



*Center for Policy
and Research*

Innovations in Health Information Technology



**America's Health
Insurance Plans**

**Providing health
benefits to over
200 million Americans.**

*Effective New Solutions from
America's Health Insurance Plans*



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America's Health Insurance Plans is a national association representing nearly 1,300 members providing health benefits to more than 200 million Americans. AHIP and its predecessor organizations have advocated on behalf of health insurance plans for more than six decades.

As the voice of America's health insurers, our goal is to advance a vibrant, private-public health care system, one characterized by consumer choice, product flexibility, and innovation. We support empowering consumers with the information they need to make health care decisions, promoting health care quality in partnership with health care providers, and expanding access to affordable health care coverage to all Americans.

AHIP's mission is to effectively advocate for a workable legislative and regulatory environment at the federal and state levels, one in which our members can advance their vision of a health care system that meets the needs of consumers, employers, and public purchasers.

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Introduction

Advancing the Horizons of Information Technology



By Karen Ignagni
President and CEO, America's Health Insurance Plans

America's health insurance plans have been advancing the horizons of information technology (IT) on many fronts. Health insurance plans are using IT not only to process claims more efficiently but also to promote evidence-based care, add value to health care services, and empower consumers through access to information and decision tools. Proactive use of IT makes it possible to add value for consumers with chronic health conditions, creates a seamless, error-free electronic pathway to guide prescriptions from doctor to pharmacist to patient, and allows health professionals to collaborate over vast distances and communicate with patients by e-mail.

In this report you will find summaries of breakthrough IT initiatives that are adding value to health care for employers, health care practitioners, and—above all—consumers. Here are a few examples:

- ▶ A Florida health insurance plan located in a community with a shortage of critical care physicians has established an electronic intensive care unit (e-ICU) program in its three participating hospitals. This advanced technology system allows specially trained critical care physicians and nurses to monitor ICU patients' physiological changes on a 24/7 basis from a remote location. The system alerts onsite medical teams of potentially detrimental changes so they can intervene immediately to avert crises. In its first year of operations, the program saved lives, fewer ICU patients experienced cardiopulmonary arrest, and the risk of mortality among ICU patients fell.
- ▶ Three health insurance plans in Massachusetts have joined forces to jump-start the use of e-prescribing technology by physicians throughout the state. A handheld device enables physicians to access patients' medication histories, check for potentially harmful drug allergies and adverse interactions, and create and renew prescriptions electronically. The program promotes patient safety and helps avoid errors caused by illegible handwriting.

- ▶ A health insurance plan in Utah has a Web site offering one-stop shopping for managing health savings account (HSA) balances and tracking health insurance claims online. Members logging on to the site can track contributions to their HSAs, download monthly statements indicating all deposits and withdrawals, track claims payments from high-deductible health plans (HDHPs), and view health plan explanations of benefits (EOBs) online. Members can use the plan's debit card to pay for health care from their HSAs, and they can use the Web site to pay bills online. In addition, for members who choose it, the plan offers a program to help them save money on prescription drugs and medical procedures and an online risk assessment that can help them with lifestyle changes to improve health.
- ▶ A Nevada health insurance plan has implemented a digital radiology program that captures X-rays in digital format rather than on film and makes them immediately available for its medical group's doctors to review and evaluate. X-ray images are accompanied by radiologists' notes, which are transcribed electronically with a voice recognition system and stored in Word documents for easy viewing. Physicians can access the X-rays they have ordered, along with radiologists' assessments, within hours instead of days, thereby improving their ability to make timely and informed treatment decisions.

Perhaps no IT initiative offers more promise or has acquired more urgency in the wake of recent events than the development and implementation of electronic personal health records (PHRs). A PHR is an electronic record of an individual's health and care that compiles information across time and health care providers. Today, an individual may receive care from a number of different providers in a variety of settings, and for most consumers, no system is in place to coordinate and summarize the information from these disparate health care encounters. PHRs can aggregate an individual's personal health information into a coherent and permanent record of care.

Hurricane Katrina demonstrated the need to keep patients linked to their vital health care information when they are away from home, and when paper records are unavailable in a disaster.

Health insurance plans are developing a wide variety of PHRs and other forms of electronic health records, and are finding that they have great potential to improve health care quality, reduce costs, and increase consumer satisfaction. Here are some examples of the innovations already underway:

- ▶ A health insurance plan based in Washington State has developed and expanded an interactive Web site for its more than 500,000 members that enables them to view their medical records and immunization histories, consult with doctors on non-urgent issues via e-mail, order and renew prescriptions, schedule appointments, obtain lab results with user-friendly explanations, and access a searchable drug reference library. One indication of the system's success is that more than 10 percent of members' contacts with their health care practitioners are now online, and over 23,000 secure e-mails are exchanged between members and practitioners each month.

- ▶ A New York health insurance plan has created a PHR system in which members log onto the plan's Web site to activate their PHRs, and the plan automatically populates the records with data on members' prescription drug use, medical and hospital visits, diagnoses and lab test results, as well as all other information available from claims and administrative data. PHRs include data from the past two years or as long as the individuals have been members of the plan. As soon as information about a member's health and care becomes available, it is added automatically to the record. Members also can enter relevant data into their records, including information about family histories, health risks, and allergies. Approximately 30,000 members have opted to activate their PHRs since the system went live in June 2005.
- ▶ A subsidiary of a Tennessee health insurance plan, working with the state Medicaid program, has developed a program that combines patient-specific data from claims, lab tests, prescriptions, and immunizations to create medical histories for more than 700,000 Medicaid participants, accessible to physicians via a secure Web site. Physicians using the program report that when they view a patient's record for the first time they often find medical information of which they were previously unaware, and by adjusting their care decisions accordingly are able to improve care. The company will make the product available to private insurers and employer groups in 2006.

AHIP's Board of Directors has launched an effort to encourage the development of interoperable PHRs that contain key information about an individual's health and care. This will allow PHRs to become portable for consumers—a permanent record of care they can take with them throughout their lives.

As a first step, the private sector is currently working in cooperation with key policymakers, regulators, and other stakeholders toward the goal of defining the key health information content and reaching industry consensus on core operating principles to foster the interoperability and portability of PHRs.

America's health insurance plans are investing in the innovations in information technology profiled in this report because they recognize the improvements that can be achieved in promoting effective and quality health care. At its finest, the U.S. health care system is undeniably the best in the world. Advances in information technology can help ensure that its best will be the norm, with the system consistently delivering high-quality care that every patient should have a right to expect and at a cost that the nation can afford.

Chapter 1

Tools to Improve Disease Management and Case Management



Health insurance plans have been pioneers in the areas of disease management and case management. In recent years, these programs have been enhanced with sophisticated IT tools to help plans identify members with chronic conditions early—before they have debilitating and costly complications—and engage them in comprehensive programs to improve their health and well-being. Health plans also are using new software to transmit up-to-the-minute information on members' health status to health care practitioners, so that they can adjust care plans and provide needed treatments in a timely manner.

Results have been impressive. The programs highlighted in this section show that when individuals with chronic conditions receive effective, coordinated care on an ongoing basis, the need for costly emergency room visits and hospital admissions declines substantially. In some cases, IT innovations associated with disease management programs have led to reductions in patient mortality. And members participating in these programs report that their quality of life has improved significantly. As case management and disease management programs continue to grow and expand, information technology is likely to play an increasingly important role by giving members, physicians, and health plans the information they need in real time to provide effective, high-quality care and produce cost savings throughout the health care system.

Health First VitalWatch

To improve the quality of care in hospital intensive care units (ICUs) and address a shortage of critical care physicians in the community, Health First Health Plans and its parent company, Health First, implemented VitalWatch, an electronic intensive care unit (e-ICU®) program in its three participating hospitals in June 2004. VitalWatch uses computers and high-speed data lines to allow an intensivist—a physician trained in critical care medicine—along with a nurse and technical support staff, to monitor virtually all physiological changes experienced by ICU patients on a 24/7 basis from a remote location. VitalWatch currently monitors all 62 patients in Health First's six hospital ICUs.

An Added Level of Support

VitalWatch does not replace individual nurses, physicians or surgeons at the bedside. Rather, it gives those providers an added level of support. VitalWatch physicians and nurses work with on-site medical staff and communicate with patients' personal doctors about their care plans on a daily basis. Patients and their families are informed about the e-ICU upon admission to the hospital.

As part of VitalWatch, each ICU bed is equipped with a video camera and high-fidelity speakers so that "e-intensivists" can view patients, interpret physiological changes displayed on patients' monitoring systems, and communicate with attending physicians and nurses. The VitalWatch staff signals their presence with a chime to inform patients' families, and medical teams whenever they are monitoring an ICU room.

Crisis Prevention vs. Crisis Intervention

The VitalWatch system can detect slowly emerging, potentially detrimental patient changes in order to avert medical crises. For example, the system can detect a progressive decline in a patient's heart rate which, if allowed to progress, could lead to cardiopulmonary arrest. In such a situation, the VitalWatch team would immediately alert on-site medical staff, who could intervene to detect the underlying problem and provide rapid intervention.

By providing medical staff with continuous updates on the status of each patient, VitalWatch makes it possible for physicians to make timely decisions on when to transfer patients to other parts of the hospital when they no longer need intensive care. As a result, it can help avoid ICU-related infections, prevent pneumonia that can be caused by extensive use of ventilators, and reduce overall hospital costs.

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e-ICU® is a registered trademark of VISICU, Inc.

Results

In its first year of operation, VitalWatch produced the following outcomes:

- ▶ The number of patients experiencing cardiopulmonary arrest declined by 50%.
- ▶ Approximately 20 lives were saved.
- ▶ Among patients who experienced cardiopulmonary arrest, the percent of patients who were discharged from the hospital increased by 12%.
- ▶ The risk of mortality among patients admitted to the ICU fell by 16%.

Health First will continue to measure the impact of VitalWatch and will release additional results in June 2006.

Real-Time Hospital Information for Case Management

To provide more up-to-date and complete information to case managers tracking hospital inpatient visits, HIP Health Plan developed a new secure software program called the Mobile Clinical Form Review (CFR) in 2004. The program allows nurses to transmit the latest information about hospital patients' status at the bedside from a secure, wireless, PC-based tablet using electronic forms which mimic and replace paper forms.

Nurses using the CFR view patient-specific information from HIP's database on electronic forms that appear on the screen. They type updates into the system or hand-write them, using the program's handwriting recognition feature. The CFR then sends updated information to HIP's database using secure, wireless technology. HIP's case managers view the information in real time, and within 24 hours of each update they contact patients' physicians and/or the hospital's discharge planning staff to discuss care plans and anticipated lengths of stay, as well as needed medications, testing, and procedures. These ongoing updates allow doctors to respond quickly to changes in patients' health status and adjust treatment plans accordingly.

Results

Currently 10 HIP staff nurses are using the CFR program, and HIP plans to expand the program to 13-15 nurses in 2006. Because the CFR system keeps doctors better informed about their hospital patients on an ongoing basis, the volume of coverage denials associated with a lack of timely or complete information was reduced by 92% in the past year.

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The Care Partnership Program

In 2002, in response to rising hospital costs, Neighborhood Health Plan implemented the Care Partnership Program for members at risk of hospitalization and high medical costs. The program uses predictive modeling software, called Risk Smart, that analyzes data from medical, behavioral, and pharmacy claims to identify members with chronic conditions who are at risk of hospitalization and higher medical expenses in the coming year.

Nurse case managers contact members identified through the system to analyze their needs, and they work in partnership with members' physicians to help members develop care plans and set lifestyle goals to improve their health. Case managers use motivational interviewing and coaching techniques to help members achieve these goals. They also connect members with community resources and support as needed. Case managers call members regularly to check on their progress and change care plans if necessary. Members generally are enrolled in the program for two to ten months.

Results

Neighborhood Health Plan's ongoing surveys consistently have found satisfaction rates exceeding 90% for members participating in the Care Partnership program. Program participants are also prompted to periodically report numerical quality-of-life scores to their care managers. These scores are recorded and provide indicators of how members rate their health status over time. As a direct result of participation in the program, individuals continue to report significant improvements in their health status perceptions. This is evidenced by positive incremental changes in their self-reported quality-of-life scores.

The Care Partnership program also has produced significant cost savings. Per-member, per-month expenses and hospital admissions per thousand for members enrolled in the program declined more than 26% within 14 months of the program's implementation, and they have remained stable at the reduced level ever since.

In light of Care Partnership's success, Neighborhood Health Plan expanded the program to address pain management and weight management issues in 2005.

