepal in 2018 to advance Nepal's pediatric radiology, ultrasound and musculoskeletal imaging, in addition to presenting the RAD-AID Nepal Program at the United Nations Civil Society Conference in 2019. In 2022-23, RAD-AID donated and implemented PACS (supported by Intelerad, formerly Ambra) at TUTH. We are continuing multidisciplinary educational outreach (project-based work and contributions from the RAD-AID University of Colorado Chapter). In 2023, RAD-AID is launching AI (supported by Qure.ai) for chest radiographic imaging, in addition to tele-ultrasound capacity-building for handheld and cart-based ultrasound devices in point of care and diagnostic ultrasound services (supported by Philips Foundation).

RAD-AID Nepal, Ultrasound Training, April 2023

RAD-AID Nepal, PACS Installation Team, July 2022

China

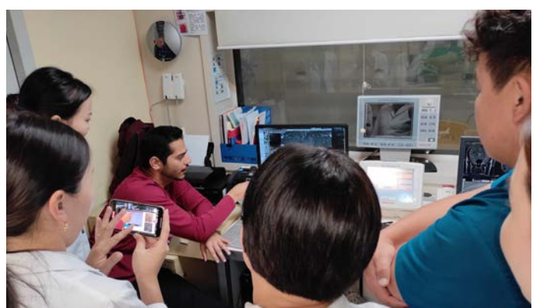
RAD-AID's program in China sustained radiology and radiation oncology capacity-building efforts in Yinchuan from 2010-2018. Our program successfully achieved its collaborative milestones, and has now transitioned to the Chinese partner institutions for self-management and sustainability. We thank our partner hospitals in Yinchuan for collaborating with RAD-AID for over eight years to advance radiology and radiation oncology for the medically underserved in China.

Bhutan

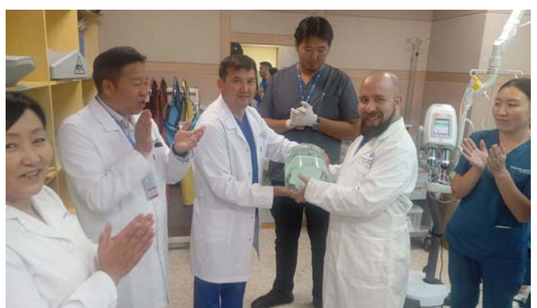
The RAD-AID Bhutan program began in 2014 in collaboration with faculty from George Washington University Medical Center and the World Health Organization. Bhutan has only one CT scanner serving a population of 750,000 scattered by large distances of mountainous terrain. RAD-AID sponsored Radiology-Readiness Assessments in Bhutan in 2015 and 2016, showing large gaps in imaging technology and substantial needs for CT, ultrasound and radiography education.

Mongolia

In 2020, RAD-AID Mongolia was launched in collaboration with Intermed Hospital in Ulaanbaatar, Mongolia. On-site activities in 2022-2023 have included radiologic technologist education and CT/MRI protocol optimization for image-quality and patient-safety. RAD-AID deployed a medical physicist to Intermed in 2023 for radiology phantom donation and quality-control procedure teaching. Virtual and on-site activities remain continuous across imaging modalities for ongoing collaboration.



RAD-AID Mongolia, MRI Technologist Training, August 2023



RAD-AID Medical Physics Program Donation of MRI Phantom to Intermed Hospital, Mongolia, July/Aug 2023

India

RAD-AID has worked in India since 2010 with the establishment of Asha Jyoti ("Ray of Hope" in local Punjabi language), a mobile women's health clinic delivering screening, care and education for osteoporosis, breast, and cervical cancer in the Chandigarh region of Northern India. The program achieved novel impact for patient-navigation and referral, and delivered care for over 20,000 women. In recovery from the pandemic, RAD-AID is instituting a renewed breast imaging and screening program in Northern India for community-based care with local medical and nonprofit institutions. A comprehensive mammographic technologist education series is planned for the Fall of 2023 between RAD-AID and Rayat-Bahra University. RAD-AID has been a longstanding contributor to Society of Breast Imaging India Conference (BISICON), and aims to resume sending lecturers and delegations to BISICON in 2023-2024.

RAD-AID India, November 2019

Laos

Our program in Laos began in 2015 when leadership of Lao Friends Hospital for Children (LFHC) reached out to RAD-AID. In May of that year, RAD-AID sent rotating ultrasound and radiographer teams to help start LFHC's first-ever operational radiology department. In 2016, RAD-AID donated and implemented PACS at LFHC, with support from Intelerad/Ambra. For these contributions, RAD-AID won the Healing Asia Award from LFHC's NY-based foundation, Friends Without a Border in April 2017. In 2018, RAD-AID expanded PACS and initiated new CT support for LFHC and the adjacent government hospital, Luang Prabang Provincial Hospital (LPPH). In 2023-2024 RAD-AID is donating two new digital radiology units to LFHC, providing CT-support for LPPH, and contributing ultrasound equipment donations for on-site and remote tele-ultrasound education (supported by Philips Foundation).

