

Colorectal Cancer Screening: Preventing a Deadly Disease

KAISER PERMANENTE POLICY STORIES, VOL. 4, NO. 1



An Uncomfortable Truth

It's safe to say that when people turn 50, completing a colon cancer screening is not on the top of their to-do lists. For many, even discussing that region of the body is highly uncomfortable and they may avoid doing it at all costs. But the reality of colorectal cancer is sobering: colorectal cancer is the third most common cancer in America and the second leading cause of cancer-related

deaths. The American Cancer Society estimates that 49,700 people will die of this disease in 2015.

Colorectal cancer doesn't have to be devastating. It is highly treatable if caught early. If everyone over 50 received recommended screening, up to 80 percent of deaths could be prevented. And yet national screening rates are lagging – at least a third of all Americans aged 50-75 don't get the recommended screening, and rates among certain racial and ethnic groups – such as Latinos – are much lower.

The United States took a step forward in improving screening rates when the Affordable Care Act (ACA) became law in 2010. The ACA stipulates that all

WHAT YOU SHOULD KNOW

- **Colorectal cancer kills an estimated 49,700 people per year, but it doesn't have to. Early detection can prevent up to 80 percent of deaths.**
- **Kaiser Permanente has dramatically improved screening rates by promoting testing inside and outside of the doctor's office and by reducing disparities between whites and Latinos.**
- **Moving towards integrated care delivery can improve colorectal cancer screening rates, and, in fact, research shows that Kaiser Permanente's integrated model leads to better treatment and survival rates for the disease.**
- **In addition, normalizing conversations about colorectal cancer and improving affordability of screening can help make many deaths due to colorectal cancer a thing of the past.**

private health plans eliminate cost-sharing for colorectal cancer screening tests that have an “A” or “B” rating by the U.S. Preventive Services Task Force. With improved access, it is up to health systems and insurers to encourage more patients get tested. Kaiser Permanente is among the health systems leading this charge.

Colorectal Screening at Kaiser Permanente: Making the Right Thing Easy to Do

Kaiser Permanente’s journey towards improving colorectal cancer screening rates began simply: we looked at our screening rates according to the Healthcare Effectiveness Data and Information Set (HEDIS) and determined that we had room to improve. Beginning in the mid-2000s, our regions started looking into why patients were not getting screened. They discovered that many people weren’t getting screened because they weren’t given enough opportunities to do so – most only got referrals when they came into the office. At the same time, the most reliable tests offered back then – colonoscopy and flexible sigmoidoscopy – were a burden for patients because they were invasive and required patients to come into the office and miss work. Fortunately, a new test had come to market called the fecal immunochemical test (FIT), which could be performed in the privacy of people’s homes and sent back to a laboratory for analysis.



Armed with this information, we set out to make it as easy as possible for patients to complete a screening. Our approach to colorectal cancer screening follows these major principles:

- **Promote colorectal cancer screening at every point of care.** Functions in our electronic medical record, KP HealthConnect™, alert staff members—be they receptionists, medical assistants, primary care physicians, optometrists—that patients are due for a screening when they check in for an appointment and enables them to remind patients to complete a screening. In some offices, staff receive awards and prizes if they successfully help a patient complete a screening.
- **Get patients to complete an annual fecal immunochemical test (FIT).** Patients may elect to receive invasive tests such as colonoscopy or sigmoidoscopy, but most patients find the FIT to be much more convenient. Patients can receive a FIT kit at the point of care, and population health management tools in KP HealthConnect™ enable us to do mass mailings of the FIT kit. Initial return rates can be low, so regions have boosted response rates by: sending letters in advance of mailing the FIT; using trained callers

to follow-up with patients by phone; using robocall reminders; and sending reminder letters. Education on how to complete the FIT can also boost completion rates. Patients can view a how-to video in offices and online at kp.org/coloncancervideo, and in some areas can view it on iPads while they're waiting for an appointment. In some California offices, staff show patients how to use the test in a demonstration area, complete with a non-functioning toilet.

- **Reduce disparities.** In 2010, Kaiser Permanente began work to reduce disparities in screening rates between whites and Latinos, with the goal of eliminating the gap by 2017. Broadly, we have worked to reduce disparities by: ensuring that patients have access to providers and staff who speak their language; improving physician-patient communications; and delivering care that is culturally and linguistically appropriate. Initiatives particularly aimed at reducing colorectal cancer screening disparities include: making sure all educational and instructional materials are available in Spanish; putting up bilingual signage to promote screening; developing messaging that resonates with Latino members; and producing a video that features the real-life story of how screening saved a Latino member's life. In addition, our Northwest region has piloted the use of promotores – Spanish speaking health educators – to help members get screened, and has created pictorial instructions for the FIT, which can be understood by speakers of any language.



Outcomes: Leading the Nation, Reducing Disparities

Kaiser Permanente's efforts to improve colorectal cancer screening rates have paid off: between 2004 and 2013, our screening rates nearly doubled—from 43 percent to 82 percent.¹ Every region ranks in the 90th percentile for screening rates, and in 2014, the National Committee on Quality Assurance ranked our Mid-Atlantic region number one in the nation.

Although racial disparities in screening still exist, the gap is starting to close: before our disparities reduction work began in 2010, there was a 6.7 percent gap between whites and Latinos for screening.² In 2014, there was only a 3.3 percent gap.

Making it Work: Integrated Care Delivery, Changing Culture and Eliminating Barriers

Recent research shows that patients in Kaiser Permanente's integrated delivery system are more likely to receive evidence-based treatment for colorectal cancer and experience no racial or ethnic disparities in survival rates when compared to patients in non-integrated systems.³ Elements of Kaiser Permanente's integrated

care delivery system are also responsible for our success with improving colorectal cancer screening rates. First, our mission and pre-paid payment system compel us to invest in prevention and equitable care. Second, our robust electronic health record system has strengthened our culture of measurement and continuous improvement, in addition to supporting population health management and clinical decision-making. Third, our use of team-based care leverages the entire staff to ensure that patients receive necessary care. Fourth, we use learning communities and other knowledge exchange platforms to make sure best practices are scaled throughout the organization. Any movement towards integrated delivery—such as the growth of Accountable Care Organizations and payment reform—can only help in the effort to improve screening rates and reduce deaths.



But we also realize that health systems can't do it alone. Because colorectal cancer is still such an uncomfortable issue to talk about, health systems need to work with community groups, nonprofits, public health agencies and others to raise awareness and change culture.

