

# Innovations in Patient Safety



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*Health Plan Initiatives to Prevent Healthcare-Acquired  
Conditions and Help Patients Transition Smoothly  
from Hospital to Home*



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More than a decade after the Institute of Medicine published the landmark report *To Err is Human*,<sup>1</sup> patients still experience preventable harm all too often. In the hospital, patients continue to contract infections and other complications from medical errors, contaminated equipment, and exposure to communicable diseases. Once they return home, patients often are confused about which medications to take, aren't aware of problematic warning signs, and don't know whom to call for help. As a result, they may suffer complications or have adverse reactions to medications and end up back in the hospital.

America's health insurance plans have been on the front lines of national efforts to prevent these problems, protect patient safety, and promote smooth transitions in care. Our community has joined clinicians, hospitals, and other leaders in the health care system in supporting the U.S. Department of Health & Human Services' Partnership for Patients, which seeks to reduce preventable hospital readmissions by 20 percent and decrease the occurrence of hospital-acquired conditions by 40 percent by the end of 2013. We continue to advance the ultimate goal of zero preventable harm.

This report highlights 16 health plans' efforts to prevent healthcare-acquired conditions, help patients transition smoothly from hospital to home, and manage chronic conditions effectively to avoid complications and preventable readmissions.<sup>2</sup> In some cases, these innovations involve funding for hospital-based patient safety initiatives; in others, plans' transitional care programs work directly with patients and their families to help reduce complications and hospital readmissions. In recent years, health plans and health care providers have collaborated on innovative payment systems that reward providers for improvements in patients' care. In some cases, these quality-based reimbursements are gradually replacing the traditional, volume-based fee-for-service approach to payment.<sup>3</sup>

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<sup>1</sup> Kohn, L., Corrigan, J., & Donaldson, M., Eds. (2000). *To Err is Human: Building a Safer Health Care System*. Washington, DC: Institute of Medicine. National Academies Press.

<sup>2</sup> This monograph is an update and expansion of AHIP's June 2010 report titled *Innovations in Reducing Preventable Hospital Admissions, Readmissions, and Emergency Room Use* (<http://www.ahipresearch.org/pdfs/innovations2010.pdf>). We will continue to add to the monograph as additional programs emerge. The full series of AHIP's *Innovations* reports is available at [www.ahipresearch.org/innovation\\_series.html](http://www.ahipresearch.org/innovation_series.html).

<sup>3</sup> For example, under the new "shared incentive" contract between Blue Cross and Blue Shield of Minnesota and Fairview Health Services, the health plan gradually phases down the fee-for-service portion of reimbursements while adding payments tied to measurable improvements in health care quality and the overall cost of care. The program was described at AHIP's Health Care Cost Summit on March 9, 2011: <http://www.ahipresearch.org/pdfs/March2011CostSummit.pdf>.



## CHAPTER 1

# Programs to Reduce Healthcare-Acquired Conditions and Never Events

## BlueCross BlueShield of Tennessee

Since 2007, BlueCross BlueShield of Tennessee (BCBST) has provided and committed more than \$6.8 million in funding for the Tennessee Hospital Association's Tennessee Center for Patient Safety. The Center's purpose is to advance the adoption of evidence-based strategies to improve the reliability, safety, and quality of care received in Tennessee's hospitals, with the goal of achieving zero preventable harm. The Center works with more than 100 hospitals across Tennessee, which together account for more than 90 percent of all hospital admissions in the state.

As part of its evolving hospital payment incentive program, BCBST is beginning to reward hospitals for reducing healthcare-acquired infections and for reaching specified patient safety goals. Currently the Center's efforts focus on preventing central line-associated bloodstream infections (CLABSI) in both intensive care units and neonatal intensive care units; catheter-associated urinary tract infections; ventilator-associated pneumonia; Methicillin-resistant *Staphylococcus aureus* (MRSA); and surgical site infections. The Center convenes regular meetings for hospital staff to discuss their experiences, lessons learned, and best practices to prevent patient harm.