RAD-AID Laos, Hands-On Ultrasound Training Session at LFHC, February 2023

RAD-AID Laos, CT Training at LPPH, June 2023

RAD-AID Laos, Outreach Volunteers at LFHC, February 2023

RAD-AID has grown to include more than 16,000 volunteers from 164 countries, more than 95 university-based chapter organizations, on-site programs in more than 44 countries, and an annual conference on global health radiology.

Kazakhstan

RAD-AID launched a program in Kazakhstan in 2016 at Kazakh Institute of Oncology & Radiology (KazIOR) in Almaty, Kazakhstan. RAD-AID's efforts in Kazakhstan are focusing on transitioning from post-Soviet training models for radiology residents, and increasing educational resources for CT, MRI, and x-ray radiography. Ongoing efforts include educational support for PET/CT imaging in Kazakhstan to advance resources for oncologic diagnostics and treatment-management.

Vietnam

RAD-AID Vietnam launched in 2017 with support from the RAD-AID Mayo-Jacksonville Chapter. Our partner hospitals in Vietnam include Da Nang General Hospital and Hue University Hospital, in which interventional radiology, neuroradiology, and breast imaging are among the active RAD-AID projects.

RAD-AID Vietnam, Interventional Radiology Simulation Training, April 2019

Pakistan

The RAD-AID Pakistan program launched in 2021 by establishing a partnership with Indus Hospital in Karachi for multimodality education of technologists, radiology residents, and radiologists. In 2023, a radiologist/technologist RAD-AID team (photo below) traveled to Karachi to help residency training curriculum development, subspecialty breast imaging, and to cultivate workflow pathways for early image-based breast cancer detection.

RAD-AID Pakistan, Mammography Training at Indus Hospital in Karachi, June 2023

Bangladesh

RAD-AID Bangladesh launched in 2019 in partnership with M Abdur Rahim Medical College Hospital in Dinajpur. Leveraging the Radiology Readiness Assessment data, program goals include implementing health informatics and PACS to reach underserved and rural communities from tertiary care institutions.

RAD-AID Bangladesh, Ultrasound Breast Biopsy Training, 2020

Indonesia

Indonesia has approximately 1,500 radiologists for a population of 270 million people, across a country of over 17,500 islands, of which 6000 are inhabited. The RAD-AID Indonesia program supports specialized radiology/fellowship training in Jakarta at Rumah Sakit Cipto Mangunkusumo (RSCM) and its affiliated Faculty of Medicine Universitas Indonesia (FKUI) and Rumah Sakit Hasan Sadikin Bandung and its affiliated Faculty of Medicine Universitas Padjajaran in Bandung. RAD-AID instituted breast imaging, interventional radiology, neuroradiology, abdominal, and pediatric imaging education. Through RAD-AID's Association of Program Directors in Radiology (APDR), our outreach efforts included pro bono distribution of RadExam® for helping residents' knowledge assessment and establishing educational goals. In partnership with the American College of Radiology (ACR), RAD-AID supported breast imaging education through distribution of the ACR's BIRADS® Atlas in 2021-2022.

RAD-AID Indonesia and RAD-AID UCLA Chapter, Interventional Radiology Training, July 2023

RAD-AID Indonesia, CT Training in Bandung, July 2023

RAD-AID Indonesia, Breast Imaging Review, 2021

RAD-AID SOUTH PACIFIC

RAD-AID launched the South Pacific program in 2020 to address health disparities and lack of radiology resources among islands, communities, and nations in this region of the world. The RAD-AID Radiology Readiness Assessment was conducted amongst facilities in Rarotonga (Cook Islands), Vanuatu, and Tonga. In 2022-23, outreach trips to Rarotonga, Vanuatu, and Tonga demonstrated similar needs for ultrasound, radiography, CT, and breast imaging support.

RAD-AID South Pacific, Clinical Hands-on Ultrasound Training, Vanuatu, June 2023

RAD-AID South Pacific Volunteer Teaching POCUS in Vanuatu, May 2023

EDUCATION, RESEARCH, ASSESSMENTS, AND PUBLICATIONS

RAD-AID Midwifery and Women's Health Point-of-Care Ultrasound Education in Grenada, May 2023

At the cornerstone of global health outreach is knowledge. We must learn as much as we can about global health before we can enact solutions. RAD-AID has several key interlocking, synergistic and complementary programs and resources in place to continuously produce new knowledge and information, and provide forms of education that form a well-rounded approach:

