Roving about the hospital on wheels, a robot lets doctors see and talk with patients, families, and staff in the intensive care unit (ICU) in the middle of the night. From their home computers, doctors guide the robot by remote control, communicate by secure video, and respond to after-hours emergencies and can be at the bedside – virtually – in a matter of minutes.

During a three-month pilot of the InTouch Health® RP-VITA® robot, physicians at the Kaiser Permanente Medical Center in Fremont, CA, reported fewer night emergencies because ICU physicians virtually were able to catch issues before they became big problems. Physicians formed stronger relationships with the late-night shift nurses, enhancing nurses’ ability to detect issues early. Family members visiting in the evenings also valued the chance to talk to doctors.

The InTouch® system is just one innovation being tested at Kaiser Permanente, where an extensive support system enables physicians and frontline staff to bring new ideas to life.

Policy Context
Conventional wisdom holds that it takes 17 years on average to incorporate evidence-based best practices widely. Consequently, health care leaders and policymakers are seeking ways to spread innovation more rapidly. For example, through its “Initiatives to Speed the Adoption of Best Practices,” the Center for Medicare and Medicaid Innovation partners with providers, federal agencies, professional societies, and other experts to test new ways to disseminate best practices and increase the speed of adoption.

The Challenge
Even when the benefits of an innovation are clear, organizational complexity, inertia, and time and resource constraints may slow its adoption. The champions of the InTouch® system faced barriers to spreading it across Kaiser Permanente. The primary barrier was that Kaiser Permanente did not have a uniform strategy for delivering telemedicine. As is common in large organizations—particularly those that favor consensus- and evidence-based decision-making—Kaiser Permanente leaders were reluctant to promote the technology until a systematic review of other options for remote rounding and consultation could be undertaken.

Kaiser Permanente Solution
Kaiser Permanente supports innovators across the organization to test and spread new ideas. At the ground level, innovation takes place every day in clinical and information technology departments across the program. Kaiser Permanente also has a cadre of advisors and champions who help innovators overcome obstacles. When the InTouch® robot pilot stalled, Jenny Cunha, a regional innovation advisor in Fremont, blogged internally about the pilot’s results and networked with clinicians and executives throughout Kaiser Permanente. Danielle Cass, an innovation champion, developed “imaginariums” that allowed hundreds of leaders and frontline staff to test the robot’s high-fidelity two-way video camera, audio, stethoscope, 20-inch TV screen, and rolling wheels for themselves. You can watch an imaginarius video at www.youtube.com/watch?v=Yf11uqhhpBo.
More broadly, Kaiser Permanente’s innovation infrastructure includes:

- The Sidney R. Garfield Health Care Innovation Center, a simulated care delivery environment where innovators and their “customers” can participate in simulations, technology testing, prototyping, and product evaluations. See: https://xnet.kp.org/innovationcenter/index.html.
- The Innovation Consultancy, a group that takes the end user’s perspective to solve problems such as medication administration error.
- The Innovation and Advanced Technology (IAT) group, a team of information technology experts, nurses, and physicians who research, assess, and prototype emerging technologies. The IAT group administers an Innovation Fund for Technology, to which anyone at Kaiser Permanente can apply for funding to develop ideas that leverage technology to improve care.

Outcomes

The efforts to share the InTouch® story sparked numerous requests for information, in-person visits to the Fremont ICU and demonstrations. As a result:

- ICU physicians in a facility opening soon in San Leandro, CA are considering using the InTouch® system.
- In emergency rooms at two medical centers in Oregon, an InTouch® cart allows off-site neurologists to assess potential stroke patients, speeding administration of a time-sensitive, life-saving medication.
- A medical center in Southern California will test the InTouch® robot in its neonatal ICU, possibly allowing a pediatric intensivist to round more frequently on patients.

Beyond the InTouch® example, Kaiser Permanente’s efforts to support innovation are taking off inside and outside the organization:

- The Innovation Consultancy has worked with innovators across the organization to develop solutions touching more than 50,000 clinicians and 2 million members.
- Since 2008, the Innovation Fund for Technology has reviewed 760 ideas, of which 105 have been funded, and 19 have gone into operation.
- Kaiser Permanente has sponsored summits and shared innovations with the U.S. Department of Health and Human Services, the Centers for Medicare and Medicaid Services, and the White House Office of Technology.
- The Garfield Innovation Center has hosted 55,000 visitors from 53 countries in the past seven years.

Practical Implications and Transferability

All organizations face roadblocks when trying to get ideas moving. Christi Zuber, director of Kaiser Permanente’s Innovation Consultancy, suggests three ideas to get past them:

1. Examine how an idea directly improves care delivery and whether it is really ready to go. Even if the benefits are clear, it can take months to build the organizational capabilities and support to get an idea off the ground.

2. Make sure people on the front lines have the bandwidth and tools to implement an idea. Sometimes what appears to be resistance is really a lack of time to plan and carry it out. Ease the logistical burden by creating a “change management packet,” with videos of new innovations and concept sheets with data and lessons learned.

3. Encourage innovators to share their best practices and generate enthusiasm through blogging, email updates, and demonstrations.

For more information, please visit:

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