As part of its funding for the Tennessee Center for Patient Safety, BlueCross BlueShield of Tennessee has provided \$2.9 million to a statewide collaborative to evaluate surgical care and improve surgical outcomes. Ten hospitals participate in the initiative,

which is using the American College of Surgeons' nationally validated and risk-adjusted program (the National Surgical Quality Improvement Program) to measure and improve the quality of surgical care.

### Results:

#### Reduction in Central Line-Associated Bloodstream Infections

- ▶ From 2007 – 2008, the number of CLABSIs among adult patients in 60 participating hospitals fell by 40 percent, or 296 cases.
- ▶ From 2008 – 2010, there was a statistically significant 50 percent reduction in the neonatal CLABSI infection rate in 21 participating neonatal intensive care units.
- ▶ The average number of central line days with no CLABSI cases by participating hospital improved significantly from 751 in 2008 to 925 in 2009 in non-neonatal ICUs.

#### Reduction in MRSA Cases

From 2008 – 2009:

- ▶ The number of hospital-onset MRSA cases was reduced by 234, or 16.4 percent, among the 50 hospitals with complete facility-level data.
- ▶ Among participating hospitals, the average risk of hospital-onset MRSA fell from one case for every 199 admissions to one per 231 admissions.
- ▶ The rate of hospital-onset MRSA per 1,000 admissions declined significantly, by 1.52 cases per 1,000 admissions.

#### Surgical Safety

The 37 hospitals working with the Center for Patient Safety on surgical care improvement showed improvement on all nine surgical process measures, with five measures showing statistically significant improvement from 2008 – 2009. For example:

- ▶ The rate of providing prophylactic antibiotics within one hour prior to surgical incision improved significantly, by 14.9 percent.
- ▶ The rate of discontinuing prophylactic antibiotics within 24 hours of completing surgery increased significantly, by 12.6 percent.
- ▶ The percent of cardiac surgery patients with controlled post-operative blood glucose rose significantly, by 13.4 percent.
- ▶ The percent of patients who received prophylactic treatment to prevent blood clots of the arteries within 24 hours of surgery improved significantly, by 7.19 percent.

#### Reduction in Blood Clots

From 2007 – 2008, the number of patients who developed blood clots in the lungs (pulmonary embolus) or blood clots in deep veins (deep vein thrombosis) while in participating hospitals fell by 21 percent, or 330 cases.

## Blue Cross Blue Shield of Michigan

Since 2003, Blue Cross Blue Shield of Michigan (BCBSM) has provided two five-year, \$6 million grants to the Michigan Health and Hospital Association (MHA) to support the MHA Keystone Center, a collaborative effort among Michigan hospitals—along with state and national patient safety experts—to improve patient safety and reduce healthcare-acquired infections.

In addition to the funding it provides directly to the MHA Keystone Center, BCBSM provides funding to hospitals—in the form of incentive payments—to participate in selected Keystone initiatives and achieve specific performance targets related to the Keystone activities. Approximately 140 Michigan hospitals participate in Keystone Center activities.

To date, the MHA Keystone Center has used the following tools to improve

patient safety and quality of care:

- ▶ A standardized checklist and toolkit for installing central lines in intensive care unit (ICU) patients to avoid central line-associated bloodstream infections (CLABSIs);
- ▶ An oral care toolkit to reduce ventilator-associated pneumonia;
- ▶ Daily patient rounds to promote better communication between doctors and nurses about patients' health status;
- ▶ Pre- and post-surgical briefings to ensure that each surgical team member is aware of all surgical plans and outcomes, in order to avoid errors and surgical site infections;
- ▶ Empowerment of all surgical team members to encourage individuals to speak out if they see an error about to happen; and

- ▶ Evidence-based procedures to promote timely removal of nonessential catheters and appropriate care of necessary catheters to reduce catheter-associated urinary tract infections (CA-UTIs).

### Results:

- ▶ From 2004 – 2009, the rate of CLABSIs in hospitals participating in the Keystone Center fell from 2.5 per 1,000 central line days to 0.86 per 1,000 days.
- ▶ From 2008 – 2010, the rate of ventilator-associated pneumonia was reduced by 70 percent, to less than 1.5 per 1,000 ventilator days.
- ▶ Among hospitals participating in the CA-UTI initiative, the rate of catheter use fell from 19 percent to 14 percent from 2007 – 2010.