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Tufts Health Plan

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Tufts Health Priority Care

Finding that 3% of its members accounted for 47% of medical costs, in 2002 Tufts Health Plan launched Tufts Health Priority Care, a case management program for individuals with complex medical conditions, such as diabetes, cancer, spinal cord injuries, pediatric gastrointestinal illness, and neonatal heart defects. Once a month, Tufts Health Plan clinical staff analyzes medical and pharmacy claims using Web-based, predictive modeling software, called ThinkHealth. The program identifies members whose hospital admissions, ER visits, and prescription use indicate that they may be at risk of avoidable complications. In January 2006, Tufts will switch to IntelPro, which provides a more robust platform.

Once members are identified, Tufts Health Plan representatives call members to discuss the services offered through Priority Care. When members enroll in the program, nurse case managers contact their doctors to review their care plans. Case managers educate members about their medical conditions, and they tell them how to recognize symptoms—such as low blood sugar for members with diabetes or nausea for members receiving chemotherapy—that require immediate action (e.g., contacting the doctor or taking certain medications). Case managers identify barriers, such as diet or transportation problems, that are preventing members from following the doctor's care plan, and they help them overcome these barriers. They help members find community resources and support, and they coordinate members' care as needed. Case managers stay in touch with members by phone, and members can call them during business hours for help.

The Day Link Monitor

As a supplement to the predictive modeling software used in all of its disease management programs, in 2004 Tufts Health Plan introduced the Alere DayLink® monitor for members with heart failure. In partnership with the monitor's manufacturer, Alere Medical, Tufts Health Plan uses the program to identify trends that may indicate a change in a member's health status.

The monitor is attached to a digital scale, which members with heart failure use at home. Members step on the scale twice a day, and it asks them questions about their health status (e.g., whether they are short of breath, whether they took their medications, and whether they used an extra pillow as recommended). Patients press a button indicating yes or no, and their answers are transmitted electronically to Alere's database. Cardiac nurses analyze the information to identify unusual variations from patients' baseline health status (e.g., an unusual weight gain), and they notify the treating physicians as needed for follow-up.

Results

The SF-12 Health Survey, produced by Quality Metrics, Inc., is used to monitor members' improvement on both physical and mental health status. In an aggregate analysis of 916 members, enrolled members reported an overall improvement in all eight of the physical and mental health measures.

Tufts Health Plan (cont'd)

Massachusetts

A randomized, controlled study of 280 patients in 16 heart failure centers around the country (reported in the *American Heart Journal*, October 2003) found that use of the AlereNet system with the DayLink monitor reduced mortality by 56.2% over a six-month period.

The Tufts Health Priority Care program saved more than \$15 million in 2003, largely due to reduced inpatient admissions and ER visits, and it improved the quality of life for members with serious health conditions.

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Chapter 2

E-Prescribing



As health insurance plans seek effective ways to prevent medical errors and reduce prescription drug costs, they are providing doctors with the tools and equipment they need to prescribe electronically. Thousands of doctors across the country are using PCs and hand-held personal digital assistants (PDAs) to check prescriptions against patients' prescription drug histories, consult health plan formularies for coverage information, and transmit e-prescriptions to pharmacies.

Besides helping prevent adverse drug interactions and allergic reactions to medications, e-prescribing helps reduce medical errors caused by poor handwriting. E-prescribing also can produce significant cost savings by informing doctors of effective generic alternatives to brand-name drugs, and by giving them easy access to formulary information indicating which drugs are covered by patients' health benefit plans.

Recognizing the potential of e-prescribing to protect patient safety and reduce prescription drug costs dramatically, Congress included a provision in the Medicare Prescription Drug Improvement and Modernization Act of 2003 (MMA) requiring the U.S. Department of Health and Human Services (HHS) to adopt national standards for electronic prescriptions in the Medicare program by April 1, 2008.

The initiatives described in this section illustrate private health plans' commitment to e-prescribing as well as their ability to collaborate on e-prescribing systems that can be used with multiple plans' formularies and physician networks. Health plans report that e-prescribing saves time for doctors, allowing them to spend more time on patient counseling, and it reduces prescription costs by increasing use of generic drugs. As e-prescribing becomes more widespread and formal evaluations are conducted, it will be possible to further quantify the success of e-prescribing in reducing adverse drug reactions, medical errors, unnecessary emergency room use, and overall medical expenses.

Blue Cross Blue Shield of Massachusetts, Neighborhood Health Plan, Tufts Health Plan

Massachusetts

A Unique Collaboration

To jump-start the use of e-prescribing technology in Massachusetts, Blue Cross Blue Shield of Massachusetts, Neighborhood Health Plan, and Tufts Health Plan formed the eRx Collaborative. A unique cooperative effort among three competing health insurance plans, the program underwrites the cost and promotes the use of e-prescribing technology in physician offices throughout the state. Blue Cross Blue Shield of Massachusetts and Tufts Health Plan started the program in the fall of 2003, and Neighborhood Health Plan joined the effort in August 2004.

Making it Easier for Prescribers

The eRx Collaborative makes it easy for physicians and other prescribers who participate in multiple health plan networks, by giving them a handheld device to access all information needed for prescribing - such as patient eligibility and formulary information - for members of any of the three participating plans. In addition, the program allows prescribers to:

- ▶ Access patients' drug histories to determine their current and previous prescriptions;
- ▶ Create and renew prescriptions electronically;
- ▶ Send prescriptions to the pharmacy via fax or electronic data interchange (EDI) or print the prescription on paper;
- ▶ Check for potentially harmful drug-drug and drug-allergy reactions; and
- ▶ Access a comprehensive drug reference guide.

The eRx Collaborative uses technology developed by the Zix Corporation (owner of PocketScript™) and DrFirst (creator of Rcopia™). The Collaborative offers prescribers a year-long, free trial of the e-prescribing system, with the option of purchasing it on their own after that. In 2004, Blue Cross Blue Shield of Massachusetts prescribers received additional payments of \$1 per member per month for adopting the e-prescribing technology.

Improvements in Quality and Efficiency

E-prescribing technology promotes patient safety by alerting prescribers of potential drug-drug and drug-allergy interactions to help prevent adverse reactions, and it helps avoid errors caused by illegible handwriting and pharmacy data entry.

E-prescribing increases efficiency by reducing the time that physicians' office staff spend on the phone calling in prescriptions and responding to pharmacy questions about illegible handwriting. By giving prescribers instant access to formulary information at the point of prescribing, it eliminates the need to track down the information and rewrite prescriptions.

Blue Cross Blue Shield of Massachusetts, Neighborhood Health Plan, Tufts Health Plan (cont'd)

Massachusetts

A Need for Prescriber Training

Although prescribers generally have found e-prescribing easy to use, the Collaborative's physician focus groups indicated a need for more one-on-one training when the technology is first installed. The Collaborative's technology partners will provide this training and will train "super-users" within prescribers' offices to teach staff how to use the system, how to customize it for the prescriber's specialty, and how to integrate it into standard office procedures.

Results

As of the second quarter of 2005, more than 2,700 Massachusetts prescribers had incorporated the eRx Collaborative's system into their practices, and more than one million e-prescriptions had been sent. From the first to the second quarter of 2005, the number of e-prescriptions sent through the Collaborative increased by 41%.

In a survey of more than 275 prescribers participating in the eRx Collaborative,

- ▶ 67% said they would recommend e-prescribing technology to another physician.
- ▶ 55% said that using e-prescribing has reduced problems with adverse drug interaction and increased drug safety.
- ▶ 56% said using e-prescribing improved their ability to work with multiple health plans' formularies.
- ▶ 47% said e-prescribing saved time for their office staffs.

Research to Quantify the Impact of E-Prescribing

Under a grant from the National Institutes of Health, researchers at Massachusetts General Hospital and the Brigham and Women's Hospital will analyze claims data from Blue Cross Blue Shield of Massachusetts and Tufts Health Plan as well as prescription records from the Zix Corporation to determine the effect of e-prescribing on:

- ▶ The rate of drug-drug interactions, duplicative drug therapies, and dosing problems;
- ▶ Use of emergency rooms and inpatient admissions; and
- ▶ Use of generic drug equivalents, formulary drugs, and cost per prescription.

Findings are likely to be released in Fall 2006.

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Health Alliance Plan and Blue Cross Blue Shield of Michigan

Michigan

The Southeast Michigan E-Prescribing Initiative

In response to a request from General Motors, Health Alliance Plan (HAP) partnered with Blue Cross Blue Shield of Michigan, Medco Health Solutions, and the Big Three Automakers (General Motors, Ford Motor Company, and DaimlerChrysler) to launch the Southeast Michigan e-Prescribing Initiative (SEMI) on a pilot basis from January to March 2005. The pilot was implemented at eight Henry Ford Medical Group (HFMG) sites and will be expanded to 800 HFMG physicians at all 24 sites by January 2006.

Physicians participating in the initiative send prescriptions electronically to pharmacies through personal computers or wireless, handheld personal digital assistants (PDAs). The system gives doctors real-time access to patients' medical histories, details about their coverage from all participating health plans, and information about potential drug interactions and allergies so they can account for these factors when prescribing. As a result, the system helps avoid adverse reactions to medication, prevents medical errors caused by illegible handwriting, and reduces pharmacy delays that occur due to questions about coverage.

HAP and Henry Ford staff install the e-prescribing software in physicians' offices and provide training and ongoing support to office personnel. HAP provides funding for the program. The system continues to be enhanced with new functions. For example, pharmacies now can order refills from physicians electronically - thus eliminating the need for phone and fax requests - and physicians can order mail-service prescriptions online.

Results

As of August 2005, 16 Henry Ford Medical Group sites, comprised of 150 physicians and 300 support staff, had implemented e-prescribing and had written more than 160,000 e-prescriptions.

Between the fourth quarter 2004 and second quarter 2005, the generic drug use rate increased by 1.86 percentage points at the HFMG sites using e-prescribing, compared to 1.27 percentage points at nonparticipating sites. HAP anticipates savings of at least \$500,000 per year when e-prescribing is implemented throughout the entire HFMG. HAP currently is conducting a study to measure clinical process improvements associated with the e-prescribing system.

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Nevada

Allscripts' Rx+

To reduce the potential for prescription errors and increase the use of generic drugs, Health Plan of Nevada (HPN) and its affiliate, Southwest Medical Associates (SMA), established an e-prescribing system, called Rx+, for all SMA doctors in April 2003. The e-prescribing system, developed by Allscripts Healthcare Solutions, can be used with a desktop computer or a hand-held device that physicians can use to check patient information, such as demographics and prescription history, as well as HPN's formulary information. Rx+ alerts doctors of potential adverse drug interactions so that they can find appropriate alternatives.

Doctors can transmit most prescriptions to the pharmacy electronically and thus minimize problems associated with illegible handwriting. In addition, physicians can approve refills electronically through a link between SMA and network pharmacies. By providing recommendations for generic and formulary drugs, Rx+ can reduce prescription costs significantly for members and employers.

E-Prescribing for Hospitalists

Beginning in Fall 2005, when cellular wireless communications technology expands to offer broadband services, SMA's 18 hospitalists will be able to use e-prescribing as they complete their rounds at the dozen local hospitals serving SMA patients in Southern Nevada.

Results

SMA physicians are writing a total of 70,000 e-prescriptions per month. Since Rx+ was implemented in 2003, use of generic drugs among SMA patients has increased from 59% of prescriptions written to 65%. This increase has translated into approximately \$5 million in prescription drug savings each year.

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Horizon Blue Cross Blue Shield

New Jersey

E-Prescribe

In January 2005, Horizon Blue Cross Blue Shield of New Jersey introduced E-Prescribe, an electronic prescribing program designed to provide safe and effective pharmaceutical care. Currently, 475 physicians are enrolled in the program, which ultimately will provide e-prescribing software and hardware to 1,000 of Horizon BCBSNJ's network physicians with the highest prescription volume. Each physician receives a personal digital assistant (PDA) loaded with Horizon BCBSNJ's formulary, a printer, and a wireless connection free of charge. Using this technology, physicians can write and transmit prescriptions directly to retail and mail-service pharmacies. They can also use the system to check patients' prescription drug histories and print hard copies of prescriptions. When writing prescriptions for brand-name drugs, physicians receive messages on their PDAs when equally effective, generic alternatives are available.

Technology Partners

Horizon BCBSNJ partnered with three e-prescribing software vendors to implement the program: iScribe, Allscripts, and InstantDx. Each vendor's system operates differently, and Horizon allows participating physicians to choose the system best suited to their needs. Horizon BCBSNJ sends teams of information professionals to physician offices to set up the hardware and software and train doctors and their staffs on how to create, print, and send prescriptions, and how to receive regular updates through the PDA on issues such as member enrollment and changes to Horizon BCBSNJ's formularies.

Working with the Board of Pharmacy

Prior to September 2003, New Jersey's pharmacy regulations did not recognize electronic prescriptions as valid. Horizon BCBSNJ worked with the State Board of Pharmacy and Board of Medical Examiners to draft legislation and regulations to recognize e-prescriptions. The new law and rules have paved the way for physicians and pharmacies to use e-prescribing technology successfully.