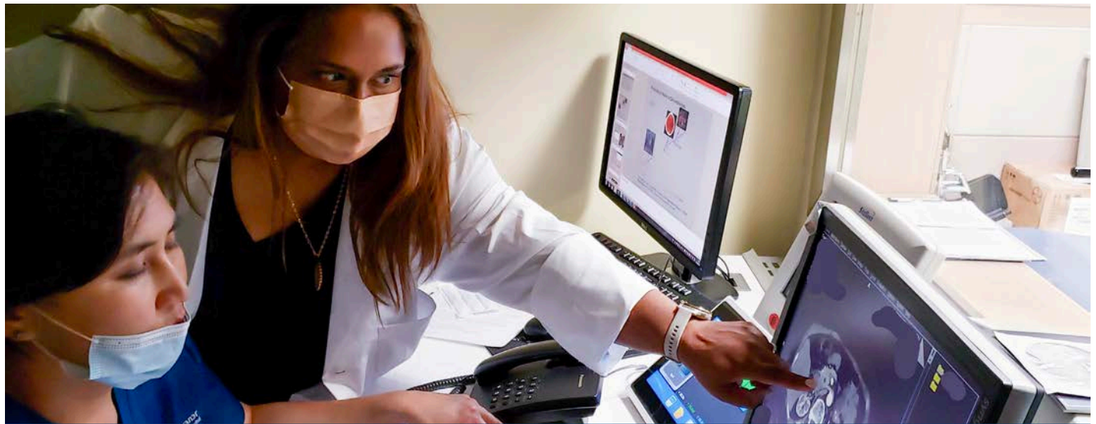
- **On Site** in-country RAD-AID teams performing hands-on training to local personnel.
- **Online learning via the RAD-AID Learning Center** and learning management system to provide pro bono internet based didactic educational content.
- **RAD-AID Country Reports** are country-based reports and documents about the radiology and radiation oncology resources of LMICs. Volunteer authors and contributors help make these vital online publications in RAD-AID Country Report Library possible.
- **RAD-AID textbook, "Radiology in Global Health,"** second edition, which was published in 2018, outlines RAD-AID methods for radiology capacity-building for helping medical imaging in low-resource contexts, while addressing public health, epidemiology, clinical and infrastructural areas of need when addressing healthcare disparities. A 3rd edition now in development with the publisher with an expected release in 2 years.
- **Certificate of Proficiency in Global Health Radiology and Radiation Oncology** is a successful program launched by RAD-AID in 2015, providing semester-based courses that include readings, discussions and project mentorship.
- **Medical Student Global Health Radiology Education** program at RAD-AID offers a self-pace online course so that medical students may receiving comprehensive radiology global health training to earn the RAD-AID Global Health Radiology Medical Student Training Certificate, and then complete fieldwork in our teams to become a RAD-AID Global Health Radiology Medical Student Scholar.
- **Certificate in Global Healthcare Leadership** launched in 2023 to provide opportunities for radiology professionals to develop their leadership skills and to receive peer-to-peer collaboration with personalized dialog on organizational leadership topics for career development applicable to global health and low-resource contexts.

Geographic Information Systems (GIS) : RAD-AID has a team devoted to using Geographic Information Systems (GIS) methods for tracking and assessing regional data layers superimposed on public health databases and maps so that RAD-AID targets locations in need and measures our population-based impact. RAD-AID has a collaboration with the Canadian Hub for Social and Applied Research (CHASR) for technical and clinical expertise for providing best-practice GIS research in our program-planning.

RAD-AID Chapters Network now consisting of more than 95 Canadian and US-based academic radiology institutions, receives project support, funding, and educational webinars from RAD-AID in support of radiology residents, faculty, students, and technologists to boost global health projects in underserved and international settings.

Artificial Intelligence Education: RAD-AID developed the Teach-Try-Use model for helping sites to learn and deploy AI safely: (1) *Teach* sites how to supervise and validate AI outputs, (2) *Try* different architectures and infrastructure for managing AI workflows, and (3) *Use* AI in a gradual roll out to optimize patient safety and data-privacy.

RAD-AID Interventional Radiology, IR Simulator Training (supported by Mentice) in Kenya, October 2022



RAD-AID Mongolia, CT Technologist Training, Intermed Hospital, July 2022

RAD-AID builds an organizational culture that inspires creativity, drives innovation, and rewards perseverance. Always persevere.

ANNUAL RAD-AID CONFERENCE ON INTERNATIONAL RADIOLOGY AND GLOBAL HEALTH: 15 YEARS

RAD-AID Conference on International Radiology and Health Equity, at George Washington University in the Jack Morton Auditorium, Washington, D.C., November 2022.