Finally, although the Affordable Care Act made access to testing easier, there are lingering affordability barriers that could be overcome. For example, there is no universal policy around coverage for colorectal screening in state Medicaid programs, with some states only covering the test if it is deemed medically necessary. In addition, some patients may not be able to afford a follow-up colonoscopy after getting a positive FIT result, as some public and private payers may charge more when colonoscopy is used for diagnostic, rather than screening, purposes.

By moving towards integrated care, changing culture and further reducing barriers to access, we can help make many deaths due to colorectal cancer a thing of the past.

¹ Kaiser Permanente, Department of Hospital Quality and Care Delivery Excellence, internal analysis. Kaiser Permanente's Ohio region—which was acquired by HealthSpan in 2013—is not included in these figures.

² Kaiser Permanente, Department of Hospital Quality and Care Delivery Excellence, internal analysis.

³ Rhoads KF, P.M. (2015). How Do Integrated Health Care Systems Address Racial and Ethnic Disparities in Colon Cancer? *Journal of Clinical Oncology*.

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Care at Home: Meeting Patients Where They Are

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A Win Win Situation

Care at home strategies seek to establish a win-win situation in which patient satisfaction goes up while use of health care services and spending go down. In some cases, seniors may be able to maintain their independence living at home longer, while reducing spending on nursing home care and hospitalizations. In other cases, the programs can help to avoid acute care episodes and readmissions.

To bring care to where patients are—and where they prefer to be—Kaiser Permanente Northwest has established an innovative program called Primary Care @ Home, and a ground-breaking pilot program called Mobile Health Partners (MHP). Primary Care @ Home originated as a pilot and is now an ongoing program. The MHP pilot has seen consistent growth since its inception in 2013, but has been hampered by regulatory restrictions (described below).

These initiatives have demonstrated that home-based primary care can provide personalized care that maintains patient comfort and dignity. It also offers safe, high-quality care in a way that patients and families prefer, and lowers costs.

WHAT YOU SHOULD KNOW

- For many patients, making a trip to the physician's office can be challenging or impossible.
- Offering primary care services in the home can improve access for these patients, increase satisfaction, and lower costs.
- Situations that otherwise might result in a 9-1-1 call and an emergency department visit, can sometimes be addressed in a less resource-intensive way.
- Kaiser Permanente has created innovative programs in these areas to address patient needs.

Medical Care at Home: Meeting the Needs of Patients

For decades, the house call was a central feature of the health care delivery system. By seeing patients in their homes, physicians gained a deeper understanding of patients' circumstances and their lives. Today, home health care is a sizable, heavily regulated industry that offers nursing care and services such as physical therapy and wound care. Medicare limits eligibility to seniors who are homebound (essentially unable to seek outside care).



Home care offering primary care services can help in reducing avoidable resource use, such as unnecessary ambulance calls and emergency department (ED) visits. For patients just released from hospital to home, a call from a nurse can help ensure that the patient is adhering to the medication program, possibly preventing a readmission.

Innovative Programs from Kaiser Permanente

Kaiser Permanente is examining a variety of ways to provide home-based care for KP patient populations. In the Northwest region (Oregon and Washington), we have developed a primary care at home model, and an approach that allows paramedics to deliver non-emergency care in the home.



Primary Care @ Home

The Primary Care @ Home pilot program began in response to patients in care homes who were having difficulty accessing outpatient primary care and were suffering high rates of ED and hospital use. Under the program, "office-less" clinicians would "round" on patients in their homes. The program

has since been expanded to include many types of residential facilities (including private homes, assisted living facilities, and others); the care team has expanded to include nurse practitioners, physician assistants, clinical pharmacists, geriatric psychiatrists, and others.

Patients in the Primary Care @ Home program now range from 22-107 years old, but most are in their 80s and are covered by Medicare. These are complex

cases—the most complicated, most fragile, and highest risk. Most are close to the end of life. Some participants have been on the program for as much as 5 years. On average, they are on the program 1.5 years. Some participants have been on the program for as much as 5 years. On average, they are on the program 1.5 years.

New members are assigned to a provider, who visits their place of residence as frequently as is needed by the clinical condition. The provider checks the status of their conditions, whether they are taking their medications, if they are eating properly, and other concerns. Nurses frequently check with patients over the phone.

Primary Care @ Home now has more than 1,300 members. Findings from the original pilot program showed that 94 percent of patients were satisfied or highly satisfied with the program and would recommend it to family and friends.¹ Results indicated that the program reduced the cost of care by about 25 percent (with the greatest reductions coming from inpatient facilities, outpatient facilities, and diagnostic services).²

Mobile Health Partners

In 2013, Metro West Ambulance sought to partner with Kaiser Permanente on a home-based care program utilizing paramedics. These providers could administer primary care services in the home, while off-duty from their 9-1-1-related emergency responsibilities. Under their existing scope of practice, paramedics are able to administer some medications, draw blood for lab tests, take EKGs, and perform other services. They are able to access KP's electronic health record system and can serve as "eyes and ears" in the field (for example, verifying if there is a spouse or other caregiver in the home).



Patient calls are fielded first by the KP advice line and then routed to the Regional Telephonic Medicine Center (RTMC), which seeks to match patients with the appropriate resources. These calls are outside the 9-1-1 system.

KP piloted this program in 2013 in the Northwest region under the name of Transitional Paramedicine Pilot (TPP). The pilot was relaunched in March 2014 as Mobile Health Partners (MHP), which remains a collaborative partnership between Metro West and Kaiser Permanente. A key distinction is that while TPP was able to see Primary Care @ Home and Medicare patients, MHP is not. The MHP program is currently restricted to those 18-64 years old. In addition, the program has operated in Oregon but not in Washington.

Results showed very high patient satisfaction in the TPP pilot program. The pilot estimated that it had avoided 75 emergency department visits, 12 hospital



admissions, and 5 readmissions.³ Over its first year, MHP has visited more than 100 patients and has prevented an estimated 50 office visits and 20 ED visits.

Policy Challenges and Potential Solutions

Overall, these programs have received high patient satisfaction ratings while reducing inappropriate utilization. However, current legal restrictions have hampered the growth of the MHP

program, specifically with Medicare enrollees. CMS has said that MHP must be able to provide the services to the entire Northwest service area (Oregon and Washington). However, Washington state scope of practice regulations for paramedics dictate they can only provide emergency, pre-hospital care. MHP interprets this to mean, care delivered through the 9-1-1 system. This scope of practice restriction does not exist in the state of Oregon.