Results

Since the program's implementation, 172,000 electronic prescriptions have been written, and 69% of enrolled physicians have written at least 40 e-prescriptions per month. Physicians enrolled in E-Prescribe report that the system saves them 30 to 60 minutes per day. Some say the time they save allows them to see an additional four or five patients daily. Others report using the time to provide additional patient counseling.

As more data become available, Horizon BCBSNJ will analyze the impact of E-Prescribe on use of generic and formulary drugs, average cost per prescription, and overall medical expenses. Participating physicians will be asked to complete an electronic survey to provide feedback on E-Prescribe. Their input will help guide the program's implementation in the future.

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Technology to Streamline Prescribing and Reduce Paperwork

To improve health care quality, prevent medication errors, and reduce administrative burdens for physicians, WellPoint introduced the Physician Quality and Technology Initiative (PQTI) in 2004. WellPoint partnered with Accenture, Microsoft, and Dell Computers to implement the initiative. The program gave approximately 19,000 office-based, high-volume physicians participating in the plan's HMO and PPO networks in California, Georgia, Missouri, and Wisconsin a choice of two technologies: an e-prescribing system or an administrative improvement system.

Approximately 14% of eligible physicians chose the e-prescribing system. Physicians received hand-held, wireless personal digital assistants (PDAs) allowing them to generate prescriptions electronically. The system, which remains in place, provides doctors with real-time information on patient eligibility, benefits, formularies, and medication histories. It also checks for adverse drug interactions, drug-allergy interactions, correct dosage information, and generic alternatives. Therefore, the system helps avoid medical errors caused by poor handwriting, and it helps prevent adverse drug reactions, allergic reactions, and drug overdoses.

Approximately 86% of eligible physicians chose the administrative improvement system. Physicians received desktop computers and printers, as well as Internet access. The system allows doctors to submit claims electronically and to check patient eligibility, claims status, and the specific terms of patients' health coverage online.

Results

As of July 2005, nearly 90,000 electronic prescriptions had been written using the e-prescribing program. WellPoint continues to measure the program's impact. Preliminary findings indicate that physician offices using e-prescribing are spending 75% less time on the administrative work associated with prescriptions, including pharmacy phone calls and faxes. Data from the electronic claims submission program are in the process of being analyzed, and results will be available in 2006.

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Chapter 3

Decision Support Tools for Consumers and Health Care Practitioners



Consumers are increasingly engaged in their health care. The media disseminate a continuous stream of treatment options to consumers and physicians. The Internet allows patients to look up treatments and communicate instantly with other patients and support groups. Meanwhile, many employers and individual purchasers of health insurance have switched to new benefit designs that give patients control of funds in health accounts. New benefit options include health savings accounts (HSAs) and health reimbursement arrangements (HRAs), which can be used to purchase health services.

Health insurance plans have stepped up to provide high-deductible health plans (HDHPs) and other products that can be paired with HRAs and HSAs or used on a standalone basis. Health plans also have created online tools to help members manage their HRA and HSA accounts online, access information about their health conditions and medical services, and obtain clear information about the cost and quality of health services in their geographic areas. In addition, health plans have created tools for physicians to help ensure that they deliver care consistent with the medical evidence on what works and to compare individual performance with that of their peers. These tools can play a major role in improving quality and promoting best practices in care.

Empowering Consumers with Price Information

To supplement its many tools to help consumers make informed decisions, in August 2005, Aetna launched a new Web-based program to give members easy access to price information that previously was unavailable or difficult to obtain. Members logged on to Aetna's secure member Web site (Aetna Navigator™) can click on the DocFind® physician search tool to view the discounted rates charged by any of the 5,000 primary care and specialty physicians in Aetna's Cincinnati area networks for 25 of the most common office-based services. The information is available to all Aetna members in the area, regardless of their plan types. The rates listed represent physicians' total charges to Aetna for each service and do not indicate members' specific copays, deductibles or coinsurance. This allows members to know the price of the health care services, which is one factor to consider, in addition to quality of care and member satisfaction, when making a decision about where to seek care.

Aetna is conducting the program on a pilot basis in Cincinnati, Dayton, and Springfield, Ohio, as well as in Northern Kentucky and Southeast Indiana. As Aetna receives feedback from members, it may expand the list of services for which price information is available.

In developing the program, Aetna conducted focus groups with physicians and met with representatives of state and local physician associations. Aetna continues to seek feedback from both physicians and consumers as it prepares for expanding the program to additional geographic areas.

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Improving Quality through Analytics and Intervention

As part of ongoing efforts to leverage the power of information technology to improve patient care, Aetna launched the MedQuerySM program in October 2002. MedQuery is provided automatically to employers who offer Aetna's integrated medical and pharmacy benefits on a fully insured basis for portions of their populations. It is also available as an optional add-on service for self-insured employers. The program is delivered through Aetna's subsidiary, ActiveHealth Management, Inc.

Care Considerations for Physicians

The MedQuery program analyzes members' health care claims, pharmacy, and lab data to identify potential errors and omissions and cases in which care provided was not consistent with the medical evidence on what works. These situations can arise, for example, when patients see multiple physicians and some of the doctors are not aware of past health conditions, medications, and other treatments. Such instances also can occur when patients do not adhere to prescribed treatment plans. When MedQuery identifies a situation in which care provided is not consistent with medical evidence of effectiveness, it generates a Care Consideration.

Care Considerations suggest specific actions to health care practitioners. The following is a breakdown of the types of Care Considerations generated:

- ▶ Stop a drug to prevent drug-to-drug interactions: 2%
- ▶ Stop a drug because the drug interacts with a disease or lab tests: 11%
- ▶ Add a drug: 37%
- ▶ Conduct additional procedures and monitoring: 26%
- ▶ Provide a preventive care service: 24%

MedQuery assigns each Care Consideration a severity level indicating degree of urgency. MedQuery's Doctor Messaging Center communicates the suggestion to patients' treating physicians either by telephone, fax or letter, depending on urgency. These communications include the relevant guidelines for evidence-based care. Patients' treating physicians ultimately make the decisions about the care provided.

Aetna and ActiveHealth Management adhere to all HIPAA guidelines related to the management, security, and privacy of patient information.

Results

More than 4.1 million members, representing approximately 28% of Aetna's medical membership, are enrolled in MedQuery.

- ▶ Since its implementation, MedQuery has detected more than 700,000 opportunities to improve clinical quality and patient safety.
- ▶ Employers who have chosen MedQuery have realized a 2:1 return on their investment as a result of avoiding complications, medical errors, and ineffective treatments.
- ▶ Physicians using MedQuery report that it provides timely, credible, and actionable information.

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Empowering Consumers with Information

To help consumers with health savings accounts (HSAs) and high-deductible health plans (HDHPs) manage their health care effectively, Assurant Health implemented HSA Tools, an administrative platform that includes a Web site, in November 2004. HSA Tools makes it easy for members to access information about health care quality, treatments, and costs so they can make informed decisions about care.

Quality and Cost Data

The HSA Tools Web Site allows members to access condition-specific data on hospital quality for 5,000 hospitals across the country. Data include volume of procedures performed, infection control records, and mortality rates.

HSA Tools also includes a Health Coverage Advisor feature that allows members to enter information about their health conditions and estimate (based on regional average charge data) how much they can expect to pay for specific treatments. The PharmaAdvisor area of the site allows members to compare costs, side effects, and efficacy data for a wide variety of medications. The site shows consumers, for example, when two drugs are equally effective but one is much more costly.

Online Reference Information and Diagnostic Support

HSA Tools includes an online reference library with links to educational materials on a broad spectrum of health-related topics. In addition, members can use HSA Tools to learn more about the symptoms they are experiencing. Members indicate the frequency and degree of pain associated with the symptoms, and HSA Tools lists possible diagnoses. The feature is not intended to replace contact with health professionals; members can print out the information for reference and to bring the information to doctor visits.

HSA Account Management

HSA Tools also allows members to manage their HSA finances and health care payments online. Members can choose among seven major fund families for investing their HSA dollars, and they can buy and sell funds online on a tax-free basis. In addition, members can check HSA account balances, view their HDHP explanations of benefits (EOBs) and deductible balances, make electronic deposits to their HSAs, and pay medical bills online. Members also can use the Assurant debit card to pay health care bills from HSA accounts.

Since November 2004, approximately one-third of Assurant's HSA Tools account holders have used the HSA Tools Web site, and utilization of its functions continues to increase each month.

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The Personal Health Report

Recognizing that engaged health care consumers would like greater access to, and a means for tracking, information about their health care utilization and finances, Blue Cross and Blue Shield of Florida created a Personal Health Report for its BlueOptions members in March 2005. The Personal Health Report provides members with summaries of their health care encounters and wellness information.

Increasing Awareness and Understanding

Blue Cross and Blue Shield of Florida's Personal Health Report aggregates an individual's health care information, summarizing a member's and BlueOptions family members' physician, pharmacy, and other health care events, into a single record to provide members with an overview of their health care utilization. The Personal Health Report details the dates services were received, providers visited, services rendered, the dollar amount billed by the provider, and the cost for the member. The Report makes it easy for members to see when certain services, such as vaccinations and preventive screenings, were received, and track their health care spending. With the Personal Health Report, members have the tools to better track, plan, and finance their health care.

In addition, the Personal Health Report generates routine and preventive care information that is specific to members based upon their age, gender, and experience. For example, a 55 year-old male would receive a reminder about screenings for colorectal and prostate cancers.

Currently, a paper-based Personal Health Report is mailed to all BlueOption members on a quarterly basis. By December 2005, those who prefer may opt out of the paper mailings and receive their report through a Web-based platform. Also by year's end, previous reports will be archived and accessible to members online. The next version of the Personal Health Report, to be rolled out in April 2006, will include additional clinical reminders as well as financial information, such as the amount spent towards meeting a deductible and balances in a flexible spending arrangement (FSA) or health savings account (HSA).

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Blue Cross and Blue Shield of Minnesota

Minnesota

A Web-Based “Nutrition Label” for Health Care Providers

Recognizing that consumers often lack the useable, relevant information they need to make informed health care decisions, Blue Cross and Blue Shield of Minnesota created a new organizing framework, delivered via a Web site, www.healthcarefacts.org, in October 2003, to help consumers “shop” for health care services. The site provides objective quality and cost information on more than 50 Minnesota hospitals, representing 90% of admissions in the state. Healthcarefacts.org displays hospital information in an easily recognizable “nutrition label” format - providing information upon which consumers can make decisions.

Consumers can use the Web site to gather either general or condition-specific information. For example, individuals considering heart bypass surgery can learn how many of these surgeries each hospital has performed as well as gather information on post-operative infection rates. Consumers can find out which hospitals use computerized order entry systems for reducing medication errors, which offer special pain management programs, and which have hospitalists available on-site 24 hours a day. The site indicates which facilities are teaching facilities and what percentage of rooms are private. Healthcarefacts.org also provides price information for specific services based on historical costs that Blue Cross and Blue Shield of Minnesota has paid.

Blue Cross and Blue Shield of Minnesota developed Healthcarefacts.org with extensive consumer input based on more than 60 consumer focus groups conducted to date, and it continues to modify the content on the site in response to consumers’ suggestions.

Expansion to Other Health Care Providers and Other Areas

In the first quarter of 2006, Blue Cross and Blue Shield of Minnesota will create additional Web-based “nutrition label” comparison tools for primary care and specialty care clinics (such as orthopedics and cardiac care). Subsequently, it will offer similar tools for skilled nursing facilities and outpatient surgery centers in Minnesota, and it is collaborating with Blue Cross and Blue Shield plans from across the country to add comparative data for health care providers in other states.

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Minnesota

MN Community Measurement

To encourage physician groups throughout the state to provide care according to the best available medical evidence, seven Minnesota health insurance plans—Blue Cross and Blue Shield of Minnesota, First Plan of Minnesota, HealthPartners, Medica, Metropolitan Health Plan, PreferredOne, and UCare Minnesota—began MN Community Measurement in 2002. In 2005, the Minnesota Medical Association joined the effort, and a new nonprofit corporation was formed to coordinate the program's activities. MN Community Measurement's 13-member board is comprised of medical directors from four health plans, as well as representatives from hospitals, business groups, and consumer organizations. A work group of data experts from the participating health plans meets monthly to discuss technical issues associated with the system.

Quality Reporting at the Physician Group Level

The project's first task was to evaluate all of the participating health plans' quality reporting systems and determine how the existing system of plan-by-plan reporting could be adapted to reflect the quality of care provided at specific physician groups. MN Community Measurement staff worked to develop uniform, physician group-specific preventive and chronic care measures, including: immunization rates for children and teens; overall diabetes care; well-baby visits; use of effective medications for asthma and depression medication management; high blood pressure treatment; breast and cervical cancer screening; and Chlamydia screening. Other measures may be added in the future. The project uses physician-defined standards of care created by the Institute for Clinical Systems Improvement (ICSI).