Although there are numerous conferences on medical imaging and radiology for radiology professionals held throughout the year, there was never one dedicated forum for global health, outreach and international radiology development. To answer this need, the RAD-AID Conference was started in 2009 and has been held every year since. Our conference presents projects, strategies, methods and opportunities for international charitable service in medically underserved communities around the world. In 2022, RAD-AID hosted the 14th annual RAD-AID Conference as a hybrid event (both virtual and in-person) at George Washington University in Washington DC. The Conference is routinely scheduled for the first Saturday in November and coincides with the International Day of Radiology (IdoR) in early November.

RAD-AID Conference, Audience Participation for Discussing Global Health Radiology, November 2022

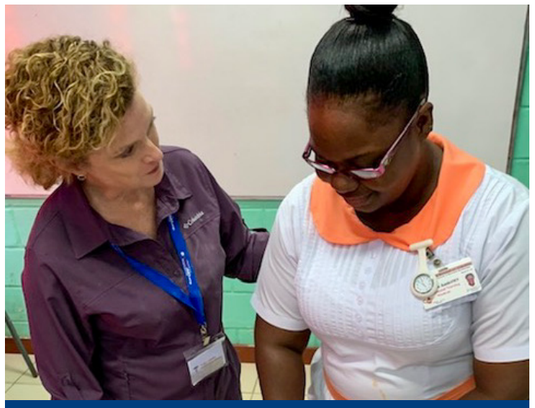
RAD-AID's management team consists of three key components to bring the best talent, experience and expertise to the development of RAD-AID programs: Operational, Regional and In-Country Leaders.

OPERATIONAL PROGRAMS

To support RAD-AID's regional teams (organized by geographic location), RAD-AID has operational teams focusing on key areas of expertise for capacity-building. For a full listing of our operational teams, please see our website. We feature some of our operational teams here.

Nursing

RAD-AID Nursing leads key initiatives for radiology capacity-building, such as: IV contrast administration training, primary care referral network development, patient-navigation, public health education, interventional radiology nursing, patient safety, Basic Life Support (BLS) instruction, oncologic nursing, and breast health community-based outreach. RAD-AID selects and mentors nursing teams to join and support other regional and operational teams at RAD-AID to implement multidisciplinary initiatives.



RAD-AID Nursing, Breast Health Education, Guyana 2019

RAD-AID at Nurses with Global Impact for International Nurses Day at the UN in New York, May 2023

RAD-AID Interventional Radiology Using a High-Fidelity Simulator to Teach Radiology Residents (supported by Mentice), University of Nairobi, Kenya, 2019

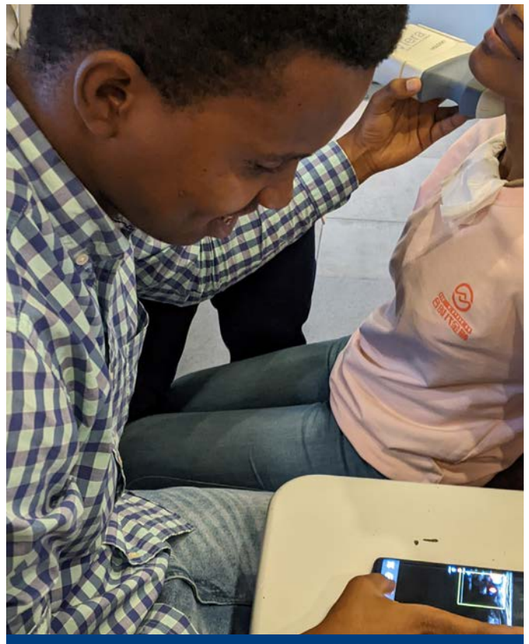
Interventional Radiology

RAD-AID IR has carried out global outreach projects in Kenya, Nigeria, Guyana, Vietnam, Ghana, and Indonesia. Our IR program helped form the first IR fellowship in Kenya at the University of Nairobi, which now graduates 2 IR fellows per year. In Guyana, RAD-AID gave a scholarship and mentorship to the first Guyanese fellowship trained IR attending and is providing other scholarships for Guyana's residents to receive specialized IR training. RAD-AID IR has a collaboration with Mentice to provide and support simulator-based training, in which RAD-AID has placed simulators in Guyana and Kenya so far, with one unit that rotates with our travel teams. We are partnered with the Society of Interventional Radiology (SIR) so that SIR members (trainees and fellows) can receive funding support to join RAD-AID teams in our outreach projects.

Ultrasound

RAD-AID Ultrasound supports training of ultrasound-users (physicians, sonographers, and point-of-care health providers) on cart-based, laptops, and hand-held ultrasound units. Our ultrasound educational outreach includes point-of-care, diagnostic, interventional, maternal-infant care, and image-guided biopsy sonographic imaging. Some examples include support for midwifery ultrasound to triage obstetric emergencies, residency curricula in Guyana, a certificate program in Tanzania, and breast imaging for risk-stratifying women for triage and referral to biopsy in rural and low-resource regions. RAD-AID Ultrasound has a 5+ year longitudinal program in place to implement tele-ultrasound (with support from Philips Foundation) which enables real-time image-sharing during an ultrasound exam, with interactive screen-tools for teaching, knowledge-assessments, and case-based consultation. RAD-AID is collaborating with Sonography Canada, Inteleos, Australasian Society for Ultrasound in Medicine (ASUM) and the World Federation for Ultrasound in Medicine and Biology (WFUMB).