## CIGNA



CIGNA uses a variety of payment incentives to reduce healthcare-acquired infections. As part of the health plan's pay-for-performance initiative, hospitals can earn percentage increases in reimbursement for following standardized protocols to improve patient safety and reduce surgical site infections. Specific incentive amounts and measures are negotiated on a hospital-by-hospital basis.

Consistent with Centers for Medicare & Medicaid Services (CMS) policy, CIGNA may reduce payments to hospitals for services required to treat hospital-

acquired conditions that were not present upon admission. These include: catheter-associated urinary tract infections; mediastinitis after coronary artery bypass surgery; surgical site infections following orthopedic procedures; and surgical site infections following bariatric surgery.

CIGNA does not pay facilities or health care practitioners for never events, and patients must not be held financially responsible for them. Furthermore, CIGNA does not provide reimbursement for any services related to the never event; these are defined as services

provided in the operating room or procedure room when the error occurred.

The policy—together with CIGNA's provider contracting policies and initiatives to promote transparency—are intended to: improve hospital reporting; align the health plan's practices with those of CMS; reduce the number of never events; and help members become more informed about hospital quality.

CIGNA requires hospitals to perform root cause analyses of never events and take action to reduce them in the future.

## Excellus BlueCross BlueShield

In the past three years, Excellus BlueCross BlueShield has provided a total of \$7 million to 18 hospitals for initiatives to reduce healthcare-acquired infections. Funds are used to support hospitals' use of sophisticated data mining technology to track and reduce infections in hospitals and in surrounding communities. The program also provides staff of participating hospitals with monthly Web-based educational sessions on how

to use the technology, and it enables ongoing measurement of outcomes.

Additionally, Excellus uses a pay-for-performance approach to improve health care quality and bend the cost curve. In 2010, the health plan provided quality improvement incentive payments to 52 upstate New York hospitals for meeting performance benchmarks in the areas of clinical quality, patient safety, patient satisfaction, and hospital efficiency.

### Results:

► From 2008 – 2011, the number of healthcare-acquired infections—including urinary tract infections, central line-associated bloodstream infections, and respiratory infections—declined by 17 percent among hospitals receiving funds from Excellus. This reduction translates into \$6.3 million in savings for the hospitals.

## Aetna



Aetna reviews inpatient claims to identify eight specified hospital-acquired conditions, as defined by the National Quality Forum.<sup>4</sup> Aetna does not pay hospitals for additional inpatient days that directly result from the condition beyond the expected length of stay or that result in a preventable admission. Patients likewise are not responsible for payment.

In addition, the health plan and its members do not pay any charges related to three never events<sup>5</sup> or for a set of eight<sup>6</sup> serious reportable events, also defined by the National Quality Forum.

If a never event or a serious reportable event occurs, Aetna requires hospitals in

its network to notify the health plan, along with at least one of three designated patient safety organizations: the Joint Commission; the state reporting program for medical errors; or a patient safety organization such as a state-specific patient safety center.

Aetna's Quality Management Department reviews all identified never events and serious reportable events and follows up with individual facilities. Facility representatives must identify root causes of never events and serious reportable events, and they must identify changes to improve patient care systems and processes. Facility representatives must communicate with patients and their

families when these events occur.

Besides implementing these policies, Aetna provides patient safety information on its Web site, Aetna Navigator,<sup>®</sup> to help patients protect themselves from medical errors. The information is featured in the "Take Action on Your Health, Health Guide" section where members can search for information to prepare themselves for medical procedures. The site also lists patient safety tips (e.g., asking health care professionals to check their ID bracelets before receiving blood or medications) that members can print out and take with them to doctor visits or hospitals.