The main challenge in changing existing methods for quality reporting was to design a process that attributed patients to a physician group. MN Community Measurement sent performance data from participating health plans to a vendor, which aggregated the data, calculated physician-specific rates of preventive and chronic care use, and sent them to the physician groups. Group-specific rates were posted on a public Web site (www.mnhealthcare.org).

Consumers and physicians can use the site to make apples-to-apples comparisons of physician performance at the group practice level. The Web site also provides information for consumers on patients' and physicians' roles in improving care. For example, individuals with diabetes can read about strategies to manage the condition effectively, issues to discuss with their doctors (such as how different foods affect their blood sugar levels), and services that are provided during doctor visits (for example, testing of A1C blood sugar levels).

MN Community Measurement provides physicians with actionable information that they can use to develop and fine-tune their quality improvement projects. For example, based on MN Community Measurement data, one health system with more than 50 primary care and specialty clinics developed a detailed internal comparison and reporting system that allows physicians to monitor their own results for diabetes care and compare them to those of other clinics in the practice. In 2004, the clinics reported a more than 50% increase in a composite measure of diabetes care that includes rates for blood pressure below 130/85, blood sugar A1C levels below 8, and LDL cholesterol below 130; aspirin use among individuals with diabetes; and the percent of diabetes patients who are nonsmokers.

Blue Cross and Blue Shield of Minnesota, First Plan of Minnesota, HealthPartners, Medica, Metropolitan Health Plan, PreferredOne, and UCare Minnesota (cont'd)

Minnesota

Working with State Regulators

To make the program work effectively, MN Community Measurement staff worked with regulators to modify state quality reporting requirements. Previously in Minnesota, the state required measure-by-measure reporting by health insurance product. Results for fully insured HMO products had to be reported separately from those for self-funded plans. Minnesota's state public programs (MinnesotaCare, General Assistance Medical Care & prepaid Medicaid) each required different methods for sampling and reporting. Health plans worked with regulators to move toward more efficient data processes, resulting in one sample for commercial products and another for state public programs. This change reduced the number of costly chart reviews to be conducted, while at the same time giving physician groups one report on which to act.

Results

In November 2004, MN Community Measurement reported its first results, both by physician group and statewide. Since the project's implementation, care has improved in several areas across the state:

- ▶ The percent of patients with diabetes over age 40 who took a daily aspirin as recommended increased from 38% in 2001 to 68% in 2003.
- ▶ The percent of patients with diabetes whose LDL cholesterol level was below 130 increased from 46% in 2001 to 60% in 2003.
- ▶ The percent of patients with asthma who took appropriate medications for long-term control of the disease increased from 71% in 2002 to 74% in 2003.
- ▶ The percent of patients with depression who remained on antidepressants for at least six months increased from 49% in 2002 to 51% in 2003.
- ▶ The percent of infants who received six or more well-care visits in the first 15 months of life increased from 45% in 2002 to 53% in 2003.
- ▶ The percent of individuals age 46 to 85 with high blood pressure who had their blood pressure under control (under 140/90) at their last visit increased from 57% in 2002 to 60% in 2003.

Performance data from 2004 (for individual physician groups and statewide) will be available in November 2005.

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Harvard Pilgrim Health Care

Massachusetts

HPHConnect

To give members additional tools for improving their health and well-being, Harvard Pilgrim Health Care established HPHConnect for members in December 2003. Through HPHConnect, members can access a secure, password-protected Web portal to perform a variety of functions related to their health benefits, health history, lifestyle and health behaviors.

Ask a Specialist

Members who click on the “Ask a Specialist” area of the site can submit questions on non-urgent health and medical issues. A Harvard Pilgrim nurse triages the questions and distributes them, with identifiers removed, to clinicians who can address them. Members receive responses back within two to five business days. The “Ask a Specialist” function is intended to provide general health information but does not offer specific medical advice or replace in-person doctor visits.

My Health History

In the “My Health History” section of HPHConnect, members can review all of the medications they have taken in the past three years, including information on dosages. Beginning in December 2005, Harvard Pilgrim will make this information available to members’ physicians, with an opportunity for members to opt out if they do not want the information shared. The “My Health History” section also allows members to view the status of all health claims, including the date of service, name of the health care practitioner, procedure performed, and amount paid by Harvard Pilgrim.

My Plan for Health

Through the “My Plan for Health” area of the site, members can answer a 20-question survey on lifestyle, health, and demographic issues, and they receive an action plan with suggestions on how to improve their health. For example, they may receive links to sites that provide fitness information or to fitness centers affiliated with Harvard Pilgrim.

My Health Advisor

The “My Health Advisor” section of the site provides extensive hospital data, including information on complication rates, volume of procedures performed, and accreditation status, which can be helpful to consider when choosing a hospital. Members preparing for surgery also can use “My Health Advisor” to look up reference information on their health conditions.

My Health Plan Information

The “My Health Plan Information” section of HPHConnect allows members to access summaries of their health benefits as well as print copies of their benefits contracts. In addition, they can change primary care physicians and order new identification cards online.

Harvard Pilgrim continues to enhance HPHConnect with new functions in response to member needs and preferences.

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A One-Stop Shopping Approach

Seeking to increase consumer understanding of health care and costs, HealthEquity began working with insurance companies and third-party administrators in 2003 to offer a consumer Web site that allows "one-stop shopping" for managing HSA balances and tracking health insurance claims online. HealthEquity's systems are integrated with health insurance plans' enrollment, customer service, billing, and claims systems to provide a seamless customer experience and increase the efficiency of the claims process.

Members logging on to HealthEquity's site can track contributions to their HSAs and can download monthly statements indicating all account deposits and withdrawals. They can use the site for electronic banking—to pay health care bills online—or they can use HealthEquity's debit card to pay for health care from their HSAs. In addition, members can track claims payments from their high-deductible health plans (HDHPs) and view explanations of benefits (EOBs) online.

Value-Added Services

To help members save money on health care and address symptoms that need attention, HealthEquity works with several vendor companies to provide additional information and services through its Web site.

Saving Money on Prescription Drugs and Medical Procedures

When a member opens an HSA, HealthEquity sends an e-mail with instructions for activating the HSA debit card. When members activate their cards, they can choose to receive information on how to save money on medications and medical procedures on an ongoing basis. When members enrolled in this program fill a prescription for a brand-name drug, they receive e-mails with information on equally-effective generic alternatives and less expensive drugs on their health plan's formulary. The e-mails encourage them to discuss these alternatives with their doctors. This information is also available on HealthEquity's member Web page.

Similarly, if members enrolled in the program undergo medical procedures—such as CAT scans or MRIs—from health care facilities outside of their health plan's network, they receive e-mails from HealthEquity indicating the average market price for these procedures in the local market. HealthEquity offers to contact providers whose charges are above-average for the geographic area and negotiate discounts on members' behalf.

Understanding Symptoms and Managing Health Conditions

HealthEquity's Web site includes a section where members can enter descriptions of symptoms they are experiencing and receive a list of common diagnoses for these symptoms, explanations of how they are treated, and the cost of typical treatments in their geographic area.

Members logging on to HealthEquity's Web site also can fill out online health risk assessments that gather information about their lifestyle choices, weight, and health conditions. Individuals who fill out the forms receive risk assessment "scorecards" that rate their health, along with suggestions on lifestyle changes to improve their health. They also gain access to a toll-free, 24-hour nurse line offering medical advice and information.

HealthEquity (cont'd)

Utah

Results

As of September 2005, approximately 700 employer groups and a total of 16,000 individuals were covered by HealthEquity's HSA product. HealthEquity members are using the 24-hour nurse line and online information tools regularly when making decisions about visiting doctors and determining which questions to ask. An independent research firm under contract with HealthEquity reported that:

- ▶ Three out of five HealthEquity members said they were likely to ask their health care practitioners about the price of health services.
- ▶ HealthEquity members were 50% more likely to ask their doctors for generic drug equivalents than were members with other account-based health insurance products.

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HIP Health Plan

New York

A Paperless HRA Product

In an effort to make health reimbursement arrangements (HRAs) easier and more convenient to use, HIP Health Plan launched myFund, a paperless HRA in January 2005. myFund is integrated with HIP's enrollment, claims, and finance systems so that it can process physician payments and member reimbursements electronically with no need for claim forms. HIP partnered with CareGain to provide the software needed for this product.

Convenience for Employees

When HIP receives a claim from a myFund member, the system automatically checks the member's HRA account balance and issues a check to the health care practitioner for the appropriate amount. Members can view their account balances, details of their benefit plans, explanations of benefits (EOBs), claims histories, and rollover histories on the member portion of HIP's Web site. In addition, they can request new ID cards, enter address changes, and view the provider directory online.

Benefits for Employers

myFund allows employers that use electronic funds transfer to deposit HRA funds online. To ensure member privacy, the system allows employers to view dates and amounts of myFund payments, but not the names of individuals or the providers to whom payments are made. myFund software is compliant with all HIPAA privacy rules; data are password-protected and can be viewed only by authorized users.

In 2006, HIP plans to measure the impact of myFund on health care utilization, member satisfaction, and member engagement in health care.

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A Suite of Online Decision Support Tools

Family Health Budget

Collaborating with Harris Interactive, Humana commissioned a survey to learn more about how American families manage and budget for their health care expenses. The survey revealed that two out of three Americans say they need and want help budgeting for health care. Furthermore, 44% of U.S. adults are “not very” or “not at all” confident that they can predict health care expenses for the coming year. In response to the results of this survey, Humana, in partnership with Consumer Action, launched the Family Health Budget in September 2005. The Family Health Budget is an online resource designed to help families plan for and manage their health care expenses.

Available at www.familyhealthbudget.com, the Web site's purpose is to educate consumers nationwide on the cost of health care for themselves and their families, guide them to save for future health care expenses, and help them make more informed health care decisions. To use the Family Health Budget, consumers enter information about the frequency of their physician visits, prescription medications, over-the-counter drugs and other health care spending. The tool estimates how much money they should put aside for future health expenses, helps them choose the benefits options most suited to their needs, and provides information about a variety of account-based health products, such as flexible spending arrangements (FSAs) and health savings accounts (HSAs). The Web site will be available in Spanish in the near future.

Hospital Comparison Tool

In addition to the Family Health Budget, Humana members can use a Hospital Comparison Tool to obtain cost and quality information and choose a hospital that best meets their needs. Humana members can access the tool through an individual member home page and determine their out-of-pocket costs for a particular procedure or hospital visit based on the terms of their health plan benefits. In addition, the Hospital Comparison Tool provides quality information, including a hospital's readmission rate, volume statistics for a particular procedure, and other quality indicators.

“Smart” Products

Humana's suite of “Smart” health plans offer health savings accounts, health reimbursement arrangements, and other account-based health products with different levels of cost sharing so that employees can choose plans that best meet their individual health and budget needs. “Smart” plan members have access to a host of online decision support tools, including information about prescription drugs, tools to predict health care costs, and tips for reducing health care expenditures. In a recent study, Humana found that:

Humana Inc. (cont'd)

Kentucky

- ▶ Smart plan members take advantage of Web-based decision support tools more often than individuals enrolled in Humana's HMO and PPO products.
- ▶ While Smart plan members visit the doctor more often and use more prescription drugs than Humana's HMO and PPO members, they use hospital services less often, thus ultimately leading to cost savings.
- ▶ Smart plan members visited Humana's Web site more often than did Humana's HMO and PPO members, taking advantage of consumer tools to help them manage their care.
- ▶ Annual claims cost increases for Humana's Smart Plan averaged 5-6%—less than half of the claims cost increases for Humana's HMO and PPO members.

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Web-Based Tools for Performance Improvement

Horizon Blue Cross Blue Shield of New Jersey launched the PrismMD initiative in April 2005 to encourage primary care physicians (PCPs) in its network to provide chronic and preventive care services according to nationally recognized quality standards. PrismMD uses Horizon BCBSNJ's claims to generate three types of physician-focused reports via the Web:

- ▶ Medical Group Summaries
- ▶ Peer Comparison Reports
- ▶ Patient Care Alerts

These online reports, which are updated monthly, give physicians quantifiable and objective information to identify differences in their medical groups' performance compared to their peers. PrismMD provides insights into physicians' practice patterns so they can develop improvement strategies as needed. To protect the security of patient data, PrismMD requires physicians to register and sign on to Horizon BCBSNJ's Provider Online Services with secure user names and passwords. Physicians are authorized only to see information about their group's practice.