RAD-AID Ultrasound, Pediatric Imaging Support for Lao Friends Hospital for Children (LFHC), Laos, February 2023



RAD-AID Partner Using Donated Handheld Ultrasound, Tanzania, 2022June 2023

RAD-AID Ultrasound Training at KCMC, Tanzania, July 2019

Informatics

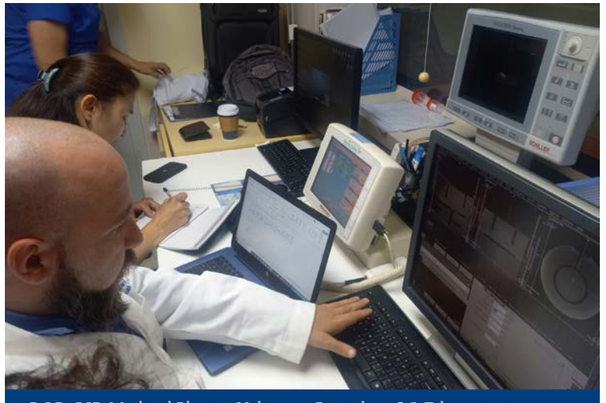
RAD-AID Informatics helps low-resource hospitals to assess, adopt, implement and manage the information technologies necessary for effective medical imaging. Our team has donated and supported PACS in LMICs since 2013. Our PACS architecture uses a flexible vendor-neutral architecture called the RAD-AID Friendship Cloud (diagram) that enables PACS software donations into hybrid on-site and cloud backup systems. For some countries that do not permit use of cloud, our platform can be flexibly adapted to on-premise storage only. Our PACS support includes workshops for in-country PACS administrators. RAD-AID Informatics also teaches and supports IT network professionals to help with data-flows, switches, routers, and other connectivity technologies necessary for PACS, EMR and other health software. RAD-AID Informatics also facilitates the donation and use of AI, with current collaborations that include Google Health AI, Qure.ai, Densitas, and Koios Medical. RAD-AID developed the Teach-Try-Use model for teaching methods for hospitals to assess/manage AI, while providing key infrastructure for trying AI workflows, and using AI in gradual, safe and effective roll outs.

RAD-AID Informatics also donates and supports hardware installations such as workstations, servers, and monitors for radiology reading rooms. We manage a global donation program with Barco and other donors for delivering high-resolution monitors to hospitals in LMICs, and then we teach quality-assurance methods for ensuring that monitors and workstations are functional for clinical applications.

RAD-AID Informatics Team Installing Donated PACS at Tribuvan University Teaching Hospital, Nepal, July 2022.

Medical Physics

RAD-AID Medical Physics includes Imaging Physics and Radiation Oncology Physics for supporting low-resource hospitals worldwide on radiation-safety, image-quality, and equipment-management. Our medical physics program outreach includes nuclear medicine, mammography, radiography, angiography/fluoroscopy, ultrasound, MRI, and radiation therapy. Our teams have supported new equipment installations by assessing for radiation control and safety, as well as existing equipment for routine quality control. RAD-AID gives scholarships and mentorship for medical physicists in LMICs, such as the first-ever locally trained Physicist in Botswana in 2023. In our collaboration with Mirion, RAD-AID is donating and using advanced equipment in our outreach teams.

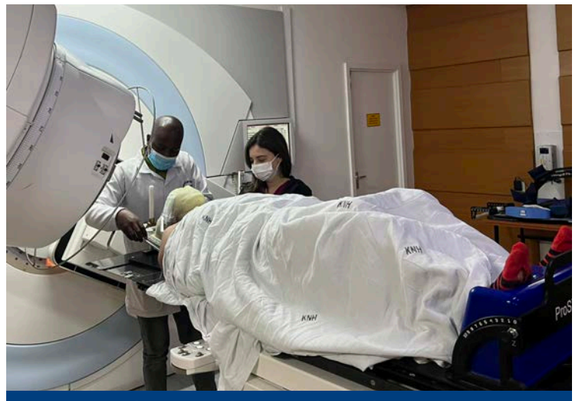


RAD-AID Medical Physics Volunteer Providing QA Education in MRI, Intermed Hospital, Mongolia, August 2023.

