



Volunteer

RELIEF WITHIN REACH

By **Alyssa Martino**

BRINGING IMAGING TO MEDICALLY UNDERSERVED POPULATIONS DOESN'T ALWAYS REQUIRE A PASSPORT.

The World Health Organization (WHO) reports that the “majority of the world’s population is denied adequate access to safe and appropriate medical devices.”¹ However, many don’t realize that these underserved communities are not limited to developing nations — they can be just miles away.

“Medical devices are indispensable for effective prevention, diagnosis, treatment, and rehabilitation of illness and disease,” the WHO reports. And yet, various factors — awareness, accessibility, and cost — limit imaging procedures among Americans. The Rural Assistance Center’s map, “Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs),” reveals that no U.S. state is without MUAs and MUPs.²

Additionally, underserved communities are not limited to any single location, race, ethnicity, or background. But they do lack the same vital services and care.

No Need to Travel

The misconception that you must travel to volunteer is deeply rooted, says Michael N. Linver, M.D., FACR, from X-Ray Associates of New Mexico, in Albuquerque. “Much of the great interest in volunteering medical services overseas lies in the allure of exotic and unusual experiences,” he asserts. Yet Linver perceives a responsibility among physicians to help those in need domestically as well. “The importance of providing imaging services to underserved populations here at home is a matter of fulfilling our moral obligation to care for all people — rich or poor, young or old, accessible or inaccessible,” he says.

Understanding the value of aid both at home and abroad, Charles A. Gooding, M.D., FACR, FRCR, from the University of California San Francisco Medical Center, established the Radiology Outreach Foundation (whose resources were transferred to the ACR in 2008), which provided more than \$16 million in materials to developing countries. He notes that, “Here in the United States, devastating deprivation is also occurring.”

Gooding has been particularly active in trying to increase access to health care and imaging for the Sioux Native Americans from the Pine Ridge Reservation in Pine Ridge, South Dakota. On

the reservation, “families struggle with financial, housing, health, education, and social issues,” he says. “Cancer, heart disease, diabetes, and infection — particularly tuberculosis — are rampant. The infant mortality rate is five times the U.S. average. Life expectancy is 47 years for men and 52 years for women.”

Gooding views diagnostic imaging as vital to the Sioux population at Pine Ridge. “Since radiology offers the ability to diagnose before disease progresses, it might be possible to forestall the debilitating consequences that follow,” he explains.

At Pine Ridge and other U.S. communities with inadequate services, radiologists and other medical professionals can take action by donating time or materials, raising awareness, or simply increasing the accessibility of imaging procedures. Linver explains, “How can we choose to ignore anyone and deny our services simply because they are more difficult to reach? If anything, we should make an extra effort to help make a difference in the lives of those most at risk.”

Imaging Services on Wheels

Radiologists in Seattle have increased such patients’ access to imaging services through mobile mammography. Jay R. Parikh, M.D., FACR, FRCR, medical director of the

Women’s Imaging Diagnostic Center at the Swedish Medical Center’s Cancer Institute in Seattle, thinks such mobile units are the way of the future. “If we’re able to use information technology to actually improve access for patients, that’s great,” says Parikh.



Arun Krishnaraj, M.D., M.P.H., (left) and his fellow residents help out at a Ronald McDonald House Charity event.

Courtesy: Arun Krishnaraj



To Michael N. Linver, M.D., FACR, helping to ensure accessibility to medical care is a responsibility all doctors assume when they take the Hippocratic Oath.



Charles A. Gooding, M.D., FACR, FRCR, who founded the Radiology Outreach Foundation, is now working to bring imaging services to the Sioux.

Courtesy Swedish Cancer Institute



The Swedish Cancer Institute in Seattle uses a mobile mammography van (shown above) to serve populations both in urban and rural areas.



Jay R. Parikh, M.D., FACR, FRCR, says that job-related pressures and distance make some women less likely to get their annual mammograms.

For the Swedish Cancer Institute, mobile mammography vans have greatly benefited communities in need, in both rural and urban areas. “It’s a win-win for everybody,” says Parikh, who also notes that patients in these areas tend not to come in for preventive measures like screening mammography because of “commutes, distances, and job-related pressures.”