Medical Group Summaries

PrismMD allows primary care physicians to view Medical Group Summaries that review the group's performance in the areas of efficiency, quality management, disease management, and pharmacy management. Physicians can analyze practice patterns that may suggest a need for improvement.

Peer Comparison Reports

PrismMD also provides Peer Comparison Reports based on group performance in providing evidence-based chronic and preventive care treatments. The system displays results with a star-based rating system similar to that used in *Consumer Reports*. Bar charts indicate the percent of patients who have received chronic and preventive care services compared to the average rate for all of Horizon BCBSNJ's participating PCPs.

Physicians can view comparisons between their practices and other medical groups within the Horizon BCBSNJ network along with a variety of performance measures, such as rates for mammography, cholesterol screening, postpartum care, and eye exams for individuals with diabetes. In addition, the system's pharmacy component rates physicians' performance in promoting generic substitution.

Horizon BCBSNJ calculates performance ratings for quality and efficiency by tracking the percent of each PCP group's patients who have received recommended preventive services, and it measures the cost and utilization of services required for these patients.

Horizon Blue Cross Blue Shield of New Jersey (cont'd)

New Jersey

Patient Care Alerts

To help physicians identify patients who have not had preventive and chronic care services recommended by nationally recognized guidelines, PrismMD provides patient-specific Care Alerts. When physicians log on to PrismMD, they can view reports highlighting these patients' names, their contact information, recommended services (based on their age and health conditions) missed, and medical service and pharmacy history. PCPs can follow up with outreach to these patients as needed.

Horizon BCBSNJ is monitoring the success of PrismMD in improving health care quality and lowering costs to determine its total return on investment.

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A Multi-Functional Online Tool

UnitedHealthcare's consumer service site, myuhc.com®, was introduced in 2000 to provide members with easy access to health information and services so that they can manage their health care effectively. Members logging on to myuhc.com can:

- ▶ Find “Premium Providers” who meet quality and efficiency criteria based on claims-related data that compare physician complication rates and practice patterns with evidence-based medical guidelines.
- ▶ Find information on hospital quality, including data on patient safety, length of stay, mortality, patient volume, and complications for more than 150 procedures.
- ▶ Order prescription refills online and compare the cost of drug alternatives.
- ▶ Receive actionable information, based on their claims, related to improving the quality of their care and achieving cost savings. For example, members who have experienced heart attacks but have not filled prescriptions for beta blockers receive messages encouraging them to talk with their doctors about the benefits of beta blockers. Members who fill prescriptions for brand-name drugs receive messages indicating how much they could save by switching to equally effective generic alternatives. Women over 50 who have not had mammograms in the past year receive reminders about the benefits of mammography.
- ▶ Receive monthly statements online providing explanations of benefits for all services.
- ▶ Receive messages related to their benefits, for example, indicating when their annual deductibles have been met, when they have money left in their flexible spending accounts near the end of the year, and when their HRA or HSA balances are close to being exhausted.

Adding Greater Functionality and Customization

UnitedHealthcare is in the process of enhancing myuhc.com to add more features and provide members with information tailored to their individual needs and preferences. By late 2006 or early 2007, the site will provide:

- ▶ *A Consolidated View of Medical and Claims Information.* With the click of one button, members will be able to view summaries of their medical, pharmacy and lab claims, the providers they have used, and a snapshot of their benefits.
- ▶ *Enhanced Personal Health Records.* PHRs that are accessible through myuhc.com will be enhanced to provide audit trails indicating who has accessed and modified them, including dates and times. Members also will be able to restrict access to certain portions of their records.

UnitedHealthcare (cont'd)

Minnesota

- ▶ *Personalized Web Content.* When logging on to myuhc.com for the first time, a member has the option of indicating primary language preference, age, and health topics of interest. Subsequently, the site will provide members with content tailored to their personal preferences and characteristics. For example, pregnant women will receive information on pregnancy and childbirth. Individuals whose primary language is Spanish will receive information in Spanish. Members with diabetes will receive messages related to their condition. Members will be able to change their preferences and personal information at any time.
- ▶ *Secure Messaging with Customer Service Staff.* Members will be able to engage in routine customer service transactions online, such as determining whether particular products or services are covered benefits.

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Chapter 4

Customer Service, Claims Processing, and Clinical Operations



Health insurance plans are harnessing the power of information technology in a multitude of creative ways, to provide new services to members and physicians while reining in costs and making the care process more efficient. The health plans profiled in this chapter have developed advanced IT solutions for:

- ▶ Online consultations with physicians;
- ▶ Digital radiology;
- ▶ Medical management; and
- ▶ Customer service and claims functions.

RelayHealth Pilot Programs

In response to national survey findings indicating that most adults with Internet access would like to communicate with their doctors online, Blue Shield of California conducted the first RelayHealthSM pilot program in April 2001. The RelayHealth program provides a secure, Internet-based service that allows patients to consult with their physicians via an interactive, online clinical interview process for non-urgent health issues. Members can also use RelayHealth to request prescription refills, schedule appointments, obtain lab and test results, request referrals, and update information on their allergies, medications, and medical conditions. RelayHealth protects the security of member data with firewalls, encryption, and advanced methods of identifying users.

RelayHealth provides doctors with medically reviewed, guideline-based content which they can incorporate in their responses to patient messages. Doctors also can attach educational materials relevant to each patient's condition. Because RelayHealth enables e-prescribing, physicians can attach prescriptions and check them against patient-specific data to avoid allergic reactions and adverse drug interactions.

Researchers from Stanford University and the University of California-Berkeley used the Blue Shield of California pilot to create a test environment for the first RelayHealth webVisit[®] study, which addressed the following questions:

- ▶ What is the impact of online clinical consultations on health care utilization and costs?
- ▶ How do patients respond to the opportunity to communicate with their doctors online?
- ▶ How do physicians respond to the opportunity to deliver non-urgent care online?

The study involved 282 physicians and 3,688 patients from Blue Shield of California, ConnectiCare, and 10 large, self-insured employers affiliated with the Pacific Business Group on Health.

Stanford and UC-Berkeley researchers recruited physicians whose patient volumes exceeded a specified threshold, and they contacted patients of participating physicians by mail, e-mail, and telephone. To participate in the program, patients were required to have established relationships with their physicians. RelayHealth was able to verify these relationships automatically.

Physicians participating in the pilot were reimbursed \$25 per webVisit[®], and patient copayments ranged from \$0 to \$10 per consultation. Results from the 2001–2002 pilot were as follows:

- ▶ Physician office visits among members participating in the pilot cost \$1.92 less per member, per month than those in a demographically comparable control group.
- ▶ Total health care spending was \$3.69 less per-member, per-month for members in the pilot than for members in the control group. These savings were far greater than the cost of reimbursement for Web-based visits, which averaged \$0.31 per-member, per-month for patients participating in the study.
- ▶ Members surveyed about their experiences in RelayHealth were 50% less likely than those in the control group to report having missed work due to an illness.
- ▶ Nearly 80% of participating members surveyed found RelayHealth easy to use and convenient compared to calling the doctor's office. Two-thirds of members rated the quality of their online consultation as "good" to "excellent."

Blue Shield of California (cont'd)

California

- ▶ Most of the doctors surveyed rated RelayHealth as satisfying (63%), easy to use (72%), and easy to integrate into their daily routine (55%). The satisfaction rate was significantly higher among physicians under age 45 (87%) and those who received more than 30 patient messages during the webVisit® study period (100%).

Expanding to Build on Success

In 2003, Blue Shield of California and RelayHealth initiated a second pilot program to test the 2001 study results within a larger and more diverse population in selected medical groups participating in the health plan's HMO network. To encourage doctors to use RelayHealth, Blue Shield of California worked with participating medical groups to distribute informational post cards and member letters.

Blue Shield of California will measure the impact of the second RelayHealth pilot on member and physician satisfaction and on the costs associated with office visits, emergency room use, and urgent care. Results of the second study, which will be available in 2007, will help Blue Shield of California assess the feasibility of providing RelayHealth to its entire membership.

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Health Alliance Plan

Michigan

The Picture Archiving and Communication System

To improve the quality of X-rays and to make X-ray processing faster and more efficient, Health Alliance Plan (HAP) initiated a digital radiology program called the Picture Archiving and Communication System (PACS) in 2003. HAP awarded a grant to the Henry Ford Health System (HFHS) to implement the program, which replaces X-ray films with digital images. These images, which are processed like those on a digital camera, are stored online on a private network server. Using the Intranet, radiologists can access images with user names and passwords minutes after the X-ray is taken, regardless of their geographic location. Multiple doctors can access the images online at the same time, making it easier to consult on complex cases.

The clarity of digital images is similar to that of traditional X-rays, but digital software enables additional capabilities such as the ability to zoom in, adjust contrast levels to improve readability, and take measurements onscreen. These functions eliminate the need for re-takes to correct for poor quality and over- or under-exposure.

The PACS includes voice recognition, allowing doctors to dictate notes that appear immediately on radiologists' computer screens. Within minutes, dictations also appear in patients' electronic medical records. The online dictation function allows doctors to detect and correct errors in their notes in real time, before they become embedded in medical records. Thus the system eliminates the need for transcribing and proofreading radiology reports.

Extra Services for Patients

When patients need copies of their X-ray images for second-opinion consults or other reasons, HFHS's Radiology Department can burn CD-ROMs, which are much easier to transport and store than traditional X-ray films. The Department also can provide a CD-ROM with images for patients' personal use; for example, expectant mothers can send images from prenatal ultrasounds via e-mail to family and friends.

Results

The PACS has reduced the turnaround time for X-ray processing from 96 hours to 36 minutes. Thirty percent of respondents to HFHS's survey of high-volume imaging clinicians (oncologists, pulmonary specialists, and orthopedic surgeons) reported that PACS saved them five to six hours per week; an additional 30% said it saved them eight or more hours per week.

Whereas X-ray films and storage folders cost approximately \$50 each, CDs for storing digital X-ray images cost just 50 cents. Productivity improvements in the Radiology Department and diminished need for X-ray technicians and film library staff have produced additional cost reductions. Overall, PACS has produced a net savings of \$8.84 million in 2004, or \$15.26 per X-ray.

Due to the program's success, the Henry Ford Health System will expand the PACS to two additional Detroit area hospitals in January 2006.

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Health Net

California

In 2005, Health Net of California and RelayHealth initiated a two-year pilot program to provide a secure, Internet-based service that allows patients to consult with their physicians via an interactive, online clinical interview process for non-urgent health issues. Members also use RelayHealth to request prescription refills, schedule appointments, obtain lab and test results, request referrals, and update information on their allergies, medications, and medical conditions. RelayHealth protects the security of member data with firewalls, encryption, and advanced methods of user identification.

RelayHealth has been in use in the California market for several years, but to date, physician adoption of the program has been slow. Working with physician groups participating in the Health Net HMO network, the Health Net pilot emphasizes a strategy to enhance physician adoption by focusing on use of the application to support outreach efforts for patients with chronic diseases. The hypothesis is that if physicians initially use the application with a subset of their practices, they will incorporate RelayHealth into their workflows and promote the program to broader patient populations.

The Health Net pilot also takes advantage of RelayHealth's new automated specialty referral management tool. Select physician groups will share data from specialty referrals with Health Net to enable identification of members with conditions that involve therapeutic choices. Health Net is then using those data within its Decision Power program to reach out to those members to offer coaching and to promote shared decision-making with their physicians.

Forthcoming Evaluation

The pilot will be evaluated after 18 months to measure physician adoption and satisfaction, the extent to which Web visits replace face-to-face visits, member satisfaction, and any cost savings for members using Web visits compared to non-users.

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Creating a Modern X-Ray System

To modernize the process of recording, interpreting and transmitting X-rays, Health Plan of Nevada (HPN) and its medical group affiliate, Southwest Medical Associates (SMA), implemented a digital radiology system in May 2003. Previously, X-ray films were transported from clinics to a central location for review by radiologists. Physicians dictated their reports, which were transcribed on paper and returned to clinics for filing.

Under the new system, X-rays are captured in digital format rather than on film and are available immediately for review and evaluation at any site through SMA's secure network. In addition, a voice recognition system transcribes radiologists' dictations and creates Word documents to record and store the information. The system links the X-ray images to text in a common database to create a secure electronic "package." Therefore, physicians who order X-rays can access them via the SMA network within hours instead of days. As a result, doctors can make more timely and informed treatment decisions to meet patients' needs. The expedited system is especially helpful in urgent and emergency treatment situations.

Results

Since the program's implementation, HPN's digital radiology initiative has reduced the average cost of an X-ray study from \$2.67 to \$1.58.