Breast Imaging

RAD-AID Breast Imaging Program has over 500 physicians and breast imaging technologists helping RAD-AID programs in over 20 countries. Our Breast Imaging Program supports low-resource institutions to assess breast imaging workflows, institute educational pathways, manage mammography equipment, organize mobile mammography programs in underserved areas, and provide patient-navigation (with RAD-AID Nursing). Nearly all LMICs do not have national breast cancer screening programs, and RAD-AID is helping countries to institute pathways that prioritize early detection with the aim of helping to achieve broader screening that makes earlier life-saving diagnosis possible. For example, we helped launch the first breast imaging fellowship in Ghana in 2023 and PACS-based mammography training in Guyana. RAD-AID has partnered with Society of Breast Imaging (SBI) so that SBI members can join RAD-AID outreach teams. We signed a new partnership agreement with African Research Group for Oncology, which emphasizes breast imaging for cancer control and has extensive hospital partners in Nigeria, other regions of Africa, and US-based academic centers.

RAD-AID Botswana, Mammography-Guided Breast Biopsy Training, January 2022



RAD-AID Radiation Oncology, Providing Didactic and Clinical Hands-On Education in Kenya, May 2022

Radiation Oncology

RAD-AID Radiation Oncology supports training of dosimetrists, radiation therapists and radiation oncologists for the treatment of cancers in LMICs. RAD-AID Radiation Oncology has teams rotating in Nigeria and Kenya, with other sites in the pipeline. Through partnerships with American Association of Medical Dosimetry (AAMD), ASRT, and CAMRT, RAD-AID implements comprehensive programs to teach treatment planning, therapeutic methods, and safety to low-resource radiation oncology departments. We have received support from radiation oncology vendors, such as Varian (a Siemens Healthineers company) to optimize radiation therapy and medical dosimetry education. RAD-AID Radiation Oncology has worked with RAD-AID Informatics to implement AI for software-based decision support on radiation oncology treatment planning at LMIC radiation therapy centers.

Technologists

Nearly two-thirds of RAD-AID is composed of radiologic technologists on RAD-AID teams. Technologists are a key driver of RAD-AID outreach efforts to help manage patients during their imaging exams, procedures and treatments. RAD-AID has partnerships with the Society of Radiographers (UK), American Society of Radiologic Technologists (USA), and Canadian Association of Medical Radiation Technologists (Canada), enabling their members to be integral contributors to RAD-AID outreach teams. Technologists in RAD-AID help teach imaging procedures across all modalities, and teach workflow techniques, PACS-utilization, safety, image-quality, adverse-reaction management, and more.

RAD-AID Tanzania, Peer-to-peer Radiography Education at KCMC, Moshi, July 2023

Nuclear Medicine

RAD-AID supports nuclear medicine and molecular imaging at low-resource institutions for image-interpretation, image-quality, radiotracer access/management, safety, and other applications for planar, SPECT, and PET imaging modalities. Sites include Kenya, Ghana, and Tanzania, with more in the pipeline. RAD-AID collaborates with the Society of Nuclear Medicine and Molecular Imaging (SNMMI), who provides funding support to SNMMI members (physicians, residents, fellows) through the Hyman Ghesani scholarship to teach and support nuclear medicine at low-resource hospitals in LMICs, while Siemens Healthineers (MESA division), ASRT, CAMRT, and SoR provide funding support to technologists (in collaboration with Siemens Healthineers MESA division) to support nuclear medicine peer-to-peer instruction.

RAD-AID Nuclear Medicine Volunteer (far right) with Aga Khan University Hospital Nuclear Medicine Stafff, Kenya, April 2023

RAD-AID Learning Center

The RAD-AID Learning Center (RLC) provides a library of pro-bono educational materials to staff and personnel of low-resource hospitals that are RAD-AID sites and partners. Educational institutions and authors have generously donated content to RLC (and collaboratively created content with RLC leadership), such as ASRT, ACR, and APDR, so that these resources are made available to LMICs under a secure and password-protected learning management system. The content is carefully curated for quality and for integrating with RAD-AID on-site teams that use these materials to supplement hands-on teaching and demonstrations. RLC hosts content in multiple formats across all imaging modalities, radiation oncology, and radiology professional specializations.

Mobile Health

RAD-AID Mobile Health brings radiology to those in need via transport vehicles for overcoming geographic, infrastructural, and sociocultural barriers. In 2012, RAD-AID launched Asha Jyoti for cancer screening to marginalized women in India. In 2016, RAD-AID announced a novel partnership with Straightline Aviation to build the first medical airship with deployable container-based clinics, designed to reach remote areas that lack transportation infrastructure. In mid-2017, RAD-AID deployed assistance teams to The Health Wagon in Appalachia, Virginia, for rural underserved in the United States. In 2019, RAD-AID donated a mobile mammography vehicle to Breast Care for Washington, to launch a partnership bringing breast cancer screening and diagnostics to the medically underserved communities of Washington DC. In 2019, we also supported mobile programs in Morocco and Ukraine. In 2020, in partnership with Hologic's Project Health Equality Initiative, RAD-AID added support for patient navigation and multiple mobile mammography vehicles for RAD-AID USA - Women's Health Program, including Denver, Seattle, Georgia, and Alabama. From 2021-2023, RAD-AID's Women's Health program expanded to offer innovative and life-saving services to even more sites across the US.