<sup>4</sup> These conditions are: (1) unintended retention of a foreign object in a patient after surgery or other procedure; (2) hemolytic reaction due to the administration of ABO/HLA-incompatible blood or blood products; (3) failure to identify and treat hyperbilirubinemia in neonates; (4) a burn incurred from any source while being cared for in a healthcare facility; (5) intravascular air embolism that occurs while being cared for in a health care facility; (6) medication error; (7) a fall while being cared for in a healthcare facility; and (8) deep vein thrombosis and/or pulmonary embolism following total knee replacement and hip replacement.

<sup>5</sup> The National Quality Forum defines a "never event" as "errors in medical care that are clearly identifiable, preventable, and serious in their consequences for patients, and that indicate a real problem in the safety and credibility of a health care facility." For purposes of this policy, Aetna defines the following events as never events: (1) surgery or invasive procedure performed on the wrong person; (2) surgery or invasive procedure performed on the wrong side or body part; and (3) performance of the wrong surgical or invasive procedure.

<sup>6</sup> Aetna will not pay facilities for a set of eight serious reportable events, as defined by the National Quality Forum: (1) unintended retention of a foreign object in a patient after surgery or another procedure; (2) patient death or serious disability associated with a hemolytic reaction due to administration of incompatible blood or blood products; (3) patient death or serious disability associated with an electric shock while being cared for in a health care facility; (4) intraoperative or immediately post-operative death in an ASA Class I patient; (5) patient death or serious disability associated with use of contaminated drugs, devices, or biologics provided by a health care facility; (6) death or serious disability associated with failure to identify and treat hyperbilirubinemia in neonates; (7) any incident in which a line designated for oxygen or other gas to be delivered to a patient contains the wrong gas or is contaminated by toxic substances; and (8) patient death or serious disability associated with a burn incurred from any source while being cared for in a health care facility.

## Sentara / Optima Health

An integrated health system that includes Optima Health Plan—along with hospitals, physician practices, and nursing homes—Sentara has a company-wide initiative to prevent healthcare-acquired infections. Based on a model developed by the Institute for Healthcare Improvement, the initiative features multidisciplinary teams of professionals who provide leadership on the issue throughout the organization. Sentara promotes a culture of accountability for patient safety that touches all staff, from senior leadership to custodial staff. All clinical staff members

are trained on error reduction techniques. Optima Health pays bonuses to Sentara hospitals that meet performance benchmarks in specified areas, including reduction in facility-acquired urinary tract infections, hospital-acquired pressure ulcers, patient falls, and heart attacks, as well as increased provision of evidence-based services for treatment of heart attack, heart failure, and pneumonia, and delivery of antibiotics within 60 minutes of surgical incision. Facilities receive an additional bonus if no never events occur during the year. Hospital performance

is measured monthly, and bonuses are provided on an annual basis.

### Results:

- ▶ From 2002 – present, the number of ventilator-associated pneumonia cases throughout the Sentara system has fallen by 97 percent.
- ▶ Also during that period, the number of central line-associated bloodstream infections has dropped by 91 percent.
- ▶ From 2008 – 2010, the number of MRSA cases in Sentara facilities was reduced tenfold.



## Fallon Community Health Plan

As part of its pay-for-performance program, Fallon Community Health Plan (FCHP) provides incentives to hospitals for reaching CMS and National Quality Forum benchmarks in specified areas: reducing the incidence of pressure ulcers; preventing central line-associated bloodstream infections; providing antibiotics one hour before surgery and

discontinuing them at the appropriate time after surgery; and reducing catheter-associated urinary tract infections.

In addition, FCHP provides no reimbursement to hospitals for serious reportable events and never events as defined by the National Quality Forum. Consistent with CMS guidelines, FCHP does not provide hospitals additional

payment for 10 conditions if they were not present upon admission.<sup>7</sup>

Hospitals under contract with FCHP are required to send the health plan copies of the reports they must submit to the state when any serious reportable events or never events occur, along with their state-mandated corrective action plans.

## Harvard Pilgrim Health Care



Harvard Pilgrim Healthcare (HPHC) engages in a comprehensive, months-long review process to investigate serious reportable events (such as catheter-associated infections, fractures, and falls) and never events (such as wrong-site surgeries) that occur in facilities in its network. The process involves nurses, doctors, and claims staff,

who conduct detailed reviews of clinical and payment records. In some cases, the health plan arranges for external review of cases by specialists.