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HIP Health Plan

New York

Streamlining Communication with Physicians

To streamline the processing of specialist referrals, prior authorizations, and emergency room admissions, HIP Health Plan created the Provider Electronic Platform (PEP) on its Web site (www.hipusa.com) in January 2005. The PEP system allows participating physicians and their staffs to view and create emergency room admission notices, referrals, and prior approval requests online. Previously, physician offices performed these functions on paper or through telephone calls to HIP. The system provides physicians and their office staffs with all of the information they need to submit claims electronically, including members' current and prior eligibility, use of benefits, and the status of prior claims.

To ensure that PEP would be useful to health care practitioners, HIP conducted focus groups with physicians, hospital staff, and providers of durable medical equipment (DME), dialysis, and home health care to gather suggestions on the system's design and functions. Based on their input, HIP simplified referrals and prior approvals for radiology services and added more detail in online responses to claims inquiries.

Before implementing PEP, HIP provided training to 5,000 physicians and more than 100 hospital staff, DME, dialysis, and home health care providers at approximately 4,000 locations. Some health care practitioners received incentives of up to \$1,000 to encourage them to use the new system and to offset expenses they may incur.

Results

On average, more than 2,500 referral and prior approval transactions per day are conducted online. From January to August 2005, a total of 155,000 (25% of all referral transactions) were performed with the PEP system. To date, the system has saved approximately \$800,000, with a potential annual savings of \$2.4 million in 2005.

HIP continues to receive feedback from health care practitioners who participated in focus groups during the planning process, and the health plan will incorporate their suggestions in any future modifications to the system.

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Horizon Blue Cross Blue Shield of New Jersey

New Jersey

A Service-Oriented Architecture

To make customer service and claims operations more efficient, Horizon Blue Cross Blue Shield of New Jersey began rebuilding its information architecture to integrate all information systems in 2000. A key component of the system, called “message-oriented middleware” (MOM), allows different applications within the system to communicate with each other so that customer service inquiries can be managed in a timely and efficient manner. As a result, all of Horizon’s information systems have access to accurate and consistent customer data. This new service-oriented architecture has enabled four major functions:

(1) Optional Interactive Voice Response (IVR): Through Horizon’s interactive voice response system, members can access information on claims status, eligibility, and covered benefits and can change their primary care practitioners (PCP) 24 hours a day, seven days a week via an automated telephone system. The system uses voice recognition so that members can perform these functions without speaking to a customer service representative

Currently, the IVR handles more than 50,000 self-service transactions per day. Because the new system can handle a large volume of routine questions, customer service representatives can spend their time more productively, addressing more complex issues that require live assistance.

(2) Claims Processing: A new information system known as QBlue allowed Horizon to consolidate five information systems into two systems that allow real-time claims processing via the Web. Because the new systems’ Windows-based design is easy to use, training time for customer service staff is 75% less than that associated with the previous mainframe systems, and the cost of processing each claim is significantly less. QBlue also allows Horizon to process prior authorizations electronically. Claims and authorizations are stored together, in a central location to provide for more accurate and timely processing.

By the end of 2005, data for more than 700,000 covered lives will be on the QBlue system, and more than \$2.6 million in claims will have been paid. Horizon projects that QBlue will reduce the total ownership cost of its claims processing system by 28%.

(3) Tracking Claims for Customer Service: Horizon’s Enterprise Data Interchange (EDI) team developed a real-time, electronic transaction monitoring system to track claims. Previously, it took more than 20 minutes for customer service staff to locate large claims batches within the thousands located on the system’s server, and members sometimes were transferred to several customer service representatives to resolve service issues. Under the new system, 99% of questions can be resolved on the first call.

(4) Eligibility Verification: The service-oriented architecture allows physicians and members to check members’ eligibility, benefits, deductibles, and coinsurance online from home, a doctor’s office, or another health facility. On an average, this service receives between 10,000 and 20,000 requests per month, and it is projected to double in the next 6 to 12 months.

Horizon’s service-oriented architecture has the flexibility to adapt over time to accommodate changing needs, and new functions may be added in the future.

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Chapter 5

Personal Health Records and Electronic Health Records



The initiatives highlighted in this section illustrate the diversity and creativity that health insurance plans are using as they begin the process of implementing personal health records (PHRs) and electronic health records (EHRs). PHRs and EHRs contain information on individual patients' needs, health status, known allergies and past reactions to medications, care preferences, and past service use so that individuals' records can, in effect, travel with them across time and health care providers.

PHRs and EHRs continue to emerge and develop, and currently there is no single standard for defining them. Based on current market trends and expert opinion, PHRs are often defined as consumer-centric records that incorporate information from health plans' claims data on patients' doctor visits, hospital admissions, emergency room (ER) use, and pharmacy claims—often from patients themselves who enter information from their home computers—to create a history of patient encounters with the health care system.

EHRs are commonly defined as provider-based histories of care that complement personal health records by adding detailed information created by health care practitioners and health care facilities—such as X-ray images, physicians' notes, and information on compliance with statutory or regulatory requirements—that are important parts of the legal and permanent institutional health records of patient care.

EHRs and PHRs make it possible, for example, for a doctor treating a patient in California to pull up information on a computer screen about a patient's hospital stay in New York five years earlier, or about a medication taken a year ago that caused an adverse reaction. As a result, EHRs and PHRs help doctors provide more effective care and avoid unnecessary and costly duplication of services.

The health plan programs described in this chapter illustrate the many options for creating PHRs and EHRs. Some EHRs are designed with a PHR component. Others are integrated into comprehensive consumer Web portals that provide other benefits to consumers, such as wellness and disease management programs. Some PHRs allow patients to enter their own information into their records; others do not yet have this function. Some prototype PHRs are accessible only to physicians at this point; full consumer access is not yet available. However, in the coming years, EHRs and PHRs will continue to evolve and become interoperable to allow for the flow of information throughout an interconnected health care system.

Blue Cross and Blue Shield of Florida, and Humana Inc.

Florida

Multi-Payer Based Electronic Health Records

To improve the effectiveness and safety of care for their Florida members, in September 2005, Blue Cross and Blue Shield of Florida and Humana announced plans to implement a multi-payer-based electronic health record in 2006. The electronic health record will contain claims-based information routinely collected from physicians, pharmacies, labs and other health care providers and will be made available to physicians through the Availity® Gateway, a secure, Internet-based information exchange system. The payer-based electronic health record will help facilitate information-sharing among providers and payers to improve the quality and efficiency of care.

The long-term vision is to provide an electronic health record system to health care professionals with a consolidated view of a patient's health care services from health plan claims with pertinent information from the relevant participating health plans. The record will include transactional information from the claims records of a health plan, including the date of service, health care provider name, and prescription information. Excluded from physician view will be results and diagnoses for psychiatric, substance abuse, and HIV-related treatments, and other compliance provisions as stipulated by state privacy laws and HIPAA.

Patient records will include information contained in their claim records with the health plans for the past 18 to 24 months. The consolidated health history made available through the electronic health record will enable clinicians to provide the appropriate treatment, improve patient safety, eliminate duplicate medical tests, and reduce unnecessary services and fraud.

Using the Availity infrastructure will allow Blue Cross and Blue Shield of Florida and Humana to leverage existing technology and data pathways to transfer information between payer and provider. The Availity network currently is used for all of Humana and Blue Cross and Blue Shield of Florida's electronic transactions and is compliant with all HIPAA security and privacy regulations. The companies' goal is to create a system that will be compatible with or go beyond other electronic medical record initiatives that are being undertaken at the federal, state and local levels.

All patient information will remain in the custody of the patient's health plan. Only physicians or their designees will be able to access their patients' medical records, and physicians will have the ability to audit the views conducted by their offices to ensure patient confidentiality and security.

A pilot program of the payer-based electronic health record will be implemented in early 2006 for selected Blue Cross and Blue Shield of Florida and Humana participating physicians. The pilot will test ease of use of the electronic health record in a variety of physician office settings and will determine the extent to which the system is meeting physicians' needs. Blue Cross and Blue Shield of Florida and Humana will modify the system as needed based on the pilot's results. By the Summer of 2006, the electronic health record system will be available to all physicians in the relevant Blue Cross and Blue Shield of Florida and Humana networks.

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Capital District Physicians' Health Plan (CDPHP)

New York

A Comprehensive Record of Patient Care

To make it easier for physicians to track and review their patients' medical histories, Capital District Physicians' Health Plan (CDPHP) piloted a personal health record (PHR) program in December 2004. The program allows all CDPHP participating physicians to obtain 12 months of medical data on their patients, including physician visits, lab tests, hospital admissions, medication use, and any other information available from the claims data stored in CDPHP's data warehouse, via a secure Web site. Physicians can access a pre-formatted medical history report on an individual patient, or they can download data to format and incorporate in their own electronic medical records systems. The program now provides data on all of CDPHP's 335,000 members.

The PHR program was expanded in May 2005 to include a second provider practice, and it became fully operational for three major facilities and 15 smaller physician offices in August 2005. Four more major facilities and 30 more physician practices are currently being added to the program. The project is fully funded by CDPHP; there is no cost to physicians to participate.

Physicians in CDPHP's network have been very receptive to the program in light of its potential for improving the quality and coordination of care. Because physicians can view data on all of the health care their patients have received, they can modify care plans to account for information on current and prior medications and treatments provided by other physicians. In addition, information from PHRs may prompt consultations with other health care practitioners to coordinate care.

Based on physicians' input, CDPHP modified the system to give doctors the option of requesting pharmacy information only. This function provides valuable decision support in the prescribing process.

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A Seamless System for Member Information and Health Improvement

In June 2002, CIGNA launched myCIGNA.com, a secure consumer Web portal to make it fast and easy for consumers to gather and track information about their health care and coverage. While developing and launching the site, CIGNA conducted monthly surveys of employers and consumers. Based on these findings, it enhanced the site in 2003 and 2004 to add health improvement and pre-enrollment tools for comparing CIGNA products.

Pre-Enrollment Information

During employers' open enrollment periods, employees with access to CIGNA's health reimbursement arrangements (HRAs) and health savings accounts (HSAs) can log on to myCIGNAplans.com to compare benefits among all of the CIGNA products available to them. The system estimates employees' total out-of-pocket costs for prescription drugs, in- and out-of-network physician visits, and other services based on their answers to questions about expected use of services and, for returning members, based on their utilization in the prior year.

Claims and Prescription Drug Information

Once enrolled in a CIGNA plan, members can review their medical and dental claims; track their copayments and deductibles; and order, refill, and track the status of their prescriptions. Members can use myCIGNA.com to compare the total cost, indications, contra-indications, side effects, and potential interactions for a variety of medications. In addition, they can determine their out-of-pocket costs for medications based on their individual plans' formularies.

Comparing Hospital Performance

MyCIGNA.com allows members to make side-by-side comparisons of hospital performance for 200 medical and surgical procedures. For each procedure, they can view data on patient volume, hospital mortality and complication rates; average number of days spent in the hospital; patient safety record based on indicators developed by the Leapfrog Group (e.g., level of staffing in the intensive care unit and use of computerized prescription ordering); and patient age and gender.

Personal Health Records

The myCIGNA.com system combines information from claims as well as lab and pharmacy records to allow members to create personal health records in a central, secure location. Members enter their current health conditions into the system, as well as information about their medications, allergies, surgeries, and immunizations. They can also input information about whom to contact in case of an emergency. Members can print out summaries to bring to doctor visits, or they can choose to share them with CIGNA. These health records also serve as "engagement triggers" to identify members who could benefit from wellness and disease management programs. CIGNA nurses contact them to offer the opportunity to enroll.

Personalized Risk Assessments and Wellness Programs

When a member uses myCIGNA.com for the first time, he or she can fill out a Health Quotient risk assessment online. In some cases, employers provide employee incentives for completing the assessment in the form of cash contributions to their HRA or HSA accounts. The risk assessment includes questions about members' weight, age, and lifestyle. Based on answers to these questions, myCIGNA.com recommends lifestyle changes to improve health, estimates how many life years can be added if these changes are made, and directs members to CIGNA wellness programs—such as smoking cessation classes, exercise programs, and prenatal care programs—that can help them achieve better health.

In support of CIGNA's wellness programs, myCIGNA.com includes Condition Centers that provide information on treatment for more than 35 medical conditions based on best-practice clinical guidelines. The tool is updated regularly with the latest findings from nationally respected clinical research and treatment centers. Condition Centers offer individualized Health Trackers and calendars allowing members to track measures such as weight and blood pressure with easy-to-read charts and graphs.

Personal Health Advisors

CIGNA's Personal Health Advisor program—an optional benefit that employers can choose with any CIGNA plan—allows members to form one-on-one relationships with Personal Health Advisors akin to that of life coaches or personal trainers. Currently, 1.2 million employees are enrolled in the program, which provides access to a team of doctors, nurses, and mental health professionals who help members understand their benefits and provide case management services as needed. The service is available through a toll-free number during business hours. Personal Health Advisors access members' medical, pharmacy, and lab data online, and they can view information entered in members' personal health records to determine how members can make best use of their CIGNA benefits in light of their needs. For example, Personal Health Advisors explain differences between in-and out-of-network benefits; they can link members to wellness programs that can help them; they communicate with members' physician offices; and they work with members to help them follow physicians' recommended care plans.