However, the mobile mammography machines can perform mammograms for patients closer to where they live and work, and can digitally transmit images to a central location. The digital format also significantly reduces the chance that patients will be called back due to technical issues because it helps locate masses in women with dense tissue and is a more sensitive method of detection for those in their 40s. The technologist can review images immediately, before the patient departs the coach van.

Occasionally, though, says Mary M. Kelly, M.D., also with the institute, the mobile mammography units do encounter unavoidable obstacles to image transfer via satellite, such as poor weather and topographical features. But technology like laptops allows an alternate means of transmission, as images can always be uploaded to laptops and then physically brought to the facility. “Either way, the images appear identical to those generated in our breast centers,” she explains.



Mobile mammography is an important way to reach underserved populations, according to Mary M. Kelly, M.D.

Parikh believes that convenience and access are equally important contributors to the success of mammography vans. “We’ll go and set up the van in urban

TAKING THE NEXT STEP

Are you interested in getting involved in domestic efforts to increase radiology services? Or maybe you’ve got an inspiring story to share about your own volunteer experiences. The College wants to hear from you. Please contact the ACR Membership Department at membership@acr.org to coordinate efforts to increase awareness and accessibility of imaging at home.

areas in Seattle, where there are underserved populations,” he says. “It’s very popular at corporations [where] patients have a hard time getting off work for personal issues. With the van downstairs, they can excuse themselves for a little while and then return to work.”

The van also travels 200–300 miles into rural Washington, offering services in those locations as well. “We might drive the van to the site of a Latina health fair or a senior center, and women who might not have transportation or connections to a mammography facility can receive their mammogram,” says Kelly. “The service is highly valued. During the month of October, each coach was booked six days per week.”

“I love the possibility of using the digital mammography platform as a way of embracing community and providing excellent care,” adds Parikh. “We really believe if we’re able to make mammography more accessible to patients, we’ll save lives.”

Overtuning Misconceptions

Community service can also help improve the image of U.S. radiologists, according to Arun Krishnaraj, M.D., M.P.H., from Massachusetts General Hospital in Boston, and 2010–2011 chair of the ACR’s Resident and Fellow Section (RFS). In a 2009 *JACR* article, Krishnaraj proposed “The Heart of Radiology” campaign,

which would “increase resident and fellow involvement in community service activities in an effort to combat the perception of radiologists as physicians who are detached from the doctor-patient relationship and their communities.”³



Arun Krishnaraj, M.D., M.P.H., helped begin “The Heart of Radiology” resident service campaign.

Though details of this RFS-led initiative are still being formulated, Krishnaraj hopes the campaign will one day include overlooked patient populations. In the meantime, Krishnaraj and other residents have been involved in holiday food drives and sending care packages to troops overseas. Other innovative ideas, like setting up more radiology booths at such events as the American Cancer Society’s Relay for Life, where free information about imaging procedures can be provided to participants, have also been suggested.

Krishnaraj believes that all doctors have an innate interest in service. “It’s about rekindling the desire to serve that most doctors have when they enter the profession,” he says. “Oftentimes, this [feeling] is lost in radiology. Our care sometimes feels detached from traditional patient care,” he adds.

As the “Heart of Radiology” campaign evolves, “it will have the same mission or scope as what we’re doing now with service,” he says. Krishnaraj also predicts that this effort will be in part led by the enthusiasm of a younger generation of radiologists. “We can build a better world by serving local communities,” he concludes. //

ENDNOTES

1. World Health Organization, “Medical Devices.” Available at: <http://bit.ly/9tn5Pg>. Accessed Nov. 1, 2010.
2. Rural Assistance Center, “Medically Underserved Areas — MUAs and Medically Underserved Populations — MUPs: Designation Type.” Available at: <http://bit.ly/9DsNpW>. Accessed Nov. 1, 2010.
3. Krishnaraj, A. “The Heart of Radiology.” *JACR* 2009;6:129.