Based on its findings, the health plan may monitor facilities to ensure that they are making needed quality improvements, and they may reduce

and/or retract payments for services associated with adverse events. HPHC's goal in this process is to promote the adoption of patient safety guidelines, evidence-based medicine, and best practices that will result in a lower incidence of serious preventable events and improved quality.

<sup>7</sup> These conditions are: (1) foreign object retained after surgery; (2) air embolism; (3) blood incompatibility; (4) Stage III and IV pressure ulcers; (5) falls and trauma; (6) manifestations of poor glycemic control; (7) catheter-associated urinary tract infections; (8) vascular catheter-associated infections; (9) surgical site infections following coronary artery bypass graft surgery, bariatric surgery, and orthopedic procedures; and (10) deep vein thrombosis or pulmonary embolisms following total knee replacements or total hip replacements.

WellPoint's affiliated health plans' Quality-In-Sights Hospital Incentive Program (Q-HIP) uses a scorecard to measure the extent to which hospitals implement process improvements to reduce healthcare-acquired infections and never events, as well as hospitals' performance in reducing specified adverse health outcomes. The scorecard measures hospitals' use of the following tools to promote patient safety:

- ▶ Computerized physician order entry;
- ▶ Staff read-back of physician orders;
- ▶ Avoidance of medical abbreviations that are associated with errors;
- ▶ Evidence-based procedures to reduce central line-associated bloodstream infections, pressure ulcers, and blood clots;
- ▶ Surgical safety checklists; and
- ▶ Procedures to reduce medication errors, duplication, and adverse reactions.

WellPoint's affiliated health plans also use the scorecard to measure hospital-specific rates of ventilator-associated pneumonia, central line-associated bloodstream infections, and catheter-associated urinary tract infections. Each hospital receives a Q-HIP adjustment based on its overall numerical scorecard performance. The program also provides incentives for hospitals to have disclosure and support systems to help patients and caregivers if adverse events occur.

Besides implementing Q-HIP, WellPoint's affiliated health plan in California is providing \$6 million over three years for a statewide initiative called Patient Safety First. Through this program, which began in January 2010, the three California hospital associations train hospitals to implement evidence-based care bundles, which are groupings of best practices related to individual disease processes (e.g., prevention of ventilator-associated pneumonia and central line-associated bloodstream infections).

Patient Safety First also includes a peer-to-peer regional learning network to promote adoption of best practices to reduce hospital-acquired infections. WellPoint's employees participate in regular project meetings with hospital representatives and jointly develop interventions to promote patient safety.

Hospitals participating in the Patient Safety First initiative are required to submit data on a quarterly basis. Through this initiative, WellPoint has collaborated with the National Health Foundation to collect data from participating hospitals, analyze clinical outcomes, and assess savings.

### Results:

Preliminary analysis in the first half of 2010—based on a small subset of hospitals—showed reduction in ventilator-associated pneumonia and central line-associated bloodstream infections.

## Highmark Blue Cross Blue Shield

Through its QualityBLUE Hospital Pay-for-Performance Program, Highmark Blue Cross Blue Shield partners with hospitals to improve patient care and safety. Through this initiative, a portion of hospitals' reimbursement depends on their performance in providing evidence-based services and reducing healthcare-acquired infections.

The program includes benchmarks to improve surgical safety and indicators to reduce:

- ▶ Surgical site infections;
- ▶ MRSA infections;
- ▶ Central line-associated bloodstream infections;

- ▶ Catheter-associated urinary tract infections;
- ▶ *Clostridium difficile* infections; and
- ▶ Gram negative rod infections.

When the initiative first began, Highmark rewarded hospitals simply for implementing evidence-based guidelines. Today, to receive their QualityBLUE reimbursements, hospitals must demonstrate progress in improving health outcomes (e.g., by reducing MRSA infections).

Infection prevention and quality improvement professionals on Highmark's hospital performance management team are available to consult with hospitals and

offer guidance in support of their patient safety efforts. In addition, the health plan hosts an annual Best Practices Forum in which hospital representatives discuss best practices and lessons learned through the QualityBLUE initiative.

