

Northwest ImageShare Linking Images, Clinicians & Care

Northwest ImageShare is breaking new ground—as well as answering the call for greater availability of health information via health exchanges from National Coordinator for Health Information Technology Farzad Mostashari, MD, ScM. This successful and growing exchange focuses exclusively on imaging studies. What's different is Northwest ImageShare includes a hospital and three physician groups that have put competition aside to share images on the Kitsap Peninsula in Washington. It's working—quite well—and truly enabling better patient care. Is it something you should try, too?

By Mary C. Tierney

Getting started

Northwest ImageShare is based on a cloud-based regional PACS run in collaboration by Harrison Medical Center, Advanced Medical Imaging, The Doctors Clinic and Olympic Radiology. Altogether these physician and imaging groups have 17 facilities across the Kitsap Peninsula, an hour's ferry ride west of Seattle.

The initiative went live in July 2012 but dates back to 2011 when Harrison Medical Center COO, then CIO, Adar Palis put out feelers at the urging of Harrison ER physicians to get other providers nearby to begin sharing patient images. The objective was to enable better physician access to images across their region to enable more immediate and better care for patients. After a couple of months of discussions, the groups agreed to form Northwest ImageShare.



Harrison Medical Center in Bremerton, Wash., is the hub of Northwest ImageShare—a unique image-sharing network that links 17 centers together and is seeking to expand across the Kitsap Peninsula.

So just what does it take to breed consensus for such a collaborative? “You need willing participants who put aside competition for the sake of patient treatment,” says Harrison CIO Ty Walker.

Michele Sauer, administrator of Olympic Radiology, echoes the same message: “It requires the right players with the right perspective, attitude and vision. Harrison was willing to come to the table and identify what we can do together that doesn’t challenge our business model but really benefits the community and, ultimately, the patients,

their care and having clinicians have all the tools they need to make quick diagnostic and treatment decisions.”

The team at The Doctors Clinic felt the same way. “When it came to patient care and really looking at what Northwest ImageShare could bring to the medical community, we had to do it,” recalls Clinical and Ancillary Services Director Brennan Dobbins.

“The benefits outweigh the challenges because it’s patient care,” adds Tina Moore, administrator of Advanced Medical Imaging. “Nothing really is going to trump that.”

Configuring image share

The first key to creating the image share was standardizing all the facilities on the same Sectra web-based PACS and image sharing algorithms. Harrison's staff took care of getting the facilities and physicians connected as well as maintaining system support 24/7. The PACS allows centralization of administration, maintenance and storage of images while maintaining security integrity. The partner organizations established guidelines to securely separate their patient information per HIPAA requirements and individual facility guidelines and protect their referral bases. "For example, each facility's network is attached to the Northwest ImageShare, but they are not allowed to penetrate beyond their service or services that they need," explains Ben Holmes, PACS system engineer at Harrison. "So at no time could one entity come in through Northwest ImageShare and into another entity or back out. We protect that."

Sectra's cross-platform worklist securely partitions each organization's information in the shared archive which complies with HIPAA guidelines. The centralized archive greatly reduces the IT cost infrastructure for the providers and improves the continuum of care in the region. The redundant and secure data center resides at the local 911 call center. "It's all virtualized," Holmes explains. "Our SAN system is fully protected



Radiologist James Solze, MD, reads images at Harrison Medical Center. He, like the physicians who are part of the image sharing network that includes the medical center, Advanced Medical Imaging, The Doctors Clinic and Olympic Radiology, are able to view patient images on a shared, cloud-based PACS via a desktop and web client that allows access anytime, anywhere, even on iPads and other mobile devices.

there and we have our own network setup and firewalls in place along with our tape archives for a completely maintained system."

Harrison hosts the system and administers in the image share by collecting fees from the other providers. The fees are about the same as most the groups paid for PACS separately; The Doctors Clinic, however, was able to cut more than 60 percent from what they paid previously for PACS. The more exams that are part of the image share, the less each exam costs the providers—thus creating further economic incentives for participation and growth. "The economies of scale are

very important because we are looking at shrinking reimbursement," Palis notes. "By coming together as one group, we have a higher number of studies but the cost [to manage them] is reduced as one entity...We saved some of these groups quite a bit of money, some as high as 50 to 75 percent of their costs."

Saving money and improving physician access to imaging exams to facilitate emergent and non-emergent care were goals that have been accomplished, as are reducing the costs and radiation dose from duplicative imaging exams, cutting down their IT and staffing costs and improving overall efficiency.



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The Doctors Clinic

“Our emergency room physicians have the ability to pull up an image vs. subjecting the patient to another x-ray,” Palis says. “Obviously there is the benefit of less radiation; the patient doesn’t have to have another CT, another MRI, another x-ray. There also are financial benefits to the patient because he or she doesn’t have to pay for another imaging exam.”

The imaging centers also have seen significant workflow improvements. “We found that we could increase our workflow by having access to comparisons for our technologists [and radiologists], and not having to spend the administrative time chasing down pri-

bins says. “We saw this as the perfect opportunity to streamline a lot of our operational aspects to allow physicians to be more efficient and patients to benefit as well. To move to the new PACS, along with being part of Northwest ImageShare, we were looking at a savings of about 50 percent to 60 percent just in the per study cost.” They also were able to eliminate one IT staff position.

Driving physician satisfaction

And then there are the physicians. To them, the image share is transparent. They can access images from any of the four groups from any workstation,



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ors,” Sauer says. Olympic Radiology also has reduced the inefficiencies and compatibility issues of image transfer via CDs. Financially they’ve benefited, too, from not having an IT person to oversee the PACS project.

The Doctors Clinic had the swiftest go-live with the image share as well as reaping the largest financial benefits. “Most people spend a year or more making the transition [to a new PACS], and we made it in three months,” Dob-

regardless of where the patient was imaged. Physicians have the same desktop and web client and easy access from anywhere, even on iPads and other mobile devices.

“The feedback from physicians has been very positive,” Palis notes. There’s definite consensus here. “The ER side was the most exciting for us because our radiologists work at the hospital,” says Moore, on behalf of Advanced Medical Imaging.

“Physicians within The Doctors Clinic really enjoy having everything there at their fingertips; they asked us why hadn’t we done it sooner,” Dobbins adds. “It’s very difficult for patients to remember the details to give them what they need. Now our physicians have the ability to just look at the patient’s record and ask them questions about [prior studies] and see those too.”

“I am not surprised that physicians have taken to the system so easily,” Walker says. “It’s easy to use. It hasn’t taken much time for us to get the physicians trained. Some have said they had zero learning curve.”

Into the future

Northwest ImageShare is looking over the next few months and years to spread their wings in terms of capabilities and providers. They hope to soon add radiation dose monitoring, templating specific to specialty, such as orthopedics, and EMR integration—and someday expand into pathology, cardiology and radiation oncology. They also seek to add mass, urging additional organizations within the Kitsap Peninsula and others toward Seattle to be a part of the image share. In fact, including Northwest in the title was meant to pave the path for expansion, Holmes notes.

“I think this can grow to as many providers as we need in this community,” Palis says. “Once we have our entire community covered, then we talk to some of the bigger providers and beyond that on a state level. Imagine if, as a patient, you could go to Seattle for care and they already have all of your studies available in their system, not CDs being transferred via helicopter but everything all available in one system. It’s kind of the dream that every IT person has of having a universal record; this could be the first step to making that a reality.” ■