A recently enacted law in Washington state enables EMTs and paramedics to participate in care models such as MHP through local fire departments. This will enable MHP to partner with local communities to expand into Washington state and serve the Medicare population.

1 Rahul Rastogi MD, Director of Operations for Continuing Care Services and Quality Value Management Systems Northwest Permanente Medical Group, "Primary Care @ Home and Mobile Health Partners, Transforming Care in the Home," at Kaiser Permanente's National Quality Conference (April 29 — May 1, 2014).

2 Ibid

3 Ibid

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Advancing Care Through Telehealth

KAISER PERMANENTE POLICY STORIES, VOL. 4, NO. 3



Telehealth in Action: Helping a Family Through a Crisis

The day that baby Emily pulled a cup of scalding hot tea onto her lap was probably the worst in memory at the Smith household. The second degree burns she suffered required an in-patient hospital stay at a specialized pediatric burn unit. After discharge, she needed frequent follow-up visits with a plastic surgeon. With both parents

working, keeping Emily's every-other-day appointment schedule presented a significant challenge for the entire family.

Fortunately, Kaiser Permanente offered a novel solution: video visits that allowed digital images to be viewed remotely by the surgeon. "Having access to her specialist via video visit helped us enormously after the accident," said Emily's mother. Using their smart phones, the Smith family took pictures of the burns and emailed them to the physician just before the scheduled appointment time. During the appointment, the smart phone camera was used over a secure video connection to allow Emily's doctor to evaluate her in real-time. What once would have taken a few hours for each visit — including driving to the office — took only 10 minutes over the phone.

WHAT YOU SHOULD KNOW

- **Telehealth is a mode of health care delivery that involves virtual encounters between providers and patients.**
- **Telehealth offers patients greater convenience, access, and care continuity while supporting providers' use of evidence-based care protocols and improving care transitions.**
- **Telehealth is becoming increasingly common and Kaiser Permanente has employed it to improve care delivery in dermatology and other specialty areas.**
- **Policy changes at the federal and state levels are needed to enable telehealth to be offered more broadly.**

Going Virtual

Telehealth technologies make it more convenient for patients to access health care services, removing barriers to receiving timely care and increasing patient engagement. These technologies can improve quality and lower costs through better management of patients' medical conditions.

Telehealth technologies and applications allow providers in a range of specialties to furnish care to patients in addition to face-to-face encounters. The American Telemedicine Association defines telehealth as “the use of medical information exchanged from one site to another via electronic communications to improve a patient’s clinical health status.”¹ The term telemedicine refers specifically to remote clinical services; telehealth is a broader concept that also encompasses remote non-clinical services (such as provider training), and provider-patient communication.²

The Centers for Medicare and Medicaid Services, the federal agency that administers the Medicare Program, defines these services in three broad categories³:

- audio, visual or web-based technologies that allow two-way, real-time communication between patients and providers;
- asynchronous store-and-forward technology that transmits information from patients to providers or from one provider to another without requiring simultaneous engagement; and
- remote monitoring that allows providers to observe patients' chronic health conditions using equipment and telecommunication technology.

Telehealth is growing rapidly in the U.S. According to the American Telemedicine Association, over half of American hospitals now use some form of telemedicine, and nearly 1 million Americans use remote cardiac monitors. In 2011, the Veterans Health Administration conducted over 300,000 remote consultations using telehealth technologies.⁴

Kaiser Permanente Advances Telehealth

In 2012, nearly 50 percent of contacts between patients and primary care providers at Kaiser Permanente took place over the phone or through secure emails. These are appointments that have supplemented face-to-face visits and have largely been preferred for patients and providers alike. We currently have remote primary care, neurology, virtual inpatient rounding, mental health, and dermatology programs in various stages of implementation.



Our teledermatology pilot programs are used to supplement existing services by enabling patients to receive care anywhere, anytime. In some areas, patients connect to providers directly from home; other areas are testing real-time dermatology consults during primary care visits. Meanwhile, patients continue to have access to high quality in-person services. The goal is to identify the most effective approaches

and make them universally available.

Early Findings from KP Teledermatology Programs

Early evidence suggest high satisfaction on the part of both patients and providers. In Colorado, for example, nearly 80 percent of patients who participated in a teledermatology video visit were likely to recommend it to others and two out of three reported not needing an in-person follow up visit because their issue had been resolved.^{7,8} Physicians are also satisfied with the service, reporting that it allowed them to allocate office time to the patients who most needed to be seen in person.⁹

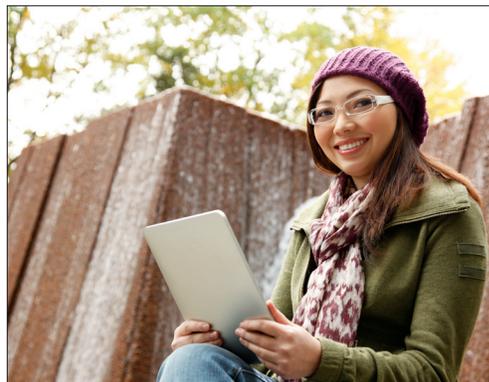
Broadening Access to Telehealth Services

Legal and regulatory barriers limit the way telehealth can be used. At the federal level, Medicare's traditional fee-for-service program pays providers for care furnished using telehealth technologies only in limited circumstances in rural areas. Medicare Advantage plans (such as those offered by Kaiser Permanente), may provide telehealth services but must categorize them as "extra services," which means that there is less funding for other benefits or premium reductions for members. Several coalitions, including the Coordinated Care Coalition and the America Telehealth Association, have formed to influence policymakers to expand the use of remote access technologies in Medicare, and the Congress is considering several changes. In addition, a recent inquiry by the Senate Finance Committee garnered numerous responses emphasizing the role of telehealth technologies in improving chronic care condition management for Medicare beneficiaries.