### Results:

- ▶ In 2010, the rate of central line-associated bloodstream infections in hospitals participating in Highmark QualityBLUE was 0.96, compared to the national rate of 1.96 as reported by the Centers for Disease Control and Prevention.
- ▶ From 2008 – 2010, the rate of MRSA infections in Highmark QualityBLUE hospitals declined from 0.33 to 0.17.



## Horizon Blue Cross Blue Shield of New Jersey

Since 2005, Horizon Blue Cross Blue Shield of New Jersey (BCBSNJ) has provided \$5.5 million to implement a patient safety initiative at 24 hospitals throughout the state. Through the program, Horizon BCBSNJ provides a grant allowing any interested New Jersey hospital in its network to subscribe to the MedMined Data Mining Surveillance system, a tool for reducing hospital-acquired infections.

The executive staff, clinical leadership, and infection control professionals of participating hospitals undergo training on effective use of the technology, and the facilities receive ongoing educational support and technical resources. The MedMined system uses hospitals' admission, transfer, discharge, laboratory,

and pharmacy data to track all types of infections. Individual facilities may choose to place additional emphasis on particular infection types and infection reduction measures. For example, all participating hospitals have hand-hygiene initiatives, and many have implemented strategies to reduce central line-associated bloodstream infections.

MedMined replaces the manual process of tracking and trending infections and allows for much more timely and comprehensive tracking, reporting, and intervention than were previously possible. Infection control professionals receive data about infections in real time and can focus their resources on implementing corrective actions promptly.

Participating hospitals hold weekly technical support conference calls, meet quarterly to share best practices in infection control, and engage in regular peer-to-peer consultations on how to optimize use of MedMined to eliminate hospital-acquired infections.

### Results:

- ▶ In each year since the program's implementation, the aggregate rate of hospital-acquired infections in participating facilities has declined by double digits. From 2006 – 2010, the aggregate rate of hospital-acquired infections among all participating facilities fell by 17.2 percent.
- ▶ Reduced infection rates have translated into a total savings of nearly \$36 million for participating hospitals since 2006.

## Independence Blue Cross

Since 2005, Independence Blue Cross has provided more than \$5 million in funding for the Partnership for Patient Care, an initiative to improve the quality and safety of care for patients in more than 70 hospitals in Southeastern Pennsylvania. Each year, the Partnership's steering committee of hospital and health plan representatives identifies patient safety goals, and facilities collaborate on strategies to achieve them. Current projects include an assessment of hospital culture with respect to patient safety, as well as an initiative to reduce hospital readmissions by 10 percent within 18 months.

As part of a project to reduce healthcare-acquired infections, hospital staff members documented and analyzed hospital processes and participated in workshops with patient safety experts to identify and discuss best practices in infection control. By sharing information in person and through an interactive Web site, hospital staff improved the everyday

practice of medicine much more quickly than was previously possible.

Since its implementation in 2006, the Partnership for Patient Care has put strategies in place to prevent life-threatening blood clots in the hospital, prevent patient falls, avoid harmful drug interactions and dosing errors, and reduce the incidence of MRSA.

Facilities in the Independence Blue Cross network that succeed in reducing surgical complications and hospital-acquired infections receive added payments as part of the health plan's Integrated Provider Performance Incentive Plan. Doctors and hospitals also are rewarded for reducing preventable hospital readmissions and helping patients with chronic conditions such as diabetes and high blood pressure lower their blood sugar and blood pressure levels.

### Results:

- ▶ As of December 2010, ten local health systems, representing 22 acute-care

hospitals, had conducted diagnostic assessments to evaluate their approaches to protecting patient safety and identify strategies to establish safer care environments.

- ▶ The rate of pressure ulcers that developed among patients of participating facilities dropped by 28 percent, from 7.1 percent in December 2008 to 5.1 percent in February 2010.
- ▶ From 2008 – 2009, the estimated number of bloodstream infections in Southeastern Pennsylvania hospitals fell by 36 percent, and the estimated number of catheter-associated urinary tract infections declined by 13 percent. Two-thirds of the region's hospitals had fewer of both types of infections.
- ▶ Following the Partnership for Patient Care's Wrong-Site Surgery Collaborative in early 2008, the number of wrong-site events reported to the Pennsylvania Patient Safety Authority dropped from a regional average of 3 per quarter to 1.5 per quarter in December 2010.