Personalized Preventive Care Reminders

CIGNA encourages all members to use recommended preventive care services through its preventive care reminder program. Using data from claims, labs, and pharmacies, CIGNA identifies members who have not had recommended preventive services, such as immunizations and mammography, and uses nurse case managers to conduct follow-up. For example, when children are not up-to-date in their immunizations, CIGNA mails reminders to the children's parents and their physicians. To help prevent repeat heart attacks among heart attack survivors, CIGNA contacts members' physicians to ensure that beta blockers—which are proven to increase life expectancy of these patients—have been prescribed. In addition, CIGNA reviews pharmacy data to check whether prescriptions for beta blockers have been filled; if not, CIGNA nurses contact members by phone to encourage them to pick up their medications.

CIGNA (cont'd)

Connecticut

Disease Management

Besides encouraging use of effective preventive care, CIGNA offers personalized services for members with chronic conditions such as asthma, diabetes, congestive heart failure, and low-back conditions. CIGNA uses predictive modeling software to analyze information provided through members' risk assessments to determine whether they are at risk of hospitalization or adverse health events. CIGNA's nurse case managers then encourage members to enroll in the preventive care, case management, or disease management programs most suited to their needs. For all of its disease management programs, CIGNA pairs members with a clinical account manager—generally a nurse, but in some cases a physician, pharmacist or mental health professional—who communicates with all of the member's physicians to coordinate their care.

Results

More than two million CIGNA members are registered with myCIGNA.com, and an average of 40,000 members each day visit their personalized Web portal to review claims, look up information, and order medications. Whereas each member phone call to CIGNA's customer service centers costs an average of \$2, a member visit to myCIGNA.com for the same service costs an average of \$.05 per Web page view.

Since CIGNA's case management programs were implemented in the mid-1990s, they have saved an average of \$2.60 per member, per month, and the satisfaction rate among patients enrolled in the programs is 92%. Hospital readmissions for patients with cardiac conditions have declined 32% over 10 years, and emergency room (ER) use among individuals who unnecessarily used the ER as a regular source of care fell 30% during the same period.

CIGNA's disease management programs for asthma, diabetes, cardiac, and low-back conditions have resulted in an average savings of 11% over the life of these programs.

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Empire Blue Cross Blue Shield

New York

My Health Record

In June 2005, Empire Blue Cross Blue Shield created *My Health Record*, a secure, Internet-based personal health record (PHR) to provide members with greater access to and control over their health information. *My Health Record* uses nationally recognized security protocols and encryption to ensure privacy and security of member data.

Members access *My Health Record* through Empire's Web site, www.empireblue.com, where they connect to WebMD Health's personal health record feature to activate their PHRs. Once a PHR is activated, all available and pertinent data about a member's prescription drug use, physician and hospital visits, diagnoses, lab test results—as well as all other available information from claims and administrative data—automatically populate it. *My Health Record* provides members with lists of the health services and prescription drugs they have used and separates them by category for easy tracking.

In addition, lab results that track specific values, such as cholesterol levels, are grouped together and graphically represented over time.

PHR data cover the previous two years, or as long as the individual has been an Empire member. As information about a member's health and care becomes available, it is added automatically to the record. Members can add other relevant information to their record, such as family history, health risks, and known allergies.

When members log on to *My Health Record* for the first time, they have the option of completing a health risk assessment. Based on the information they provide, members receive reminders about important health screenings (e.g., prostate cancer, breast cancer, or diabetic eye exams) and immunizations, as well as alerts about potential drug interactions.

Optional Access for Health Care Practitioners

On October 1, 2005, Empire Blue Cross Blue Shield gave members the ability to grant their health care providers access to their PHRs so that physicians could review these records before appointments or at the point of care. Members have control over who can view their records and the content that is displayed. Members can delete any entry or shield it from view so that it will not show up on the Health Record Summary accessible to doctors.

Anticipated Improvements

Since the launch of *My Health Record*, approximately 30,000 members have activated personal health records. Empire Blue Cross Blue Shield anticipates that PHRs will help ensure the provision of safe, efficient and appropriate health care as well as reduce costs by reducing the need for duplicative tests and procedures. In addition, consumers with easy access to their complete health information will be empowered and will be able to make more informed health care decisions.

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My Health Connection

To help members keep better track of their health care, Excellus BlueCross BlueShield established My Health Connection in 2002. Through this program, members can create their own secure Web sites to store personal health records (PHRs).

Information that can be entered into PHRs includes details on medications, immunizations, allergies, reactions to medications, medical conditions, health history, family history, lab test results, emergency contacts, names and phone numbers of physicians, contact information for people designated as health care proxies, and contact information for people who have copies of members' advance health care directives.

Members can use their PHRs to store health information for spouses and children, and they have the option of allowing their physicians, and emergency department physicians in Excellus's hospital network, to view the information. Members also can choose whether to give Excellus disease management and case management staff access to their PHRs. Excellus uses encryption to protect the security of all PHR data.

Additional Web-Based Services

Besides allowing members to access their PHRs, the My Health Connection Web site feature provides access to an online reference guide with extensive information about a variety of health conditions. The site also includes forms that members can download to establish advance directives and to designate health care proxies.

As of September 2005, approximately 7,000 Excellus members had created PHRs.

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Fallon Community Health Plan

Massachusetts

SAFE Health

Under a three-year grant from the National Institutes of Health (NIH) and the Agency for Healthcare Research and Quality (AHRQ), Fallon Community Health Plan (FCHP) has joined with UMass Memorial Health Care and Fallon Clinic to develop the SAFE Health electronic medical records system. The three participating organizations have formed an entity known as SAFE Health to manage the system and protect the security of patient data. Hospitals and physician offices will not need to install new systems to access the patient information they need; rather they will be able to access the data with a user ID and password via a secure Web site. UMass and Fallon Clinic will pilot the system in 2006, and SAFE Health will make the technology available to other health insurance plans, hospitals, laboratories, clinics, and medical groups in 2007.

Anticipated Results

The project will make communication among health care organizations faster and more efficient by eliminating the need for manual processes to exchange medical record information. In addition, the system will improve patient safety at the point of care by providing access to information that can prevent medical errors and adverse reactions. As a result, SAFE Health is expected to produce significant savings. FCHP will measure the impact of SAFE Health on the quality of care, by evaluating participating organizations' performance in providing adolescent immunizations, pneumonia vaccines, and evidence-based services at recommended intervals for:

- ▶ Diabetes;
- ▶ Breast cancer;
- ▶ Cervical cancer;
- ▶ Colon cancer; and
- ▶ Osteoporosis.

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Group Health Cooperative

Washington

A Personalized Web Experience Based on Electronic Medical Records

Seeking to create a personalized Web experience for members, Group Health Cooperative began developing an electronic medical record system and an interactive Web site for members in 2001. In the last several years, Group Health has added new functions to the system, called MyGroupHealth, so that members currently can use the Internet to:

- ▶ view their online medical records;
- ▶ consult with doctors about non-urgent health issues via e-mail;
- ▶ order and renew prescriptions;
- ▶ schedule and cancel appointments;
- ▶ obtain lab tests results and an explanation of results;
- ▶ access a searchable drug reference library; and
- ▶ view their immunization histories.

In addition, through parental access to MyGroupHealth, parents and guardians can view their children's online medical records and correspond with children's health care teams using secure e-mail.

Reinforcing Patient Care Plans

MyGroupHealth helps improve care on an ongoing basis by producing after-visit summaries for each member's encounters with health care practitioners. During each visit, doctors enter data into patients' after-visit summaries, including their vital signs, reasons for seeking care, orders for prescriptions and lab tests, instructions, and reminders for preventive care follow-up. At the end of their visits, patients receive printed copies of their after-visit summaries, and MyGroupHealth stores permanent electronic copies. The after-visit summary program helps patients remember and follow their treatment plans, and it promotes ongoing contact between patients and their care teams.

Support for Physicians

MyGroupHealth's electronic medical record system provides online decision support for physicians by sending information on the best available medical evidence regarding the effectiveness of various treatments, preventive services, and diagnostic tools. For example, the system analyzes claims data to identify members in specific age groups who have coronary artery disease, and it sends reminders to these members' physicians indicating that cholesterol-lowering drugs would help reduce their risk of heart attack.

The system displays on physicians' computer screens during office visits and telephone encounters to recommend guideline-based preventive care, specialized care for patients with chronic conditions, and services for individuals taking certain medications. Health care practitioners also receive alerts with suggestions for alternative therapies if they seek to prescribe medications that could lead to adverse reactions for specific patients. Group Health will continue to enhance these programs in 2006.

Outreach for Disease Management

Besides providing support for physicians, MyGroupHealth allows extensive outreach to encourage members with diabetes and heart disease to enroll in disease management programs. MyGroupHealth's electronic medical record system analyzes claims data to identify members with these conditions, and it creates lists for e-mail or telephone follow-up by a member of Group Health's clinical team. In early 2006, Group Health will expand its disease management outreach to include child immunizations and cancer screenings.

Group Health Cooperative (cont'd)

Washington

E-Prescribing

MyGroupHealth's e-prescribing component allows doctors to send prescriptions to Group Health pharmacies electronically. It provides warnings of potential interactions among drugs, and it alerts doctors about medications that would have an adverse impact on patients with certain health conditions. E-prescribing makes it possible for pharmacists to have new prescriptions filled before members arrive at the pharmacy, and members can order refills online. MyGroupHealth provides easy-to-read prescription instructions.

Thousands of Member Contacts Online

More than 36% of Group Health's 544,000 members have registered for MyGroupHealth's online services, and 11% of members' contacts with their health care practitioners are now virtual. Over 23,000 secure e-mails are exchanged between members and their health care teams each month.

Results

According to a recent survey of members who use Group Health's online services, 93% were "satisfied" or "very satisfied" with MyGroupHealth's secure e-mail service. Eighty percent said that secure e-mail was "extremely valuable" or "very valuable" in enhancing their in-person visits with physicians, and 92% said they would "recommend" or "strongly recommend" the service to others.

Since the system's implementation, an average of 22 adverse drug interactions per month have been avoided at each of Group Health's pharmacies. Because decision support within the clinical information system often eliminates the need for physicians to call the Pharmacy Help Desk, the number of Help Desk calls declined by 8,400 from January to March 2005. Group Health projects a reduction of 33,600 calls annually. Decision support within the e-prescribing system often makes it possible for doctors to find less costly and equally effective alternatives to prior authorization drugs. As a result, spending for these drugs fell by \$300,000 from the third quarter of 2003 to the third quarter of 2004.

MyGroupHealth's electronic medical record system has made it possible to reduce transcription costs by 25%, for an average savings of \$1.4 million annually. Because Group Health scanned clinical data from medical records into electronic charts, Group Health has been able to close 27 of its chart rooms; the remaining 22 will close by mid-2006.

Looking Ahead

In 2006, Group Health will launch an initiative called "Transforming Patient-Centered Care," a four-part wellness and disease management program in which members will complete online health histories and risk assessments, meet with physicians to create action plans for improving health, participate in recommended support and prevention programs, and track progress in improving their health.

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Health Care Service Corporation

Illinois

Providing Patients and Physicians with Personal Health Information

To provide physicians and patients with more information that promotes safe and effective care, Health Care Service Corporation—which does business as BlueCross BlueShield of Illinois, BlueCross BlueShield of Texas, and BlueCross BlueShield of New Mexico—is giving members the tools to create electronic, personal health records (PHRs) and become more informed health care consumers.

Through the health plan's secure, password-protected Web portal, Blue Access, members can manage their health and care. Members can review the status of their claims and claims histories, print out explanations of benefits, view lists of network providers, and find physicians and hospitals. In addition, health, wellness and prescription drug information is easily accessible for a spectrum of conditions and treatments.

Also through the Blue Access portal, a Personal Health Manager provides members with additional tools to manage their health and care. The Personal Health Manager provides a platform for members to create health and medication histories that they can share with their health care providers. While these records currently contain only information entered by members, Health Care Service Corporation soon will be able to directly populate members' personal health records with information from claims and administrative data. In addition, Health Care Service Corporation is working to ensure that providers have easy access to their patients' health histories so they can deliver safe, appropriate, and effective health care. Providers will be able to retrieve patient records through multiple channels, including a Web-based platform, e-mail, or fax.