RAD-AID is about the holistic picture of radiology. Not just the equipment but also the people and all of the other resources that go into making it effective.

RAD-AID CHAPTERS NETWORK

The RAD-AID Chapters Network launched in 2012 and gives US and Canadian academic medical centers the ability to form RAD-AID chapters for local mentorship, project support, and funding. Each chapter provides a grassroots mentorship community so that staff, faculty, residents, and students can gain experience in global health and contribute to charitable activities. Chapter projects may be local to their community and region within the US and Canada, as well as link to RAD-AID global programs in the 40+ countries where we serve. Chapter members are eligible for direct support and funding from RAD-AID to develop new programs and participate in existing programs. Chapter member projects can be remote, such as tele-teaching and webinars, or on-site projects such as direct education and capacity building (equipment, software, clinical support, etc.). The RAD-AID Chapters Network is a vibrant community that grew to 7 institutions in 2013, 25 chapters in 2014, 53 institutions in 2016, and over 95 chapters by mid-2023. Learn more about RAD-AID Chapters online to apply, establish, grow or renew your chapter.

RAD-AID INTERNATIONAL Chapters

US/Canada Chapters

RAD-AID Chapters Network Brings Together Multidisciplinary Professionals from Academic Institutions to Conduct Global Health Radiology Projects

We welcome you to become part of RAD-AID as a growing global organization of advocates for medical technology in poor and developing countries.

PARTNERSHIPS

RAD-AID Establishes Important Partnerships to Build Radiology Capacity in Medically Underserved Communities, Such as Launching Mobile Mammography with Breast Care for Washington (BCW), Washington DC, June 2019

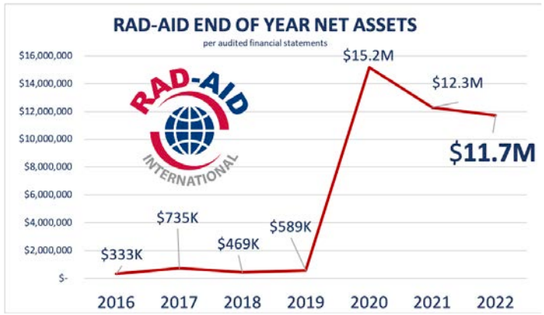
Partnerships play an essential role in RAD-AID's efforts to form well-rounded approaches to international health and public service. We are very thankful to the following partners in working with us to make radiology and healthcare more accessible for medically underserved communities (shown below alphabetically):

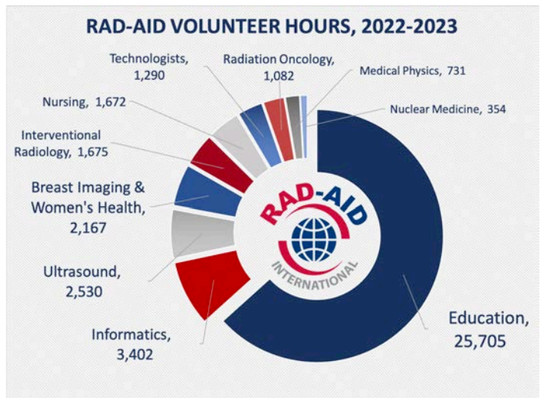
African Research Group for Oncology (ARGO)
Amazon Web Services
Ambra Health (an Intelerad company)
American Association of Medical Dosimetrists (AAMD)
American College of Radiology
Association for Radiologic and Imaging Nursing (ARIN)
American Society of Radiologic Technologists (ASRT)
Applied Radiology
Bayer
Black Women's Health Imperative
Breast Course for Nurses (BCN)
Breast Care for Washington
Brother's Brother Foundation
Canadian Association of Medical Radiation Technologists (CAMRT)
Center for Accelerated Real Time Analytics (CARTA)
CerviCusco
Canadian Hub for Applied and Social Research (CHASR)
City Cancer Challenge Foundation (C/Can)
Clinton Global Initiative
CureMetrix
Densitas
East Africa Medical Foundation
Envision Physician Services
Friends Without a Border
GlobeSmart (Aperion Global)
Google Cloud
Google Foundation
Hexarad
HI-IQ
HIMMS
Hologic, Inc.
Inteleos
Koios Medical
MD.ai
MedWeb, Inc.
Mentice, Inc.
MissioInvest
Mirion
IBM Watson Health Imaging (Merge)Nurses with Global Impact
Philips
Philips Foundation
Project Hope
PURE
Qure.ai
Radiology Partners (RP)
Siemens Healthineers
Society of Breast Imaging (SBI)
Society for Imaging Informatics in Medicine (SIIM)
Society of Interventional Radiology (SIR)
Society of Nuclear Medicine and Molecular Imaging (SNMMI)
Society of Radiographers (United Kingdom)
Sonography Canada
Straightline Aviation
TeraRecon
Therapixel
TribalCO
Virtual Radiologic (vRad, a Radiology Partners company)
World Federation of Pediatric Imaging (WFPI)
World Federation for Ultrasound in Medicine and Biology (WFUMB)
World Health Organization (official relations status since 2015)