## Kaiser Permanente



Kaiser Permanente's infection prevention initiative places priority on avoiding surgical site infections, as well as preventing *Clostridium difficile*, MRSA, and device-associated infections (e.g., urinary tract, pneumonia, and bloodstream infections). Kaiser Permanente uses evidence-based care bundles (groups of evidence-based services to prevent infections) and toolkits (standardized procedures and instructions) to create a consistent approach to infection prevention in all of its facilities. In developing care bundles

and toolkits, the organization leverages clinical knowledge sharing and the power of its electronic medical record system (KP HealthConnect) to apply the best available evidence in clinical decision-making. Front-line care teams are supported by infection prevention professionals and infectious disease physicians to ensure patient safety.

### Results:

Kaiser Permanente tracks infection rates on a quarterly basis and reports them internally and publicly according to state

regulatory requirements. Rates are trending downward toward the goal of zero preventable healthcare-associated infections. For example, as of Summer 2010:

- ▶ In eight of Kaiser Permanente hospitals' adult intensive care units (ICUs), there had been no bloodstream infections in more than a year.
- ▶ In three of Kaiser Permanente hospitals' adult ICUs, there had been no bloodstream infections in more than two years.

**CHAPTER 2**

**Programs to Reduce Preventable Hospital Readmissions**



## XLHealth

Since 2008, XLHealth's nurse case managers have contacted all members by phone as soon as possible following hospital discharge. During these calls, nurses explain and review patients' medications, check for duplication and potential adverse reactions, and educate patients about their conditions. They follow up with patients' physicians to address any outstanding medication-related issues. Nurses also link patients with medical and social services to help them access items and services such as prescription drugs, transportation, Meals on Wheels, and behavioral health.

Nurses contact patients again within two weeks of hospital discharge to check on their health status and needs. Patients with particularly complex needs are paired with nurse case managers for ongoing support.

Besides receiving follow-up phone calls from nurses, patients at highest risk receive post-discharge home visits from a physician or nurse practitioner. During these visits, practitioners review patients' care plans—including their post-discharge instructions—and help patients understand how best to manage their conditions. When practitioners identify gaps in patients' care (e.g., home health care not received, unfilled prescriptions), they work with XLHealth's nurse case manager, physicians, and pharmacists to address the issues.

Through XLHealth's PharmAssist program, patients with complex medical conditions receive phone calls from specially trained clinical pharmacists following hospital discharge. In advance of these calls, pharmacists review patients' lab results and hospital discharge summaries. During their

consultations with patients, pharmacists seek to identify any difficulties related to patient safety and medication adherence, including duplication, potential for adverse reactions, and affordability. They work with patients and their doctors to resolve these issues.

### Results:

- ▶ From 2009 – 2010, the rate of 30-day hospital readmissions among XLHealth members fell by 4 percentage points, from 25 percent to 21 percent.
- ▶ Readmission rates among patients at highest risk who participated in an XLHealth pilot program providing post-discharge home visits were 20 to 30 percent lower than those of patients who consulted with care managers by phone only. Based on the pilot's success, XLHealth now provides post-discharge home visits to all members at highest risk of hospitalization.

## Aetna



Since 2007, Aetna has pursued collaborative initiatives with physician groups throughout the country in accountable care organization (ACO)-like arrangements to reduce preventable hospital admissions and readmissions. For example, Aetna's nurse case managers have worked with 36 primary care practices to help approximately 20,000 Medicare Advantage members manage their health conditions, coordinate services, and use *ActiveHealth's* CareEngine® System to identify and address gaps in care. As part of the initiative, Aetna has linked primary

care physician groups with specialists, hospitals, and community services to help their patients access medical and social services (e.g., home-delivered meals, caregiver support, and respite care).