A Movement to Expand Telehealth across State Lines

Insurers offering coverage to businesses and individuals are bound by fewer restrictions and may cover telehealth services as long as they follow applicable federal and state laws. Consequently, services such as teledermatology have become

more advanced; yet, licensure laws limit the use of telehealth technology across state lines by barring physicians and other providers from providing services to people in other states. The Federation of State Medical Boards has introduced an Interstate Licensure Compact that creates a new licensing option under which qualified physicians seeking to practice in multiple states could obtain expedited licensure in all states



participating in the Compact. This would allow physicians to provide telehealth services to patients across state lines, and could set the stage for broadening access in new ways as the technology advances.

* Names have been changed to protect the privacy of individuals involved.

- 1 American Telemedicine Association. <http://www.americantelemed.org/about-telemedicine/what-is-telemedicine>
- 2 <http://www.healthit.gov/providers-professionals/faqs/what-telehealth-how-telehealth-different-telemedicine>
- 3 Part B, 42 CFR 410.78, Part B, 42 CFR 410.78, Part C, Medicare Managed Care Manual, Ch.4, Is/faqs/whaPart C, Medicare Managed Care Manual, Ch.4, §30.3.
- 4 http://www.americantelemed.org/about-telemedicine/faqs#.VRQ_rY7z6vk
- 5 Garrido, Terhilda. "Transforming Care Delivery Using HIT – Health Information Technology," Kaiser Permanente International, April 2014.
- 6 KPCO Market Research, August 2014
- 7 KPCO Market Research, August 2014
- 8 Goldberg, Kenny. "Kaiser Embraces Telemedicine to Improve Access to Dermatology." KPBS Public Broadcasting. March 2014.

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Stemming the Tide of Prescription Opioid Overuse, Misuse and Abuse

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An Epidemic of Another Kind

A silver badge with interlocking lines at the top of a triangle represents awareness of drug overdose and its effects. Worn worldwide on [August 31](#), the symbol demonstrates support to those fighting through addiction and others bearing the burden of grief from injury or loss. On that day—and every other day in the United States—[44 people](#) will die of overdose from prescription

painkillers. These deaths have more than [quadrupled](#) in the past decade and a half. Today, [more people die from](#) prescription opioid overdose than from heroin, cocaine, and all other drugs combined, an alarming trend that led the U.S. Centers for Disease Control to declare it an [epidemic](#) in November 2011.

Opioids are medications that treat pain in many contexts, from post-surgical relief to chronic severe back pain to end-of-life care. Two of the most common forms are oxycodones, often sold under the brand names OxyContin® and Percocet®, and hydrocodones, sold as Vicodin.® Both are powerful narcotics.

WHAT YOU SHOULD KNOW

- **The dramatic rise of opioid prescribing has led to widespread overuse, misuse, and abuse in the United States. More than two million Americans are addicted to prescription pain medication, and opioids are responsible for more than 16,000 deaths per year.**
- **Kaiser Permanente has developed evidence-based treatment guidelines, is educating providers and patients, empowering pharmacists, utilizing population health management techniques, and ensuring access to treatment services for patients who are dependent on the medications. These strategies have led to declines in opioid utilization within KP.**
- **Stemming the tide of the epidemic will require resources and efforts from a variety of players, including health care organizations, government, the legal system, medical education, and others.**

Americans are the [number one](#) consumer of these drugs, accounting for almost 100 percent of hydrocodone prescriptions and 81 percent of oxycodone prescriptions worldwide. In the United States, more than [two million](#) people are addicted to these medications.

These drugs became more readily available to patients in the late 1990s, and prescription rates [nearly doubled](#) between 1998 and 2013. This epidemic is the unintended consequence of policy and practice that was supposed to benefit patients and keep them safe. A solution to this kind of systemic problem that affects the health, social, and economic welfare of society requires a large-scale, comprehensive course of action. The health care delivery system is ground zero. This article describes how Kaiser Permanente, one of the nation's largest not-for-profit health plans, is working to reduce opioid abuse among its more than 10 million members, and offers insight for the health care system as a whole.



How We Got Here

Beginning in the late 1990s, patient-advocacy organizations began asking the medical community whether pain was being under-treated. In 1999, the Veterans Health Administration launched the [“Pain is the 5th Vital Sign”](#) initiative, urging doctors to assess pain at every visit. Soon, other major health care accreditation and regulatory authorities, such as the Joint Commission on the

Accreditation of Healthcare Organizations, [joined the movement to improve pain management](#). At the same time, specialty societies, such as [the American Geriatric Society](#) and [the American Pain Society](#), promoted the use of opioids for treating chronic, non-cancer pain. The prevailing wisdom among physicians, [supported by research](#), reinforced the misconception that opioids would not create dependence or addiction and could be used safely for long-term treatment of pain. Pharmaceutical companies also aggressively marketed the drugs to providers and patients.

With all these forces at work, it is not surprising that physicians became more comfortable prescribing opioids for less severe pain. Fewer than 20 years after pain became the fifth vital sign, these changes in practice – while intended to improve pain management – have also led to a major increase in overuse, misuse, abuse, diversion, overdose, and death associated with these medications.

Kaiser Permanente's Systemic Approach to the Epidemic

To combat this systemic quality problem, health care providers need a systemic solution. Kaiser Permanente began to develop such a solution after doctors reported that opioids were presenting safety issues. Kaiser Permanente's approach includes seven "levers" to address the problem from multiple angles.

- **Evidence-based treatment guidelines.** Misinformation about the use of opioids for chronic, non-cancer pain was a key driver of widespread overuse and abuse in the U.S. Kaiser Permanente physicians developed up-to-date evidence-based treatment guidelines for the proper use of these medications. Guidelines include:
 - Focusing on alternatives to opioid therapy as a first-line treatment for chronic, non-cancer pain;
 - Providing non-drug treatment options (such as meditation, guided imagery, and Tai Chi);
 - Treating patients with the lowest dose of opioids possible, for the shortest duration necessary (in general, less than a 100 mg morphine equivalent dose per day, with no more than a 30-day supply at a time);
 - Monitoring patients at risk for opioid abuse via questionnaires, urine drug tests, and prescription history on state prescription drug monitoring databases;
 - Recognizing "red flag" behaviors that suggest dependence, misuse, or abuse (such as the need for escalating dosages, requesting refills before they are due, or requesting name-brand drugs, which carry a high "street" resale value); and,
 - Using documentation tools to ensure communication and collaboration within and across specialties.
- **Prescriber education and training.** Treatment guidelines are supported by education and training at various levels throughout the system. Prescribers can easily access guidelines and other information on opioids via Kaiser Permanente's online Clinical Library. Individual coaching is also available on how to have [difficult conversations](#) with patients who may be misusing their medications or who are requesting additional, unnecessary opioids.
- **Patient education.** Many at-risk patients do not know how potentially addictive opioids can be, so it is important to engage them early on about the safe use of their medications. To increase awareness, patients prescribed these drugs receive written educational materials and can view additional information on opioids through Kaiser Permanente's online health record, My Health Manager.

