Electronic medical records (EMR) are now delivering on promises of improved patient outcomes, population health management and personalized medicine. But for most hospitals and health systems, those advances have come with a cost—a measurable decrease in care provider satisfaction.

A seminal RAND study put it bluntly: “The current state of EMR technology appears to significantly worsen professional satisfaction for many physicians—sometimes in ways that raise concerns about effects on patient care.” In fact, recent research including the RAND report show that health IT too often frustrates care providers, whether due to password management, poor UI design and usability, time-consuming data entry, lack of remote access or inflexible workflows.

Leading hospitals and clinics are now mobilizing healthcare to improve technology adoption and utilization. Enabling remote access via mobile devices helps to achieve promised ROI, enhance quality of care, ensure that electronic records are complete and drive physician satisfaction.
This white paper reviews the experiences of two healthcare systems that implemented VMware AlwaysOn Point of Care, providing physicians with remote access to patient data, single sign-on, and a consistent, secure application environment for any device, on any operating system, at any location. Their examples demonstrate that organizations deploying a physician-focused, virtual desktop can boost the speed and quality of care delivered, enhance patient experiences, create better workflows and improve quality of life for care providers.

Kettering Health Network: Pushing the inside out
Kettering Health Network is a not-for-profit network of eight hospitals, nine emergency departments and 120 outpatient facilities serving southwest Ohio. It numbers nearly 12,000 employees — and of that, more than 2,000 physicians. Like all healthcare providers, Kettering works continuously to improve quality while reducing costs.

The network turned on its EMR implementation nearly five years ago. Chief Medical Information Office (CMIO) Charles Watson, DO, acknowledges that some of the promised benefits were slow to develop.

“With the original EMR implementation, I don’t think anyone would argue that our physicians automatically became more efficient,” he recalled. “In fact, if anything, it slowed physicians down compared to the workflows that they developed on paper over decades of practice life. We threw a wrench into their workflows with the EMR.”

That wasn’t the only issue. Physicians complained that the one advantage they most looked forward to — remote access — was not as robust as they anticipated.

Kettering turned to VMware, a leading virtualization solutions provider, to extend the benefits of their EMR investment to physicians wherever they were and whenever they needed access to patient data. Remote access had to be frictionless, which meant making it drop-dead simple to sign on to a set of applications quickly and securely, providing an intuitive, familiar desktop regardless of the phone, tablet or computer used.

With VMware AlwaysOn Point of Care, Kettering now provides a unified workspace for each physician that delivers apps and data remotely, just as it would on networked desktops within the system’s hospitals and clinics. Via a web portal, the VMware virtualized desktop presents care providers with the same applications they are authorized to see based on their user or group permissions. Not only that, but the desktop is presented in the exact state it was last accessed, regardless of when or where the previous desktop session ended.

A practicing obstetrician, Watson said VMware and its application partners – in this case, AirStrip – routinely help doctors in his specialty provide faster care for women about to give birth. “If I’m on call and outside the hospital, I could get a call from a labor and delivery nurse saying she is not comfortable with the fetal monitor strip of a patient,” he explained. “I can pull that fetal monitor strip up on my smartphone or home computer (via the portal) to have a look at it myself. It is much quicker and more convenient than driving into the hospital to have a look at it. In the old days, I would have said, ‘I will be there in 20 minutes,’ but that was 20 minutes of waiting for the patient, 20 minutes when care was not being delivered.”

Now Watson and his colleagues can review relevant data and provide an order in seconds, with no need to wait for the physician to arrive at the hospital. “VMware’s solution does — and it will continue to — provide the closest to the inside-the-firewall experience we can offer,” he said. “That is what we have been aiming for.”
Metro Health: Better medicine, better business

The Metro Health system includes a 208-bed, general acute-care osteopathic teaching hospital in Wyoming, Michigan, and more than 50 physician offices and specialty clinics. Over the past 30 years, CMIO Brad Clegg has seen a lot of changes, but nowhere more than in the field of healthcare information technology.

But even as recently as five years ago, when Metro Health was going live with its latest EMR implementation, physician access and usability were imperfect. It wasn’t just remote access — even changing locations within the hospital disrupted the new electronic workflow. For instance, when physicians moved from one location or device to another, they often had to end their session and log out of their apps, only to have to log back in again at the start of their next session.

VMware provided the missing link between clinical workflows and the EMR. “When I’m in the patient record and I’m called away and log out, it might be sometime before I can log back in,” Clegg said. “But with the system we’ve deployed, when I log back in someplace else in the hospital, or even anywhere in the world, my cursor is right in the place where I left off.”

A well-designed remote access system extends the hospital virtually, as Metro Health’s emergency department demonstrates. Under the old model of care, if a patient presented with a fracture and the potential need for immediate orthopedic surgery, staff would contact the surgeon on call, who would come to the hospital to examine the patient, check the X-rays and decide on treatment.

That changed with the VMware rollout. One of Metro’s orthopedic surgeons, who initially was against the move from paper to all electronic records, became a convert in the first week after he got remote access. “He called me and said that it had saved him two trips to the hospital that week,” Clegg said. “In one of those cases he was able to look at images on his TV at home, determine that an injury was a non-displaced fracture, had the resident take a look at it and then advised the patient to call his office on Monday.”

The ability of doctors to provide expertise to patients even when they’re miles from the bedside has obvious benefits for health outcomes. But it’s not just better medicine — it’s also better business.

First, as Clegg noted, an important measure of care quality under new payment models is patient satisfaction. The length of time it takes for a patient to get the care they need can

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CMIO
Kettering Health Network

Metro Health Hospital, Wyoming, Michigan
have a material effect on these scores. “Patient satisfaction is one of the top driving forces for the financial health of the system, because that is how they will be paid and how people will be choosing their providers,” he said.

Second, remote access enables hospitals to meet meaningful use requirements for electronic orders, earning incentives and avoiding penalties. Calling in orders doesn’t count.

Finally, physicians are embracing mobile lifestyles. A healthcare organization that supports its tech-savvy workforce will enjoy recruiting and retention advantages in a competitive environment.

Clegg cited two recent examples. In one instance, the care team was waiting for one last test before discharging a patient. The test came in very late in the afternoon as the doctor was leaving for the day. Fortunately, he viewed the results and approved discharge while sitting in his car in the parking lot.

Another young cardiologist has recounted how he sits in his family room on weekends watching football, logging in at half time to review echocardiograms on his plasma screen television before returning to second half action.

“One of the really cool things about access from anywhere is that many of our doctors now leave the office at 5 o’clock every day,” Clegg said. They can go home and, “if they have young families, have dinner, play with the kids, then log on at seven or eight later that night from home to finish their documentation. It is shifting where they do their work.”

AlwaysOn data, AlwaysOn results
Arming care providers with patient data and the opportunity to take action, regardless of their location, is no longer optional — it’s a necessity. Remote access, single sign-on and a consistent environment on any device represents a low-cost, high-reward solution for healthcare organizations seeking to improve patient outcomes, boost clinician satisfaction and enhance the bottom line.

1 Factors Affecting Physician Professional Satisfaction and Their Implications for Patient Care, Health Systems, and Health Policy, The RAND Corporation, Friedburg, Mark W. et al., 2013.