### Results:

- ▶ Nearly all of the medical groups participating in the Medicare Advantage program met performance targets in 2010, such as providing at least two office visits per year for patients with certain chronic conditions and providing patient follow-up office visits within 30 days of hospital discharge.

For example, 100 percent of patients in physician groups with more than 500 Aetna members and 96 percent of patients in physician groups with 100-500 Aetna members had follow-up visits within 30 days of discharge.

- ▶ In 2010, the number of acute-care hospital days among Medicare Advantage members participating in the program was 43 percent less than that of a comparable population of beneficiaries with Medicare fee-for-service coverage.

## Banner MediSun

In coordination with its affiliated hospital system, physician networks, and home care agency, Banner MediSun Health Plan provides case management to Medicare Advantage members to help avoid preventable hospital readmissions. Based on referrals from physicians, member self-referrals, and a daily review of hospital admissions, nurse case managers and social workers on Banner MediSun's case management team contact members who have multiple chronic conditions and other complex needs by phone or in person following discharge from acute care hospitals or skilled nursing facilities.

Nurse case managers and social workers visit patients at home or in group home settings, assisted living communities, and other long-term care facilities. During these calls and visits, they review patients' discharge instructions; answer questions; explain medications and check for duplication, side effects, and potential adverse interactions; check whether patients have filled new prescriptions; and help patients make follow-up appointments with physicians as needed.

Nurses and social workers address both medical and psychosocial needs to help patients understand their health conditions and treatments, access needed services (e.g., home health and durable medical equipment), and follow care plans.

Clinical pharmacists are available to program participants to help manage complex medication regimens and address medication-related challenges such as side effects or adverse reactions. In addition, a dietician and certified diabetes educator are available to consult with case managers and patients with special dietary needs.

Team members contact patients an average of three times during a 30-day period, but they may be in touch with individual patients as many as six to 10 times, depending on needs. Patients can contact members of the care team for assistance at any time, even after they have been discharged from the program.

### Results:

In 2010:

- ▶ The plan-wide, all-cause readmission rate was 14.8 percent.

- ▶ More than 3,000 Medicare Advantage members received case management services through the program.
- ▶ More than 1,000 Medicare Advantage members received home visits from nurses or social workers, and nearly 600 received additional assistance from social workers, such as help with accessing community resources, obtaining financial assistance to pay for health care, transitioning to higher levels of care (e.g., skilled nursing facilities), and completing advance directives.
- ▶ Nearly 1,000 Medicare Advantage members received home visits to assess their risk for falls. During these visits, case managers identified an average of two safety issues per member and took a variety of actions to prevent falls, such as: helping patients access new or different durable medical equipment; obtain new footwear; and eliminate home hazards such as loose rugs.

## PrimeTime Health



As part of PrimeTime Health's Medical Home initiative, the health plan's nurses work in two primary care physician practices to: (1) ensure that Medicare Advantage members discharged from hospitals receive timely follow-up care and access support services; and (2) provide ongoing case management to patients with complex needs. Once patients are referred to the Medical Home program, nurses assess their needs, develop care plans, and have regular phone and in-person contacts with patients to help them follow care

plans and obtain the medical and social services they need.

To promote high-quality care, PrimeTime Health links a portion of physician groups' payments to performance in meeting HEDIS quality benchmarks (e.g., for use of preventive care), use of electronic health records, and improved health outcomes such as reduced LDL-cholesterol and HbA1c blood sugar levels.

### Results:

From 2009 – 2010:

- ▶ The 30-day readmission rate among

Medicare Advantage members participating in PrimeTime Health's Medical Home program fell from 30.7 percent to 24.5 percent, whereas it fell from 23.4 percent to 21.5 percent in a control group of comparable patients.

- ▶ The percent of Medicare Advantage members with coronary artery disease whose LDL-cholesterol levels were below 100 increased from 40 percent to 60 percent.

# Acknowledgements and Company Contacts

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The report is based on telephone interviews with representatives of 16 member companies. AHIP thanks participating health plan staff for their time and efforts to make the project possible. For more information about the company initiatives described in the publication, please contact the individuals listed below:

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