Responding to Hurricane Rita with Personal Health Records

Hurricanes Katrina and Rita both shed light on the need for electronic, personal health records. As a result of the larger effort to develop electronic health records for all of its members, in the days preceding Hurricane Rita, BlueCross BlueShield of Texas was able to create electronic records that contained historical and current clinical information, such as lab results, pharmacy information, and basic medical history for the approximately 830,000 health plan members living in the path of the hurricane. The electronic records ensured that in the aftermath of the hurricane, wherever plan members sought care, their providers would be able to access recent treatment and health history information and be able to deliver safe and appropriate care. BlueCross BlueShield of Texas partnered with the Texas Medical Association to alert physicians across the state about the availability of the information.

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Health Plan of Nevada

Nevada

The TouchWorks System

Building on the success of its e-prescribing initiative, Health Plan of Nevada (HPN) and its physician group affiliate, Southwest Medical Associates (SMA), implemented an electronic medical records system in 2004. With the TouchWorks system, medical record data for SMA's 700,000 patients is accessible to all SMA physicians from any one of their offices and from off-site locations through a secure Web site. The system gives doctors a complete picture of each patient's medical history at SMA, regardless of which doctors have treated that individual, and it ensures that records are immediately accessible. Touchworks also provides decision support for prescribers, so that they can check patients' other medications to avoid adverse drug interactions and duplicative drug therapy.

Creating a Paperless Environment

TouchWorks has eliminated a large volume of paperwork. Because doctors can enter their notes about diagnosis and treatment directly into the system, dictation and transcription have been reduced significantly. In addition, paper-based documents have been scanned into the system, greatly reducing the volume of paper in doctors' offices and eliminating the need to maintain and store paper charts.

Expanding to the Entire Network

Beginning in the Fall of 2005, Health Plan of Nevada is offering members who are SMA patients the option of providing access through a secure Web site to a snapshot of their medical records for treatment purposes to all of the plan's participating physicians. This expansion will help avoid duplication of services and will improve the quality and coordination of care. SMA patients also will be able to view their medical information online, print it out, and share it with health care professionals.

Results

The transition from paper to electronic records in the past year has saved approximately \$1.7 million due to a more than 50% reduction in medical records staff and a decline in the volume of dictation to be transcribed.

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Kaiser Permanente HealthConnect™

In early 2003, Kaiser Permanente began implementing Kaiser Permanente HealthConnect™, a multi-faceted system based on a suite of software products developed by Epic Systems Corporation. The system provides a variety of online tools to improve the care process for physicians and members.

Online Tools for Physicians

Electronic Medical Records

KP HealthConnect gives doctors instant access to patients' medical histories and preferences so they can account for this information during the treatment process. The system promotes continuity of care by allowing multiple Kaiser Permanente doctors treating the same patient to access all information about the care they have received through Kaiser.

Physician office staff also can retrieve patients' medical information quickly through KP HealthConnect, so that patients no longer have to wait for care teams to search for paper charts, lab reports, and coverage information.

Decision Support to Translate Effectiveness Research into Everyday Medical Practice

KP HealthConnect gives doctors easy access to information on which treatments and procedures are most effective, allowing them to retrieve up-to-date, evidence-based clinical practice guidelines for a variety of health conditions at the point of care. Physicians also can access libraries of clinical reference information during patient consultations.

After-Visit Summaries to Help Patients Remember Key Points

KP HealthConnect allows doctors to show patients relevant parts of their medical records during visits. At the end of each appointment, doctors can print out "after-visit summaries" to help patients remember the key issues discussed.

E-Prescribing and Lab Ordering

Physicians can use KP HealthConnect to send prescriptions to pharmacies electronically. The system improves quality by preventing errors due to illegible handwriting and providing doctors with information about potential drug and allergy interactions specific to each patient. It also saves the patient time at the pharmacy and helps reduce costs by encouraging the use of generic drugs.

KP HealthConnect allows doctors to order lab tests online, making the process faster and more efficient. Because it stores lab test histories and results electronically, the system helps eliminate redundant and unnecessary lab work.

Online Member Services

Personal Health Records

KP HealthConnect allows members to view their medical records, including immunization histories, ongoing health conditions, and allergies, online through the secure KP.org Web portal. Members can print out this information at any time. To protect the security of member information, KP HealthConnect requires members to use passwords each time they log in to view their records. Kaiser Permanente does not send medical records over the Internet.

Kaiser Permanente (cont'd)

California

Members' personal health records also provide summaries of their past office visits, including the date, time, and physician seen, as well as vital health information.

For members seeking more information about their health conditions or allergies, KP HealthConnect provides a link to an online health encyclopedia and lists a phone number for their local medical office or nurse advice line.

Members can request changes to their medical records online by filling out an electronic form to correct information on issues such as allergies, immunizations, ongoing health conditions, and past office visits.

Online Consultations with Physicians

KP HealthConnect allows members to send confidential, secure electronic messages to their physicians and other health care practitioners. The system notifies members via e-mail when they receive responses, which they can view on KP.org.

Online Appointment Scheduling, Lab Test Results, and Prescription Refills

Members can request routine doctors' appointments online through KP HealthConnect and view their future outpatient appointments, including the date, time, physician name, and department.

KP HealthConnect sends patients e-mails when their lab test results are available and allows them to access results through the secure KP.org Web site. Members also can order prescription refills online for pharmacy pick-up or home delivery.

Online Coverage Information

Members can view coverage information online, including the specifics of their benefit plans, member identification numbers, and effective dates.

Results

In the past year, Kaiser Permanente has implemented portions of KP HealthConnect in each of its service regions. Over the next three years, Kaiser expects to complete implementation of the system in each of its 431 medical offices and 30 hospitals in California, Colorado, the District of Columbia, Georgia, Hawaii, Maryland, Ohio, Oregon, Virginia and Washington.

Kaiser Permanente physicians report that having comprehensive medical information at their fingertips has enabled them to provide better care, and members have expressed high levels of satisfaction with the online services that KP HealthConnect provides. Kaiser Permanente is in the process of measuring the system's impact on service quality, safety, utilization, cost, and member satisfaction.

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Community Connection

To improve health care quality and contain health care costs in the public and private sectors, BlueCross BlueShield of Tennessee established a subsidiary company called Shared Health. Shared Health's core product offering, called Community Connection, combines data from claims, lab tests, prescriptions, and immunizations to create patient histories that physicians can view via a secure Web site.

In July 2005, the State of Tennessee adopted Community Connection for Medicaid beneficiaries covered by the TennCare program, and Shared Health will make the product available to private insurers and employer groups in 2006. Physicians must have PCs and Internet service to access Community Connection, and Shared Health provides training for physicians and their office staffs on how to use the system effectively.

During the program's first year, Shared Health is providing Community Connection free of charge to the State of Tennessee. In subsequent years, the state will pay a per-member, per-month fee to Shared Health for use of Community Connection. Private health insurance plans will pay a negotiated fee to participate. There is no charge to physicians or patients.

Care Coordination and Disease Prevention

Community Connection promotes coordination of care by giving doctors access to information about treatments provided by other health care practitioners and by allowing multiple doctors treating the same patient to view the information at the same time during consultations. Community Connection also links with the state's immunization registry so that doctors can see patients' complete immunization histories regardless of their health coverage or treating physicians. The program makes it easier to keep children in the Medicaid program up-to-date with required immunizations, vision, hearing, and physical exams, because physicians have online access to current information on the well-child services they have received through the Early and Periodic Screening, Diagnosis and Treatment (EPSDT) program.

Preventing Duplication and Fraud

By allowing doctors to view patients' complete medical histories, Community Connection makes it possible to avoid unnecessary, duplicative tests and procedures. The system also is programmed to detect patterns of fraud and abuse, particularly with respect to prescription drugs.

Looking Ahead

In November 2005, Shared Health will offer an e-prescribing product that can be used with Community Connection. In the second quarter of 2006, Shared Health plans will further enhance the Community Connection product to allow members to view their own records.

To make it easier for physicians to use Community Connection in conjunction with their own electronic health record systems and with data from regional or national health information organizations, Shared Health is working with several national electronic medical record companies to address interoperability and integration issues.

Shared Health,™ a subsidiary of BlueCross BlueShield of Tennessee (cont'd)

Tennessee

Results

As of July 1, 2005, Community Connection had data for 700,000 Medicaid beneficiaries, and by the end of the year, it will have one million records. Shared Health's analysis projects a 4:1 return on investment within three years for the Community Connection initiative implemented for the TennCare population.

Physicians using Community Connection report that when they view a community health record for one of their patients the first time, they often are surprised to find medical information they did not know about previously and need to adjust their care decisions accordingly.

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Giving Members Greater Control

In March 2005, UnitedHealthcare launched personal health records to give members greater control over their health and health care purchasing. Members establish personal health records through UnitedHealthcare's secure Web site, myuhc.com, and they can use their PHRs to:

- ▶ Store information on their medical histories, contacts with health care practitioners, and upcoming medical appointments;
- ▶ Receive condition-specific alerts and appointment reminders;
- ▶ Enter and track clinical data, such as glucose levels and blood pressure, as well as information on lifestyle issues affecting health, such as weight, smoking, and sleep habits;
- ▶ Enter notes and personal observations about their health.

Members can access their PHRs by logging on to the myuhc.com Web site and clicking on the "Personal Health Manager" link. UnitedHealthcare populates members' PHRs with data on their doctor visits and procedures, medical conditions, allergies, medications, and lab tests. Members seeking more information on their health conditions, allergies, and medications can link to the latest health news and an online health encyclopedia from their PHRs. Approximately 250,000 members accessed their PHRs between March and September 2005.

United Healthcare protects the security of members' data with user names, passwords, and validation against a back-up security system.

Option to Share Information with Physicians and Family Members

Members have the option of giving their physicians and family members access to their personal health records. Such access gives doctors a more complete view of patients' health information than they would have from their own records so that they can provide care best suited to patients' needs, preferences, and prior use of services. Members can grant their physicians limited access to their personal health records, so that they can view but not modify them, or full access, so that doctors can both view and add information to the records.

In November 2005, UnitedHealthcare added a feature allowing members to print summaries of their PHRs with the click of one button, so they can easily bring key information with them to doctors' appointments.

Additional Enhancements Planned

By the end of 2006, PHRs will include "audit trails" indicating the individuals who have accessed and modified them, along with dates and times. Members also will be able to restrict access to certain portions of their records, for example, allowing their health care practitioners to view data on their medications but not on sexually transmitted diseases.

Impact of PHRs to be Evaluated

In 2006, UnitedHealthcare will conduct member satisfaction surveys and will evaluate the extent to which PHRs are leading members to enroll in disease management and wellness programs, access United's 24-hour nurse advice line, use the nurse chat room function, and undertake other activities that promote their health and well-being.

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Actionable Information Online to Improve Patient Care

To translate its extensive repository of claims data into actionable information to improve patient care, WellPoint developed the Member Medical History (MMH) system in 2001. The system aggregates data from physician, hospital, and pharmacy claims to create electronic medical records (EMR) accessible to authorized users via the Internet.

Initially, WellPoint used the information to support internal functions such as disease management, quality improvement, peer review, customer service, and fraud and abuse investigations. Beginning in December 2005, WellPoint will provide the MMH system to selected in-network emergency room doctors in Missouri on a pilot basis. Future plans include a 2006 roll-out in California in collaboration with the California regional health information organization (RHIO) and a roll-out in Virginia thereafter.

The MMH system includes patients' diagnoses, medication histories, physician visits, procedures performed, hospital admissions, and emergency room visits. Depending on where patients' lab tests were performed, lab test results also may be available through the system. The MMH includes extensive security safeguards to ensure that the system is accessible only to legitimate users.

The MMH provides emergency room doctors treating unconscious patients all of the information they would normally gather from the patient upon intake, including what medications they are taking, what procedures they have undergone, and whether they are allergic to any drugs. The MMH is provided only to WellPoint contracted physicians, and auditing procedures have been implemented to prevent inappropriate access. The MMH system helps to: ensure that patients receive care most suited to their needs; prevent medical errors; and avoid duplicative and unnecessary medical tests and procedures.

Anticipated Savings

Initial projections suggest that by helping to prevent medical errors and other adverse events in emergency rooms, reducing unneeded tests, and helping avoid unnecessary hospitalizations, the MMH initiative may result in cost savings of approximately \$4.6 million in California and \$1.2 million in Missouri.

Plans to Evaluate and Expand

WellPoint will evaluate the pilot projects in California and Missouri to determine their impact on hospital admission rates for specified diseases, length-of-stay for patients admitted through the emergency room, rate of repeat visits to the emergency room, and costs associated with ER visits and hospital admissions. WellPoint also will survey physicians and patients on their satisfaction with the MMH system. Results will be available by mid-2006.

Depending on the pilot's results, WellPoint may expand the MMH system to all emergency room doctors in Missouri and California, to emergency room doctors participating in WellPoint health plans in other states, and to physician offices in 2006.

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