- **Population health management.** Identifying patients at high-risk of opioid misuse and abuse is crucial to using opioids safely. Because it is an integrated delivery system that includes inpatient, outpatient, and pharmacy care and coverage, Kaiser Permanente can use both pharmacy and electronic health record data to identify these patients, alert doctors, and refer patients to treatment for opioid dependence or addiction if needed.
- **The role of the pharmacist.** Pharmacists play two important roles in Kaiser Permanente's comprehensive approach to opioid management. First, they identify abusive drug seeking behaviors in patients. These include: requesting refills before they are due, submitting multiple requests for more medication, having multiple prescribers, or going to multiple pharmacy locations. Second, pharmacists monitor physicians who may be at risk of high prescribing.
- **Access to coordinated substance use treatment.** Patients who become addicted to opioids require high-quality substance use treatment services. A multidisciplinary team comprised of primary care, specialists, addiction services, and behavioral health uses the electronic health record system to coordinate care across specialties.
- **Leadership support.** Strong and visible leadership provides the support needed for physicians, pharmacists, and other clinicians to implement these strategies. Messaging from leaders and all members of the health care team ensures a consistent focus on patient safety.



The Impact: Best Practices Spread, Opioid Use Declined

Adoption of these strategies has led to a decline in use of opioids across most of Kaiser Permanente's service area, which includes eight states and the District of Columbia. In Kaiser Permanente Southern California, an early adopter of opioid prescription reduction strategies, initial interventions were effective. OxyContin[®] (oxycodone) use declined 72 percent between January 2010 and December 2013. Additionally, the number of at-risk members on high doses of opioids (greater than 120 mg/day morphine equivalent dose) declined 29 percent between March 2012 and December 2013.

Looking at a more recent and broader measure across Kaiser Permanente's entire service area, between December 2013 and July 2015, the average decline of morphine milligram equivalents per patient for all opioids was about 15 percent. (Note: the measurement of morphine equivalents enables potency comparison among opioids.) In spite of this success there is still much work to be done.

Addressing the National Epidemic

Of course, a single health care delivery system can only do so much to address an epidemic that lives beyond its walls and within the community it serves. In addition to focusing on internal processes and improvements, health care providers can ensure their clinical teams receive ongoing education on the safe use of opioids, which may be the single most important step to addressing the root causes of this epidemic. For the next generation of physicians, graduate medical education curricula should include more information on pain management and best practices for opioid treatment. For physicians currently in practice, continuing medical education has substantially increased the availability of safe-opioid-prescribing courses.

A tremendous need also exists for public awareness about pain and pain management. Communities can come together to agree upon safe prescribing practices. For example, the [Los Angeles County Prescription Drug Abuse Medical Task Force](#)—a collaborative of physician and nursing groups, hospital associations, and public health and community clinic representatives—worked with 75 local hospitals (including Kaiser Permanente) to adopt a common set of opioid prescribing and treatment guidelines in emergency departments. Many of the State Medical Boards have also updated their pain management guidelines to incorporate the most current information on opioid use. Eventually, consistency in treatment guidelines across all types of care, from cancer to orthopedics, will allow for safer use of opioids.

Nearly every state has established prescription drug monitoring programs to track medication refills and prescribing patterns across all prescribers and pharmacies, whether part of the same system or not. However, these programs are only effective in reducing opioid use if they can provide information in real time, and if prescribers and pharmacists use them. [Twenty-one states](#) have passed laws requiring prescribers to register with prescription drug monitoring programs, and [24 states](#) require prescribers to check databases under certain circumstances. States and health care organizations should continue efforts to make databases easier to access—such as integrating them into electronic health records and making data available among states.

Funding of [federal and state programs](#) will bolster these initiatives. In July 2015, the U.S. Department of Health and Human Services announced more than [\\$100 million in funding](#) for states and community health centers to help combat opioid abuse, encourage innovative treatment approaches, and expand treatment and services for substance abuse. The [Obama Administration also provided funding](#) to make the overdose antidote, Naloxone, a decades old drug, more available for emergency responders and private citizens, such as family members of addicts. However, it will take additional resources, time, and effort by both the public and private sectors to truly reverse the tide of the opioid epidemic.

Using the example of Kaiser Permanente's experience in reducing opioid prescription rates, these interventions and others like it are extending from the federal level to states and communities. It will take this kind of systemic solution to solve this societal problem so that next August 31, we will have more lives to celebrate and fewer to mourn.

Reprinted from **Health Affairs Blog**.

To read the story online, please visit: <http://www.kpihp.org/stemming-the-tide/>

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Palliative Care Promotes Quality of Life for those with Advanced Illness

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Accounting for Physical, Emotional, and Mental Wellbeing

Advancements in medicine allow people with chronic and complex conditions to live longer than ever before. But longer life for people who are sick may bring challenges, such as pain, stress, and other symptoms that accompany serious illness. Meeting those challenges and making people with advanced illness as comfortable as possible requires providing full access to care that accounts for their physical, emotional, and mental wellbeing. Palliative care does just that.

“I heard about palliative care through one of the counselors at the hospital. Having Stacey [the palliative care coordinator] as a resource has been very, very helpful to us. She definitely brought up the idea that I might need emotional or spiritual help as I go through this. Stacey is integrated right into everything that is happening. She can talk to my doctor, she can talk to the other social workers. My satisfaction with KP and Palliative Care, and Stacey in particular, on a scale of 1-10 is a 10. At this point, it is all about living the best that we can. I feel like I’m doing what I need to do, and I feel like I’m supported.”—*Pamela, a Kaiser Permanente member with end-stage Chronic Obstructive Pulmonary Disease*

WHAT YOU SHOULD KNOW

- **Palliative care is a team-based medical subspecialty focused on providing relief from the symptoms, pain, suffering, and stress of serious, advanced illness.**
- **Palliative care is appropriate at any point in a serious, advanced illness, and can be provided alongside curative treatment.**
- **Kaiser Permanente provides palliative care in hospital and ambulatory settings and has found that doing so has resulted in improved quality of care, higher patient satisfaction, improved communication and advance planning, fewer hospital admissions, decreased emergency room visits, and lower costs.**
- **Continued work is needed to identify and spread best practices in palliative care, strengthen the palliative care workforce, and augment the evidence-base that supports the benefits of this approach.**



What is Palliative Care?