FINANCIALS

RAD-AID remains committed to best financial practices. In 2023, RAD-AID received the Platinum Seal of Transparency from Candid (previously known as Guidestar), and maintains a perfect rating by Charity Navigator.
Over the last 7 years, our administrative expenses remain under 15% of our total revenues, with over 90% of expenses directed to program services. Detailed financial statements are always available on our website.
Between 2022-2023, RAD-AID volunteers donated over 41,000 hours of pro bono work towards radiology education and capacity building, valued at $2.9 million of in-kind support. Since our inception, RAD-AID has contributed over $20.8 million in donated personnel-time, grants, and equipment to underserved regions around the world.
Every dollar of your donated money, minute of your donated time, and ounce of your donated equipment is very valuable to RAD-AID and directly correlates to our accomplishment of our mission. We thank you for your support and contributions!

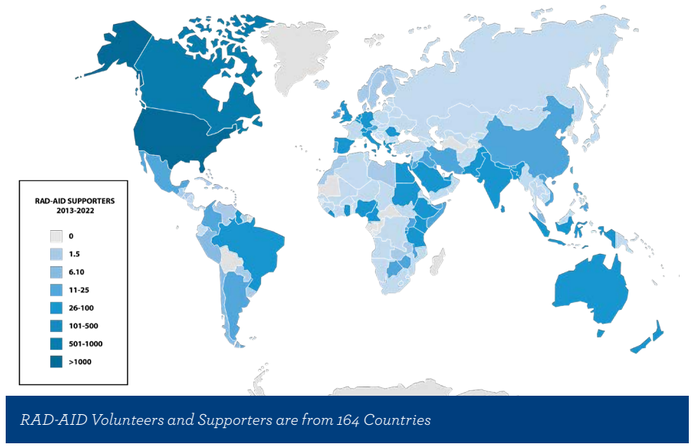
RAD-AID received a Platinum Seal of Transparency from Candid/Guidestar from 2021-2023, Gold Seal of Transparency from 2017-2020, and maintains a perfect rating from Charity Navigator.





Charity Navigator
FOUR-STAR

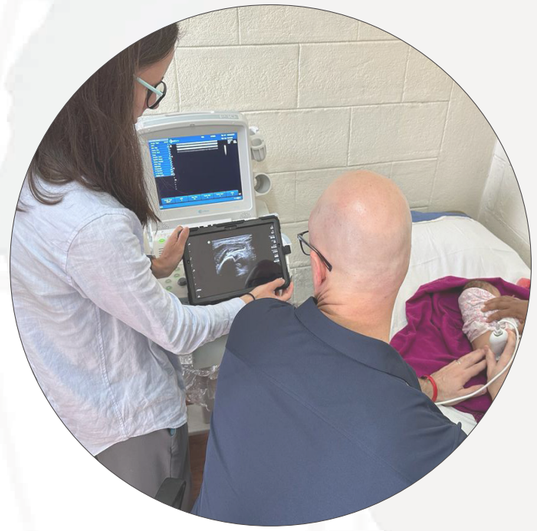
Platinum Transparency 2023
Candid.



RAD-AID Volunteers and Supporters are from 164 Countries

CONCLUSION AND THANK YOU!

We hope this annual report from RAD-AID has been informative as an overview of our progress and efforts to bring radiology and healthcare to the billions of people in need around the world.
We hope this annual report from RAD-AID has been informative as an overview of our progress and efforts to bring radiology and healthcare to the billions of people in need around the world.
We are inspired by the contributions from our volunteers and supporters. RAD-AID began in 2008 with a handful of supporters in 2008 and has grown to over 16,000 volunteers from 164 countries helping more than 100 health facilities.
Radiology is fundamental for nearly all aspects of healthcare, including surgical planning, trauma, cancer care, obstetric prenatal services, respiratory infection response, and cardiovascular management to name a few. Without radiology, health care systems across the world suffer numerous gaps that crack the chains of effective health care delivery. RAD-AID answers this call to meet those needs and serve the world.



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Annual Report 2023

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