Palliative care is a team-based medical subspecialty focused on providing relief from the symptoms, pain, suffering, and stress of serious, advanced illness. It is intended to improve quality of life and can be provided alongside curative treatment. Palliative care services address the physical symptoms of advanced illness, such as pain, nausea, difficulty breathing, fatigue, insomnia,

and bowel or bladder issues. Just as importantly, palliative care services also address the emotional or spiritual stress and mental health symptoms – such as fear, anxiety, and depression – that often accompany advanced illness. Palliative care providers work with patients and their families or natural support systems, helping them to better understand their illness, talk more openly about their feelings, and decide what treatments they do or do not want. Given the all-inclusive nature of palliative care, it is increasingly called “supportive care” in some health systems and patient circles.

It is important to distinguish palliative care from “hospice care,” a term with which it is often confused. Hospice is a Medicare benefit that provides a specific set of services for patients whom a physician has certified as terminally ill, having a prognosis of no more than six months. Many of the services provided under hospice are palliative services. However, to be eligible for hospice under Medicare, a patient must not only have a six-month prognosis but must also be willing to forego curative treatment. This is a key distinction between hospice and palliative care. As noted, palliative care can be provided alongside curative treatment if the patient wishes, and it can happen at any time during the course of advanced illness – it is not reserved solely for the end of life.

A growing body of literature indicates that palliative care has benefits for patients. For example, one study showed that providing palliative care services to older adults admitted to the Intensive Care Unit reduced length of stay, total costs, and mortality.¹ The well-known Temel study from Massachusetts General found that metastatic lung cancer patients who received palliative care showed improvement in their quality of life – including fewer depressive symptoms – and outlived those who received usual care alone, by three months.² A 2014 report from the Center to Advance Palliative Care concluded that palliative care improves health care quality by: effectively relieving physical and emotional suffering; strengthening patient-family-physician communication and decision making; and, ensuring well-coordinated care across health care settings.³

Policy Landscape: Raising the Profile of Palliative Care

Several prominent multi-stakeholder groups have been working for more than a decade to raise the profile of palliative care among patients and providers, increase awareness of its benefits, and advance best practices. For example:

- The Coalition to Transform Advanced Care (C-TAC), comprised of health systems, medical and nursing groups, health plans, employers, faith-based leaders, consumer advocates, and hospital and palliative care organizations, disseminates best practices in palliative care.⁴ The group also advocates for value-based payment and quality measurement, promotes professional development, and builds public demand.
- Ten years ago, the National Quality Forum endorsed a list of 38 preferred practices for palliative care programs.⁵ The list is based on the recommendations of the National Consensus Project for Quality Palliative Care, which examined and defined the components of a quality palliative care program, including quality monitoring, staffing requirements, and clinical care, among others.
- The Center to Advance Palliative Care (CAPC) is a member based organization that provides tools, technical assistance, and online training to assist its members with implementation of palliative care programs.⁶
- In 2014, the Institute of Medicine (IOM) issued a report, “Dying in America: Improving Quality and Honoring Individual Preferences near the End of Life,” in which it made recommendations to improve care for patients with advanced illness.⁷ As a follow-up to this work, the IOM is now looking to create a roundtable on Quality Care for People with Advanced Illness. www.iom.nationalacademies.org.

The biggest and most recent change in the palliative care policy landscape came in October 2015, when the Centers for Medicare and Medicaid Services (CMS) issued a final rule increasing the availability of advance care planning sessions for Medicare beneficiaries.⁸ Advance care planning – in which patients explore and document their goals and desires around medical care in the event of an unforeseen health crisis — gives patients an opportunity to express their wishes for palliative and other types of care. Under the new rule, providers and patients have flexibility to engage in advance care planning when patients are ready, not just at the time of initial enrollment in the Medicare program, as was previously the case. In addition, CMS finalized payment for advance care planning when it is included as an optional element of the “Annual Wellness Visit.” This change is effective January 1, 2016.

These efforts are having an impact. Across the United States, the availability of—and access to—palliative care programs has grown significantly, with The

Center to Advance Palliative Care projecting that 80 percent of hospitals with 50 or more beds would have a palliative care program by year end 2015.⁹



The Kaiser Permanente Palliative Care Model: Embedding Supportive Services within Standard Care

Kaiser Permanente, the nation's largest, private integrated health care delivery system, has provided palliative care in hospital settings for over a decade and is now at the forefront of expanding across

the care continuum. Today, we have palliative care programs in hospital and ambulatory settings, as well as in home-based care. Though the programs vary in intensity across locations, the essential components embody the principles of team-based care, bringing together physicians, nurses, social workers, chaplains, and pharmacists. Palliative care teams provide consultation services to physicians and other providers who manage highly complicated patients. The long-term organizational goal for palliative care is to embed these supportive services within usual care, rather than making them available only when requested by a treating physician. The organization is also testing a number of new models in palliative care delivery, such as using specially-trained social workers to perform triage, improving palliative care documentation in the electronic health record, and developing new education curricula for physicians.

As noted, advance care planning plays an important role in ensuring that patients' desires for palliative care are articulated and subsequently met. Ideally, these conversations between patient and provider start long before a decision-point or crossroads and occur over the course of several sessions that may include the patient's family or other support system as well. As a more systematic approach to advance care planning conversations, Kaiser Permanente is implementing the Respecting Choices model across its facilities.¹⁰ This model is an internationally recognized, evidence-based approach to advance care planning produced by Gundersen Health System. The goal is for advance care planning conversations to take place always in non-crisis situations, comparable to screening for breast cancer in a primary care setting.

“Kaiser Permanente has made great strides in its efforts to enhance support for patients facing serious and advanced illnesses. We continue to incorporate specialized, team-based support across hospital, home, clinic and other settings. Our teams – physicians, nurses, social workers, pharmacists, chaplains and others – work to

proactively understand what is most important to patients and their loved ones. By listening and learning to their concerns, their hopes, and their fears, we can provide more comprehensive and personalized support.” —*Daniel Johnson, MD, FAAHPM, Physician Lead for Palliative Care, Care Management Institute, Kaiser Permanente*



Outcomes: Improving Quality, Satisfaction, Advance Planning, Admissions, ER Visits, Lowering Costs

In three randomized controlled clinical trials of patients in hospital, home, and clinic settings, Kaiser Permanente found that palliative care resulted in improved quality of care, higher patient

satisfaction, improved communication and advance planning, fewer hospital admissions, decreased emergency room visits, and lower costs.¹¹ In keeping with Kaiser Permanente’s goal of ensuring that the advance care planning wishes of palliative care and other patients are met, the organization has started to measure how often patients’ stated preferences match up to their actual care experience. This type of “concordance measurement” has begun in Kaiser Permanente service areas in Southern California, Northern California, and Colorado. We are still learning about our performance relative to this measure, but Southern California has preliminarily reported 98 percent concordance rates for the period January 1 – September 30, 2013.¹²

Our internal data show improvements in the percent of decedents enrolled in hospice or palliative care 31 or more days before their death, increasing from 44 percent in 2008, to 65 percent in 2015.¹³ Kaiser Permanente continues to refine and develop new quality measures, as it works to fully integrate palliative care processes into usual care.

Policy Implications: Care Rooted in Patient and Family Wishes that Promotes Quality of Life

With the burgeoning Accountable Care Organization (ACO) movement underway, providers, health systems, and health plans are being challenged to pay attention to the patient as a whole. Palliative care has always been about treating the whole patient, but has typically taken place in a hospital setting. The palliative care community has started exploring providing care in non-hospital settings, specifically, community-based palliative care (out-patient, home-based, or in skilled nursing facilities). Kaiser Permanente has a jump-start in this area,

and we anticipate that over the next two to three years, we will publish more findings about our experience in non-hospital settings. As more organizations are pivoting their focus in this new direction, there is a need for more information about best practices and how to operationalize these programs.

Other targeted areas of focus for policy moving forward include workforce development and research. Despite significant improvements in the number of palliative care programs in existence, there is still a need for investment in a palliative care workforce and in further research to establish the scientific evidence-base to expand palliative care services.¹⁴

As the population ages, we can expect to see an increase in the prevalence of chronic and serious illnesses. Most individuals facing serious illness will be hospitalized at some point and/or deal with their conditions at home on an ongoing basis. Palliative care offers one possible approach to maximizing hospital efficiency (reduced lengths of stay, reduced costs per hospital stay), while addressing the sometimes under-appreciated physical symptoms and emotional toll that serious illness has on patients and families. We expect the use of palliative care services to increase as consumers become more knowledgeable about its benefits and as programs become more ubiquitous. In fact, once people are informed about palliative care, 92 percent indicate that if they had a serious illness, they would be highly likely to consider it for themselves or their families.¹⁵

Real-world examples of successful programs, such as Kaiser Permanente's, can provide useful information and guidance to health care institutions looking to initiate or expand their palliative care offerings. A care approach that is rooted in patient and family wishes and promotes quality of life for those living with advanced illness is the ideal standard of care.

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Palliative Care Promotes Quality of Life for those with Advanced Illness

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EXACTLY AS PRESCRIBED: Kaiser Permanente Researchers Shed Light on Poor Medication Adherence

KAISER PERMANENTE POLICY STORIES, VOL. 4, NO. 6



For people living with chronic diseases, prescription medications can increase longevity and improve quality of life. Yet, in the United States, more than half of adults 40 and older with chronic conditions report at least one episode of non-adherence to their prescriptions.¹ This is a particular problem for people living with multiple chronic conditions because they are often prescribed numerous medications. Like all prescription drugs, these medications must be taken exactly as prescribed to ensure both safety and effectiveness.

Poor medication adherence can cause needless suffering and result in the use of otherwise unnecessary health care services. So why do people stop (or never start) taking their medication, or take less than the full amount prescribed? There are a variety of common reasons, which include: forgetfulness, concerns about potential side effects; lack of understanding of the need for the medicine when they don't have symptoms; affordability of monthly out-of-pocket cost; and difficulty getting to the pharmacy. This brief explores Kaiser Permanente's cutting edge research on health-system-level interventions to lower barriers to medication adherence and empower patients to take their medications as prescribed.

WHAT YOU SHOULD KNOW

- A medication supply of 90-days or more can help increase adherence by minimizing out-of-pocket costs and the inconvenience of ordering refills and making multiple trips to the pharmacy.
- There is a well-documented inverse relationship between patient cost sharing and medication adherence: when cost sharing increases, adherence decreases, often resulting in poorer health outcomes.
- The online prescription refill function is an important feature of patient portals because of its association with improved medication adherence.
- Automated phone reminders can be a powerful and efficient tool to support medication adherence, reaching a large number of people quickly and inexpensively.
- Mail-order pharmacy services are not only convenient and time-saving, but they can also improve medication adherence.



A Leader in Medication Adherence Research

As the nation's largest, private-sector integrated delivery system, Kaiser Permanente is ideally positioned to study the factors that impact medication adherence. Most other health care delivery systems depend on third-party pharmacy benefit managers to administer their prescription drug programs, and

they do not own or operate their own pharmacies. In contrast, at Kaiser Permanente, the prescription drug program is fully integrated into the rest of the delivery system, giving the organization the ability to evaluate data about patients' use of both health care and pharmacy services. These data provide a unique lens for studying barriers to medication adherence. Julie Schmittiel, PhD, research scientist at Kaiser Permanente's Northern California Division of Research, has led multiple investigations on this topic. She notes, "Kaiser Permanente's integrated electronic health record and data systems, that include both pharmacy fill data and health care benefit information, allow researchers to conduct cutting-edge research on medication adherence, health care outcomes, and disparities."

Health System Levers of Influence

Years of research at Kaiser Permanente suggests that health care organizations have many "levers of influence" to promote medication adherence. According to Dr. Schmittiel, "Researchers across the organization have led the way in furthering our understanding of how health-system-level factors can play a positive role in improving adherence and health." The following are five health system levers of influence that Kaiser Permanente researchers have explored:

- Longer-Term Medication Supply
- Lower Copayments and Out-of-Pocket Maximums
- Online Refill
- Automated Phone Reminders
- Mail Order Pharmacy

1. Longer-Term Medication Supply

Refilling prescriptions every month can be a challenge for patients with chronic conditions. Once a prescribing physician determines that a long-term medication is well tolerated and at the proper dose for a patient, it may be appropriate to prescribe a longer-term supply. A quantity appropriate for 90-days or more can help increase adherence by minimizing out-of-pocket costs and the inconvenience of ordering refills and making multiple trips to the pharmacy.

In 2012, the Centers for Medicare and Medicaid Services introduced three measures of medication adherence for diabetes, hypertension and cholesterol as part of its Star rating system for Medicare Advantage plans. Kaiser Permanente researchers found that a longer-term medication supply is associated with better scores on Medicare Star measures. After controlling for patient-level factors such as age, income, and education, the strongest predictors of higher scores was a mean prescribed medication supply of greater than 90 days (compared with a one-month supply).²

2. Lower Copayments and Out-of-Pocket Maximums

While patient cost-sharing may curb overuse of nonessential services, it can be problematic to shift the financial burden of medications to chronically ill patients. There is a well-documented inverse relationship between patient cost sharing and medication adherence: when cost sharing increases, adherence decreases, often resulting in poorer health outcomes.³

In one Kaiser Permanente study, researchers examined the relationship between copayments and out-of-pocket maximums and medication adherence under the Medicare Star measures. They concluded that medication copayments less than or equal to \$10 for a 30-day supply and annual individual out-of-pocket maximums less than or equal to \$2,000 were significantly associated with higher adherence for three types of chronic disease medications: antihypertensives, oral antihyperglycemics, and statins.⁴

3. Online Prescription Refill

Online patient portals are becoming part of mainstream health care, empowering patients with access to test results, appointment scheduling, and prescription refills. The online prescription refill function is an important feature of patient portals because of its association with improved medication adherence.

Other researchers studied the experience of Kaiser Permanent patients before and after they began using the online refill function for statin medications. Over the

study period, those who switched to and exclusively used the online function for refills saw a six percent drop in medication non-adherence. (During the same period, a control group of patients who never switched to the online refill system saw no change in non-adherence rates.) Further, the switch to exclusive use of online refills also resulted in measurable clinical improvement; among switchers who were non-adherent to their statins prior to the switch, there was a six percent drop in poor blood pressure control after the switch.⁵



Another study examined whether there are disparities in the way patient portals influence health behavior or outcomes across patient racial/ethnic subgroups. The researchers found that racial/ethnic minorities who used the online refill function had improvements in medication adherence over time similar to whites.⁶

4. Automated Phone Reminders

Most households are all too familiar with the automated calls that are a staple of the telemarketing and polling industries. But when robocalls, technically known as interactive voice response (IVR), are coupled with an electronic medical record system, they can be a powerful and efficient tool to support medication adherence, reaching a large number of people quickly and inexpensively.

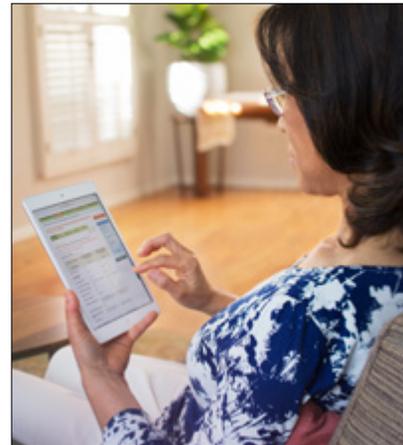
Researchers evaluated the impact of an IVR intervention on asthma medication adherence, compared to usual care. Kaiser Permanente made automated refill reminder calls when patients had less than a 30-day medication supply remaining or were more than 30 days late for a refill. The intervention resulted in a small but significant improvement in medication adherence.⁷ A separate Kaiser Permanente study found similar impacts of IVR on adherence to cardiovascular medication. Although the average improvement in medication adherence was relatively small (about two percentage points), this difference was statistically significant. In a large population, even these small percentage changes in adherence can impact hundreds or thousands of people.⁸

5. Mail-Order Pharmacy

Mail-order pharmacy services allow patients to order prescriptions online or by phone and have their medications mailed directly to their homes. Such systems are not only convenient and time-saving, but they can also improve medication adherence. According to research conducted in Kaiser Permanente's Northern California region, compared with patients who obtained diabetes-related medication refills

at brick and mortar pharmacies, patients who received them by mail were more likely to have good adherence. The researchers found a seven-to-eight-percentage point increase in adherence associated with mail-order use.⁹

In another study, black and Hispanic patients derived an even greater adherence benefit from mail-order pharmacy use than White patients, suggesting that mail-order pharmacy promotion may be an effective strategy to mitigate disparities in adherence.¹⁰



Putting Research into Action at Kaiser Permanente

Kaiser Permanente has translated many of its research findings on medication adherence into clinical practice – and its efforts are clearly paying off for patients. As noted, CMS’s Star quality-rating system for Medicare Advantage plans includes measures of medication adherence for diabetes, hypertension, and high cholesterol. Plans are rated on a one-to-five-star scale, with one star for poor performance, three for average, and five for excellent. Only a small number of health plans receive 5-star ratings on these measures,¹¹ yet Kaiser Permanente has consistently done so in nearly all of its regions, as highlighted in the chart below. This level of achievement reflects a comprehensive strategy that includes multiple interventions supported by research highlighted in this brief.

KAISER PERMANENTE’S 2016 MEDICARE STAR RATINGS FOR MEDICATION ADHERENCE			
Kaiser Permanente Region	Medication Adherence for Diabetes Medications	Medication Adherence for Hypertension (RAS Antagonists)	Medication Adherence for Cholesterol (Statins)
	CY 2014	CY 2014	CY 2014
California	★★★★★	★★★★★	★★★★★
Colorado	★★★★★	★★★★★	★★★★★
Georgia	★★★	★★★★	★★★★
Hawaii	★★★★★	★★★★★	★★★★★
Mid-Atlantic States	★★★★★	★★★★★	★★★★★
Northwest	★★★★★	★★★★★	★★★★★

Source: Centers for Medicare and Medicaid Services



A System-level Imperative for the Health Care Industry

As the population continues to age, and rates of chronic disease increase, the entire health care industry will be challenged to address medication adherence. This is a complex issue, and no single intervention can remove all of the barriers. Kaiser Permanente's

research about system-level factors that contribute to medication adherence provides guidance for delivery systems as they craft multi-faceted strategies to address this growing problem.

ENDNOTES

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